

58th IEEE Conference on Decision and Control

Final Program



Palais des Congrès et des
Expositions
Nice, France
December 11 – 13, 2019



Table of contents

TABLE OF CONTENTS	1
WELCOME FROM THE PRESIDENT OF THE IEEE CONTROL SYSTEMS SOCIETY	3
WELCOME FROM THE 2019 CDC GENERAL CHAIR	4
WELCOME FROM THE 2019 CDC PROGRAM CHAIR	6
CONFERENCE ORGANIZING COMMITTEE	7
TECHNICAL PROGRAM COMMITTEE	9
CSS CONFERENCE EDITORIAL BOARD	10
CSS TECHNICAL COMMITTEES	12
SEMI-PLENARY LECTURES AND CSS BODE LECTURE	13
SPECIAL SESSIONS	18
TUTORIAL SESSIONS	21
PRE-CONFERENCE WORKSHOPS	23
SOCIAL PROGRAM	31
CONFERENCE INFORMATION	32
CONFERENCE VENUE	33
LOCAL ATTRACTIONS	35
SPONSORS AND EXHIBITORS	39
2019 IEEE CSS AWARDS	43
CDCS: PAST, PRESENT AND FUTURE	49
PROGRAM AT A GLANCE	53
TECHNICAL PROGRAM	61
AUTHOR INDEX	161
KEYWORD INDEX	197

Welcome from the President of the IEEE Control Systems Society



Je vous souhaite la bienvenue sur la Côte d'Azur.

The IEEE Conference on Decision and Control, CDC, is the Control Systems Society's largest and longest running conference; 58 years strong and the premier broad-spectrum annual event in the control calendar. This is CDC's first visit to France and promises an extraordinary location and stellar programs: technical, social, students and workshops. I am truly excited and delighted to be in Nice – about 25 years ago I lived in Antibes, roughly 20 km up the road on the opposite side of Baie des Anges. General Chair Carlos Canudas de Wit and Program Chair Rodolphe Sepulchre lead a super team of high-performance researchers and organizers. So I am even more enthralled to witness the conference content and events. CDC provides a splendid opportunity to refresh both friendships and technical skills. It also allows one to meet new people especially the up-and-comer wizards.

For all of CDC's professionalism and intellectual clout, it relies on a volunteer base of individuals who each has a day-job. This welcome message also allows me to proffer sincere thanks to every one of them for their sterling efforts operating under deadlines to put together the event in all its complexity and color. Being part of IEEE, the Control Systems Society and therefore CDC are run by volunteers for the benefit of the members, conference attendees and publications audience. The multi-layered and sophisticated organization of CDC has been honed from years of experience of these volunteers but definitely leaving sufficient room for local innovation and imagination. Naturally, the leaders of CDC 2019 have a great background and knowledge of prior events. But so too they have personal views and values which they bring to the planning and execution. This helps make CDC a rewarding experience for all. Clicking on the *Committees* link from the main website brings up the first tranche of the organization. There are many others at the next level, such as the Conference Editorial Board which garners reviews for every submission. The reviews are created by another group of volunteers – even including your President, who reviewed five papers. I think that they keep the really tough ones for me. Local arrangements are another multi-faceted endeavor. To some extent, good conference organizers are like control systems; nobody notices them when they work well. So, please make a concerted effort to track down and congratulate some of the volunteers.

I was pressganged by then CSS History Committee Chair, Mike Polis, into making a historical review of the first fifty CDCs in 2011. David Castañón, General Chair of CDC number 46 in Cancun, and I, from CDC 39 in Sydney, had the unique opportunity to scan the written and oral histories of CDC for the memorable activities, technical and social. It was a difficult proposition to squeeze this into a fifty-minute presentation. It is with this tremendous fondness for CDC and hindsight of so many events that I truly welcome you to CDC 58 in Nice. I am certain that our hardworking organizers and French hosts have a remarkable conference in store for us. I have every expectation that we all will gain new friends, new expertise and new stories, each of which augurs well for our future growth. Allons-y!

Robert Bitmead

President, IEEE Control Systems Society

Two handwritten signatures in blue ink. The first signature is 'R' followed by a flourish, representing Robert Bitmead. The second signature is 'C' followed by a flourish, representing Carlos Canudas de Wit.

Welcome from the 2019 CDC General Chair



Welcome to the 58th IEEE Conference on Decision and Control at Nice!

It is more than an honor to be the General Chair of the first CDC conference organized in France. We have selected Nice among others great locations because of its weather, luminosity and radiant beauty. Although the current Nice area has been populated since prehistoric times, the starting point of Belle Nice traces back to 350 BC, when the Greeks established a place on the shores of the Mediterranean Sea, called Nikaia, according to Nike, the Greek goddess of victory. The history of Nice is essentially characterized by being a border city, which has frequently changed its sovereignty. It was successively Ligurian, Greek and Roman, before becoming part of the Ostrogothic Kingdom of Italy, then of the Eastern Roman Empire and the Kingdom of Italy (888-1024), then becoming Genoese, Provençal, Savoyard, Piedmontese and finally definitively French in 1860. Nice is today a capital of the art of living as it is attested by its typical streets, the “piazzettas”, the beaches bathed in light, the shade of the wooded parks, the effervescence of the markets, the colorful gastronomy, the drinks on the terrace, and a walk on the harbor. We are confident that you will have a productive and enjoyable stay.

The genesis of the CDC organization in France goes back to one of those distracted days when some colleagues distractly asked: "did the CDC ever happen in France? ..." Then they fixed their eyes on you and you end up being GC. Together with Dominique Sauter (Financial Chair), we formed a force group supported by the CNRS to explore different possible locations and build a proposal that eventually got accepted. Dominique has been a pillar in the organization since the very earliest times. Besides his dedicated skills on financial aspects, he dedicated many efforts in setting the main pieces of the whole conference organization.

Rodolphe Sepulchre (Program Chair), together with Christophe Prieur (Program Vice-Chair), Karl Johansson (Tutorial Chair), Ilya Kolmanovsky (Workshop Chair), and Moritz Diehl (Invited Sessions Chair), with the help of Amir Aghdam (Conference Editorial Board Chair) made an extraordinary job in building a great scientific program that you will surely enjoy. Their dedication and rigor in setting the program were highly appreciated. Edouard Laroche, together with Alessandro Giua and Tarek Hamel, took care of the local arrangements. They carefully select the food for the Banquet and receptions. Their previous experience in organizing large conferences (CDC, ECC and IFAC) was very much welcome. Alessandro's skills in mastering Excel files for room allocations made our life easy.

Antonella Ferrara (Publication Chair) did an extraordinary work in setting the Final Program Booklet and dealing with publication aspects of the conference. Her rigor and enthusiasm were a continuum. Laura Menini (Registration Chair) was extremely proactive and efficient in taking care of the registration process in a timely manner. Thanks to her for this great effort. Isabelle Queinnec was responsible for the Exhibits and Sponsorship. She and the MCI (PCO) were able to bring new sponsors to our conferences. Antoine Chaillet took care with a lot of efficiency of the student activities. He did a great job in coordinating student travel awards and organizing the newcomers' reception. Francesco Rossi puts a lot of enthusiasm in his job of publicity chair. He set the webpage and took care of the conference advertisement and news. Bob Judd did a great job in helping us during the negotiation phase with the Congress Palace.

Thanks also to Randy Beard and Edwin Chong for supporting the conference as part of the Conference Operation Chair. I wish to express my gratitude to Jeoffrey Roussey from the MCI company acting as our PCO, for the professional support and dedication during the whole organization process, and all other

volunteers that helped in the organization. Finally, a great thanks to Julie Perrin who assisted me during the whole organization process.

Enjoy the conference, Enjoy Nice!

As John Baillieul said: *"It is nice to be in Nice"*

Carlos Canudas de Wit

General Chair

A handwritten signature in black ink, appearing to read 'Carlos Canudas de Wit', with a vertical line crossing through the middle of the signature.

Welcome from the 2019 CDC Program Chair



Welcome to the 58th IEEE Conference on Decision and Control at Nice!

The quality of the CDC program is before everything else the result of your own work as an author, and I would like to thank you all for contributing so generously to the research presented at this conference. The CDC is the prime annual conference of our field and strikes an exceptional balance between the theory and applications of control, that keep spanning broader and broader horizons. I also want to offer a special thank to the organizers of invited sessions who play a key role in highlighting special topics of importance and inspiring new research directions in a coherent manner. A total of 2320 papers were submitted this year, out of which 1340 papers were accepted. The program features 25 parallel sessions, four semi-plenary lectures, our distinguished Bode lecture, and 14 pre-conference workshops. Additionally, the program includes four tutorial sessions and five special sessions.

A number of people have worked tirelessly on putting together the program and managing the submission and review process. It was a great pleasure to work with the three Program Vice-Chairs, Christophe Prieur (contributed papers), Kalle Johansson (tutorial papers), and Moritz Diehl (invited sessions). The program was mostly completed during the ECC in Naples. Of course the experience and professionalism of the Conference Editorial Board (CEB) Chair Amir Aghdam was key to assembling the program. His help and kindness were deeply appreciated throughout the process. Ilya Kolmanovsky did an outstanding job managing and organizing the pre-conference workshops. I also wish to thank the outstanding international program committee, who worked hard in June auditing all papers and reviews, and all the CEB members who volunteered so many hours to manage the review process. Finally, you also must be thanked as well as all reviewers who ultimately ensure the quality and fairness in the selection of papers.

It was a pleasure from the very start to work on the program of a conference organized by Carlos Canudas de Wit. Carlos has been a personal friend and a key European control figure for many years. We owe him this wonderful CDC in Nice with a guaranteed Mexican touch. I would also like to thank all the previous CDC general chairs and program chairs for facilitating the task of their followers. Magnus Engerstedt's help and tips proved as efficient as you expect them to be from Magnus ... And last but not least, thanks to Antonella Ferrara for working so smoothly on the final program booklet and other publication related activities.

I hope that you will all find this year's CDC program rich, attractive, and inspiring. I wish you a productive and enjoyable 2019 IEEE Conference on Decision and Control in Nice!

Rodolphe Sepulchre

Program Chair

A handwritten signature in blue ink, consisting of a stylized 'R' followed by a long, sweeping horizontal line that curves upwards at the end.

Conference Organizing Committee



General Chair

Carlos Canudas de Wit
CNRS GIPSA-Lab, France
carlos.canudas-de-wit@gipsa-lab.grenoble-inp.fr



Program Chair

Rodolphe Sepulchre
University of Cambridge, UK
r.sepulchre@eng.cam.ac.uk



Program Vice-Chair

Christophe Prieur
CNRS GIPSA-Lab, France
Christophe.Prieur@gipsa-lab.fr



Program Vice-Chair for Invited Sessions

Moritz Diehl
University of Freiburg, Germany
moritz.diehl@imtek.uni-freiburg.de



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Karl H. Johansson
KTH Royal Institute of Technology, Sweden
kallej@ee.kth.se



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Antonella Ferrara
University of Pavia, Italy
antonella.ferrara@unipv.it



Workshops Chair

Ilya Kolmanovsky
University of Michigan, USA
ilya@umich.edu



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Amir Aghdam
Concordia University
aghdam@ieee.org



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Antoine Chaillet
CentraleSupélec, France
antoine.chaillet@centralesupelec.fr



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Dominique Sauter
University of Lorraine, France
dominique.sauter@univ-lorraine.fr



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Laura Menini
University of Roma Tor Vergata, Italy
laura.menini@uniroma2.it



Local Arrangements Chair

Edouard Laroche
University of Strasbourg, France
laroche@unistra.fr



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Tarek Hamel
University of Nice Sophia Antipolis, France
thamel@i3s.unice.fr



Local Arrangements Vice-Chair

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University of Cagliari, Italy
giua@diee.unica.it



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CNRS LAAS, France
isabelle.queinnec@laas.fr



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Francesco Rossi
University of Padova, Italy
francesco.rossi@math.unipd.it



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Brigham Young University, USA
beard@byu.edu



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edwin.chong@colostate.edu

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CSS Technical Committees

Coordinated by Joao Hespanha in his capacities of CSS Vice-President for Technical Activities, the Control System Society Technical Committees (TC) organizes focused events around a selected technical area. Typical activities include organizing invited sessions for conferences, special issues in journals, technical meetings (workshops and conferences), maintaining web sites for technical resources, and publishing electronic newsletters that focus on various technical areas.

The current list of technical committees is shown below. For more information, please consult the TC web sites

<http://ieeecss.org/activities/css-technical-activities>

and contact the TC Chairs directly for additional information. All technical committee meetings are open. It is our hope that you will find the collaborations and resources useful.

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Aerospace Controls	Hull, Richard A.
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Robust and Complex Systems	Lagoa, Constantino
Smart Cities	Su, Rong
Smart Grids	Hiskens, Ian
Systems and Synthetic Biology	Waldherr, Steffen
Systems Identification and Adaptive Control	Mercere, Guillaume
Variable Structure and Sliding Mode Control	Edwards, Christopher

Semi-Plenary Lectures and CSS Bode Lecture

Semi-Plenary Lectures

Title: Genetic Circuit Engineering Meets Control Theory

Speaker: Domitilla Del Vecchio, Massachusetts Institute of Technology, USA

Time and Location: Wednesday December 11, 2019, 8:30-9:30 am, Apollon (WeSP1)



Abstract. Genetic circuits control every aspect of life and thus the ability to engineer them de-novo opens exciting possibilities, from revolutionary drugs and green energy, to bugs that recognize and kill cancer cells. The robustness of natural gene networks is the result of million years of evolution and is in contrast with the fragility of today's engineered circuits. A genetic module's input/output behavior changes in unpredictable ways upon inclusion into a larger system. Therefore, each component of a system is usually redesigned every time a new piece is added. Rather than relying on such ad-hoc design procedures, control theoretic approaches may be used to engineer "insulation" of circuit components from context, thus enabling modular composition through specified input/output connections. In this talk, I will give an overview of modularity failures in genetic circuits, focusing on problems of loads, and introduce a control-theoretic framework, founded on the concept of retroactivity, to address the insulation question. Within this framework, insulation can be mathematically formulated as a disturbance rejection problem; however, classical solutions are not directly applicable due to bio-physical constraints. I will thus introduce solutions relying on time-scale separation, a key property of biomolecular systems, which we used to build two devices: the load driver and the resource decoupler. These devices aid modularity, facilitate predictable composition of genetic circuits, and show that control theoretic approaches may be suitable to address pressing challenges in engineering biology.

Biography. Domitilla Del Vecchio received the Ph. D. degree in Control and Dynamical Systems from the California Institute of Technology, Pasadena, and the Laurea degree in Electrical Engineering (Automation) from the University of Rome at Tor Vergata in 2005 and 1999, respectively. From 2006 to 2010, she was an Assistant Professor in the Department of Electrical Engineering and Computer Science and in the Center for Computational Medicine and Bioinformatics at the University of Michigan, Ann Arbor. In 2010, she joined Department of Mechanical Engineering at the Massachusetts Institute of Technology (MIT), where she is currently Professor and member of the Synthetic Biology Center. She is a recipient of the 2016 Bose Research Award (MIT), the Donald P. Eckman Award from the American Automatic Control Council (2010), the NSF Career Award (2007), the American Control Conference Best Student Paper Award (2004), and the Bank of Italy Fellowship (2000).

Title: Equivariant Observers: Robust Nonlinear State Estimation for Robotic Systems

Speaker: Robert Mahony, Australian National University, Australia

Time and Location: Wednesday December 11, 2019, 8:30-9:30 am, Athéna (WeSP2)



Abstract. The physical state of a robotic system naturally carries structure; the pose of rigid links can be written as elements of the Special Euclidean group, images taken by a camera of a planar scene can be related by homographies and mapped to elements of the special linear group, etc. Recent work has demonstrated that there is a rich collection of symmetry groups for different robotic problems above and beyond the classical Lie-groups. This talks shows how this structure can be exploited to design robust nonlinear observers for state estimation. The earliest results in this direction were nonlinear attitude estimators (2005-2010) that were an enabling technology in the aerial robotic vehicle industry. Pose estimation algorithms based on these ideas are built into the augmented reality headsets that are now ubiquitous in gaming. Recent symmetries have opened the door to new solutions for classical robotics problems such as visual odometry, visual inertial odometry, simultaneous localisation and mapping.

Biography. Robert Mahony is a Professor in the Research School of Engineering at the Australian National University. He received his BSc in 1989 (applied mathematics and geology) and his PhD in 1995 (systems engineering) both from the Australian National University. He is a fellow of the IEEE and was president of the Australian Robotics Association from 2008-2011. He was Director of the Research School of Engineering at the Australian National University 2014-2016. His research interests are in non-linear systems theory with applications in robotics and computer vision. He is known for his work in aerial robotics, equivariant observer design, matrix subspace optimisation and image based visual servo control.

Title: The Curse of Linearity and Time-Invariance

Speaker: Alessandro Astolfi, Imperial College, UK and Univ. Rome Tor Vergata, Italy

Time and Location: Thursday December 12, 2019, 8:30-9:30 am, Athéna (ThSP2)



Abstract. The study of linear systems theory without exploiting linearity and time-invariance may pose challenges, yet it is highly rewarding. In truth, linearity and time-invariance, albeit powerful, are a curse: they are not conducive to an abstract understanding of concepts, tools and ideas and may often be misleading. On the other hand, notions such as manifold invariance, interconnection, coordinates transformations, decomposition, and the principle of optimality facilitate the enhancement of linear, time-invariant, systems theory methods and tools to far more general classes of systems. We illustrate this perspective by providing abstract and geometric definitions for eigenvalues, poles, moments, Loewner operators and derivative, and persistence of excitation; and by solving interpolation problems, adaptive and robust control problems, and optimal control and game theory problems, for general classes of nonlinear systems.

Biography. Alessandro Astolfi was born in Rome, Italy, in 1967. He graduated in electrical engineering from the University of Rome in 1991. In 1992 he joined ETH-Zurich where he obtained a M.Sc. in Information Theory in 1995 and the Ph.D. degree with Medal of Honor in 1995 with a thesis on discontinuous stabilisation of nonholonomic systems. In 1996 he was awarded a Ph.D. from the University of Rome "La Sapienza" for his work on nonlinear robust control. Since 1996 he has been with the Electrical and Electronic Engineering Department of Imperial College London, London (UK), where he is currently Professor of Nonlinear Control Theory and Head of the Control and Power Group. From 1998 to 2003 he was also an Associate Professor at the Dept. of Electronics and Information of the Politecnico di Milano. Since 2005 he has also been a Professor at Dipartimento di Ingegneria Civile e Ingegneria Informatica, University of Rome Tor Vergata. His research interests are focussed on mathematical control theory and control applications, with special emphasis for the problems of discontinuous stabilisation, robust and adaptive control, observer design and model reduction.

Title: Distributed Machine Learning Over Networks

Speaker: Francis Bach, INRIA, France

Time and Location: Thursday December 12, 2019, 8:30-9:30 am, Apollon (ThSP1)



Abstract. The success of machine learning models is in part due to their capacity to train on large amounts of data. Distributed systems are the common way to process more data than one computer can store, but they can also be used to increase the pace at which models are trained by splitting the work among many computing nodes. In this talk, I will study the corresponding problem of minimizing a sum of functions which are respectively accessible by separate nodes in a network. New centralized and decentralized algorithms will be presented, together with their convergence guarantees in deterministic and stochastic convex settings, leading to optimal algorithms for this particular class of distributed optimization

problems.

Biography. Francis Bach is a researcher at INRIA, leading since 2011 the SIERRA project-team, which is part of the Computer Science Department at Ecole Normale Supérieure, and a joint team between CNRS, ENS and INRIA. Since 2016, he is an adjunct Professor at Ecole Normale Supérieure. He completed his Ph.D. in Computer Science at U.C. Berkeley, working with Professor Michael Jordan, and spent two years in the Mathematical Morphology group at Ecole des Mines de Paris, he then joined the WILLOW project-team at INRIA/Ecole Normale Supérieure/CNRS from 2007 to 2010. He obtained in 2009 a Starting Grant and in 2016 a Consolidator Grant from the European Research Council, and received the Inria young researcher prize in 2012, the ICML test-of-time award in 2014, as well as the Lagrange prize in continuous optimization in 2018. In 2015, he was program co-chair of the International Conference in Machine learning (ICML), and general chair in 2018; he is now co-editor-in-chief of the Journal of Machine Learning Research. Francis Bach is primarily interested in machine learning, and especially in graphical models, sparse methods, kernel-based learning, large-scale convex optimization, computer vision and signal processing.

The CSS Bode Lecture

Title: Feedback and Uncertainty: Some Basic Problems and Theorems

Speaker: Lei Guo, Chinese Academy of Sciences, China

Time and Location: Friday December 13, 2019, 8:30-9:30 am, Apollon (FrP1)



Abstract. Feedback is a core concept of automatic control, a fundamental principle of systems and an indispensable mechanism in intelligent systems, which makes it possible for a dynamical system to perform well in the presence of various uncertainties. Although it is widely recognized that a comprehensive investigation of the quantitative relationship between feedback and uncertainty is a challenging task, considerable progress has been made in both theory and practice on the design and analysis of feedback systems. In this lecture, we will present some findings and theorems in the understanding of several basic problems. First, we will consider adaptive control of linear stochastic systems and explain the difficulties and techniques in establishing the global stability and optimality of the well-known self-tuning regulators (STR), designed by combining the least-squares estimator with the minimum variance controller. This natural and seemingly simple case had actually been a basic longstanding open problem in adaptive control, and its solution offers valuable insights necessary for more complicated problems. Next, we will discuss the theoretical foundation of the classical proportional-integral-derivative (PID) control, to understand the rationale behind its widespread successful applications in control practice where almost all of the systems are nonlinear with uncertainty, by presenting some theorems on the global (semi-global) stability and asymptotic optimality of the closed-loop systems, and by providing a concrete design method for the PID parameters. Finally, we will consider more fundamental problems on the maximum capability and limitations of the feedback mechanism in dealing with uncertain nonlinear systems, where the feedback mechanism is defined as the class of all possible feedback laws (which are not restricted to a certain particular subclass). We will present some “critical values” and “impossibility theorems” about the maximum capability of the feedback mechanism for several basic classes of uncertain nonlinear systems. Experiences, extensions and expectations will also be shared during the lecture.

Biography. Lei Guo received his B.S. degree in mathematics from Shandong University in 1982, and Ph.D. degree in control theory from the Chinese Academy of Sciences in 1987. He was a postdoctoral fellow at the Australian National University (1987-1989). Since 1992, he has been a Professor of the Institute of Systems Science at the Chinese Academy of Sciences (CAS). From 2002 to 2012, he was the President of the Academy of Mathematics and Systems Science, CAS. He is currently the Director of the National Center for Mathematics and Interdisciplinary Sciences, CAS. He has worked on problems in adaptive control, system identification, adaptive signal processing, and stochastic systems. His current research interests include control of nonlinear uncertain systems, PID control theory, distributed filtering and estimation, capability of feedback, multi-agent systems, game-based control systems, and complex systems, among others.

Special Sessions

There will be five special sessions at the conference on the following topics:

- **NASK Special Session**
- **MERL Special Session**
- **Meet the Faculty Candidates Poster Session**
- **ERC Session: ERC Funding Opportunities**
- **MathWorks Special Session**

Title: NASK Special Session: Secure and efficient with adaptive control - a story of one equation that brought new perspectives for Linux servers and cybersecurity systems

Speaker: Michał Karpowicz (National Research Institute for Cybersecurity & AI)

Time and Location: Wednesday, December 11, 12:15 – 1:15 pm, Galliéni 5

Abstract: As a National Research Institute executing governmental cybersecurity tasks on one hand and providing commercial IT services on the other, NASK is in constant need of technological solutions that prove to be both secure and efficient. Rapidly changing patterns of cyberattacks and ever-growing demand for computing capacity result in excessive costs of network services. Therefore, we are focused on developing solutions for cybersecurity and energy-efficient data center management.

Our recent findings show that challenges arising in these areas call for the application of adaptive control theory. And it all started with one equation...

Michał Karpowicz is assistant Professor of Computer Science and Head of IT Systems Engineering Department at NASK National Research Institute for Cybersecurity & AI. He received his B.S., M.S., and Ph.D. from the Institute of Control and Computation Engineering at the Warsaw University of Technology. His research interests include control theory, signal processing, and game theory.

Title: MERL Special Session: An overview of research activities at MERL (Mitsubishi Electric Research Laboratories), Control and Dynamical Systems Group

Speakers: Karl Berntorp (MERL), Uroš Kalabić (MERL), Rien Quirynen (MERL)

Time and Location: Wednesday, December 11, 12:15-1:30 pm, Risso 8

Abstract: Mitsubishi Electric Research Laboratories (MERL) is a leading research organization located in Cambridge, Massachusetts, USA that conducts fundamental research for industrially-motivated problems. In this talk, we will present an overview of research activities at MERL, including fundamental controls research and the application of state-of-the-art control techniques to a variety of products. We will focus on fundamental research topics including model predictive control and the control of constrained systems, estimation and motion planning for autonomous systems, and learning for control. In addition, we will describe how these fundamental research areas have impacted applications such as autonomous vehicles, energy-efficient HVAC systems, high-precision manufacturing, traffic control, and spacecraft guidance and control.

Karl's Berntorp research is on statistical signal processing, motion planning, sensor fusion, and optimization-based control, with applications to automotive, aerospace, transportation, and

communication systems. His work includes design and implementation of nonlinear estimation, constrained control, and motion-planning algorithms.

Uroš Kalabić works on advancements in the theory of predictive control and constrained control, as well as its applications to the control of automotive and aerospace systems. His dissertation dealt with theoretical developments and practical applications of reference governors. Prior to joining MERL, Uroš interned at MERL and at Ford Motor Company.

Rien's Quirynen research interests are in model predictive control and moving horizon estimation, numerical algorithms for (nonlinear) dynamic optimization and real-time control applications. His doctoral research was focused on numerical simulation methods with efficient sensitivity propagation for real-time optimal control algorithms.

Title: Meet the Faculty Candidates Poster Session

Organizer and moderator: Antoine Chaillet (Centrale Supélec)

Time and Location: Wednesday, December 11, 6:30-8:30 pm, Rhodes Exhibition Area

Abstract: Building on the success of the past several events, the 2019 CDC will feature the "Meet the Faculty Candidates" poster session. This poster session provides a great opportunity for faculty, search committee members, and recruiters to speak directly with current graduate students and postdoctoral researchers who are seeking faculty positions. The session will be held on Wednesday, December 11th, from 6:30pm to 8:30pm at the Acropolis Convention and Exhibition Center. Space will be available on a first-come first-serve basis. Presenters are asked to bring a poster no larger than 3ft x 4ft (A0 format) along with pushpins to attach the poster. Presenters will likely be more successful providing high-level discussions of their work such as motivation, strategies, unique insights, rather than narrow mathematical detailed discussions, unless asked specifically for those details. Presenters are also encouraged to bring copies of their CV for distribution.

Title: ERC Session: ERC Funding Opportunities

Speakers: Marios Polycarpou (University of Cyprus), Sandra Hirche (TUM Munich, Germany), Telma Carvalho (ERC Executive Agency)

Time and Location: Thursday, December 12, 12:15 – 1:15 pm, Galliéni 5

Abstract: ERC grants support individual researchers of any nationality and age who wish to pursue frontier research in any field of science. The ERC encourages in particular proposals that cross the disciplinary boundaries, pioneer ideas that address new and emerging fields and applications that introduce unconventional and/or innovative approaches. The ERC Session presents the current funding opportunities and discusses the evaluation and submission process from the perspective of a grantee and panel member. In particular, grantee experiences on writing an ERC proposal and implementing the ERC project will be shared. Furthermore, a panel member will report the experiences on common mistakes and faults in the proposal and the interview.

Title: MathWorks Special Session

Speaker: Craig Buhr (MathWorks)

Time and Location: Thursday, December 12, 12:15-1:45 pm, Hermès

Abstract: Reinforcement learning is getting a lot of attention lately. People are excited about its potential to solve complex problems in areas such as robotics and automated driving, where traditional control methods can be challenging to use. In addition to deep neural nets to represent the policy, and algorithms to train them, reinforcement learning requires repeated exploration of the environment. As such exploration is time consuming and potentially dangerous when done with the hardware, a simulation model is often used to represent the environment, at least for the initial training.

In this talk, we will discuss reinforcement learning and contrast it with traditional control methods. We will go through the steps needed to set up and solve a reinforcement learning problem. We will then talk about relevant MathWorks capabilities and resources and will show an example of developing a robot controller using reinforcement learning. Topics include:

- Creating MATLAB and Simulink environment models and provide observation and reward signals for training policies
- Training of policies using various reinforcement learning algorithms
- Parameterizing policy and value functions using deep neural networks, linear basis functions, and look-up tables
- Parallelizing environment simulations and gradient calculations on GPUs and multicore CPUs for policy training
- Deploying trained policies to embedded devices through automatic code generation for CPUs and GPUs
- Implementing controllers using reinforcement learning for automated driving and robotics applications.

Tutorial Sessions

There will be four tutorial sessions at the conference on the following topics:

- **Cybergenetics: Control of Living Cells**
- **Self-Tuning and Reinforcement Learning**
- **Autonomous Vehicles and Traffic Control in Mixed Autonomy Environments**
- **Payoff Dynamics and Higher-Order Learning in Population Games**

Title: Cybergenetics: Control of Living Cells

Organizers: Mustafa Khammash (ETH Zurich), Mario Di Bernardo (University of Naples Federico II), Diego Di Bernardo (Telethon Institute of Genetics and Medicine)

Speakers: Mustafa Khammash (ETH Zurich), Diego Di Bernardo (Telethon Institute of Genetics and Medicine), Mario Di Bernardo (University of Naples Federico II), Filippo Menolascina (University of Edinburgh)

Time and Location: Wednesday, December 11, 10:00-12:00, Apollon

Abstract: This tutorial session presents an overview of the theory and design tools for the real-time control of living cells. The theoretical, computational, and experimental tools and technologies utilized for achieving such control make up a new and exciting area of study at the interface between control theory and synthetic biology—one we refer to as Cybergenetics. The session is intended to introduce control scientists and engineers to the different ways living cells can be controlled, and to the many opportunities for future developments, both theoretical and practical, that such control brings about.

Title: Self-Tuning and Reinforcement Learning

Organizers: Nikolai Matni (University of Pennsylvania) and Anders Rantzer (Lund University)

Speakers: Anders Rantzer (Lund University), Nikolai Matni (University of Pennsylvania), Alexandre Proutiere (KTH Royal Institute of Technology), Stephen Tu (University of California, Berkeley)

Time and Location: Thursday, December 12, 10:00-12:00, Apollon

Abstract: Machine and reinforcement learning are increasingly being applied to plan and control the behavior of autonomous systems interacting with the physical world. Examples include self-driving vehicles, distributed sensor networks, and agile robots. However, when machine learning is to be applied in these new settings, the algorithms had better come with the same type of reliability, robustness, and safety bounds that are hallmarks of control theory, or failures could be catastrophic. Thus, as learning algorithms are increasingly and more aggressively deployed in safety critical settings, it is imperative that control theorists join the conversation. The goal of this tutorial session is to provide a starting point for control theorists wishing to work on learning related problems, by covering recent advances bridging learning and control theory, and by placing these results within an appropriate historical context of system identification and adaptive control.

Title: Autonomous Vehicles and Traffic Control in Mixed Autonomy Environments

Organizers: Maria Laura Delle Monache (Inria Grenoble Rhône – Alpes), Jonathan Sprinkle (University of Arizona), Ramanarayan Vasudevan (University of Michigan), Daniel B. Work (Vanderbilt University)

Speakers: Daniel B. Work (Vanderbilt University), Ramanarayan Vasudevan (University of Michigan), Jonathan Sprinkle (University of Arizona), Maria Laura Delle Monache (Inria Grenoble Rhône – Alpes)

Time and Location: Thursday, December 12, 16:30-18:30, Apollon

Abstract: This tutorial session provides an overview of the converging areas of control for autonomous vehicles, and control of the larger transportation system in which a small number of autonomous vehicles serve as actuators of traffic flow. The overview begins by describing the verification techniques and realistic sensor and control interfaces for safe real-time control of autonomous vehicles. Shifting towards a period when autonomous vehicles are present in large numbers, the session reviews classical traffic modeling, estimation, and control techniques, and then considers new methods available to model and use these autonomous vehicles to actuate bulk traffic flow composed primarily of human-piloted vehicles.

Title: Payoff Dynamics and Higher-Order Learning in Population Games

Organizers: Shinkyu Park (Princeton University), Nuno C. Martins (University of Maryland), Jeff S. Shamma (KAUST)

Speakers: Jeff S. Shamma (KAUST), Nuno C. Martins (University of Maryland), Shinkyu Park (Princeton University)

Time and Location: Friday, December 13, 10:00-12:00, Apollon

Abstract: Population games model the strategic interactions among vast numbers of decision-making agents. In this context, the evolutionary dynamics of a population describes how the proportions of agents adopting each available strategy evolve in response to the payoff (or fitness) ascribed to each strategy by the game. This session begins with a review of the basic tenets of population games and evolutionary dynamics. Subsequently, it overviews recent methods that hinge on passivity-based techniques to characterize the stability of the evolutionary dynamics when a dynamical system (more general than a population game or a dynamically modified version thereof) governs the payoff.

Pre-Conference Workshops

The CDC 2019 is offering 11 full-day and 3 half-day pre-conference workshops on Tuesday, December 10, 2019. The workshops address topics of current and future interest in control theory and applications, and are delivered by renowned experts from academia, research institutions, and industry.

Half-day Workshops (8:30 am - 12:30 pm, except Half-Day Workshop no. 3: 1:00 - 5:30 pm)

1. **Uncertainty Synthesis**
2. **Learning, Decision and Control over Networks**
3. **Computational Optimal Transport for Applications in Control and Estimation**

Workshop Title: Uncertainty Synthesis

Organizers and Speakers: Efstathios Bakolas (Univ. of Texas at Austin), Yongxin Chen (Georgia Institute of Technology), Tryphon Georgiou (Univ. of California, Irvine), and Panagiotis Tsiotras (Georgia Institute of Technology)

Time and Location: 8:30 am - 12:30 pm, Galliéni 6

Abstract: All dynamical systems are prone to exogenous disturbances, and the uncertainty introduced by these exogenous disturbances propagates along with the system states. More often, the amount of uncertainty in the system grows with time as the system evolves and, consequently, controlling the uncertainty is of paramount interest to maintain a certain level of performance. This is especially true when one needs to design optimal controllers, which are known to be susceptible to modelling errors. Recent advances have it possible to directly quantify and control the uncertainty of a dynamical system. Controlling the uncertainty of a dynamical system implies the ability to control the state distribution over time, a problem that has many applications, including image segmentation, ensemble and swarm control, control of particle beams, neuronal ensembles, and many others — in addition to just reducing the uncertainty in a feedback system. The objective of this workshop is twofold: the first objective is to report on current advances in the area of uncertainty quantification and control to enable resilient and robust operation of dynamical systems and swarms of robots; the second objective is to bring together - in the same room - outstanding researchers from leading institutions who have contributed on this topic over the years. Please see <http://uncertainty-synthesis-workshop.ae.gatech.edu/> for additional information.

Workshop Title: Learning, Decision and Control over Networks

Organizers: Vaibhav Srivastava (Michigan State University) and Fabio Pasqualetti (Univ. of California, Riverside)

Additional Speakers: Jorge Cortes (Univ. of California at San Diego), Sonia Martinez (Univ. of California at San Diego), Giuseppe Notarstefano (Univ. of Bologna), Ketan Savla (Univ. of Southern California), Stephen L. Smith (Univ. of Waterloo), and Shaunak D. Bopardikar (Michigan State University)

Time and Location: 8:30 am - 12:30 pm, Méditerranée A3

Abstract: From electric power grid to biological systems to massive transportation systems, socio-technological networked multi-agents systems are ubiquitous across scientific disciplines. In the era of big data, understanding the interplay of learning, decision-making, and control in distributed control of such network systems is vital. Such understanding will empower the future technology to leverage the plethora of data in a systematic and efficient fashion. To this end, a half day workshop is organized that will bring together experts in this area to present the state-of-the-art and discuss future research directions. Space permitting, the workshop will also feature an interactive poster session to facilitate

deeper discussions on the topics. This half-day workshop will feature presentations and discussions from experts in the areas of networked multiagent systems.

Please see <https://www.egr.msu.edu/~vaibhav/cdc2019workshop.html> for more information.

Workshop Title: Computational Optimal Transport for Applications in Control and Estimation

Organizers and Speakers: Yongxin Chen (Georgia Institute of Technology), Tryphon Georgiou (Univ. of California, Irvine), Johan Karlsson (KTH Royal Institute of Technology), Axel Ringh (Hong Kong University of Science and Technology), and François-Xavier Vialard (University Paris-Est Marne la Vallée)

Time and Location: 1:00 pm - 5:30 pm, Méditerranée A3

Abstract: The optimal mass transport problem is a classical problem in mathematics, and dates back to 1781 and work by Gaspard Monge where he formulated an optimization problem for minimizing the cost of transporting soil for construction of forts and roads. Historically the optimal mass transport problem has been widely used in economics in, e.g., planning and logistics, and was at the heart of the 1975 Nobel Memorial Prize in Economic Sciences. In the last two decades there has been a rapid development of theory and methods for optimal mass transport and the ideas have attracted considerable attention in several economic and engineering fields. These developments have led to a mature framework for optimal mass transport with computationally efficient algorithms that can be used to address problems in the areas of systems, control, and estimation. This workshop is being organized in order to introduce optimal transport to a larger audience in the CDC community. The main goal of this workshop is to give a tutorial of it, regarding both theoretical and computational aspects, and to present some applications in the areas of control and estimation. Please see https://people.kth.se/~johan79/Workshops/OMT_CDC_2019/ for more information.

Full-day Workshops (8:30 am - 5:30 pm)

1. **Verifiable Adaptive Control Systems and Learning Algorithms**
2. **Mathematical Theory of Control and Signal Processing in the Digital World: A workshop dedicated to Yutaka Yamamoto's 70th birthday**
3. **Model Predictive Control: From the Basics to Reinforcement Learning**
4. **Learning, Games and Control for Security of Cyber-physical Systems**
5. **Resilience and Controllability of Large Scale Systems: A Network-theoretic Approach**
6. **Spatio-Temporal Reasoning for Control of Cyber-Physical Systems**
7. **Neuroscience and Control: the Emerging Intersection**
8. **Model Predictive Control of Hybrid Dynamical Systems**
9. **Lagrangian Control for Traffic Flow Smoothing in Mixed Autonomy Settings**
10. **Finite-, Fixed-, and Prescribed-Time Stabilization and Estimation**
11. **Systems and Control for Smart Society and Cyber-Physical and Human Systems**

Workshop Title: Verifiable Adaptive Control Systems and Learning Algorithms

Organizers and Speakers: Tansel Yucelen (Univ. of South Florida), Anuradha Annaswamy (Massachusetts Institute of Technology), Warren Dixon (Univ. of Florida), K. Merve Dogan (Univ. of South Florida), Jonathan A. Muse (Air Force Research Lab), and Frank Lewis (Univ. of Texas at Arlington)

Time and Location: 8:30 am - 5:30 pm, Galliéni 4

Abstract: A fundamental problem in the design of feedback control architectures is to achieve closed-loop system stability, performance, and robustness against exogenous disturbances and system uncertainties. Unlike fixed-gain control architectures, adaptive control systems offer the capability to deal with exogenous disturbances and system uncertainties, in an online fashion, through learning. This implies that they are not tuned to a worst-case scenario and they continuously improve their performance in real-time. These two appealing aspects make adaptive control systems and learning algorithms important candidates for a wide array of physical systems. Although government and industry agree on their potential in providing vehicle safety and reducing vehicle development costs, a major issue is the lack of system-theoretic methods for their verification, due to their nonlinear nature. Motivated by this standpoint, the objective of this full-day workshop is to cover the state-of-the-art verifiable system-theoretic approaches in adaptive control systems and learning algorithms for their safe and reliable real-world applications. Specifically, the presenters of this workshop will cover topics addressing how to implement adaptive control systems with verifiable transient and steady-state performance guarantees, how to address the presence of actuator and unmodeled dynamics when adaptive control systems are in feedback loops, how to design and analyze adaptive control systems for physical plants with switching modes, and how to advance adaptive control systems with system-theoretic guarantees using tools and methods from machine and reinforcement learning. This workshop will be relevant to practicing professionals from electrical, mechanical, and aerospace industries. It also intends to cultivate new future research directions under a panel discussion involving organizers and expected workshop attendees. Finally, this workshop is expected to be a great value to experts and students in the adaptive control systems and learning algorithms fields.

Please see <http://lakis.eng.usf.edu/page6/index.html> for additional information.

Workshop Title: Mathematical Theory of Control and Signal Processing in the Digital World: A workshop dedicated to Yutaka Yamamoto's 70th birthday

Organizers: Masaaki Nagahara (The Univ. of Kitakyushu), Hideaki Ishii (Tokyo Institute of Technology), Kenji Kashima (Kyoto University), Kenji Sugimoto (Nara Institute of Science and Technology)

Additional Speakers: Please see http://www.sc.dis.titech.ac.jp/yy_workshop_cdc19/

Time and Location: 8:30 am - 5:30 pm, Méditerranée A1

Abstract: This workshop is organized to celebrate Professor Yutaka Yamamoto's 70th birthday and honor his long-lasting contributions to mathematical theory of control and signal processing. This workshop will bring together his colleagues who will present a broad range of topics related to control and signal processing for the digital world. In particular, the speakers will present talks on robust control, stochastic systems, signal processing, and system identification. The goal of this workshop is to inspire a future generation of researchers.

Please see http://www.sc.dis.titech.ac.jp/yy_workshop_cdc19/ for additional information.

Workshop Title: Model Predictive Control: From the Basics to Reinforcement Learning

Organizers and Speakers: Alberto Bemporad (IMT Lucca) and Mario Zanon (IMT Lucca)

Time and Location: 8:30 am - 5:30 pm, Galliéni 7

Abstract: In spite of its long tradition of success as a very powerful and versatile advanced control technique, the interest of industry and academia in model predictive control (MPC) is strongly growing, and MPC is spreading to a large variety of application domains. While most of the attention has been focused so far on computational efficiency and closed-loop performance, as the use of MPC in industrial production is increasing the time required to develop an MPC solution has also become of strong importance. Development time is mainly due to constructing suitable prediction models and to

calibrating the resulting controller. Reinforcement learning, and more generally data-driven synthesis of MPC laws, has recently attracted a lot of attention to possibly reduce such development time. This workshop aims at providing an overview of several techniques for practical use of MPC, covering linear, hybrid, and nonlinear MPC formulations and various computational methods that can be used to effectively compute the MPC action in real-time. The workshop also aims at bringing the attendees towards understanding emerging reinforcement learning and policy search methods for tuning MPC controllers directly from data for reduced design and calibration effort. Emphasis will be given to understanding the necessary theoretical background that leads to the successful implementation of MPC in practice, addressing advantages and potential difficulties. During the workshop pointers towards dedicated software will be given, so that the attendees will be able to not only properly formulate the problem, but also to solve it using state-of-the-art tools. The workshop is organized as a tour, starting from the most basic and standard formulations based on deterministic linear systems with quadratic costs, and following the road towards more advanced formulations, including hybrid, stochastic, nonlinear, and economic MPC. The last part of the workshop will be dedicated to presenting promising results in data-driven learning of control laws that have a great potential of use in MPC, with the intention of also triggering further research ideas in the audience. A few practical case studies will be described so as to also motivate the practical and industry-oriented flavor of the workshop. Please see <http://dysco.imtlucca.it/mpc-cdc19> for additional information.

Workshop Title: Learning, Games and Control for Security of Cyber-physical Systems

Organizers: Quanyan Zhu (New York University) and Radha Poovendran (University of Washington)

Additional Speakers: Tamer Basar (UIUC), Joao Hespanha (UCSB), Linda Bushnell (Univ. of Washington), Hideaki Ishii (Tokyo Institute of Technology), Karl Johansson (KTH), and others.

Time and Location: 8:30 am - 5:30 pm, Méditerranée 1

Abstract: The topic of this workshop is the control and secure operation of cyber-physical systems (CPSs) using perspectives from game theory and machine learning. Cyber-physical systems are complex entities where the working of a physical system is governed by its interactions with computing devices and algorithms. These systems are ubiquitous. Examples range from medical devices and robots on a small scale, to power systems and connected communities on a large scale. CPSs are expected to operate in dynamically changing environments, which could result in them being the target of malicious attacks that aim to prevent them from accomplishing a goal. Strategies to mitigate the effect of an attack must take into consideration the fact that adversaries are often stealthy, intelligent, and persistent. This workshop will feature talks by leading experts whose recent work uses game theory and data-driven approaches to model and analyze the security of CPSs. The workshop also plans to feature a presentation by a representative from a funding agency, and a panel discussion in order to identify open research problems that will be of interest to the broader community.

Please see <https://wp.nyu.edu/quanyan/cdc-2019-workshop/> for additional information.

Workshop Title: Resilience and Controllability of Large Scale Systems: A Network-theoretic Approach

Organizers: Mohammad Pirani (Univ. of Toronto), Shreyas Sundaram (Purdue University), and Victor Preciado (Univ. of Pennsylvania)

Additional Speakers: Sonia Martinez (Univ. of California, San Diego), Nader Motee (Lehigh University), Stacy Patterson (Rensselaer Polytechnic Institute), Sergio Pequito (Rensselaer Polytechnic Institute), Iman Shames (Univ. of Melbourne), Shreyas Sundaram (Purdue University), Joshua Taylor (Univ. of Toronto), and Daniel Zelazo (Technion-Israel Institute of Technology)

Time and Location: 8:30 am - 5:30 pm, Méditerranée 2

Abstract: Large-scale systems play a central role in a multitude of applications, from power grids and smart buildings to aerospace systems, swarm robotics, social networks, and intelligent transportation systems. As the scale of networked control systems increases and interactions between different subsystems become more sophisticated, questions of controllability, observability, and resilience of such networks increase in importance. The need to redefine classical system and control theoretic notions into the language of networks has recently started to gain attention as a fertile and important area of research. A key challenge for the controls community is thus to understand how to leverage network theory along with systems and control to analyze the controllability, observability, and resilience of large-scale interconnected systems. The IEEE Conference on Decision and Control, as one of the premier annual gatherings of researchers in the field of systems and control, is a perfect venue for a workshop on network-theoretic approaches to controlling large scale systems. The goal of this workshop is to present the challenges in this area, together with tools and approaches that have been recently developed to address this problem. In particular, the key emphasis of this workshop will be on the use of graph-theoretic approaches to large-scale systems analysis, which will differentiate it from other workshops on control and security of centralized systems. The target audience is students, researchers and practitioners from academia and industry who are interested in learning about (and contributing to) the emerging field of network control systems. The workshop will be highly interactive and will feature tutorial-style talks by leading experts in the field, giving the audience a perspective of how network theory plays a role in the resilience and control of large scale systems, and how to best combine different perspectives to develop efficient, reliable and resilient systems.

Please see <https://cdc2019.ieeecss.org/workshops.php#w2430> for additional information.

Workshop Title: Spatio-Temporal Reasoning for Control of Cyber-Physical Systems

Organizers: André de Matos Pedro and Laura Nenzi

Additional Speakers: Calin Belta (Boston University), Michel Loreti (Univ. of Camerino), Ezio Bartocci (TU Wien), Jane Hillston (Univ. of Edinburgh), Roman Kontchakov (Univ. of London), Jana Tumova (KTH Royal Institute of Technology), Necmiye Ozay (Univ. of Michigan), Christos Tsigkanos (TU Wien), and Martin Leucker (Univ. of Lübeck)

Time and Location: 8:30 am - 5:30 pm, Méditerranée C4

Abstract: This workshop aims to present the most recent advances in the development of logic-based procedures for the analysis and control of spatially distributed Cyber Physical Systems (CPS), with particular emphasis on the combination of temporal and spatial behaviors. Spatially distributed CPS, such as robotic swarms and smart environments, often exhibit multiple and unpredictable behaviors that increase the efforts needed in their analysis. Studying and controlling such systems requires a growing demand for efficient tools capable of dealing with such complex behavioral patterns. Spatio-temporal logic is an innovative way to reason and face such challenges. This workshop has the dual objective: (1) showing the usefulness of spatio-temporal logic to the control community in the context of spatially distributed CPS and (2) highlighting what are the main important challenges in the analysis of such systems that logic community can help to solve in the near future. Several case studies will be considered to discuss the real usefulness of these methodologies. This will lay the foundations for a verification framework of spatially distributed CPS as well as fill the gap between theory and practice of CPS design, deployment and testing, with particular emphasis in the decision procedures and monitoring mechanisms. Please see <http://strcc.isp.uni-luebeck.de> for additional information.

Workshop Title: Neuroscience and Control: the Emerging Intersection

Organizers: Sergio Pequito (Rensselaer Polytechnic Institute) and Alexander Medvedev (Uppsala University)

Additional Speakers: Erfan Nozari (Univ. of California, San Diego), John Doyle (CalTech), Arian Ashourvan (Univ. of Pennsylvania), Tim Denison (Oxford University), and Miroslav Pajic (Duke University).

Time and Location: 8:30 am - 5:30 pm, Méditerranée A2

Abstract: The last years have witnessed a fast development of models, tools, and experiments aimed at understanding neural circuitry and brain dynamics. This workshop brings together researchers from different backgrounds to demonstrate how the theory of dynamical systems and control engineering successfully enable new insights into neuroscience and emerging neural technology. More specifically, the scope of the talks covers such topics as mathematical modeling and analysis of neural populations, intracranial electrical stimulation in rehabilitation technology and prosthetics, brain-machine interfaces, and uncovering the drivers of brain activity. We propose to not only present and address some of the fundamental problems in this research area but also to raise more questions for future research within the controls community. Subsequently, we believe that these sessions will have a profound effect on our understanding of brain dynamics and actuation mechanism. A healthy mixture of theoretically oriented talks with more applied ones will take place, thus maximizing the relevant audience, and attracting new researchers in these exciting problems, creating a larger yet focused community. Please see <https://sites.google.com/site/neurocontrolcdc19/home> for additional information.

Workshop Title: Model Predictive Control of Hybrid Dynamical Systems

Organizers: Berk Altın (Univ. of California, Santa Cruz) and Ricardo G. Sanfelice (Univ. of California, Santa Cruz)

Additional Speakers: Francesco Ferrante (Univ. Grenoble Alpes), Mohamed A. Maghenem (Univ. of California, Santa Cruz), and Sean Phillips (Air Force Research Laboratory)

Time and Location: 8:30 am - 5:30 pm, Galliéni 1

Abstract: Hybrid systems model the behavior of dynamical systems where the states can evolve continuously as well as instantaneously. Such systems arise when control algorithms that involve digital devices are applied to continuous-time systems, or due to the intrinsic dynamics (e.g. mechanical systems with impacts, switching electrical circuits). Hybrid control may be used for improved performance and robustness properties compared to conventional control, and hybrid dynamics may be unavoidable due to the interplay between digital and analog components of a system. This workshop is a complete course on the analysis and design of model predictive control (MPC) schemes for hybrid systems. It presents recently developed results on asymptotically stabilizing MPC for hybrid systems based on control Lyapunov functions. The workshop provides a detailed overview of the state of the art on hybrid MPC, and a short tutorial on a powerful hybrid systems framework (hybrid inclusions) that can model hybrid dynamics described in other frameworks (e.g. switched systems, hybrid automata, impulsive systems). Key analysis tools in this setting are demonstrated, along with several advantages over other frameworks. This background is then used to lay the theoretical foundations of a general MPC framework for hybrid systems, with guaranteed stability and feasibility. The ideas are illustrated in several applications. The workshop targets a broad audience in academia and industry, including graduate students, looking for an introduction to an active area of research and some modern mathematical analysis tools; control practitioners interested in novel design techniques; researchers in dynamical systems in pursuit of relevant applications; and researchers in industry and labs applying hybrid predictive control methods to engineering systems. The required background is basic familiarity

with continuous- and discrete-time nonlinear systems. The lectures are closely related to each other and not meant to be independent research presentations.

Please see <https://hybrid.soe.ucsc.edu/hybridmpccdc19> for additional information.

Workshop Title: Lagrangian Control for Traffic Flow Smoothing in Mixed Autonomy Settings

Organizers: Alexandre Bayen (UC Berkeley), George J. Pappas (Univ. of Pennsylvania), Benedetto Piccoli (Rutgers University), Daniel B. Work (Vanderbilt University), Jonathan Sprinkle (University of Arizona), Maria Laura Delle Monache (INRIA), Benjamin Seibold (Temple University), Cathy Wu (MIT), Abdul Rahman Kreidieh (UC Berkeley), Eugene Vinitsky (UC Berkeley), Yashar Farid (UC Berkeley)

Time and Location: 8:30 am - 5:30 pm, Galliéni 2

Abstract: The field of transportation is undergoing profound and rapid disruptions, led in part by revolutions in automation, electrification, and data science / machine learning. In particular, the rapid emergence of autonomous vehicle (AV) technology and its potential as a means of Lagrangian control has led many to ask the question: How can AVs in the presence of human-driven vehicles improve the flow of traffic? In order to shed some light on this topic, this workshop discusses the mathematical, engineering, and technological advances in a group of fields that are steadily enabling vehicle automation as a viable means of traffic flow control:

1. Means Field Models and Traffic Aggregation: The complexity of the traffic flow dynamics (e.g. multi-lane dynamics, merges, ramps, non-FIFO assumptions) necessitates the use of abstraction models to overcome the complexity of the dynamics of single agents (vehicles), which make full analytical approaches nearly intractable. We present advances in systematic approaches to aggregate (human-driven) traffic flow actuated by Lagrangian controllers (AVs), via mean field equations and coupled PDE-ODE systems.
2. Deep Reinforcement Learning (RL): Recent years have seen RL emerge as a promising framework for control of complex dynamical systems. This is particularly appealing in the context of traffic, which itself exhibits the rich, complex behaviors. We present techniques for applying scalable RL techniques to mixed-autonomy traffic. This includes topics such as decentralization, and methods for generating policies that are transferable to actual networks.
3. Verification of Deep Neural Networks (DNNs): The rise of deep RL as a means of control has been treated with some skepticism, attributed in part to the black-box nature of DNNs. In a setting where humans and actuated devices are expected to interact with one another, this serves as a significant barrier to deployment. In response to this, we present techniques for verifying the safety properties of DNNs using algorithms for satisfiability modulo convex optimization.

Please see <https://flow-project.github.io/tutorial.html#cdc2019> for additional information.

Workshop Title: Finite-, Fixed-, and Prescribed-Time Stabilization and Estimation

Organizers: Denis Efimov (INRIA), Miroslav Krstic (UC San Diego), Wilfrid Perruquetti (Centrale Lille), Andrey Polyakov (INRIA), and Drew Steeves (UC San Diego)

Time and Location: 8:30 am - 5:30 pm, Galliéni 3

Abstract: The goal of this workshop is to present recent advances in the design and analysis of control and estimation algorithms with accelerated convergence rates. The focus is to exhibit algorithms which ensure finite-, fixed- or prescribed-time convergence. The associated approaches and related properties that will be covered include: homogeneity, the implicit Lyapunov function method, time-varying

damping, and discretization tools for highly nonlinear systems. Recent interest in these more demanding types of stability is due to emerging applications (e.g., flying robots, cyber-physical systems) which have strict performance requirements regarding convergence rate, robustness and scalability. Conventional control and estimation methods fail to meet these demands. As such, the aforementioned approaches have been developed or extended to meet these strict targets and will be at the forefront of this workshop. Please see <https://team.inria.fr/valse/fr/full-day-workshop-finite-fixed-prescribed-time-stabilization-and-estimation-ieee-cdc-2019/> for additional information.

Workshop Title: Systems and Control for Smart Society and Cyber-Physical and Human Systems

Organizers: Toru Namerikawa (Keio University), Masaaki Nagahara (The University of Kitakyushu), Takeshi Hatanaka (Osaka University)

Additional Speakers: Pramod Khargonekar (UC Irvine), Anuradha Annaswamy (MIT), Rong Su (Nanyang Technological University), Dario Bauso (Univ. of Groningen), and Scott J. Moura (UC Berkeley)

Time and Location: 8:30 am - 5:30 pm, Méditerranée 5

Abstract: Many nations are promoting projects to realize smart society through tight intertwinement between cyber and real-physical components. To this end, the framework of Cyber-Physical Systems (CPS) has successfully enabled multidisciplinary research that involves control systems, communications, networking, sensing and computing to develop new theoretical foundations/tools as well as major technological applications, including transportation, aerospace, health and medicine, robotics, manufacturing, energy management, and environment and sustainability. Construction of smart society requires not only to design these individual smart systems but also to coordinate these systems in a stable, optimal, and economically enabled fashion. A goal of this workshop is to discuss how the global perspective inherent in systems and control could contribute to designing such smart systems. Another main issue of this workshop is how to design Cyber-Physical & Human Systems (CPHS). In smart society, human factors must be naturally involved in the overall system and they must interact with the CPS in various ways at various levels. It is thus evident that the ultimate societal outcomes of future CPHS technologies will depend crucially on deeper understanding of the interactions between cyber-physical systems and humans, and on how to integrate the human factors and their models into the CPS design in order to bring the best outcomes for individuals, organizations, and the society. Revolutionary advances in data science, machine learning, and artificial intelligence technology have opened up new possibilities of rigorously analyzing/modeling humans, not necessarily obeying any physical law, under interaction with CPS. We believe that now is an opportune time to discuss how to best consider human factors in the control loop. This workshop presents state-of-the-art research outcomes on CPHS in some key application fields including intelligent transportation, aerospace systems and robotics. Please see <http://is.eei.eng.osaka-u.ac.jp/hatanaka/CDC/index.php> for additional information.

Social Program

Welcome Reception:	Tuesday, December 10th, 6:30-8:30 pm	Agora 3
Women in Control Luncheon Meeting:	Wednesday, December 11th, 12:00-1:30 pm	Agora 3
Newcomers' Reception:	Wednesday, December 11th, 6:30-8:30 pm	Lounge Bar Mikonos
CSS Awards Ceremony:	Thursday, December 12th, 6:45-8:15 pm	Hermès
Conference Banquet:	Thursday, December 12th, 8:15-11 pm	Muses
Farewell Reception:	Friday, December 13th, 6:30-8:30 pm	Agora 3
Coffee Breaks:	Wednesday-Friday, December 11-13 9:30-10 am and 4:00-4:30 pm	Rhodes Exhibition Area

Women in Control Luncheon Meeting

Time and Location: Wednesday, December 11th, 12:00-1:30 pm, Agora 3

The IEEE CSS Women in Control committee is responsible for, but not limited to, promoting membership, gathering and disseminating appropriate information about women in IEEE CSS and the profession, and facilitating the development of mentoring and programs to promote the retention, recruitment, and growth of women IEEE CSS members. The IEEE WiC invites all CDC women to join us for our traditional luncheon on the first day of the conference, Wednesday, December 11th, 2019.

Conference Information

Registration

All conference attendees must register. Personal badges are provided to identify registered participants. Packet pick-up for advanced registrants and on-site registration are available at the Welcome Desk, which will be open from the afternoon of Monday, December 9 through the morning of Friday, December 13. Hours of operation of the Welcome Desk are as follows:

Monday, December 9	16:30 – 18:30
Tuesday, December 10	7:30 – 20:00
Wednesday, December 11	7:30 – 18:30
Thursday, December 12	7:30 – 18:30
Friday, December 13	7:30 – 15:00

All registered participants receive full access to the technical sessions, coffee breaks, opening and closing receptions, and one set of conference proceedings on a USB flash drive. Full rate registrations (Member or Non-member) also include one banquet ticket.

Registration fees are shown in the table below. Please note that only conference attendees who have registered for the conference can register for the workshops.

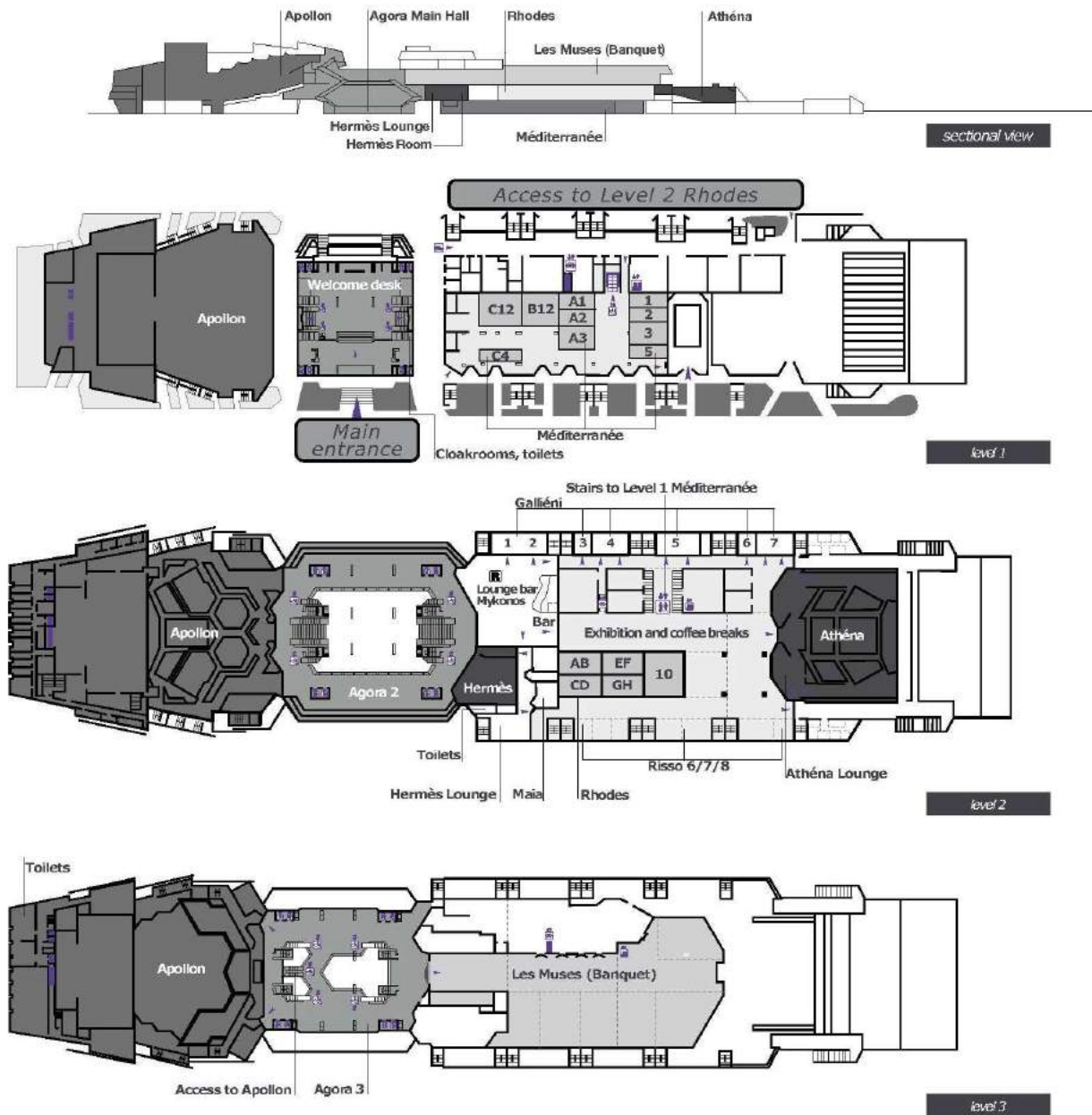
Category	Till Oct. 1	From Oct. 2	Number of paper uploads	Conference Banquet	Electronic Proceedings	Workshop Registration Fee			
	Advance Rate	Standard Rate				Full-day		Half-day	
						Till Oct. 1	From Oct. 2	Till Oct. 1	From Oct. 2
Member	550 EUR	700 EUR	3 Included	1 Included	1 Included	170 EUR	250 EUR	90 EUR	130 EUR
Non-member	700 EUR	850 EUR	3 Included	1 Included	1 Included	170 EUR	250 EUR	90 EUR	130 EUR
Life member	300 EUR	400 EUR	3 Included	Not Included	1 Included	85 EUR	100 EUR	45 EUR	55 EUR
Student/Retiree Member	275 EUR	350 EUR	1 Included	Not Included	1 Included	85 EUR	100 EUR	45 EUR	55 EUR
Student/Retiree Non-member	350 EUR	400 EUR	1 Included	Not Included	1 Included	85 EUR	100 EUR	45 EUR	55 EUR

For all categories, the cost of extra paper uploads is 200 EUR per paper. The cost of an additional 7th or 8th page in the final paper is 200 EUR per page. Extra banquet tickets can be purchased for 120 EUR. Extra proceedings (USB) can be purchased for 50 EUR.

Conference Venue

The conference will be held at the Acropolis Convention centre located in the city-centre of Nice. Conference activities are spread over the three levels of the building.

Room Plan

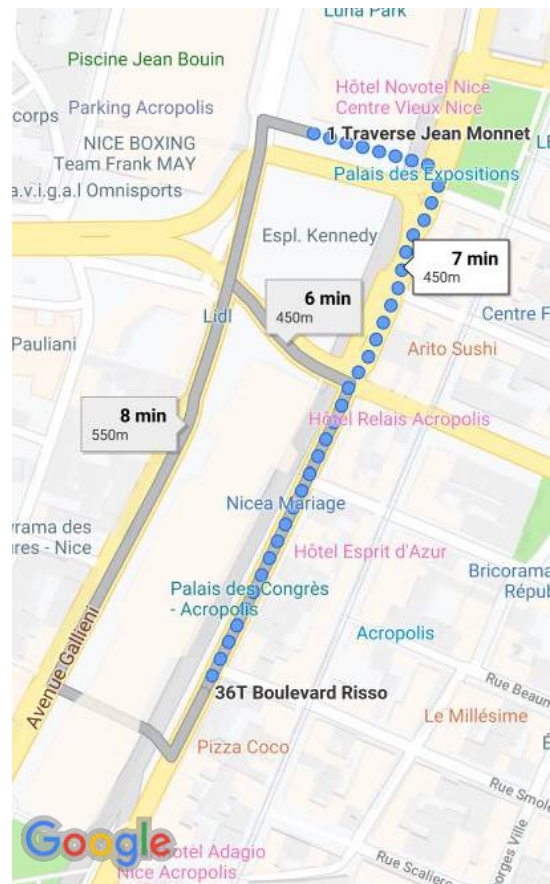


Important Information

- Conference rooms are located on first, second and third floor.
- Workshops will be held in Méditerranée (Level 1) and Galliéni (Level 2) rooms.
- Plenary Sessions will be held on the second level (Athéna and Apollon rooms).
- Coffee Breaks will take place in the Rhodes Exhibition Area (Level 2).
- The building will be open from 7:30 am.
- The Registration Desk is located in front of the main entrance.
- Cloakrooms are available at the entrance.
- Security checks at the entrance may cause delays. Please, come early to be sure to be on time.

Meetings at Novotel

Some technical meetings will be held in “Novotel Nice Centre Vieux Nice”, which is reachable on foot in about 8 minutes from the congress venue Acropolis (see map). The Novotel rooms are Chagall, Cheret, Matisse and Garibaldi and are all located on the first floor of the hotel. See the access map on the right.



Local Attractions

With the sun present 300 days a year, its historical and cultural richness, the changing reflections of the sea, the peaks that dominate it, its brilliant beauty, its colourful accent, Nice is one the most beautiful city in France. With its special light, all those who have approached Nice keep in them the memory of a rare and precious moment.



In the “piazzettas” which are the typical streets, on the beaches and the wooded parks, with the markets and the colourful gastronomy, for a drink on the terrace or a walk around the harbour, you will love this city... Nice to be in Nice, which is also the capital of the art of living.

The history of Nice dates back to 350 BC, when the Greeks established a place on the shores of the Mediterranean Sea, called Nikaia, according to Nike, the Greek goddess of victory. On the other hand, in order to obtain an adequate image of the site's historical past, it should be mentioned that the current Nice area has been populated since prehistoric times. Also, thanks to its luminosity and its beauty, Nice have always inspired the greatest masters in different fields as architecture, painting, music and cinema. To attest, there is of course the old Nice, ambassador of Sardinian architecture, the palaces and castles with Baroque style, the concentration of museums and art galleries. But beyond the visible, there is this little extra soul, this particular atmosphere, capable of inspiring you with authentic emotions, and at the crossroads of cultures.

Walk through the old part of town is very pleasant and has a good vibe both by day and night. By strolling through the little lanes, walkers discover the city's history and a lot of small boutiques and restaurants. On the street corner, you can hear Nissart being spoken, a dialect derived from the Oc language. The City of Nice has several parks and gardens, such as the Jardin Albert 1er, the Hanging Gardens of Paillon, the Cimiez Monastery Gardens and the gardens at the Cimiez Arenas... You can also walk in the park at the Château de Nice and the Mont-Boron forest park. Finally, you mustn't miss Parc Phoenix. This area is home to one of the largest tropical greenhouses in the world. There are also botanical gardens and temporary exhibitions.

In addition to the Old Nice District, a place where you absolutely must visit the small regional stores; Rue Jean Médecin also has many boutiques of all kinds. Halfway down the road, one comes across the large «Nice Etoile» shopping center. Near Place Masséna, next to Rue Jean Médecin, there is a pedestrian precinct: Rue de France has several shops and some restaurants. Other "musts" to visit are the "Marché aux Fleurs" (flower market) and the Cours Saleya (fruit, vegetable and fish market).

Nice is also a capital of gastronomy. In addition to its delicate dishes based on olive oil, garlic, and vegetables, Nice is famed as the home of socca, a small pancake made with chick pea flour, not forgetting the famous ratatouille, the little Farci Niçois or stuffed vegetables, pissaladière (a savoury tart), tourte de blettes (sweet or savoury pies), zucchini flower fritters, and the famous «salade niçoise». On the sandwich side, the Pan Bagnat is the king. As for dessert, apart from ice-cream from Old Nice, there are whole candied fruits, specialities from certain confectioneries, such as Florian and Auer, which can also be found at the Cours Saleya Market.

Nice offers more than fifteen museums, with rich collections. Nice is an exceptional city, featuring a rich cultural and artistic heritage. The pace of cultural life is regulated by the exhibitions in the museums and galleries, events in the theatres and shows at the Nice Opera House.

Nice is distinguished by a wide variety of architectural styles, originating from different periods. Over the centuries of its history, Nice has retained the imprint of each age. More information at www.nicetourisme.com.

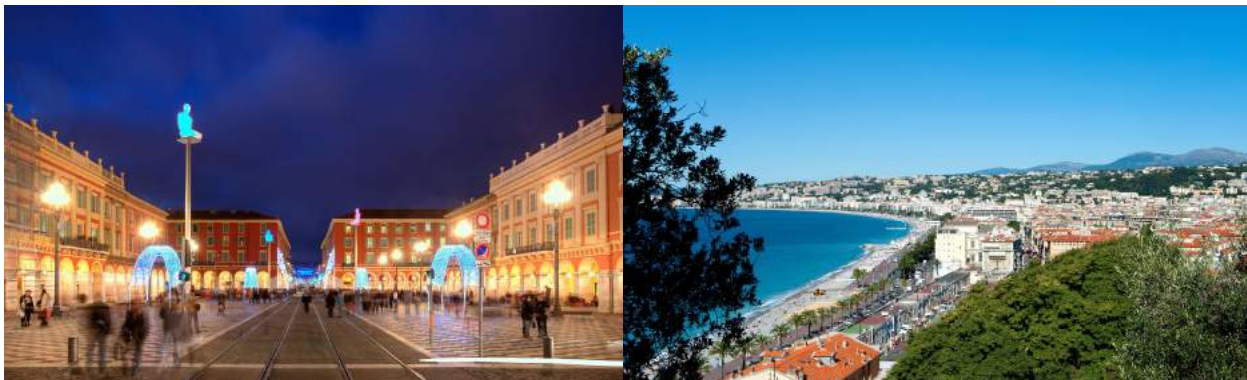
TRANSPORTATION. Looking for a fast, easy and affordable way to check out Nice’s amazing attractions? Mobil’azur offers several public transportation options. With the two lines of the tramways, you can easily cross Nice. T2 “Ouest-Est” crosses the city from east to west, to connect the city center to the airport (via the future eco-valley station) in 20 minutes.

Nice offers a dense and very extensive bus network (get a map), with frequent connections! You can reach all the districts of Nice by bus, up to the hills. Buses from Nice operate every day. For night trips, 5 Nocbus lines are available: tram line T1 until 1:35 am and from 4:25 am and 5 bus lines from Jean-Claude-Bermond station, to Cimiez, Madeleine, Nice-East, West and North, run from 21:10 to 1:10 am.

VéloBleu also operate to discover Nice by bicycles. 1 750 self-service bicycles available every day at 175 stations throughout the city.

To learn more about public transportation options, visit <https://www.lignesdazur.com/en>

HOP-ON HOP-OFF BUSES TRANSPORTATION. Nice Le Grand Tour <https://www.nicegrandtour.fr/en/>



NATURE, PARKS & GARDENS. Visit stunning botanical gardens, greens areas or explore our parks.

Monastère de Cimiez Garden

Place du Monastère de Cimiez
en.nicetourisme.com/parks-and-gardens

Phoenix Park

405 Promenade des Anglais, Nice
+33 4 92 29 77 00

MONUMENTS AND CHURCHES. Baroque-style palaces and churches, colourful facades and narrow streets.

Cadran Solaire

Quai Rauba Capeu
en.nicetourisme.com/nice/75-le-cadran-solaire

Sainte-Jeanne d’Arc Church

11 rue Grammont, Nice
+33 4 93 86 33 07

<https://parc-phoenix.org>

Botanical Garden

78 Avenue de la Corniche-Fleurie
+33 4 92 29 41 80

<https://en.nicetourisme.com/nice/104-jardin-botanique>

Colline du Château Park

Rue des Ponchettes – Rue de Foreta

en.nicetourisme.com/nice/92-parc-de-la-colline-du-chateau

Albert 1^{er} Garden

1 Promenade des Anglais

en.nicetourisme.com/nice/91-jardin-albert-1er

Le Mont Boron

Route du Mont-Boron, Nice

en.nicetourisme.com/nice/101-parc-forestier-du-mont-boron

en.nicetourisme.com/nice/82-eglise-sainte-jeanne-d-arc

Lascaris Palace

15 rue Droite, Nice
+33 4 93 62 72 40

en.nicetourisme.com/nice/53-palais-lascaris

Centenaire Monument

Albert 1er Garden, Nice

en.nicetourisme.com/nice/65-monument-du-centenaire

Saint-Nicolas Cathedral

Avenue Nicolas II
+ 33 9 81 09 53 45

<https://www.sobor.fr>

Méditerrananean Palace

11 Promenade des Anglais, Nice

en.nicetourisme.com/nice/66-le-palais-de-la-mediterranee

HISTORIC LANDMARKS. From Pre-Neanderthal to now, discover the historic landmarks which built Nice.

MUSEUMS. Nice offers more than fifteen museums with an exceptional collection through a universal museum route.

Cours Saleya

Rue Saint-François-de-Paule, Nice

en.nicetourisme.com/nice/45-cours-saleya

Place Masséna

City Center

en.nicetourisme.com/nice/63-la-place-massena

Place Rossetti

City Center

en.nicetourisme.com/nice/57-la-place-rossetti

Promenade des Anglais

Nice

en.nicetourisme.com/nice/64-la-promenade-des-anglais

Old Nice

City Center

Masséna Museum

65 rue de France, Nice
+33 4 93 91 19 10

en.nicetourisme.com/nice/186-musee-massena

National Marc Chagall Museum

Avenue Dr Ménard, Nice
+33 4 93 53 87 20

<https://it.musees-nationaux-alpesmaritimes.fr/chagall/>

Matisse Museum

164 Avenue des Arènes de Cimiez, Nice
+33 4 93 81 08 08

[musee-matisse-nice.org/? locale=en](https://musee-matisse-nice.org/?locale=en)

MAMAC Museum

1 Place Yves Klein, Nice
+33 4 97 13 42 01

Flower Market

Cours Saleya, Nice

Fruit and Vegetables Market

Avenue Malausséna, Place du Général de Gaulle

Book Market

Place du Palais de Justice, Nice

Art-filled Market by Night

Cours Saleya, Nice

Fish Market

Place Yoja, Nice

<http://www.mamac-nice.org>

Archeologic Museum

160 Avenue des Arènes de Cimiez, Nice

+33 4 93 81 59 57

en.nicetourisme.com/nice/185-musee-d-archeologie-de-nice-cimiez

History Natural Museum

60 Boulevard Risso, Nice

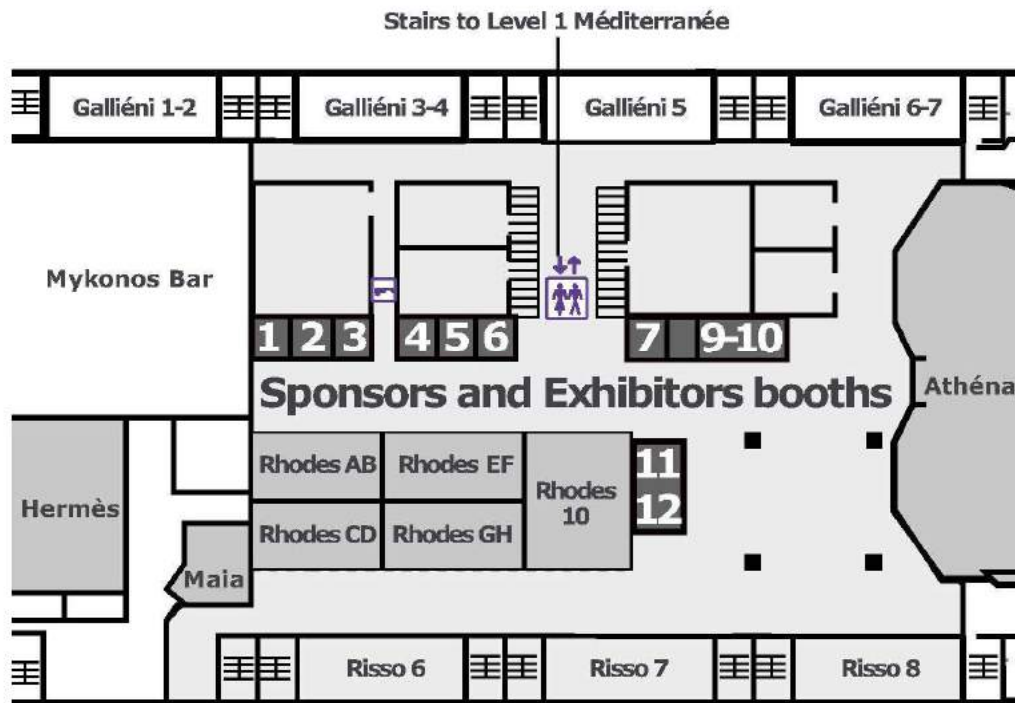
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<http://mhnnice.org>

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Exhibition Hours: Wednesday, December 11: 8:30 am - 6:30 pm
 Thursday, December 12: 8:30 am - 6:30 pm
 Friday, December 13: 8:30 am - 4:00 pm

Exhibition Location: Rhodes Exhibition Area



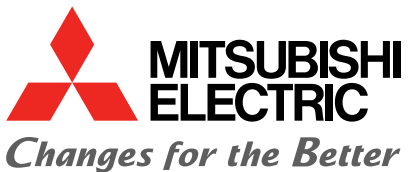
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ANT-X provides a complete laboratory facility for research and education in multi-agent systems, flight robotics, flight control and aerospace control in order to satisfy the need for a ready to use and customizable platform for research and education. The ANT-X laboratory will enable academic researchers to achieve a fast transition to practice of advanced design methods for GNC systems and enrich the students’ experience in flight robotics and UAV control through hands-on experimental activities. See more at <https://antx.it>.

Check the conference app and webpage for an updated list of sponsors and exhibitors.

2019 IEEE CSS Awards

Every year the IEEE and the Control Systems Society recognize the outstanding contributions of individuals belonging to our technical community by giving a number of awards. The Society is very appreciative of the work each corresponding committee or subcommittee devotes to the selection process.

The 2019 IEEE CSS Awards Chair is Tryphon T. Georgiou, and the subcommittee Chairs are:

- Kirsten Morris George S. Axelby Outstanding Paper Award
- Alessandro Astolfi Antonio Ruberti Young Researcher Prize
- Jan Tommy Gravdahl IEEE Trans. on Control Systems Technology Outstanding Paper Award
- Sonia Martinez IEEE Control Systems Magazine Outstanding Paper Award
- Reza Moheimani Control Systems Technology Award
- Shah Shirish Control Systems Society Transition to Practice Award
- Paulo Tabuada Transactions on Control of Network Systems Outstanding Paper Award
- Graziano Chesi Conference on Decision and Control Best Student Paper Award
- George Pappas IEEE Control Systems Letters Outstanding Paper Award
- Thomas Parisini Roberto Tempo Best CDC Paper Award
- Kevin Wise Technical Excellence in Aerospace Control Award

More details about the IEEE CSS awards, the nomination process and past winners can be found on the IEEE CSS web site <http://ieeecss.org/awards/awards-program>.

CSS Distinguished Member Awards

CSS also annually confers Distinguished Member Awards to selected members of our community who have made significant technical contributions as well as having provided outstanding long-term service to the Control Systems Society. The 2019 award went to Daniel Eduardo Rivera “for outstanding long-term service to the Control Systems Society most notably for leadership of the CSS Outreach Program” and Venkataramanan Balakrishnan “for outstanding long-term service to the Control Systems Society through governance and leadership in the CSS Board of Governors and Executive Committee”.

Outstanding Chapter Award

The Outstanding Chapter Award recognizes a chapter for demonstrating a high level of activity, innovation, or growth. The Vice-President of Member Activities, Magnus Egerstedt, was responsible for this award. The 2019 Award went to the Chile Section Chapter, chaired by Gaston Lefranc, “for its technical events focused on the promotion and advancement of Control Systems during 2018”.

CDC Outstanding Student Paper and Best Student Paper Awards

The CDC Outstanding Student Paper and Best Student Paper Awards recognize excellence in a paper presented at the IEEE Conference on Decision and Control whose primary author is a student member of the IEEE. One of the Outstanding Student Paper awardees will be selected as the winner of the Best Student Paper award and will receive that award in lieu of the Outstanding Student Paper award. The awards are based on the paper’s originality, clarity, and potential impact on practical applications or

theoretical foundations of control. The CDC Outstanding Student Paper Award winners and finalists for the Best Student Paper Award are:

Finalist: Lars Lindemann (llindem@kth.se)

Advisor: Dimos V. Dimarogonas (dimos@kth.se)

Paper title: Control Barrier Functions for Multi-Agent Systems under Conflicting Local Signal Temporal Logic Tasks

Paper authors: Lars Lindemann, Dimos V. Dimarogonas

Session: ThA25.3

Finalist: Jin-Won Kim (jkim684@illinois.edu)

Advisor: Prashant G. Mehta (mehtapg@illinois.edu)

Paper title: What is the Lagrangian for Nonlinear Filtering?

Paper authors: Jin-Won Kim, Prashant G. Mehta, Sean P. Meyn

Session: WeB19.1

Finalist: Michael W. Fisher (fishermw@umich.edu)

Advisor: Ian A. Hiskens (hiskensg@umich.edu)

Paper title: Numerical Computation of Critical System Recovery Parameter Values by Trajectory Sensitivity Maximization

Paper authors: Michael W. Fisher, Ian A. Hiskens

Session: FrC14.1

Finalist: Shiba Biswal (sbiswal@asu.edu)

Advisor: Spring Berman (spring.berman@asu.edu)

Paper title: Fastest Mixing Markov Chain on a Compact Manifold

Paper authors: Shiba Biswal, Karthik Elamvazhuthi, Spring Berman

Session: WeA16.2

The winner of the IEEE 2019 CDC Best Student Paper award will be announced at the Award Ceremony.

CSM Outstanding Paper Award

The IEEE Control Systems Magazine Outstanding Paper Award is given for an article or column published during the two calendar years prior to the year of the award and is based on impact and benefit to CSS members. The 2019 Award was not assigned.

TCNS Outstanding Paper Award

The IEEE Transactions on Control of Network Systems is given for a paper published during the two calendar years prior to the year of the award and is based on originality, potential impact on the foundations on network systems, importance and practical significance in applications, and clarity. The 2019 Award was given to Erfan Nozari, Pavankumar Tallapragada, and Jorge Cortés for the paper “Differentially Private Distributed Convex Optimization via Functional Perturbation”, IEEE Transactions on Control of Network Systems, Vol. 5, No. 1, pages 395-408, 2018.

TCST Outstanding Paper Award

The IEEE Transactions on Control Systems Technology Outstanding Paper Award is given for an outstanding paper published during the two calendar years prior to the year of the award, and is based on originality, relevance of the application, clarity of exposition, and demonstrated impact on control systems technology. The 2019 Award was given to Alberto Leva, Federico Terraneo, Irene Giacomello, and William Fornaciari for the paper “Event-Based Power/Performance-Aware Thermal Management for High-Density Microprocessors”, IEEE Transactions on Control Systems Technology, Vol. 26, No. 2, pages 535-550, 2018.

George S. Axelby Outstanding Paper Award

The George S. Axelby Outstanding Paper Award is given for an outstanding paper published in the IEEE Transactions on Automatic Control during the two calendar years prior to the year of the award, and is based on originality, clarity, potential impact on the theoretical foundations of control, and practical significance in applications. The 2019 award was given to Gunther Reissig, Alexander Weber, Matthias Rungger for the paper “Feedback Refinement Relations for the Synthesis of Symbolic Controllers,” IEEE Transactions on Automatic Control, Vol. 62, No. 4, pages 1781-1796, 2017.

Control Systems Letters Outstanding Paper Award

The Control Systems Letters Outstanding Paper Award is given for an outstanding paper published in the IEEE Control Systems Letters during the two calendar years preceding the year of the award, based on originality, potential impact on the theoretical foundations of control, importance and practical significance in applications, and clarity. The 2019 award was given to B. Asadi Khashooei, D. J. Antunes, W. P. M. H. Heemels for the paper “A Consistent Threshold-Based Policy for Event-Triggered Control”, IEEE Control Systems Letters, Vol. 2, No. 3, pages 447-452, 2018.

Roberto Tempo Best CDC Paper Award

This award is given in honor of Roberto Tempo, 44th President of CSS. The Tempo Award Committee selects the best paper from the previous year’s CDC based on originality, potential impact on any aspect of control theory, technology, or implementation, and for the clarity of writing. The 2019 award was given to Takuya Ikeda and Kenji Kashima for the paper “Sparsity-constrained controllability maximization with application to time-varying control node selection”, published in IEEE Control Systems Letters, Volume 2, No. 3, pages 321-325, 2018.

Award for Technical Excellence in Aerospace Control

The Award for Technical Excellence in Aerospace Control recognizes an outstanding paper or patented idea based on originality of technical innovation, significance/relevance to the aerospace community, aerospace application and potential impact on the practice of aerospace engineering. The award can be conferred on an individual or a team. The winner of the 2019 Award for Technical Excellence in Aerospace Control is Behçet Açikmeşe “for outstanding contributions to convex optimization-based control and its transitions and applications to aerospace applications”.

Control Systems Technology Award

The Control Systems Technology Award recognizes outstanding contributions to control systems technology either in design and implementation, or in project management. This award can be conferred on an individual or a team. The 2019 Award was given to the team formed by: Warren Dixon, Nitin Sharma, Matthew J. Bellman, Alan Hamlet, Christian Cousin, Courtney Rouse, Ryan Downey, Victor Duenas “for closed-loop functional electrical stimulation control methods leading to successful commercialization and personalized rehabilitative treatment options”.

Transition to Practice Award

The Transition to Practice Award recognizes outstanding collaborative scientific interactions between industry or research laboratories and academic communities that transition basic controls and system theory to practical systems for the benefit of society at large. The winner of the 2019 CSS Transition to Practice Award is Alberto Bemporad “for lasting contributions to theory and advanced applications of Model Predictive Control (MPC) culminating in mass production introduction of MPC for powertrain control in the automotive industry”. The Transition to Practice Award comes with an invitation to deliver a plenary lecture at the IEEE Conference on Control Technology and Applications CCTA 2020.

Antonio Ruberti Young Researcher Prize

The Antonio Ruberti Young Researcher Prize recognizes distinguished cutting-edge contributions by a young researcher to the theory or application of systems and control. The 2019 Ruberti prize was given to Aaron Ames, California Institute of Technology, “for fundamental contributions to the nonlinear control of hybrid and safety-critical systems, with application to walking robots and robotic assistive devices that restore mobility”.



Aaron D. Ames is the Bren Professor of Mechanical and Civil Engineering and Control and Dynamical Systems at the California Institute of Technology. He received a B.S. in Mechanical Engineering and a B.A. in Mathematics from the University of St. Thomas in 2001, and he received a M.A. in Mathematics and a Ph.D. in Electrical Engineering and Computer Sciences from UC Berkeley in 2006. Dr. Ames served as a Postdoctoral Scholar in Control and Dynamical Systems at Caltech from 2006 to 2008, and began his faculty career at Texas A&M University in 2008. Prior to joining Caltech, he was an Associate Professor in Mechanical Engineering and Electrical & Computer Engineering at the Georgia Institute of

Technology. At UC Berkeley, he was the recipient of the 2005 Leon O. Chua Award for achievement in nonlinear science and the 2006 Bernard Friedman Memorial Prize in Applied Mathematics. Dr. Ames received the NSF CAREER award in 2010, and is the recipient of the 2015 Donald P. Eckman Award recognizing an outstanding young engineer in the field of automatic control. His research interests span the areas of nonlinear, safety-critical and hybrid control systems, with a special focus on dynamic robotic systems—both formally and through experimental validation. His lab designs, builds and tests novel bipedal robots, prostheses, and exoskeletons with the goal of achieving human-like legged locomotion and translating these capabilities to robotic assistive devices. The application of these ideas range from increased autonomy in robots to improving the locomotion capabilities of the mobility impaired.

Hendrik W. Bode Lecture Prize

The Hendrik W. Bode Lecture Prize recognizes distinguished contributions to control systems science or engineering. The recipient delivers a plenary lecture at the CDC, evaluating a significant contribution to control systems science or engineering. The 2019 Bode Lecture prize was awarded to Lei Guo, Institute of Systems Science, Chinese Academy of Sciences, “for contributions to the field of adaptive control, system identification, adaptive signal processing, stochastic systems, and applied mathematics”.



Lei Guo received his B.S. degree in mathematics from Shandong University in 1982, and Ph.D. degree in control theory from the Chinese Academy of Sciences in 1987. He was a postdoctoral fellow at the Australian National University (1987-1989). Since 1992, he has been a Professor of the Institute of Systems Science at the Chinese Academy of Sciences (CAS). From 2002 to 2012, he was the President of the Academy of Mathematics and Systems Science, CAS. He is currently the Director of the National Center for Mathematics and Interdisciplinary Sciences, CAS. He has worked on problems in adaptive control, system identification, adaptive signal processing, and stochastic systems. His current research interests include control of nonlinear uncertain systems, PID control theory, distributed filtering and estimation, capability of feedback, multi-agent systems, game-based control systems, and complex systems, among others.

IEEE Control Systems Award

The IEEE Control Systems Award is given for outstanding contributions to control systems engineering, science or technology. The 2019 Control Systems Award was given to Pramod P. Khargonekar, University of California, Irvine, “for contributions to robust and optimal control theory”.



Pramod Khargonekar received B. Tech. in electrical engineering in 1977 from the Indian Institute of Technology, Bombay and M.S. in mathematics in 1980 and Ph.D. in electrical engineering in 1981 from the University of Florida. He was been on faculty at the University of Minnesota from 1984 to 1989. He was Chairman of the Department of Electrical Engineering and Computer Science from 1997 to 2001 and also held the position of Claude Shannon Professor at the University of Michigan. From 2001 to 2009, he was Dean of Engineering and Eckis Professor of Electrical and Computer Engineering at the University of Florida till 2016. After a brief role as Deputy Director of Technology at ARPA-E, he served as Assistant Director of the National Science Foundation from 2013 to 2016. He is currently Vice Chancellor for Research and Distinguished Professor of Electrical Engineering and Computer Science at the University of California, Irvine. His research has spanned robust and H-infinity control, control of manufacturing processes/systems, smart electric grids. He is currently exploring the confluence of machine learning and control. He is a recipient of the IEEE W. R. G. Baker Prize Award, the CSS Axelby Best Paper Award, the Hugo Schuck ACC Best Paper Award, NSF Presidential Young Investigator Award, the AAAC Donald Eckman Award, Web of Science Highly Cited Researcher, and the Distinguished Alumnus and Distinguished Service Awards from IIT Bombay. He is a Fellow of IEEE, IFAC, and AAAS.

IEEE Fellows

The grade of Fellow recognizes unusual distinction in the profession and is conferred only by invitation of the IEEE Board of Directors on a person with an extraordinary record of accomplishments in any of the IEEE fields of interest. The accomplishments honored by the grade of Fellow contribute significantly to the advancement of engineering science and technology. In 2019, the following individuals were elected Fellows as evaluated by the Control Systems Society:

- **David Castanon**, for contributions to discrete time stochastic control and information fusion
- **Bart de Schutter**, for contributions to optimization-based control of discrete-event systems, hybrid systems, transportation networks, and infrastructure networks
- **Santosh Devasia**, for contributions to feedforward control of non-minimum-phase systems
- **Nicola Elia**, for fundamental contributions to Networked Control Systems
- **Emilia Fridman**, for contributions to time-delay systems and sampled-data control
- **Keum-shik Hong**, for contributions to adaptive estimation and brain-computer interface techniques using near-infrared light
- **Mihailo Jovanovic**, for contributions to modeling, optimization, and control of large-scale and distributed systems
- **Antonis Papachristodoulou**, for fundamental contributions to theory and applications of Sum of Squares Programming and networked control systems
- **Maurizio Porfiri**, for contributions to networked control systems and biomimetic robotics
- **Murti Salapaka**, for enabling nano-science using control and systems technology for enabling nano-science using control and systems technology
- **Maarten Steinbuch**, for contributions to Advanced Motion Control, Mechatronics, Medical Robotics, and Electric Driving
- **Mario Sznajder**, for outstanding contributions to Multiobjective Robust Control, Robust Identification, and Dynamic Vision
- **Panagiotis Tsiotras**, for fundamental contributions to the application of nonlinear and optimal control to aerospace systems
- **Benjamin Van Roy**, for contributions to the theory and practice of reinforcement learning and approximate dynamic programming
- **Min Wu**, for contribution to the field of advanced control and intelligent automation for complex systems

In addition, the following members of the Control Systems Society were evaluated by other societies and elected fellows of IEEE in 2019: Bassam Bamieh, Jiming Chen, Jie Chen, Dimitar Filev, Emilio Frazzoli, Qing-Long Han, Zeng-Guang Hou, Mark Lantz, Brett Ninness, Evangelos Papadopoulos, Fuchun Sun, Donghua Zhou.

CDCs: Past, Present and Future

The annual IEEE Conference on Decision and Control (CDC) is internationally recognized as the premiere scientific and engineering conference dedicated to the advancement of the theory and practice of systems and control. It brings together an international community of experts to discuss the state-of-the-art, new research results, perspectives of future developments, and innovative applications relevant to decision making, control, automation, and related areas. The CDC is hosted by the IEEE Control Systems Society (CSS) and is organized in cooperation with the Society for Industrial and Applied Mathematics (SIAM), the Institute for Operations Research and the Management Sciences (INFORMS), the Japanese Society for Instrument and Control Engineers (SICE), and the European Control Association (EUCA). Below is the complete list of CDCs (including the next one) with titles, chairs and locations. The proceedings of all past conferences can be found at the IEEE Library, 345 47th Street, New York, NY 10017.

59th IEEE Conference on Decision and Control

GC: Richard D. Braatz and Chung Choo Chung, PC: Jay H. Lee, International Convention Center, Jeju Island, Republic of Korea, December 8-11, 2020

58th IEEE Conference on Decision and Control

GC: Carlos Canudas-de-Wit, PC: Rodolphe Sepulchre, Palais des Congrès et des Expositions Nice Acropolis, Nice, France, 11-13 December, 2019

57th IEEE Conference on Decision and Control

GC: Andrew R. Teel, PC: Magnus Egerstedt, Fontainebleau Miami Beach, Miami, FL, 17-19 December, 2018

56th IEEE Conference on Decision and Control

GC: Rick Middleton and Dragan Netic, PC: Mario Sznaiier, Melbourne Convention Center, Melbourne, Australia, 12-15 December, 2017

55th IEEE Conference on Decision and Control

GC: Alessandro Giua, PC: Francesco Bullo, ARIA Resort & Casino, Las Vegas, NV, USA, 12-14 December, 2016

54th IEEE Conference on Decision and Control

GC: Yoshito Ohta, PC: Mitsuji Sampei, Osaka International Convention Center, Osaka, Japan, 15-18 December, 2015

53rd IEEE Conference on Decision and Control

GC: Faryar Jabbari, PC: Andy Teel, J.W. Marriott Hotel, Los Angeles, CA, 15-17 December, 2014

52nd IEEE Conference on Decision and Control

GC: Thomas Parisini and Roberto Tempo, PC: André L. Tits, Palazzo dei Congressi, Firenze, Italy, 10-13 December, 2013

51st IEEE Conference on Decision and Control

GC: Jay Farrell, PC: Maria Elena Valcher, Grand Wailea, Maui, HI, 11-14 December, 2012

50th IEEE Conference on Decision and Control and Joint European Control Conference

GC: Edwin Chong, GVC: Jay Farrell, Eduardo Camacho, PC: Marios Polycarpou, Hilton Bonnet Creek, Orlando, FL, 12-15 December, 2011

49th IEEE Conference on Decision and Control

GC: Mark W. Spong, PC: Fathi Ghorbel, Hilton Atlanta, Atlanta, GA, 15-17 December, 2010

Joint 48th IEEE Conference on Decision and Control Chinese Control Conference

GC: John Bailieul and Lei Guo, PC: Faryar Jabbari and Daizhan Cheng, Shanghai International Convention Center, Shanghai, China, 16-18 December, 2009

47th IEEE Conference on Decision and Control

GC: Chaouki Abdallah, PC: Thomas Parisini, Fiesta American Grand Coral, Cancun, Mexico, 9-12 December, 2008

46th IEEE Conference on Decision and Control

GC: David Castanon, PC: James Spall, Hilton New Orleans Riverside, New Orleans, LA, 12-14 December, 2007

45th IEEE Conference on Decision and Control

GC: Pradeep Misra, PC: Rick Middleton, Manchester Grand Hyatt, San Diego, CA, 13-15 December, 2006

Joint 44th Conference on Decision and Control, and 2005 European Control Conference

GC: Eduardo Camacho, GVC: Peter Fleming, Steve Yurkovich, PC: Roberto Tempo, Melia Seville, Seville, Spain, 12-15 December, 2005

43rd IEEE Conference on Decision and Control

GC: Christos Cassandras, PC: Wei-bo Gong, The Atlantis, Paradise Islands, The Bahamas, 14-17 December, 2004

42nd IEEE Conference on Decision and Control

GC: Frank Lewis, PC: Chaouki Abdallah, Hyatt Regency Maui, Maui, HI, 9-12 December, 2003

41st IEEE Conference on Decision and Control

GC: Umit Ozguner, PC: Kenneth Loparo, The Venetian Hotel, Las Vegas, NV, 10-13 December, 2002

40th IEEE Conference on Decision and Control

GC: Theodore E. Djaferis, PC: Kevin M. Passino, Hyatt Regency Grand Cypress, Orlando, FL, 4-7 December, 2001

39th IEEE Conference on Decision and Control

GC: Robert R. Bitmead, PC: Cheryl B. Schrader, Sydney Convention and Exhibition Centre, Sydney, NSW Australia; 12-15 December, 2000

38th IEEE Conference on Decision and Control

GC: Edward W. Kamen, PC: Christos Cassandras, Crowne Plaza Hotel and Resort, Phoenix, AZ, 7-10 December, 1999

37th IEEE Conference on Decision and Control

GC: J. Douglas Birdwell, PC: David Castanon, Hyatt Regency Westshore, Tampa FL, 16-18 December, 1998

36th IEEE Conference on Decision and Control
GC: Anthony Michel, PC: Theodore E. Djaferis
Hyatt Regency San Diego, San Diego, CA, 10-12
December, 1997

35th IEEE Conference on Decision and Control
GC: Hidenori Kimura, Co-PCs: Katsuhisa Furuta, J.
Douglas Birdwell, Portopia Hotel and International
Conference Center, Kobe, Japan, 11-13 December,
1996

34th IEEE Conference on Decision and Control
GC: Panos J. Antsaklis, PC: Edward W. Kamen,
New Orleans Hilton Riverside, New Orleans, LA, 13-
15 December 1995

33rd IEEE Conference on Decision and Control
GC: Michael K. Masten, PC: N. Harris McClamroch,
Buena Vista Palace, Lake Buena Vista, FL, 14-16
December, 1994

32nd IEEE Conference on Decision and Control
GC: Raymond A. DeCarlo, PC: Peter Ramadge,
Marriott River Center, San Antonio, TX, 15-17
December, 1993

31st IEEE Conference on Decision and Control
GC: Tamer Basar, PC: Sergio Verdu, Westin La
Paloma, Tucson, AZ, 16-18 December, 1992

30th IEEE Conference on Decision and Control
GC: Derek Atherton, PC: Panos J. Antsaklis,
Metropole Hotel, Brighton, ENGLAND, 11-13
December, 1991

29th IEEE Conference on Decision and Control
GC: Charles J. Herget, PC: Raymond A. DeCarlo,
Hilton Hawaiian Village, Honolulu, HI, 5-7 December,
1990

28th IEEE Conference on Decision and Control
GC: Leonard Shaw, PC: Tamer Basar, Hyatt Regency
Tampa Hotel, Tampa, FL, 13-15 December, 1989

27th IEEE Conference on Decision and Control
GC: Michael P. Polis, PC: William E. Schmitendorf,
Hyatt Regency Austin on Town Lake, Austin, TX, 7-9
December, 1988

26th IEEE Conference on Decision and Control
GC: William S. Levine, PC: John Baillieul,
Westin Century-Plaza Hotel, Los Angeles, CA, 9-11
December, 1987

25th IEEE Conference on Decision and Control
GC: Anthony Ephremides, Spyros Tzafestas,
PC: H. Vincent Poor, Atheneum Intercontinental
Athens, Greece; 10-12 December, 1986

24th IEEE Conference on Decision and Control
GC: Gene F. Franklin, PC: Anthony N. Michel,
Bonaventure Hotel & Spa, Ft. Lauderdale, FL, 11-13
December, 1985

23rd IEEE Conference on Decision and Control
GC: Abraham H. Haddad, PC: Michael P. Polis,
Las Vegas Hilton, Las Vegas, NV, 12-14 December,
1984

22nd IEEE Conference on Decision and Control
GC: James L. Melsa, PC: Steven I. Marcus,
Marriott Hotel, San Antonio, TX, 14-16 December,
1983

21st IEEE Conference on Decision and Control
GC: Alexander H. Levis, PC: William S. Levine,
Holiday Inn - International Drive, Orlando, FL, 8-10
December, 1982

20th IEEE Conference on Decision and Control
including the **20th Symposium on Adaptive
Processes**, GC: William R. Perkins, PC: Abraham H.
Haddad, SC: Kumpati S. Narendra, Vacation Village
Hotel, San Diego, CA; 16-18 December, 1981

19th IEEE Conference on Decision and Control
including the **19th Symposium on Adaptive
Processes**, GC: Pierre R. Belanger, PC: David L.
Kleinman, SC: Richard V. Monopoli, The Regent
Hotel, Albuquerque, NM; 10-12 December, 1980

18th IEEE Conference on Decision and Control
including the **18th Symposium on Adaptive
Processes**, GC: Stephen Kahne, PC: Alexander H.
Levis, SC: Yaakov Bar-Shalom, Galt Ocean Mile Hotel,
Ft. Lauderdale, FL, 12-14 December, 1979

1978 IEEE Conference on Decision and Control
including the **17th Symposium on Adaptive
Processes**, GC: Robert E. Larson, PC: Alan S. Willsky,
SC: Jerry M. Mendel, Islandia Hyatt House Hotel, San
Diego, CA, 10-12 January, 1979

1977 IEEE Conference on Decision and Control
including the **16th Symposium on Adaptive
Processes**, GC: K. S. Fu, PC: H. Sorenson, SC: T.
Pavlidis, Fairmont Hotel, New Orleans, LA, 7-9
December, 1977

1976 IEEE Conference on Decision and Control
including the **15th Symposium on Adaptive
Processes**, GC: M. Athans, PC: E. R. Barnes, SC: T.
Pavlidis, Sheraton-Sand Key Hotel, Clearwater, FL, 1-
3 December, 1976

1975 IEEE Conference on Decision and Control
including the **14th Symposium on Adaptive**

Processes, GC: J. B. Cruz, Jr., PC: J. B. Pearson, SC: G. Stein, Hyatt Regency, Houston, TX, 10-12 December, 1975

1974 IEEE Conference on Decision and Control including the **13th Symposium on Adaptive Processes**, GC: Elliot Axelband, PC: Stephen Kahne, SC: David P. Lindorff, Del Webb's Towne House, Phoenix, AZ; 20-22 November, 1974

1973 IEEE Conference on Decision and Control including the **12th Symposium on Adaptive Processes**, GC: J. S. Meditch, PC: D. G. Luenberger, SC: L. A. Gerhardt, Sheraton-Harbor Island Hotel, San Diego, CA; 5-7 December, 1973

1972 IEEE Conference on Decision and Control including the **11th Symposium on Adaptive Processes**, GC: J. M. Mendel, PC: Y. C. Ho, SC: G. N. Saridis, Fontainebleau Motor Hotel, New Orleans, LA; 13-15 December, 1972

1971 IEEE Conference on Decision and Control including the **10th Symposium on Adaptive Processes**, GC: J. T. Tou, PC: S. K. Mitter, SC: J. M. Mendel, Americana Hotel, Miami Beach, FL, 15-17 December, 1971

1970 Symposium on Adaptive Processes (9th) Decision and Control, GC, PC: D. J. Lainiotis, University of Texas at Austin, Austin, TX, 7-9 December, 1970

IEEE Symposium on Adaptive Processes GC: J. B. Lewis, PC: G. J. McMurty, Pennsylvania State University, PA; 17-19 November, 1969

IEEE Symposium on Adaptive Processes GC, PC: J. M. Mendel, UCLA, Los Angeles, CA, 16-18 December, 1968

Symposium on Adaptive Processes; part of NEC GC: F. M. Waltz, PC: P. E. Mayes, International Amphitheater, Chicago, IL, 23-25 October, 1967

Symposium on Adaptive Processes; part of NEC GC: F. N. Bailey, PC: J. C. Hancock, McCormick Place, Chicago, IL, 3-5 October, 1966

Symposium on Adaptive Processes; part of NEC GC: E. C. Jones, Jr., PC: G. Brown, McCormick Place, Chicago, IL, 25-27 October, 1965

Symposium on Adaptive Processes; part of NEC GC: F. J. Mullin, McCormick Place, Chicago, IL, 19-21 October, 1964

Symposium on Adaptive Processes; part of NEC GC: L. Kanal, McCormick Place, Chicago, IL, 28-29 October, 1963

Discrete Adaptive Processes Symposium and Panel Discussion (IEEE); part of **3rd JACC** GC: J. Sklansky, New York University, New York City, NY, 29 June, 196

PROGRAM AT A GLANCE

CDC 2019 Technical Program Wednesday December 11, 2019

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6	Track 7	Track 8	Track 9	Track 10	Track 11	Track 12	Track 13	Track 14	Track 15	Track 16	Track 17	Track 18	Track 19	Track 20	Track 21	Track 22	Track 23	Track 24	Track 25	Track 26
08:30-09:30 WeSP1 Apollon													08:30-09:30 WeSP2 Athena												
Genetic Circuit Engineering Meets Control Theory													Equivariant Observers: Robust Nonlinear State Estimation for Robotic Systems												

10:00-12:00 WeA0 1	10:00-12:00 WeA0 2	10:00-12:00 WeA0 3	10:00-12:00 WeA0 4	10:00-12:00 WeA0 5	10:00-12:00 WeA0 6	10:00-12:00 WeA0 7	10:00-12:00 WeA0 8	10:00-12:00 WeA0 9	10:00-12:00 WeA1 0	10:00-12:00 WeA1 1	10:00-12:00 WeA1 2	10:00-12:00 WeA1 3	10:00-12:00 WeA1 4	10:00-12:00 WeA1 5	10:00-12:00 WeA1 6	10:00-12:00 WeA1 7	10:00-12:00 WeA1 8	10:00-12:00 WeA1 9	10:00-12:00 WeA2 0	10:00-12:00 WeA2 1	10:00-12:00 WeA2 2	10:00-12:00 WeA2 3	10:00-12:00 WeA2 4	10:00-12:00 WeA2 5	10:00-12:00 WeA2 6
Méditerranée 1	Méditerranée 2	Méditerranée 3	Méditerranée 4	Méditerranée 5	Méditerranée 6	Méditerranée 7	Méditerranée 8	Méditerranée 9	Méditerranée 0	Gallieni 1	Gallieni 2	Gallieni 3	Gallieni 4	Rhodes GH 5	Rhodes AB 6	Rhodes CD 7	Rhodes EF 8	Gallieni 9	Rhodes 10	Risso 11	Risso 12	Risso 13	Risso 14	Herme 15	Athena 16
Biological Systems I	Delay Systems I	Adaptive Control I	Boolean Control Networks	Control of Systems Subject to Constraints	Sampled-Data Control	Robotics I	Estimation and Control of PDE Systems I	Mean-Field Games I	Models and Control Methods for Traffic Networks	Observers for Linear Systems	Dynamics, Control and Information Processing of Quantum Systems	Predictive Control for Linear Systems I	Lyapunov Methods I	Geometric Optimal Control Theory and Applications	Optimization I	Switched Systems I	Observers for Nonlinear Systems I	Advances in Nonlinear Filtering and Stochastic Control with Partial Information I	Event-Triggered and Self-Triggered Control Based on Optimization Methods	Network Analysis and Control I	Identification I	Learning-Based Controller Synthesis	Learning I	Athena Multi-Agent Systems I	Apollon Cybernetics: Control of Living Cells

56

14:00-16:00 WeB0 1	14:00-16:00 WeB0 2	14:00-16:00 WeB0 3	14:00-16:00 WeB0 4	14:00-16:00 WeB0 5	14:00-16:00 WeB0 6	14:00-16:00 WeB0 7	14:00-16:00 WeB0 8	14:00-16:00 WeB0 9	14:00-16:00 WeB1 0	14:00-16:00 WeB1 1	14:00-16:00 WeB1 2	14:00-16:00 WeB1 3	14:00-16:00 WeB1 4	14:00-16:00 WeB1 5	14:00-16:00 WeB1 6	14:00-16:00 WeB1 7	14:00-16:00 WeB1 8	14:00-16:00 WeB1 9	14:00-16:00 WeB2 0	14:00-16:00 WeB2 1	14:00-16:00 WeB2 2	14:00-16:00 WeB2 3	14:00-16:00 WeB2 4	14:00-16:00 WeB2 5	
Méditerranée 1	Méditerranée 2	Méditerranée 3	Méditerranée 4	Méditerranée 5	Méditerranée 6	Méditerranée 7	Méditerranée 8	Méditerranée 9	Méditerranée 0	Gallieni 1	Gallieni 2	Gallieni 3	Gallieni 4	Rhodes GH 5	Rhodes AB 6	Rhodes CD 7	Rhodes EF 8	Gallieni 9	Rhodes 10	Risso 11	Risso 12	Risso 13	Risso 14	Herme 15	Athena 16
Control Systems for Biology: Methodologies and Applications	Delay Systems II	Adaptive Control II	Supervisory Control	Flexible Control and Estimation Methods	Control of Networks I	Robotics II	Estimation and Control of PDE Systems II	Mean-Field Games II	Orchestration of Movement of Smart Vehicles in Smart Cities	Markov Processes I	Quantum Information and Control	Predictive Control for Linear Systems II	Lyapunov Methods II	Optimality Conditions for Control Problems I	Optimization II	Switched Systems II	Observers for Nonlinear Systems II	Advances in Nonlinear Filtering and Stochastic Control with Partial Information	Event-Triggered and Based on Lyapunov Methods	Network Analysis and Control II	Identification II	Model Learning for Control	Learning II	Athena Multi-Agent Systems II	

																n II									
16:30-18:30 WeC0 1	16:30-18:30 WeC0 2	16:30-18:30 WeC0 3	16:30-18:30 WeC0 4	16:30-18:30 WeC0 5	16:30-18:30 WeC0 6	16:30-18:30 WeC0 7	16:30-18:30 WeC0 8	16:30-18:30 WeC0 9	16:30-18:30 WeC1 0	16:30-18:30 WeC1 1	16:30-18:30 WeC1 2	16:30-18:30 WeC1 3	16:30-18:30 WeC1 4	16:30-18:30 WeC1 5	16:30-18:30 WeC1 6	16:30-18:30 WeC1 7	16:30-18:30 WeC1 8	16:30-18:30 WeC1 9	16:30-18:30 WeC2 0	16:30-18:30 WeC2 1	16:30-18:30 WeC2 2	16:30-18:30 WeC2 3	16:30-18:30 WeC2 4	16:30-18:30 WeC2 5	
Méditerranée 1	Méditerranée 2	Méditerranée 5	Méditerranée A2	Méditerranée C4	Méditerranée A3	Méditerranée A1	Méditerranée 3	Méditerranée B12	Méditerranée C12	Gallieni 1	Gallieni 2	Gallieni 4	Gallieni 7	Rhodes GH	Rhodes AB	Rhodes CD	Rhodes EF	Gallieni 5	Rhodes 10	Risso 6	Risso 7	Risso 8	Hermès	Athènes	
Biological Rhythms and Oscillators	Power Systems Applications	Adaptive Control III	Discrete Event Systems	Constrained Control	Control of Networks II	Robotics III	Estimation and Control of PDE Systems III	Game Theory I	New Mobility Systems	Markov Processes II	Analytic and Geometric Tools in Quantum Control	Predictive Control for Nonlinear Systems	Lyapunov Methods III	Optimality Conditions for Control Problems II	Optimization III	Switched Systems III	Observers for Nonlinear Systems III	Stochastic Systems I	Event-Triggered and Self-Triggered Control for Distributed Systems	Sensor and Control Networks	Identification III	Learning-Based Model Predictive Control	Learning III	Learning III	Multi-Agent Systems III

CDC 2019 Technical Program Thursday December 12, 2019

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6	Track 7	Track 8	Track 9	Track 10	Track 11	Track 12	Track 13	Track 14	Track 15	Track 16	Track 17	Track 18	Track 19	Track 20	Track 21	Track 22	Track 23	Track 24	Track 25	Track 26
08:30-09:30 ThSP1 Apollon													08:30-09:30 ThSP2 Athena												
Distributed Machine Learning Over Networks													The Curse of Linearity and Time-Invariance												

10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00
ThA01	ThA02	ThA03	ThA04	ThA05	ThA06	ThA07	ThA08	ThA09	ThA10	ThA11	ThA12	ThA13	ThA14	ThA15	ThA16	ThA17	ThA18	ThA19	ThA20	ThA21	ThA22	ThA23	ThA24	ThA25	ThA26
Méditerranée 1	Méditerranée 2	Méditerranée 5	Méditerranée A2	Méditerranée C4	Méditerranée A3	Méditerranée A1	Méditerranée 3	Méditerranée B12	Méditerranée C12	Gallieni 1	Gallieni 2	Gallieni 4	Gallieni 7	Rhodes GH	Rhodes AB	Rhodes CD	Rhodes EF	Gallieni 5	Rhodes 10	Risso 6	Risso 7	Risso 8	Hermès	Athènes	Apollo
Control Methods for Biology and Bioprocesses	Linear Matrix Inequalities	Adaptive Control IV	Fault Detection and Diagnosis	Building Automation Algorithms I	Optimization Algorithms	Robotics IV	Estimation and Control of PDE Systems IV	Game Theory II	Novel Approaches to Traffic Estimation and Control Using Automated Vehicles	Estimation I	Research and Development on Control for Fusion Facilities	Smart Grid I	Lyapunov Methods IV	Optimal Control I	Optimization IV	Switched Systems IV	Estimation and Observer Design in Nonlinear Systems	Stochastic Systems II	Distributed Control I	Networked Control Systems I	Identification IV	Machine Learning in Control, Theory and Applications I	Machine Learning I	Multi-Agent Systems IV	Self-Tuning and Reinforcement Learning

58

14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00	14:00-16:00
ThB01	ThB02	ThB03	ThB04	ThB05	ThB06	ThB07	ThB08	ThB09	ThB10	ThB11	ThB12	ThB13	ThB14	ThB15	ThB16	ThB17	ThB18	ThB19	ThB20	ThB21	ThB22	ThB23	ThB24	ThB25	
Méditerranée 1	Méditerranée 2	Méditerranée 5	Méditerranée A2	Méditerranée C4	Méditerranée A3	Méditerranée A1	Méditerranée 3	Méditerranée B12	Méditerranée C12	Gallieni 1	Gallieni 2	Gallieni 4	Gallieni 7	Rhodes GH	Rhodes AB	Rhodes CD	Rhodes EF	Gallieni 5	Rhodes 10	Risso 6	Risso 7	Risso 8	Hermès	Athènes	Decen
Biological Applications	Linear Parameter Varying Systems	Autonomous Systems I	Fault Tolerant Systems	Distributed Sensing, Control and Automation	Optimization Algorithms II	Robotics V	Estimation and Control of PDE Systems V	Game Theory III	Control for Large Scale Traffic Networks	Estimation II	Communication Networks	Control and Demand Response in Smart Grids	Nonlinear Feedback	Optimal Control II	Numerical Methods for Real-Time Model Predictive Control I	Formal Verification and Synthesis I	Security in Cyber-Physical Systems I	Stochastic Systems III	Distributed Control II	Networked Control Systems II	Theoretical Foundations for the Representation and Identification of Dynamic Networks I	Machine Learning in Control, Theory and Applications II	Machine Learning II	Decentralized Control	

16:30-18:30 ThC01 Méditerranée 1 Control Theory in Neuroscience	16:30-18:30 ThC02 Méditerranée 2 Control Applications	16:30-18:30 ThC03 Méditerranée 5 Autonomous Systems II	16:30-18:30 ThC04 Méditerranée A2 Fuzzy Systems and Evolutionary Computing	16:30-18:30 ThC05 Méditerranée C4 Energy Systems	16:30-18:30 ThC06 Méditerranée A3 Optimization Algorithms III	16:30-18:30 ThC07 Méditerranée A1 Aerospace	16:30-18:30 ThC08 Méditerranée 3 Distributed Parameter Systems I	16:30-18:30 ThC09 Méditerranée B12 Game Theory IV	16:30-18:30 ThC10 Méditerranée C12 Modeling, Estimation, and Control of Large-Scale Network Systems	16:30-18:30 ThC11 Galliéni 1 Estimation III	16:30-18:30 ThC12 Galliéni 2 Networks	16:30-18:30 ThC13 Galliéni 4 Smart Grid II	16:30-18:30 ThC14 Galliéni 7 Time-Varying Systems	16:30-18:30 ThC15 Rhodes GH Optimal Control III	16:30-18:30 ThC16 Rhodes AB Numerical Methods for Real-Time Model Predictive Control II	16:30-18:30 ThC17 Rhodes CD Formal Verification and Synthesis II	16:30-18:30 ThC18 Rhodes EF Security in Cyber-Physical Systems II	16:30-18:30 ThC19 Galliéni 5 Stochastic Systems IV	16:30-18:30 ThC20 Rhodes 10 Distributed Control III	16:30-18:30 ThC21 Risso 6 Networked Control Systems III	16:30-18:30 ThC22 Risso 7 Theoretical Foundations for the Representation and Identification of Dynamic Networks II	16:30-18:30 ThC23 Risso 8 Machine Learning in Complex Networks I	16:30-18:30 ThC24 Hermès Recent Advances in Iterative Learning Control and Repetitive Learning Control: From Theory to Applications	16:30-18:30 ThC25 Athena Large-Scale Systems	16:30-18:30 ThB26 Apollo Autonomous Vehicles and Traffic Control in Mixed Autonomy Environments
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CDC 2019 Technical Program Friday December 13, 2019

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6	Track 7	Track 8	Track 9	Track 10	Track 11	Track 12	Track 13	Track 14	Track 15	Track 16	Track 17	Track 18	Track 19	Track 20	Track 21	Track 22	Track 23	Track 24	Track 25	Track 26
08:30-09:30 FrP1 Apollon Feedback and Uncertainty: Some Basic Problems and Theorems																									

10:00-12:00 FrA01 Méditerranée 1 Nonlinear Modeling and Estimation in Biomedical Systems	10:00-12:00 FrA02 Méditerranée 2 Linear Systems I	10:00-12:00 FrA03 Méditerranée 5 Autonomous Vehicles	10:00-12:00 FrA04 Méditerranée A2 Modern Computational and Algorithmic Challenges on Switched Systems	10:00-12:00 FrA05 Méditerranée C4 Robust Control I	10:00-12:00 FrA06 Méditerranée A3 Optimization Algorithms IV	10:00-12:00 FrA07 Méditerranée A1 Flight Control	10:00-12:00 FrA08 Méditerranée 3 Distributed Parameter Systems II	10:00-12:00 FrA09 Méditerranée B12 Game Theory V	10:00-12:00 FrA10 Méditerranée C12 Sliding-Mode Control I	10:00-12:00 FrA11 Gallieni 1 Estimation IV	10:00-12:00 FrA12 Gallieni 2 System Cones and Phase Bounded Systems	10:00-12:00 FrA13 Gallieni 4 Uncertain Systems I	10:00-12:00 FrA14 Gallieni 7 Stability of Nonlinear Systems I	10:00-12:00 FrA15 Rhodes GH Optimal Control IV	10:00-12:00 FrA16 Rhodes AB Real-Time Optimization Methods for Power Systems	10:00-12:00 FrA17 Rhodes CD Formal Methods in Control	10:00-12:00 FrA18 Rhodes EF Hybrid Systems I	10:00-12:00 FrA19 Gallieni 5 Stochastic Optimal Control I	10:00-12:00 FrA20 Rhodes 10 Distributed Control IV	10:00-12:00 FrA21 Risso 6 Networked Control Systems IV	10:00-12:00 FrA22 Risso 7 Nonlinear Systems Identification I	10:00-12:00 FrA23 Risso 8 Machine Learning in Complex Networks II	10:00-12:00 FrA24 Herms Iterative Learning Control I	10:00-12:00 FrA25 Athena Power Systems I	10:00-12:00 FrA26 Apollo Payoff Dynamics and Higher-Order Learning in Population Games
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60

14:00-16:00 FrB01 Méditerranée 1 Biomolecular Systems	14:00-16:00 FrB02 Méditerranée 2 Linear Systems II	14:00-16:00 FrB03 Méditerranée 5 Automotive Control I	14:00-16:00 FrB04 Méditerranée A2 Analysis and Control Methods to Improve Resilience of Discrete-Event Systems	14:00-16:00 FrB05 Méditerranée C4 Robust Control II	14:00-16:00 FrB06 Méditerranée A3 Neural Networks	14:00-16:00 FrB07 Méditerranée A1 Methodologies for the Design and Control of Miniaturized Mechatronic Systems	14:00-16:00 FrB08 Méditerranée 3 Structure Preserving Discretization of PDEs for Control and Applications	14:00-16:00 FrB09 Méditerranée B12 Game Theory VI	14:00-16:00 FrB10 Méditerranée C12 Sliding-Mode Control II	14:00-16:00 FrB11 Gallieni 1 Estimation V	14:00-16:00 FrB12 Gallieni 2 Advances in Constructive Techniques and Use of Lyapunov Functions	14:00-16:00 FrB13 Gallieni 4 Uncertain Systems II	14:00-16:00 FrB14 Gallieni 7 Stability of Nonlinear Systems II	14:00-16:00 FrB15 Rhodes GH Optimal Control V	14:00-16:00 FrB16 Rhodes AB Low-Rank Approximation	14:00-16:00 FrB17 Rhodes CD Encrypted Control and Optimization	14:00-16:00 FrB18 Rhodes EF Hybrid Systems II	14:00-16:00 FrB19 Gallieni 5 Stochastic Optimal Control II	14:00-16:00 FrB20 Rhodes 10 Cooperative Control I	14:00-16:00 FrB21 Risso 6 Networked Control Systems V	14:00-16:00 FrB22 Risso 7 Nonlinear Systems Identification II	14:00-16:00 FrB23 Risso 8 Large-Scale Distributed Optimization and Decentralized Control I	14:00-16:00 FrB24 Herms Iterative Learning Control II	14:00-16:00 FrB25 Athena Power Systems II
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16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30	16:30-18:30
FrC01	FrC02	FrC03	FrC04	FrC05	FrC06	FrC07	FrC08	FrC09	FrC10	FrC11	FrC12	FrC13	FrC14	FrC15	FrC16	FrC17	FrC18	FrC19	FrC20	FrC21	FrC22	FrC23	FrC24	FrC25
Méditerranée 1	Méditerranée 2	Méditerranée 5	Méditerranée A2	Méditerranée C4	Méditerranée A3	Méditerranée A1	Méditerranée 3	Méditerranée B12	Méditerranée C12	Galliéni 1	Galliéni 2	Galliéni 4	Galliéni 7	Rhodes GH	Rhodes AB	Rhodes CD	Rhodes EF	Galliéni 5	Rhodes 10	Risso 6	Risso 7	Risso 8	Hermès	Athènes
Biological Systems II	Linear Systems III	Automotive Control II	Cyber-Security of Discrete-Event Systems	Robust Control III	Computational Methods	Mechatronics	Model Reduction	Sensor Networks	Sliding-Mode Control III	Multi-Sensor Fusion Techniques for State Estimation in Navigation	Analysis and Control of Systems with Hysteresis	Uncertain Systems III	Stability of Nonlinear Systems III	Geometric Methods	Numerical Algorithms	Power Electronics	Stability of Hybrid and Nonlinear Systems	Stochastic Optimal Control III	Cooperative Control II	Networked Control Systems VI	Maritime Control and Autonomous Vehicles	Large-Scale Distributed Optimization and Decentralized Control II	PID Control	Power Systems III

TECHNICAL PROGRAM

Content List of 2019 IEEE 58th Conference on Decision and Control (CDC)

Technical Program for Wednesday December 11, 2019

WeSP1	Apollon
Genetic Circuit Engineering Meets Control Theory (Semiplenary Session)	
Chair: Khammash, Mustafa H.	ETH Zurich
08:30-09:30	WeSP1.1
<i>Genetic Circuit Engineering Meets Control Theory*</i> .	
Del Vecchio, Domitilla	Massachusetts Institute of Technology
WeSP2	Athéna
Equivariant Observers: Robust Nonlinear State Estimation for Robotic Systems (Semiplenary Session)	
Chair: Johansson, Karl H.	KTH Royal Institute of Technology
08:30-09:30	WeSP2.1
<i>Equivariant Observers: Robust Nonlinear State Estimation for Robotic Systems*</i> .	
Mahony, Robert	Australian National University
WeA01	Méditerranée 1
Biological Systems I (Regular Session)	
Chair: Gouze, Jean-Luc	INRIA
Co-Chair: Margaliot, Michael	Tel Aviv University
10:00-10:20	WeA01.1
<i>Projection-Based Order Reduction of a Nonlinear Biophysical Neuronal Network Model</i> , pp. 1-6.	
Lehtimäki, Mikko	Tampere University
Paunonen, Lassi	Tampere University
Linne, Marja-Leena	Tampere University
10:20-10:40	WeA01.2
<i>Productivity Analysis and Non-Linear Gain Scheduling Approach for Multi-Species Bioprocesses with Product Inhibition</i> , pp. 7-12.	
Skupin, Piotr	Silesian University of Technology
Rapaport, Alain	University of Montpellier, INRA, Montpellier SupAgro
10:40-11:00	WeA01.3
<i>Robust Control of a Competitive Environment in the Chemostat Using Discontinuous Control Laws</i> , pp. 13-18.	
dos Reis de Souza, Alex	INRIA Lille Nord Europe
Efimov, Denis	INRIA
Polyakov, Andrey	INRIA Lille Nord-Europe
Gouze, Jean-Luc	INRIA
11:00-11:20	WeA01.4
<i>Optimal Reporter Placement in Sparsely Measured Genetic Networks Using the Koopman Operator</i> , pp. 19-24.	
Hasnain, Aqib	University of California, Santa Barbara
Boddupalli, Nibodh	University of California, Santa Barbara
Yeung, Enoch	University of California, Santa Barbara
11:20-11:40	WeA01.5
<i>Ribosome Flow Model with Nonhomogeneous Site Sizes</i> , pp. 25-30.	
Bar-Shalom, Eyal	Tel Aviv University
Ovseevich, Alexander	Russian Academy of Sciences
Margaliot, Michael	Tel Aviv University
11:40-12:00	WeA01.6
<i>Singular Regimes for the Maximization of Metabolite Production</i> , pp. 31-36.	
Yabo, Agustín Gabriel	INRIA
Caillaud, Jean-Baptiste	Université Côte d'Azur, CNRS, INRIA, LJAD
Gouze, Jean-Luc	INRIA
WeA02	Méditerranée 2
Delay Systems I (Regular Session)	
Chair: Pepe, Pierdomenico	University of L'Aquila
Co-Chair: De Iuliis, Vittorio	University of L'Aquila
10:00-10:20	WeA02.1
<i>On the Stability of Coupled Differential-Difference Systems with Multiple Time-Varying Delays: A Positivity-Based Approach</i> , pp. 37-42.	
De Iuliis, Vittorio	University of L'Aquila
D'Innocenzo, Alessandro	University of L'Aquila
Germani, Alfredo	University of L'Aquila
Manes, Costanzo	University of L'Aquila
10:20-10:40	WeA02.2
<i>A Relaxed Lyapunov-Krasovskii Condition for Global Exponential Stability of Lipschitz Time-Delay Systems</i> , pp. 43-48.	
Chaillet, Antoine	CentraleSupélec
Orlowski, Jakub	CentraleSupélec, Université Paris-Saclay
Pepe, Pierdomenico	University of L'Aquila
10:40-11:00	WeA02.3
<i>Pseudo Predictor Feedback Stabilization of Linear Systems with Both State and Input Delays</i> , pp. 49-53.	
Zhang, Zhe	Harbin Institute of Technology
Zhou, Bin	Harbin Institute of Technology
Michiels, Wim	Katholieke Universiteit Leuven
11:00-11:20	WeA02.4
<i>Exact Delay Consensus Margin of First-Order Agents under PID Protocol</i> , pp. 54-59.	
Ma, Dan	Northeastern University
Chen, Jianqi	City University of Hong Kong
Lu, Renquan	Guangdong University of Technology
Chen, Jie	City University of Hong Kong
11:20-11:40	WeA02.5
<i>Cadence Tracking for Switched FES Cycling with Unknown Input Delay</i> , pp. 60-65.	
Allen, Brendon C.	University of Florida
Cousin, Christian	University of Florida
Rouse, Courtney	University of Florida
Dixon, Warren E.	University of Florida

11:40-12:00	WeA02.6
<i>Derivative-Dependent Control of Stochastic Systems Via Delayed Feedback Implementation</i> , pp. 66-71.	
Zhang, Jin	Tel Aviv University
Fridman, Emilia	Tel Aviv University
WeA03	Méditerranée 5
Adaptive Control I (Regular Session)	
Chair: Baldi, Simone	Delft University of Technology
Co-Chair: Dugard, Luc	CNRS-Grenoble INP
10:00-10:20	WeA03.1
<i>The Role of Uncertainty in Adaptive Control of Switched Euler-Lagrange Systems</i> , pp. 72-77.	
Roy, Spadan	Delft University of Technology
Baldi, Simone	School of Mathematics
10:20-10:40	WeA03.2
<i>Why One Should Use Youla-Kucera Parametrization in Adaptive Feedforward Noise Attenuation?</i> , pp. 78-83.	
Landau, Ioan Dore	GIPSA-LAB, Control Dept
Airimitoaie, Tudor-Bogdan	University of Bordeaux
Melendez, Raul	GIPSA-LAB
Dugard, Luc	CNRS
10:40-11:00	WeA03.3
<i>Adaptive Set-Point Regulation Using Multiple Estimators</i> , pp. 84-89.	
Shahab, Mohamad T.	University of Waterloo
Miller, Daniel E.	University of Waterloo
11:00-11:20	WeA03.4
<i>Passivity-Based Adaptive Control of Quadrotors with Mass and Moment of Inertia Uncertainties</i> , pp. 90-95.	
Song, Jeyoung	DGIST
Chang, Dong Eui	Korea Advanced Institute of Science and Technology
Eun, Yongsoon	DGIST
11:20-11:40	WeA03.5
<i>A Model Reference Adaptive Continuous Sliding-Mode Control</i> , pp. 96-101.	
Franco Jaramillo, José Roberto	Tecnológico Nacional de México/I.T. La Laguna
Ríos, Héctor	CONACYT-Tecnológico Nacional de México/I.T. La Laguna
Ferreira de Loza, Alejandra	Universidad Nacional Autónoma de México
11:40-12:00	WeA03.6
<i>Youla-Kucera Adaptive Feedback Disturbance Rejection in the Presence of Plant Uncertainties</i> , pp. 102-107.	
Vau, Bernard	ENS Paris-Saclay
Landau, Ioan Dore	GIPSA-LAB
WeA04	Méditerranée A2
Boolean Control Networks (Regular Session)	
Chair: Valcher, Maria Elena	University of Padova
Co-Chair: Glielmo, Luigi	University of Sannio
10:00-10:20	WeA04.1
<i>Synthesis for Controllability and Observability of Logical</i>	

Control Networks, pp. 108-113.

Zhang, Kuize	KTH Royal Institute of Technology
Johansson, Karl H.	KTH Royal Institute of Technology

10:20-10:40 WeA04.2

An Improved Algorithm for Stabilization of Boolean Networks Via Pinning Control, pp. 114-119.

Zhang, Zhihua	Technische Universität Kaiserslautern
Leifeld, Thomas	Technische Universität Kaiserslautern
Zhang, Ping	Technische Universität Kaiserslautern

10:40-11:00 WeA04.3

Output Tracking Control Design of Switched Boolean Control Networks, pp. 120-125.

Yerudkar, Amol	University of Sannio
Del Vecchio, Carmen	University of Sannio
Glielmo, Luigi	University of Sannio

11:00-11:20 WeA04.4

Observability and Reconstructibility of Probabilistic Boolean Networks, pp. 126-131.

Fornasini, Ettore	University of Padova
Valcher, Maria Elena	University of Padova

11:20-11:40 WeA04.5

Idle Vehicle Rebalancing in Semiconductor Fabrication Using Factorized Graph Neural Network Reinforcement Learning, pp. 132-138.

Ahn, Kyuree	Korea Advanced Institute of Science and Technology
Park, Jinkyoo	Korea Advanced Institute of Science and Technology

11:40-12:00 WeA04.6

Detection and Mitigation of Attacks in Nonlinear Stochastic System Using Modified Chi-Square Detector, pp. 139-144.

Bhowmick, Chandreyee	Missouri University of Science and Technology
Jagannathan, Sarangapani	Missouri University of Science and Technology

WeA05 Méditerranée C4

Control of Systems Subject to Constraints (Invited Session)

Chair: Turner, Matthew C.	University of Leicester
Co-Chair: Gomes da Silva Jr, Joao Manoel	Universidade Federal do Rio Grande do Sul (UFRGS)
Organizer: Tarbouriech, Sophie	LAAS-CNRS
Organizer: Gomes da Silva Jr, Joao Manoel	Universidade Federal do Rio Grande do Sul (UFRGS)

10:00-10:20 WeA05.1

Model-Free Global Stabilization of Continuous-Time Linear Systems with Saturating Actuators Using Adaptive Dynamic Programming (I), pp. 145-150.

Rizvi, Syed Ali Asad	University of Virginia
Lin, Zongli	University of Virginia

10:20-10:40 WeA05.2

Single Harmonic Based Model Predictive Control for Tracking (I), pp. 151-156.

Krupa, Pablo	University of Seville
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Pereira, Mario	University of Seville
Limon, Daniel	University of Seville
Alamo, Teodoro	University of Seville

10:40-11:00 WeA05.3

Economic Model-Predictive Control Strategies for Aircraft Deep-Stall Recovery with Stability Guarantees (I), pp. 157-162.

Cunis, Torbjørn	ONERA - French Aerospace Lab
Liao-McPherson, Dominic	University of Michigan
Condomines, Jean-Philippe	ENAC
Burlion, Laurent	Rutgers, State University of New Jersey
Kolmanovsky, Ilya V.	University of Michigan

11:00-11:20 WeA05.4

Analysis of MIMO Lurie Systems with Slope Restricted Nonlinearities Using Concepts of External Positivity (I), pp. 163-168.

Turner, Matthew C.	University of Leicester
Drummond, Ross	University of Oxford

11:20-11:40 WeA05.5

Regional Stability of Discrete-Time Linear Systems Subject to Asymmetric Input Saturation (I), pp. 169-174.

Broering Groff, Leonardo	Universidade Federal do Rio Grande do Sul (UFRGS)
Gomes da Silva Jr, Joao Manoel	Universidade Federal do Rio Grande do Sul (UFRGS)
Valmorbida, Giorgio	L2S, CentraleSupélec

11:40-12:00 WeA05.6

Closed-Form Barrier Functions for Multi-Agent Ellipsoidal Systems with Uncertain Lagrangian Dynamics, pp. 175-180.

Verginis, Christos	KTH Royal Institute of Technology
Dimarogonas, Dimos V.	KTH Royal Institute of Technology

WeA06 Méditerranée A3
Sampled-Data Control (Regular Session)

Chair: Fiter, Christophe	Université de Lille
Co-Chair: Bradley, Justin	University of Nebraska

10:00-10:20 WeA06.1

Investigating New Classes of Sampling Sequences: Application to the Stability Analysis of Decentralized Sampled-Data Systems, pp. 181-186.

Etienne, Lucien	Institut Mine Télécom Lille Douai
Motchon, Koffi M. Djidula	Université de Reims
Fiter, Christophe	Université de Lille- CRISTAL (UMR CNRS 9189)

10:20-10:40 WeA06.2

H-Inf Event-Triggered Control with Performance Guarantees Vis-à-Vis Optimal Periodic Control, pp. 187-192.

Mi, La	Technion-IIT
Mirkin, Leonid	Technion-IIT

10:40-11:00 WeA06.3

Stability Analysis for a Class of Resource-Aware, Co-Regulated Systems, pp. 193-200.

Zhang, Xinkai	University of Nebraska
Bradley, Justin	University of Nebraska

11:00-11:20 WeA06.4

Generalized Framework for Gridding Approximation Approach to yet Another H2 Norm of Sampled-Data Systems, pp. 201-206.

Kim, Jung Hoon	Pohang University of Science and Technology
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Hagiwara, Tomomichi	Kyoto University
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11:20-11:40 WeA06.5

H_∞ Optimal Sampled-Data Controller Synthesis with Generalised Disturbance and Performance Channels, pp. 207-212.

Dreef, H.J.	Eindhoven University of Technology
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Donkers, M.C.F.	Eindhoven University of Technology
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11:40-12:00 WeA06.6

Sampled-Data Extremum-Seeking Control for Optimization of Constrained Dynamical Systems Using Barrier Function Methods, pp. 213-219.

Hazeleger, Leroy	Eindhoven University of Technology
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Nesic, Dragan	University of Melbourne
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Van De Wouw, Nathan	Eindhoven University of Technology
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WeA07 Méditerranée A1
Robotics I (Regular Session)

Chair: Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens
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Co-Chair: Matveev, Alexey S.	Saint Petersburg University
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10:00-10:20 WeA07.1

Provable Reactive Navigation of Mobile Robots to a Moving Target in Unpredictable Dynamic Scenes, pp. 220-225.

Matveev, Alexey S.	Saint Petersburg University
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Nikolaev, Maksim S.	Saint Petersburg University
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10:20-10:40 WeA07.2

Scalable Distributed Algorithms for Multi-Robot Near-Optimal Motion Planning, pp. 226-231.

Zhao, Guoxiang	Pennsylvania State University
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Zhu, Minghui	Pennsylvania State University
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10:40-11:00 WeA07.3

Robot Navigation under MITL Constraints Using Time-Dependent Vector Field Based Control, pp. 232-237.

Mavridis, Christos	University of Maryland
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Vrohidis, Constantinos	National Tech. Univ. of Athens
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Baras, John S.	University of Maryland
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Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens
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11:00-11:20 WeA07.4

Safe Control Algorithms Using Energy Functions: A Unified Framework, Benchmark, and New Directions, pp. 238-243.

Wei, Tianhao	Carnegie Mellon University
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Liu, Changliu	Carnegie Mellon University
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11:20-11:40 WeA07.5

Drive-Based Motivation for Coordination of Limit Cycle Behaviors, pp. 244-249.

Thompson, Craig	University of Arizona
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Reverdy, Paul	University of Arizona
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11:40-12:00 WeA07.6

Integrated Path Following and Collision Avoidance Using a Composite Vector Field, pp. 250-255.

Yao, Weijia University of Groningen
 Lin, Bohuan University of Groningen
 Cao, Ming University of Groningen

WeA08 Méditerranée 3
Estimation and Control of PDE Systems I (Invited Session)

Chair: Fahroo, Fariba AFOSR
 Co-Chair: Demetriou, Michael Worcester Polytechnic Institute A.
 Organizer: Demetriou, Michael Worcester Polytechnic Institute A.
 Organizer: Fahroo, Fariba AFOSR
 Organizer: Le Gorrec, Yann Ensmm, Femto-St / As2m

10:00-10:20 WeA08.1

Network-Based Control of Damped Beam Equation under Point and Pointlike Measurements (I), pp. 256-261.

Terushkin, Maria Tel Aviv University
 Fridman, Emilia Tel Aviv University

10:20-10:40 WeA08.2

H_∞ Optimal Estimation for Linear Coupled PDE Systems (I), pp. 262-267.

Das, Amritam Eindhoven University of Technology
 Shivakumar, Sachin Arizona State University
 Weiland, Siep Eindhoven University of Technology
 Peet, Matthew M. Arizona State University

10:40-11:00 WeA08.3

Sampled-Data Control of 2D Kuramoto-Sivashinsky Equation under the Averaged Measurements (I), pp. 268-273.

Kang, Wen University of Science and Technology Beijing
 Fridman, Emilia Tel-Aviv University

11:00-11:20 WeA08.4

A Path Planning Algorithm for Human Evacuations with an Environment Dependent Motion (I), pp. 274-279.

Demetriou, Michael A. Worcester Polytechnic Institute
 Kontopyrgos, Marios Worcester Polytechnic Institute

11:20-11:40 WeA08.5

A Generalized LMI Formulation for Input-Output Analysis of Linear Systems of ODEs Coupled with PDEs (I), pp. 280-285.

Shivakumar, Sachin Arizona State University
 Das, Amritam Eindhoven University of Technology
 Weiland, Siep Eindhoven University of Technology
 Peet, Matthew M. Arizona State University

WeA09 Méditerranée B12

Mean-Field Games I (Invited Session)

Chair: Tembine, Hamidou New York University (NYU)
 Co-Chair: Gomes, Diogo King Abdullah University of Science and Technology
 Organizer: Tembine, Hamidou New York University (NYU)
 Organizer: Gomes, Diogo King Abdullah University of

Science and Technology

10:00-10:20 WeA09.1

Graphon Mean Field Games and the GMFG Equations: ϵ -Nash Equilibria (I), pp. 286-292.

Caines, Peter E. McGill University
 Huang, Minyi Carleton University

10:20-10:40 WeA09.2

Fractional Mean-Field-Type Games under Non-Quadratic Costs: A Direct Method (I), pp. 293-298.

Barreiro-Gomez, Julian New York University Abu Dhabi (NYUAD)
 Djehiche, Boualem KTH Royal Institute of Technology
 Duncan, Tyrone E. University of Kansas
 Pasik-Duncan, Bozenna University of Kansas
 Tembine, Hamidou New York University

10:40-11:00 WeA09.3

A Quantitized Mean Field Game Approach to Energy Pricing with Application to Fleets of Plug-In Electric Vehicles (I), pp. 299-304.

Foguen Tchuendom, Rinel Ecole Poly. de Montreal
 Malhame, Roland P. Ecole Poly. de Montreal
 Caines, Peter E. McGill University

11:00-11:20 WeA09.4

The Current Method for Stationary Mean-Field Games on Networks (I), pp. 305-310.

Farias, Diego Marcon Universidade Federal do Rio Grande do Sul
 Gomes, Diogo King Abdullah University of Science and Technology
 Fatimah, Al Saleh King Abdullah University of Science and Technology

11:20-11:40 WeA09.5

Mean Field Games on Prosumers (I), pp. 311-316.

Baar, Wouter University of Groningen
 Bauso, Dario University of Groningen

11:40-12:00 WeA09.6

Partially-Observed Discrete-Time Risk-Sensitive Mean-Field Games (I), pp. 317-322.

Saldi, Naci Ozyegin University
 Basar, Tamer University of Illinois, Urbana Champaign
 Raginsky, Maxim University of Illinois, Urbana Champaign

WeA10 Méditerranée C12

Models and Control Methods for Traffic Networks (Invited Session)

Chair: Como, Giacomo Politecnico di Torino
 Co-Chair: Delle Monache, Maria Laura INRIA Grenoble Rhône - Alpes
 Organizer: Delle Monache, Maria Laura INRIA Grenoble Rhône - Alpes
 Organizer: Pasquale, Cecilia University of Genova
 Organizer: Siri, Silvia University of Genova

10:00-10:20 WeA10.1

Modeling the Impact of On-Line Navigation Devices in Traffic Flows (I), pp. 323-328.

Festa, Adriano	Austrian Academy of Science
Goatin, Paola	INRIA
10:20-10:40	WeA10.2
<i>Joint Time and Energy-Optimal Control of Connected Automated Vehicles at Signal-Free Intersections with Speed-Dependent Safety Guarantees (I)</i> , pp. 329-334.	
Zhang, Yue	Boston University
Cassandras, Christos G.	Boston University
10:40-11:00	WeA10.3
<i>On a Weaker Notion of Ring Stability for Mixed Traffic with Human-Driven and Autonomous Vehicles (I)</i> , pp. 335-340.	
Giammarino, Vittorio	Delft University of Technology
Lyu, Maolong	Delft University of Technology
Baldi, Simone	School of Mathematics
Frasca, Paolo	CNRS, GIPSA-Lab, University Grenoble Alpes
Delle Monache, Maria Laura	INRIA Grenoble Rhône - Alpes
11:00-11:20	WeA10.4
<i>Linear-Parameter-Varying Approximation of Nonlinear Dynamics for Model Predictive Flow Control of Urban Multi-Region Systems (I)</i> , pp. 341-346.	
Kouvelas, Anastasios	ETH Zurich
Saeedmanesh, Mohammadreza	EPFL
Geroliminis, Nikolas	Urban Transport Systems Laboratory, EPFL
11:20-11:40	WeA10.5
<i>The Green Choice: Learning and Influencing Human Decisions on Shared Roads</i> , pp. 347-354.	
BIYIK, Erdem	Stanford University
Lazar, Daniel	University of California, Santa Barbara
Sadigh, Dorsa	Stanford University
Pedarsani, Ramtin	University of California, Santa Barbara
11:40-12:00	WeA10.6
<i>On Stability of Users Equilibria in Heterogeneous Routing Games</i> , pp. 355-360.	
Cianfanelli, Leonardo	Politecnico di Torino
Como, Giacomo	Politecnico di Torino
WeA11	Galliéni 1
Observers for Linear Systems (Regular Session)	
Chair: Silvestre, Carlos	Instituto Superior Técnico
Co-Chair: Sassano, Mario	University of Rome, Tor Vergata
10:00-10:20	WeA11.1
<i>Sensitivity Analysis for Linear Systems Based on Reachability Sets</i> , pp. 361-366.	
Silvestre, Daniel	University of Macau
Rosa, Paulo	Deimos Engenharia
Hespanha, Joao P.	University of California, Santa Barbara
Silvestre, Carlos	Instituto Superior Técnico
10:20-10:40	WeA11.2
<i>A Distributed Observer for a Discrete-Time Linear System</i> , pp. 367-372.	
Wang, Lili	Yale University

Liu, Ji	Stony Brook University
Morse, A. Stephen	Yale University
Anderson, Brian D.O.	Australian National University/NICTA
10:40-11:00	WeA11.3
<i>The J-Orthogonal Square-Root NIRK-Based Extended-Unscented Kalman Filter for Nonlinear Continuous-Discrete Stochastic Systems</i> , pp. 373-378.	
Kulikov, Gennady Yu.	Instituto Superior Tecnico, Universidade de Lisboa
Kulikova, Maria V.	Instituto Superior Tecnico, Universidade de Lisboa
11:00-11:20	WeA11.4
<i>Optimally Bounded Interval Kalman Filter</i> , pp. 379-384.	
Lu, Quoc-Hung	UPS, LAAS-CNRS
Fergani, Soheib	LAAS-CNRS, Laboratory for Analysis and Architecture of Systems
Jauberthie, Carine	LAAS-CNRS
Le Gall, Françoise	LAAS-CNRS
11:20-11:40	WeA11.5
<i>Finite-Time State Estimation of Discrete-Time Linear Systems with Some Extensions. Application to Steering Lateral Vehicle Model</i> , pp. 385-389.	
Chaib Draa, Khadidja	Université du Luxembourg
Zemouche, Ali	CRAN UMR CNRS 7039 & INRIA: EPI-DISCO
Rajamani, Rajesh	University of Minnesota
Laleg-Kirati, Taous-Meriem	King Abdullah University of Science and Technology (KAUST)
11:40-12:00	WeA11.6
<i>Deterministic Optimality of the Steady-State Behavior of the Kalman-Bucy Filter</i> , pp. 390-395.	
Possieri, Corrado	Politecnico di Torino
Sassano, Mario	University of Rome, Tor Vergata
WeA12	Galliéni 2
Dynamics, Control and Information Processing of Quantum Systems (Invited Session)	
Chair: Dong, Daoyi	University of New South Wales
Co-Chair: Nurdin, Hendra I	University of New South Wales
Organizer: Dong, Daoyi	University of New South Wales
Organizer: Ticozzi, Francesco	University of Padova
Organizer: Li, Jr-Shin	Washington University in St. Louis
10:00-10:20	WeA12.1
<i>Tomography of Binary Quantum Detectors (I)</i> , pp. 396-400.	
Wang, Yuanlong	University of New South Wales, Canberra
Dong, Daoyi	University of New South Wales
Yonezawa, Hidehiro	University of New South Wales
10:20-10:40	WeA12.2
<i>Towards Single-Input Single-Output Nonlinear System Identification and Signal Processing on Near-Term Quantum Computers (I)</i> , pp. 401-406.	
Chen, Jiayin	University of New South Wales
Nurdin, Hendra I	University of New South Wales
Yamamoto, Naoki	Keio University

10:40-11:00 WeA12.3
Is Entanglement Necessary in the Reservoir Input? (I), pp. 407-412.

Miao, Zibo Harbin Institute of Technology, Shenzhen

Chen, Yu The Chinese University of HongKong

Yuan, Haidong Hong Kong Polytechnic University

11:00-11:20 WeA12.4
Quantum Information Encoding from Stabilizing Dynamics (I), pp. 413-418.

Ticozzi, Francesco University of Padova

Baggio, Giacomo University of California, Riverside

Viola, Lorenza Dartmouth College

11:20-11:40 WeA12.5
Robust Population Transfer for Coupled Spin Ensembles (I), pp. 419-424.

Zhang, Wei Washington University in St. Louis

Narayanan, Vignesh Washington University in St. Louis

Li, Jr-Shin Washington University in St. Louis

11:40-12:00 WeA12.6
A Quantum Karhunen-Loeve Expansion and Quadratic-Exponential Functionals for Linear Quantum Stochastic Systems (I), pp. 425-430.

Vladimirov, Igor G. Australian National University

Petersen, Ian R. Australian National University

James, Matthew R. Australian National University

WeA13 Gallieni 4
Predictive Control for Linear Systems I (Regular Session)

Chair: Görges, Daniel University of Kaiserslautern

Co-Chair: Maciejowski, Jan M. University of Cambridge

10:00-10:20 WeA13.1
Model Predictive Control with Constraint Aggregation Applied to Conventional and Very Flexible Aircraft, pp. 431-437.

de Freitas Virgilio Pereira, Mateus University of Michigan

Kolmanovsky, Ilya V. University of Michigan

Cesnik, Carlos University of Michigan

10:20-10:40 WeA13.2
Scalable Robust Model Predictive Control for Linear Sampled-Data Systems, pp. 438-444.

Gruber, Felix Technical University of Munich

Althoff, Matthias Technical University of Munich

10:40-11:00 WeA13.3
Robust Self-Triggered MPC for Constrained Linear Systems with Additive Disturbance, pp. 445-450.

Lu, Liang Qingdao University

Maciejowski, Jan M. University of Cambridge

11:00-11:20 WeA13.4
Tube Based Adaptive Model Predictive Control, pp. 451-456.

Dhar, Abhishek Indian Institute of Technology, Delhi

Bhasin, Shubhendu Indian Institute of Technology, Delhi

11:20-11:40 WeA13.5
Robust Tube-Based Tracking MPC for Linear Systems with Multiplicative Uncertainty, pp. 457-462.

Peschke, Tobias University of Kaiserslautern

Görges, Daniel University of Kaiserslautern

11:40-12:00 WeA13.6
Obtaining a Stabilizing Prediction Horizon in Quadratic Programming Model Predictive Control, pp. 463-467.

Morgenstern, Dimitri Fraunhofer Institute for Industrial Mathematics

Görges, Daniel University of Kaiserslautern

Wirsen, Andreas Fraunhofer Institute for Industrial Mathematics

WeA14 Gallieni 7
Lyapunov Methods I (Regular Session)

Chair: Reger, Johann TU Ilmenau

Co-Chair: Postoyan, Romain CNRS, CRAN, Université de Lorraine

10:00-10:20 WeA14.1
On Almost Lyapunov Functions for Systems with Inputs, pp. 468-473.

Liu, Shenyu Coordinated Science Laboratory, University of Illinois, Urbana Champaign

Liberzon, Daniel University of Illinois, Urbana Champaign

10:20-10:40 WeA14.2
Control Barrier Functions for Systems with High Relative Degree, pp. 474-479.

Xiao, Wei Boston University

Belta, Calin Boston University

10:40-11:00 WeA14.3
Dynamic Extensions for Exact Backstepping Control of Systems in Pure Feedback Form, pp. 480-486.

Reger, Johann TU Ilmenau

Triska, Lukas Friedrich-Alexander-Universität Erlangen-Nürnberg

11:00-11:20 WeA14.4
Stability Guarantees for Nonlinear Discrete-Time Systems Controlled by Approximate Value Iteration, pp. 487-492.

Postoyan, Romain CNRS, CRAN, Université de Lorraine

Granzotto, Mathieu CNRS, CRAN, Université de Lorraine

Busoniu, Lucian Technical University of Cluj-Napoca

Scherrer, Bruno INRIA

Nesic, Dragan University of Melbourne

Daafouz, Jamal Université de Lorraine, CRAN, CNRS

11:20-11:40 WeA14.5
Stability of Systems with Periodic Nonlinearities: A Method of Periodic Lyapunov Functionals, pp. 493-498.

Smirnova, Vera Saint-Petersburg University of Architecture and Civil Engineering

Proskurnikov, Anton V. Politecnico di Torino

11:40-12:00	WeA14.6
<i>Leader-Follower Trajectory Tracking Control for a Mobile Robot with Unknown Amplitudes of Reference Velocities and Input Disturbances</i> , pp. 499-504.	
Zhang, Xu	Shanghai Jiao Tong University
Yu, Xiao	Shanghai Jiao Tong University
Chen, Weidong	Shanghai Jiao Tong University

WeA15	Rhodes GH
Geometric Optimal Control Theory and Applications (Invited Session)	
Chair: Pomet, Jean-Baptiste	INRIA
Co-Chair: Gutman, Per-Olof	Technion
Organizer: Pomet, Jean-Baptiste	INRIA

10:00-10:20	WeA15.1
<i>Connection between Singular Arcs in Optimal Control Using Bridges. Physical Occurrence and Mathematical Model (I)</i> , pp. 505-510.	
Bakir, Toufik	Université de Bourgogne Franche-Comté
Bonnard, Bernard	Institut de Mathématiques de Bourgogne
Rouot, Jérémy	EPF: Ecole D'Ingénieur

10:20-10:40	WeA15.2
<i>Injectivity of the Inverse Optimal Control Problem for Control-Affine Systems (I)</i> , pp. 511-516.	
Jean, Frederic	ENSTA ParisTech
Maslovskaya, Sofya	INRIA Sophia Antipolis

10:40-11:00	WeA15.3
<i>Zermelo-Markov-Dubins Problem and Extensions in Marine Navigation (I)</i> , pp. 517-522.	
Caillaud, Jean-Baptiste	Université Côte d'Azur, CNRS, INRIA, LJAD
Maslovskaya, Sofya	INRIA Sophia Antipolis
Mensch, Thomas	CGG
Moulinier, Timothée	CGG
Pomet, Jean-Baptiste	INRIA

11:00-11:20	WeA15.4
<i>Minimum Time Optimal Control of Second Order System with Quadratic Drag and State Constraints</i> , pp. 523-528.	
Taitler, Ayal	Technion
Ioslovich, Ilya	Technion
Karpas, Erez	Technion
Gutman, Per-Olof	Technion

11:20-11:40	WeA15.5
<i>Discrete-Time Maximum Hands-Off Control with Minimum Switches</i> , pp. 529-534.	
Kishida, Masako	National Institute of Informatics
Nagahara, Masaaki	University of Kitakyushu
Chatterjee, Debasish	Indian Institute of Technology, Bombay

11:40-12:00	WeA15.6
<i>A No Infimum-Gap Criterion</i> , pp. 535-540.	
Palladino, Michele	GSSI - Gran Sasso Science Institute
Rampazzo, Franco	University of Padova

WeA16	Rhodes AB
Optimization I (Regular Session)	
Chair: Poovendran, Radha	University of Washington
Co-Chair: Dall'Anese, Emiliano	University of Colorado, Boulder

10:00-10:20	WeA16.1
<i>Random Coordinate Minimization Method with Eventual Transverse Directions for Constrained Polynomial Optimization</i> , pp. 541-546.	
Calafiore, Giuseppe C.	Politecnico di Torino
Novara, Carlo	Politecnico di Torino
Possieri, Corrado	Politecnico di Torino

10:20-10:40	WeA16.2
<i>Fastest Mixing Markov Chain on a Compact Manifold</i> , pp. 547-554.	
Biswal, Shiba	Arizona State University
Elamvazhuthi, Karthik	Arizona State University
Berman, Spring	Arizona State University

10:40-11:00	WeA16.3
<i>A Distributed Algorithm for Online Convex Optimization with Time-Varying Coupled Inequality Constraints</i> , pp. 555-560.	
Yi, Xinlei	KTH Royal Institute of Technology
Li, Xiuxian	Nanyang Technological University
Xie, Lihua	Nanyang Technological University
Johansson, Karl H.	KTH Royal Institute of Technology

11:00-11:20	WeA16.4
<i>UKF-Based Constrained Extremum-Seeking Control with Application to a Large-Bore Gas Engine</i> , pp. 561-566.	
Lutz, Max	Kiel University
Freudenthaler, Gerhard	Kiel University
Roduner, Christian Andreas	AVL Software and Functions GmbH
Meurer, Thomas	Kiel University

11:20-11:40	WeA16.5
<i>Dynamic Information Flow Tracking Games for Simultaneous Detection of Multiple Attackers</i> , pp. 567-574.	
Sahabandu, Dinuka	University of Washington
Moothedath, Shana	University of Washington
Allen, Joey	Georgia Institute of Technology
Clark, Andrew	Worcester Polytechnic Institute
Bushnell, Linda	University of Washington
Lee, Wenke	Georgia Institute of Technology
Poovendran, Radha	University of Washington

11:40-12:00	WeA16.6
<i>Saddle-Flow Dynamics for Distributed Feedback-Based Optimization</i> , pp. 575-580.	
CHANG, CHIN-YAO	National Renewable Energy Laboratory
Colombino, Marcello	McGill University
Cortes, Jorge	University of California, San Diego
Dall'Anese, Emiliano	University of Colorado, Boulder

WeA17	Rhodes CD
Switched Systems I (Regular Session)	
Chair: Trenn, Stephan	University of Groningen
Co-Chair: Fribourg, Laurent	CNRS

10:00-10:20	WeA17.1
<i>A Time-Varying Convex Lyapunov Function Approach for Dynamic Output Feedback Hoo Control of Switched Linear Systems</i> , pp. 581-586.	
Daiha, Helder R.	School of Mechanical Engineering, UNICAMP
Deaecto, Grace S.	FEM/UNICAMP
10:20-10:40	WeA17.2
<i>Converse Lyapunov Theorems for Infinite-Dimensional Nonlinear Switching Systems</i> , pp. 587-592.	
Haidar, Ihab	ENSEA
Chitour, Yacine	Université Paris-Sud, CNRS, Supelec
Mason, Paolo	CNRS, Laboratoire Des Signaux Et Systèmes, Supélec
Sigalotti, Mario	INRIA Paris
10:40-11:00	WeA17.3
<i>New Control Design for Switched Linear Time-Invariant Systems under Arbitrary Switching</i> , pp. 593-598.	
Lee, Ti-Chung	University of Science and Technology
Tan, Ying	University of Melbourne
Mareels, Iven	IBM
11:00-11:20	WeA17.4
<i>Guaranteed Control of Sampled Switched Systems Using Semi-Lagrangian Schemes and One-Sided Lipschitz Constants</i> , pp. 599-604.	
Le Coent, Adrien	Aalborg University
Fribourg, Laurent	CNRS
11:20-11:40	WeA17.5
<i>The One-Step-Map for Switched Singular Systems in Discrete-Time</i> , pp. 605-610.	
Anh, Pham Ky	Vietnam National University
Linh, Pham Thi	Vietnam National University
Thuan, Do Duc	Hanoi University of Science and Technology
Trenn, Stephan	University of Groningen
11:40-12:00	WeA17.6
<i>Asynchronous Output Feedback Control Design for Nonlinear Switched Singular Systems with Time Varying Delay</i> , pp. 611-616.	
Regaieg, Mohamed Amin	University of Amiens
mourad, Kchaou	ENIS Sfax
Bosche, Jerome	University of Amiens
El Hajjaji, Ahmed	University of Picardie-Jules Verne
Chaabane, Mohamed	National School of Engineers of Sfax (ENIS)

WeA18 Rhodes EF
Observers for Nonlinear Systems I (Regular Session)

Chair: Trumpf, Jochen	Australian National University
Co-Chair: Gehan, Olivier	ENSICAEN
10:00-10:20	WeA18.1
<i>Observer Design for Nonlinear Systems with Output Distributed Delay</i> , pp. 617-622.	
Ammeh, Leila	ENSA, Université Ibn Tofail, Kénitra

Giri, Fouad	University of Caen Normandie
Ahmed-Ali, Tarek	ENSICAEN
Magarotto, Eric	LAC (Laboratoire d'Automatique De Caen) EA 7478
El Fakil, Hassan	Ibn Tofail University, Kénitra

10:20-10:40 WeA18.2

H-Infinity Filter Design for a Class of Discrete-Time Nonlinear Descriptor Systems, pp. 623-628.

Coutinho, Daniel F.	Universidade Federal de Santa Catarina
de Melo Schons, Silvane C	Universidade Federal de Santa Catarina - Université Libre de Bruxelles
Kinnaert, Michel	Université Libre de Bruxelles
de Souza, Carlos E.	LNCC

10:40-11:00 WeA18.3

Observer and First-Order Low-Pass Filter Based Attitude Estimation for Rigid Bodies Subject to External Acceleration, pp. 629-634.

Bonargent, Tristan	Normandie University UNICAEN, ENSICAEN
Menard, Tomas	University of Caen
Pigeon, Eric	University of Caen
Gehan, Olivier	ENSICAEN

11:00-11:20 WeA18.4

Discrete Update Pose Filter on the Special Euclidean Group SE(3), pp. 635-641.

Zamani, Mohammad	DSTG
Trumpf, Jochen	Australian National University

11:20-11:40 WeA18.5

Third-Order Virtual Measurements with Signal Injection, pp. 642-647.

Surroop, Dilshad	Mines Paris Tech
Martin, Philippe	Mines Paris Tech, PSL Research University
Combes, Pascal	Schneider Electric
Rouchon, Pierre	Mines ParisTech

11:40-12:00 WeA18.6

DREM-Based Adaptive Observer for Induction Motors, pp. 648-653.

Pyrkin, Anton	ITMO University
Bobtsov, Alexey	ITMO University
Vedyakov, Alexey	ITMO University
Ortega, Romeo	LSS-SUPELEC
Vediakova, Anastasiia	Saint Petersburg State University
Sinetova, Madina	ITMO University

WeA19 Galliéni 5

Advances in Nonlinear Filtering and Stochastic Control with Partial Information I (Invited Session)

Chair: Mehta, Prashant G.	University of Illinois, Urbana Champaign
Co-Chair: Yuksel, Serdar	Queen's University
Organizer: Mehta, Prashant G.	University of Illinois, Urbana Champaign
Organizer: Yuksel, Serdar	Queen's University

10:00-10:20 WeA19.1

On Weak Feller Continuity Properties of Non-Linear Filters (I), pp. 654-659.

Kara, Ali Devran Queen's University
Saldi, Naci Ozyegin University
Yuksel, Serdar Queen's University

10:20-10:40 WeA19.2

Proximal Recursion for the Wonham Filter (I), pp. 660-665.

Halder, Abhishek University of California, Santa Cruz

Georgiou, Tryphon T. University of California, Irvine

10:40-11:00 WeA19.3

Gauge Freedom within the Class of Linear Feedback Particle Filters (I), pp. 666-671.

Abedi, Ehsan EPFL Lausanne, Switzerland
Surace, Simone Carlo University of Bern

11:00-11:20 WeA19.4

LQ Non-Gaussian Regulator with Markovian Control, pp. 672-677.

D'Angelo, Massimiliano University of Roma La Sapienza
Battilotti, Stefano University of Roma La Sapienza
Cacace, Filippo Università Campus Biomedico di Roma

Germani, Alfredo University of L'Aquila
Sinopoli, Bruno Washington University in St Louis

11:20-11:40 WeA19.5

Stochastic Optimal Control with Markovian Lossy State Observations, pp. 678-683.

Huang, Minyi Carleton University

11:40-12:00 WeA19.6

Optimal Scheduling of Multiple Sensors Which Transmit Measurements Over a Dynamic Lossy Network (I), pp. 684-689.

Carroll, Johnson University of Johannesburg
Hmedi, Hassan University of Texas, Austin
Arapostathis, Ari University of Texas, Austin

WeA20 Rhodes 10

Event-Triggered and Self-Triggered Control Based on Optimization Methods (Invited Session)

Chair: Johansson, Karl H. KTH Royal Institute of Technology
Co-Chair: Mohajerin Esfahani, Delft University of Technology
Peyman
Organizer: Heemels, W.P.M.H. Eindhoven University of Technology
Organizer: Hirche, Sandra Technische Universität München
Organizer: Johansson, Karl H. KTH Royal Institute of Technology

10:00-10:20 WeA20.1

Safe Intermittent Reinforcement Learning for Nonlinear Systems (I), pp. 690-697.

Yang, Yongliang University of Science and Technology Beijing

Vamvoudakis, Kyriakos G. Georgia Institute of Technology

Modares, Hamidreza Michigan State University

He, Wei University of Science and Technology Beijing

Yin, Yi-Xin University of Science and Technology Beijing

Wunsch, Donald C. Missouri University of Science and Technology

10:20-10:40 WeA20.2

A Linear Programming Approach to Design Online Triggering Mechanisms for Robust MPC (I), pp. 698-703.

Sharifi Kolarijani, Arman Delft University of Technology

Bregman, Sander Christian Delft University of Technology

Mohajerin Esfahani, Peyman Delft University of Technology

Keveczky, Tamas Delft University of Technology

10:40-11:00 WeA20.3

Consistent Event-Triggered Control for Discrete-Time Linear Systems with Partial State Information, pp. 704-709.

Antunes, Duarte Eindhoven University of Technology

Balaghi I., M. Hadi Eindhoven University of Technology

11:00-11:20 WeA20.4

Predictive Control Over a Dynamical Token Bucket Network, pp. 710-715.

Wildhagen, Stefan University of Stuttgart

Muller, Matthias A. Leibniz University Hannover

Allgöwer, Frank University of Stuttgart

11:20-11:40 WeA20.5

Event-Triggered Broadcasting for Distributed Smooth Optimization, pp. 716-721.

Liu, Changxin University of Victoria

Li, Huiping Northwestern Polytechnical University

Shi, Yang University of Victoria

Xu, Demin Northwestern Poly. Univ

11:40-12:00 WeA20.6

Event-Based Controllers with External Event Generation. Implementation Issues and Computational Cost Study, pp. 722-727.

Miguel-Escrig, Oscar Universitat Jaume I

Romero, Julio Ariel Universitat Jaume I

WeA21 RISSO 6

Network Analysis and Control I (Regular Session)

Chair: Siami, Milad MIT

Co-Chair: Chapman, Airlie University of Melbourne

10:00-10:20 WeA21.1

Optimization of TCP Algorithm for Wired-Wireless Channels Based on Connection State Estimation, pp. 728-733.

Borisov, Andrey Frc Csc Ras

Bosov, Alexey Frc Csc Ras

Miller, Gregory Frc Csc Ras

Stefanovich, Alexei Frc Csc Ras

10:20-10:40 WeA21.2

A Separation Principle for Joint Sensor and Actuator Scheduling with Guaranteed Performance Bounds, pp. 734-739.

Siami, Milad MIT

Jadbabaie, Ali MIT

10:40-11:00 WeA21.3

Rigidity in Non-Euclidean Frameworks for Formation Control:

The Manhattan Metric, pp. 740-745.

Burke, Declan	University of Melbourne
Chapman, Airlie	University of Melbourne
Schoof, Eric	University of Washington

11:00-11:20 WeA21.4

Time-Scale Separation on Networks for Multi-City Epidemics, pp. 746-751.

Lewien, Patrick	University of Melbourne
Chapman, Airlie	University of Melbourne

11:20-11:40 WeA21.5

Disturbance Sensitivity Analysis of Evolving Network Systems from Viewpoint of Network Structure, pp. 752-757.

Urata, Kengo	Tokyo Institute of Technology
Ishizaki, Takayuki	Tokyo Institute of Technology
Imura, Jun-ichi	Tokyo Institute of Technology

11:40-12:00 WeA21.6

Dynamics Concentration of Large-Scale Tightly-Connected Networks, pp. 758-763.

Min, Hancheng	Johns Hopkins University
Mallada, Enrique	Johns Hopkins University

WeA22 Risso 7

Identification I (Regular Session)

Chair: Lindquist, Anders	KTH Royal Institute of Technology
Co-Chair: Lopes dos Santos, P.	Universidade do Porto

10:00-10:20 WeA22.1

Multivariable Analytic Interpolation with Complexity Constraints: A Modified Riccati Approach, pp. 764-770.

Cui, Yufang	Shanghai Jiao Tong University
Lindquist, Anders	Shanghai Jiao Tong University

10:20-10:40 WeA22.2

A Dynamic Mode Decomposition Approach with Hankel Blocks to Forecast Multi-Channel Temporal Series, pp. 771-776.

Vasconcelos Filho, Enio	Cister Research Centre in Real-Time & Embedded Computing Systems,
Lopes dos Santos, P.	Universidade do Porto

10:40-11:00 WeA22.3

Local Basis Function Estimators for Identification of Nonstationary Systems, pp. 777-783.

Niedzwiecki, Maciej	Gdansk University of Technology
Ciolek, Marcin	Gdansk University of Technology, Faculty of Electronics, Telecom
Gancza, Artur	Gdansk University of Technology, Faculty of Electronics Telecomm

11:00-11:20 WeA22.4

Computation of Orders of a Commensurable Fractional Order Model, pp. 784-790.

Stark, Oliver	Karlsruhe Institute of Technology
Kupper, Martin	Karlsruhe Institute of Technology
Krebs, Stefan	Karlsruhe Institute of Technology
Hohmann, Soeren	Karlsruhe Institute of Technology

11:20-11:40 WeA22.5

Identification for Switched FIR Linear Systems Using Binary

Measurements, pp. 791-796.

Auber, Romain	Université de Caen
Pouliquen, Mathieu	Université de Caen
GOUDJIL, Abdelhak	University of Caen Normandy
Pigeon, Eric	University of CAEN
Gehan, Olivier	ENSICAEN
Menard, Tomas	University of Caen
Bonargent, Tristan	Normandie Univ, UNICAEN, ENSICAEN, LAC, 14000 Caen, France

11:40-12:00 WeA22.6

Asymptotic Analysis of Recursive (Particle) Maximum Likelihood Estimation in Non-Linear State-Space Models, pp. 797-802.

Tadic, Vladislav	University of Bristol
Doucet, Arnaud	University of Oxford

WeA23 Risso 8

Learning-Based Controller Synthesis (Invited Session)

Chair: Schoellig, Angela P	University of Toronto
Co-Chair: Trimpe, Sebastian	Max Planck Institute for Intelligent Systems
Organizer: Schoellig, Angela P	University of Toronto
Organizer: Trimpe, Sebastian	Max Planck Institute for Intelligent Systems
Organizer: Zeilinger, Melanie N.	ETH Zurich
Organizer: Muller, Matthias A.	Leibniz University Hannover

10:00-10:20 WeA23.1

Deep Reinforcement Learning with Feedback-Based Exploration (I), pp. 803-808.

Scholten, Jan Jelmer	Delft University of Technology
Wout, Daan	Delft University of Technology
Celemin, Carlos	Delft University of Technology
Kober, Jens	Delft University of Technology

10:20-10:40 WeA23.2

Inverse Learning for Human-Adaptive Motion Planning (I), pp. 809-815.

Menner, Marcel	ETH Zurich
Berntorp, Karl	Mitsubishi Electric Research Labs
Zeilinger, Melanie N.	ETH Zurich
Di Cairano, Stefano	Mitsubishi Electric Research Labs

10:40-11:00 WeA23.3

A Data-Driven Policy Iteration Scheme Based on Linear Programming (I), pp. 816-821.

Banjac, Goran	ETH Zurich
Lygeros, John	ETH Zurich

11:00-11:20 WeA23.4

Bayesian Kernel-Based Linear Control Design (I), pp. 822-827.

Scampicchio, Anna	University of Padova
Chiuso, Alessandro	University of Padova
Formentin, Simone	Politecnico di Milano
Pillonetto, Gianluigi	University of Padova

11:20-11:40 WeA23.5

Closed-Loop Model Selection for Kernel-Based Models Using Bayesian Optimization (I), pp. 828-834.

Beckers, Thomas	Technical University of Munich
Bansal, Somil	University of California, Berkeley
Tomlin, Claire J.	University of California, Berkeley
Hirche, Sandra	Technical University of Munich

11:40-12:00 WeA23.6

[Learning Robust LQ-Controllers Using Application Oriented Exploration](#), pp. 835-840.

Ferizbegovic, Mina	KTH Royal Institute of Technology
Umenberger, Jack	Uppsala University
Hjalmarsson, Håkan	KTH Royal Institute of Technology
Schön, Thomas (Bo)	Uppsala University

WeA24 Hermès
Learning I (Regular Session)

Chair: Darivianakis, Georgios ABB Corporate Research Center
Co-Chair: Shim, Hyungbo Seoul National University

10:00-10:20 WeA24.1

[Approximate Explicit Model Predictive Controller Using Gaussian Processes](#), pp. 841-846.

Binder, Matthias	ETH Zurich
Darivianakis, Georgios	ABB Corporate Research Center
Eichler, Annika	DESY
Lygeros, John	ETH Zurich

10:20-10:40 WeA24.2

[On Improving the Robustness of Reinforcement Learning-Based Controllers Using Disturbance Observer](#), pp. 847-852.

Kim, Jeong Woo	Seoul National University
Shim, Hyungbo	Seoul National University
Yang, Insoon	Seoul National University

10:40-11:00 WeA24.3

[A Predictive Deep Learning Approach to Output Regulation: The Case of Collaborative Pursuit Evasion](#), pp. 853-859.

Shivam, Shashwat	Georgia Institute of Technology
Kanellopoulos, Aris	Georgia Institute of Technology
Vamvoudakis, Kyriakos G.	Georgia Institute of Technology
Wardi, Yorai	Georgia Institute of Technology

11:00-11:20 WeA24.4

[Learning Feature Maps of the Koopman Operator: A Subspace Viewpoint](#), pp. 860-866.

Lian, Yingzhao	EPFL
Jones, Colin N.	EPFL

11:20-11:40 WeA24.5

[Combinatorial Bandits for Sequential Learning in Colonel Blotto Games](#), pp. 867-872.

Vu, Dong Quan	Nokia Bell Labs
Loiseau, Patrick	INRIA
Silva, Alonso	Signal and Information Technologies, Safran Tech

11:40-12:00 WeA24.6

[On Persistency of Excitation and Formulas for Data-Driven Control](#), pp. 873-878.

De Persis, Claudio	University of Groningen
Tesi, Pietro	University of Firenze

WeA25 Athéna

Multi-Agent Systems I (Regular Session)

Chair: Nagahara, Masaaki University of Kitakyushu
Co-Chair: Panayiotou, Christos University of Cyprus

10:00-10:20 WeA25.1

[A Decentralized Control Framework for Energy-Optimal Goal Assignment and Trajectory Generation](#), pp. 879-884.

Beaver, Logan	University of Delaware
Malikopoulos, Andreas A.	University of Delaware

10:20-10:40 WeA25.2

[Majority Determination on Binary-Valued Communication Networks](#), pp. 885-889.

Azuma, Shun-ichi	Nagoya University
Nagahara, Masaaki	University of Kitakyushu

10:40-11:00 WeA25.3

[A Privacy-Preserving Disaggregation Algorithm for Non-Intrusive Management of Flexible Energy](#), pp. 890-896.

Jacquot, Paulin	EDF R&D, INRIA, Ecole Polytechnique, CNRS
Beaude, Olivier	Edf R&d, Osiris
Benchimol, Pascal	Edf R&d, Osiris
Gaubert, Stephane	INRIA and Ecole Polytechnique
Oudjane, Nadia	EDF

11:00-11:20 WeA25.4

[Positive Consensus of Directed Multi-Agent Systems](#), pp. 897-902.

Yang, Nachuan	University of Hong Kong
Yin, Yonghua	Imperial College London
Liu, Jinrong	University of Hong Kong

11:20-11:40 WeA25.5

[Finite-Time Distributed Flow Balancing](#), pp. 903-908.

Hadjicostis, Christoforos N.	University of Cyprus
Dominguez-Garcia, Alejandro D.	University of Illinois, Urbana Champaign
Rikos, Apostolos I.	University of Cyprus

11:40-12:00 WeA25.6

[Decentralized Search and Track with Multiple Autonomous Agents](#), pp. 909-915.

Papaioannou, Savvas	KIOS CoE
Kolios, Panayiotis	University of Cyprus
Theocharides, Theocharis	University of Cyprus
Panayiotou, Christos	University of Cyprus
Polycarpou, Marios M.	University of Cyprus

WeA26 Apollon

Cybergenetics: Control of Living Cells (Tutorial Session)

Chair: Khammash, Mustafa H. ETH Zurich
Co-Chair: di Bernardo, Mario University of Bristol
Organizer: Khammash, Mustafa H. ETH Zurich

Organizer: di Bernardo, Mario University of Napoli Federico II
Organizer: di Bernardo, Diego Telethon Institute of Genetics and Medicine

10:00-10:05 WeA26.1

[An Introduction to Cybergenetics \(I\)](#), pp. 916-926.

Khammash, Mustafa H.	ETH Zurich
10:05-10:40	WeA26.2
<i>Biomolecular Control Systems for Living Cells (I)*.</i>	
Khammash, Mustafa H.	ETH Zurich
10:40-11:00	WeA26.3
<i>Computer Control of Living Cells (I)*.</i>	
di Bernardo, Diego	Telethon Institute of Genetics and Medicine
11:00-11:20	WeA26.4
<i>Multicellular Feedback Control (I)*.</i>	
di Bernardo, Mario	University of Napoli Federico II
11:20-11:40	WeA26.5
<i>A Systematic Framework for Biomolecular System Identification (I)*.</i>	
Menolascina, Filippo	University of Edinburgh
11:40-12:00	WeA26.6
<i>Biocontrol Experiments: How to Start Your Own Lab! (I)*.</i>	
di Bernardo, Diego	Telethon Institute of Genetics and Medicine
WeB01 Méditerranée 1	
Control Systems for Biology: Methodologies and Applications (Invited Session)	
Chair: di Bernardo, Diego	Telethon Institute of Genetics and Medicine
Co-Chair: Khammash, Mustafa H.	ETH Zurich
Organizer: di Bernardo, Mario	University of Napoli Federico II
Organizer: di Bernardo, Diego	Telethon Institute of Genetics and Medicine
Organizer: Khammash, Mustafa H.	ETH Zurich
14:00-14:20	WeB01.1
<i>Ratiometric Control for Differentiation of Cell Populations Endowed with Synthetic Toggle Switches (I)</i> , pp. 927-932.	
Salzano, Davide	University of Napoli Federico II
Fiore, Davide	University of Napoli Federico II
di Bernardo, Mario	University of Napoli Federico II
14:20-14:40	WeB01.2
<i>Feedback Control Promotes Synchronisation of the Cell-Cycle across a Population of Yeast Cells (I)</i> , pp. 933-938.	
Perrino, Giansimone	Telethon Institute of Genetics and Medicine
Fiore, Davide	University of Napoli Federico II
Napolitano, Sara	Telethon Institute of Genetics and Medicine
Galdi, Francesca	Telethon Institute of Genetics and Medicine
La Regina, Antonella	Telethon Institute of Genetics and Medicine
di Bernardo, Mario	University of Bristol
di Bernardo, Diego	Telethon Institute of Genetics and Medicine
14:40-15:00	WeB01.3
<i>Moment-Based Analysis of Biochemical Networks in a Heterogeneous Population of Communicating Cells (I)</i> , pp. 939-944.	
Gonzales, David	Max Planck Institute of Molecular

Tang, T-Y Dora	Cell Biology and Genetics Max Planck Institute of Molecular Cell Biology and Genetics
Zechner, Christoph	Max Planck Institute of Molecular Cell Biology and Genetics
15:00-15:20	WeB01.4
<i>A Linear Constrained Integral Feedback for a Class of Reaction Systems with Absolute Concentration Robustness (I)</i> , pp. 945-950.	
Cappelletti, Daniele	ETH Zurich
Gupta, Ankit	ETH Zurich
Khammash, Mustafa H.	ETH Zurich
15:20-15:40	WeB01.5
<i>Optimal Parameter Tuning of Feedback Controllers with Application to Biomolecular Antithetic Integral Control</i> , pp. 951-957.	
Filo, Maurice	Swiss Federal Institute of Technology in Zurich
Khammash, Mustafa H.	ETH Zurich
15:40-16:00	WeB01.6
<i>Biomolecular Stabilisation Near the Unstable Equilibrium of a Biological System</i> , pp. 958-964.	
Cuba Samaniego, Christian	University of California, Riverside
DeLateur, Nicholas	Massachusetts Institute of Technology
Giordano, Giulia	Delft University of Technology
Franco, Elisa	University of California, Los Angeles
WeB02 Méditerranée 2	
Delay Systems II (Regular Session)	
Chair: Bonnet, Catherine	INRIA Saclay-Ile-De-France
Co-Chair: Trenn, Stephan	University of Groningen
14:00-14:20	WeB02.1
<i>Distributed Time Delay Systems for Power Law Type Long Memory Behaviors Modelling</i> , pp. 965-970.	
Sabatier, Jocelyn	IMS Laboratory - Bordeaux University
14:20-14:40	WeB02.2
<i>A Problematic Issue in the Walton-Marshall Method for Some Neutral Delay Systems</i> , pp. 971-975.	
Nguyen, Le Ha Vy	INRIA
Bonnet, Catherine	INRIA Saclay-Ile-de-France
Boussaada, Islam	IPSA & L2S, CNRS-CentraleSupélec-Université Paris-Sud
Souaiby, Marianne	LAAS-CNRS
14:40-15:00	WeB02.3
<i>Discrete-Time Adaptive Regulation of Scalar Systems with Uncertain Upper-Bounded Input Delay</i> , pp. 976-982.	
Abidi, Khalid	Newcastle University
Soo, Hang Jian	None
Postlethwaite, Ian	Newcastle University
15:00-15:20	WeB02.4
<i>Estimator-Based Output-Feedback Stabilization of Linear Multi-Delay Systems Using SOS</i> , pp. 983-988.	
Wu, Shuangshuang	Yanshan University

Hua, Chang-Chun	Yanshan University
Peet, Matthew M.	Arizona State University

15:20-15:40 WeB02.5

[Delay Regularity of Differential-Algebraic Equations](#), pp. 989-994.

Trenn, Stephan	University of Groningen
Unger, Benjamin	TU Berlin

15:40-16:00 WeB02.6

[Torsional Vibration Suppression with Boundary Impulsive Conditions in Rotary Drilling System](#), pp. 995-1000.

TOUMI, Samir	Polytechnic School of Tunisia
Beji, Lotfi	University of Evry
Mlayeh, Rhouma	Polytechnic School of Tunisia

WeB03 Méditerranée 5
Adaptive Control II (Regular Session)

Chair: Baldi, Simone	Delft University of Technology
Co-Chair: Duffaut Espinosa, Luis Augusto	University of Vermont

14:00-14:20 WeB03.1

[Measures and LMIs for Adaptive Control Validation](#), pp. 1001-1006.

Wagner, Daniel	Czech Technical University in Prague
Henrion, Didier	LAAS-CNRS
Hromcik, Martin	Czech Technical University, FEE

14:20-14:40 WeB03.2

[Adaptive Optimal Control Via Continuous-Time Q-Learning for Unknown Nonlinear Affine Systems](#), pp. 1007-1012.

Chen, Anthony Siming	University of Bristol
Herrmann, Guido	University of Manchester

14:40-15:00 WeB03.3

[Combining Learning and Model Based Multivariable Control](#), pp. 1013-1018.

GUGGILAM, SUBBARAO VENKATESH	Old Dominion University
Gray, W. Steven	Old Dominion University
Duffaut Espinosa, Luis Augusto	University of Vermont

15:00-15:20 WeB03.4

[Model Based Adaptive Control for a Soft Robotic Manipulator](#), pp. 1019-1024.

Franco, Enrico	Imperial College London
Garriga-Casanovas, Arnau	Imperial College London
Rodriguez y Baena, Fernando	Imperial College London
Astolfi, Alessandro	Imperial College & University of Rome

15:20-15:40 WeB03.5

[Adaptive Tracking Control of Nonlinear Time-Varying Systems with Unknown Control Coefficients and Unknown Time-Varying Parameters](#), pp. 1025-1030.

Zhou, Jing	University of Agder
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15:40-16:00 WeB03.6

[Global Frequency Synchronization Over Uncertain Networks of Second-Order Kuramoto Oscillators Via Distributed Adaptive Tracking](#), pp. 1031-1036.

Bosso, Alessandro	University of Bologna
Azzollini, Ilario Antonio	University of Bologna
Baldi, Simone	Southeast University

WeB04 Méditerranée A2
Supervisory Control (Regular Session)

Chair: Jayawardhana, Bayu	University of Groningen
Co-Chair: Takai, Shigemasa	Osaka Univ

14:00-14:20 WeB04.1

[Maximally Permissive Similarity Enforcing Supervisors for Nondeterministic Discrete Event Systems under Partial Observation](#), pp. 1037-1042.

Li, Jinglun	Osaka Univ
Takai, Shigemasa	Osaka Univ

14:20-14:40 WeB04.2

[Supervisory Control under Local Mean Payoff Constraints](#), pp. 1043-1049.

Ji, Yiding	University of Michigan
Yin, Xiang	Shanghai Jiao Tong University
Lafortune, Stephane	University of Michigan

14:40-15:00 WeB04.3

[Supervisory Control of Communicating Timed Discrete Event Systems for State Avoidance Problem](#), pp. 1050-1055.

Pruekprasert, Sasinee	National Institute of Informatics, Tokyo
Ushio, Toshimitsu	Osaka University

15:00-15:20 WeB04.4

[Reactive Supervisory Control of Open Discrete Event Systems](#), pp. 1056-1061.

Partovi, Alireza	University of Notre Dame
Lin, Hai	University of Notre Dame

15:20-15:40 WeB04.5

[On the Optimal Input Allocation of Discrete-Event Systems with Dynamic Input Sequence](#), pp. 1062-1067.

Cahyono, Rully	University of Groningen
Jayawardhana, Bayu	University of Groningen

15:40-16:00 WeB04.6

[Minimising Makespan of Discrete Controllers: A Qualitative Approach](#), pp. 1068-1075.

Castellano, Ezequiel	SOKENDAI
Braberman, Victor	Universidad de Buenos Aires
D'Ippolito, Nicolás	Universidad de Buenos Aires
Uchitel, Sebastián	Universidad de Buenos Aires
Tei, Kenji	National Institute of Informatics

WeB05 Méditerranée C4
Flexible Control and Estimation Methods (Invited Session)

Chair: Sun, Zhiyong	Lund University
Co-Chair: Maestre, J.M.	University of Seville
Organizer: Camacho, Eduardo F.	University of Sevilla
Organizer: Maestre, J.M.	University of Seville

14:00-14:20 WeB05.1

[Recursive Elimination Method for Moving Horizon Estimation of Discrete-Time Polynomial Systems \(I\)](#), pp. 1076-1082.

iori, Tomoyuki	Kyoto University
Ohtsuka, Toshiyuki	Kyoto University
14:20-14:40	WeB05.2
<i>On Distributed High-Gain Adaptive Stabilization (I)</i> , pp. 1083-1088.	
Sun, Zhiyong	Lund University
Rantzer, Anders	Lund University
Li, Zhongkui	Peking University
Robertsson, Anders	LTH, Lund University
14:40-15:00	WeB05.3
<i>Low-Complexity Robust Decentralized MPC: A Foundational Algorithm for Constrained Coalitional Control (I)</i> , pp. 1089-1095.	
Trodden, Paul Anthony	University of Sheffield
Baldivieso Monasterios, Pablo Rodolfo	University of Sheffield
15:00-15:20	WeB05.4
<i>A Coalitional Control Scheme with Topology-Switchings Convexity Guarantees</i> , pp. 1096-1101.	
Chanfreut, Paula	University of Seville
Maestre, J.M.	University of Seville
Muros, Francisco Javier	University of Seville
Camacho, Eduardo F.	University of Sevilla
15:20-15:40	WeB05.5
<i>Concepts, Decompositions, and Optimal Control Laws for a Gaussian Team Problem</i> , pp. 1102-1107.	
van Schuppen, Jan H.	Van Schuppen Control Research
Charalambous, Charalambos D.	University of Cyprus
WeB06	Méditerranée A3
Control of Networks I (Regular Session)	
Chair: Paganini, Fernando	Universidad ORT Uruguay
Co-Chair: Frasca, Mattia	University of Catania
14:00-14:20	WeB06.1
<i>Leader-Follower Consensus of Linear Multi-Agent Systems with Input Saturation</i> , pp. 1108-1113.	
Li, Pengyuan	Dalian University of Technology
Jabbari, Faryar	University of California, Irvine
Sun, Xi-Ming	Dalian University of Technology
14:20-14:40	WeB06.2
<i>An Optimization Approach to Load Balancing, Scheduling and Right Sizing of Cloud Computing Systems with Data Locality</i> , pp. 1114-1119.	
Paganini, Fernando	Universidad ORT, Uruguay
Goldsztajn, Diego	Universidad ORT, Uruguay
Ferragut, Andres	Universidad ORT, Uruguay
14:40-15:00	WeB06.3
<i>Decentralized Control for Guaranteed Individual Costs in a Linear Multi-Agent System: A Satisfaction Equilibrium Approach</i> , pp. 1120-1125.	
Veetaseveera, Jomphop	Université de Lorraine
Satheeskumar Varma, Vineeth	CNRS
Moraescu, Irinel-Constantin	CRAN, CNRS, Université de Lorraine
Daafouz, Jamal	Université de Lorraine, CRAN, CNRS

15:00-15:20	WeB06.4
<i>A Network-Decentralised Strategy for Shortest-Path-Flow Routing</i> , pp. 1126-1131.	
Blanchini, Franco	University of Udine
Casagrande, Daniele	University of Udine
Fabiani, Filippo	Delft University of Technology
Giordano, Giulia	Delft University of Technology
Pesenti, Raffaele	University of Venice - Ca' Foscari
15:20-15:40	WeB06.5
<i>Optimal Linear Exponential Quadratic Gaussian Estimation with Intermittent Observations</i> , pp. 1132-1137.	
Xu, Jiapeng	East China University of Science and Technology
Wu, Xiaotai	Anhui Polytechnic University
Tang, Yang	East China University of Science and Technology
15:40-16:00	WeB06.6
<i>Control Technique for Synchronization of Selected Nodes in Directed Networks</i> , pp. 1138-1143.	
Ursino, Bruno	University of Catania
Gambuzza, Lucia Valentina	University of Catania
Latora, Vito	Queen Mary University of London
Frasca, Mattia	University of Catania
WeB07	Méditerranée A1
Robotics II (Regular Session)	
Chair: Mohseni, Kamran	University of Florida
Co-Chair: Moreau, Clément	Université Côte d'Azur, INRIA Sophia Antipolis
14:00-14:20	WeB07.1
<i>Stable, Concurrent Controller Composition for Multi-Objective Robotic Tasks</i> , pp. 1144-1151.	
Li, Anqi	Georgia Institute of Technology
Cheng, Ching-An	Georgia Institute of Technology
Boots, Byron	Georgia Institute of Technology
Egerstedt, Magnus	Georgia Institute of Technology
14:20-14:40	WeB07.2
<i>Guaranteed Tracking Controller for Wheeled Mobile Robot Based on Flatness and Interval Observer</i> , pp. 1152-1158.	
Abadi, Amine	National Engineering School of Sousse
El Amraoui, Adnen	Université D'Orléans
mekki, hassen	National Engineering School of Sousse
Ramdani, Nacim	University of Orléans
14:40-15:00	WeB07.3
<i>Safety Verification of Nonlinear Polynomial System Via Occupation Measures</i> , pp. 1159-1164.	
Chen, Ximing	University of Pennsylvania
Chen, Shaoru	University of Pennsylvania
Preciado, Victor M.	University of Pennsylvania
15:00-15:20	WeB07.4
<i>Local Controllability of a Magnetized Purcell's Swimmer</i> , pp. 1165-1170.	
Moreau, Clément	Université Côte d'Azur, INRIA Sophia Antipolis

15:20-15:40	WeB07.5
<i>Digital H-Inf Robust Control of Mechanical Systems with Implicit Observer</i> , pp. 1171-1176.	
Angelico, Bruno	Universidade de São Paulo
Brugnolli, Mateus Mussi	Universidade de São Paulo
das Neves, Gabriel	Universidade de São Paulo
15:40-16:00	WeB07.6
<i>Acceleration Compensation for Gravity Sense Using an Accelerometer in an Aerodynamically Stable UAV</i> , pp. 1177-1182.	
Mitikiri, Yujendra	University of Florida
Mohseni, Kamran	University of Florida
WeB08	Méditerranée 3
Estimation and Control of PDE Systems II (Invited Session)	
Chair: Demetriou, Michael A.	Worcester Polytechnic Institute
Co-Chair: Fahroo, Fariba	AFOSR
Organizer: Demetriou, Michael A.	Worcester Polytechnic Institute
Organizer: Fahroo, Fariba	AFOSR
Organizer: Le Gorrec, Yann	Ensmm, Femto-St / As2m
14:00-14:20	WeB08.1
<i>Design and Implementation of a Backstepping Controller for Regulating Temperature in 3D Printers Based on Selective Laser Sintering (I)</i> , pp. 1183-1188.	
de Andrade, Gustavo Artur	Universidade Federal de Santa Catarina
Vazquez, Rafael	University of Seville
Pagano, Daniel Juan	Federal University of Santa Catarina
Mascheroni, Jose Maria	Alkimat Tecnologia Ltda
14:20-14:40	WeB08.2
<i>Sensor Location for Parameter Estimation of Spatiotemporal Systems with Correlated Observations (I)</i> , pp. 1189-1194.	
Ucinski, Dariusz	University of Zielona Gora
Patan, Maciej	University of Zielona Gora
14:40-15:00	WeB08.3
<i>Laser Sintering Control for Metal Additive Manufacturing by PDE Backstepping (I)</i> , pp. 1195-1200.	
Koga, Shumon	University of California, San Diego
Krstic, Miroslav	University of California, San Diego
Beaman, Joseph J.	University of Texas, Austin
15:00-15:20	WeB08.4
<i>Sampled-Data Observer for 2D Navier-Stokes Equation (I)</i> , pp. 1201-1206.	
Kang, Wen	University of Science and Technology Beijing
Fridman, Emilia	Tel-Aviv University
Zhuk, Sergiy	IBM
15:20-15:40	WeB08.5
<i>Model-Based Networked Control of Spatially-Distributed Processes with Event-Triggered Parameter Re-Identification (I)</i> , pp. 1207-1212.	
Zedan, Amr	University of California Davis
El-Farra, Nael H.	University of California, Davis
15:40-16:00	WeB08.6

Combined Sequential Mobile Sensing Agent Evacuation and State Reconstruction in Contaminated Spatial Fields (I), pp. 1213-1218.

Demetriou, Michael A. Worcester Polytechnic Institute

WeB09	Méditerranée B12
Mean Field Games II (Regular Session)	
Chair: Hajek, Bruce	UIUC
Co-Chair: Huang, Minyi	Carleton University
14:00-14:20	WeB09.1
<i>On Non-Unique Solutions in Mean Field Games</i> , pp. 1219-1224.	
Hajek, Bruce	UIUC
Livesay, Michael	University of Illinois
14:20-14:40	WeB09.2
<i>Decentralized Adaptive Optimal Control for Massive Multi-Agent Systems Using Mean Field Game with Self-Organizing Neural Networks</i> , pp. 1225-1230.	
Zhou, Zejian	University of Nevada, Reno
Xu, Hao	University of Nevada, Reno
14:40-15:00	WeB09.3
<i>Decentralized Adaptive Optimal Tracking Control for Massive Multi-Agent Systems: An Actor-Critic-Mass Algorithm</i> , pp. 1231-1236.	
Zhou, Zejian	University of Nevada, Reno
Xu, Hao	University of Nevada, Reno
15:00-15:20	WeB09.4
<i>Mean Field Games with Poisson Jumps and Impulse Control: Long-Run Average Cost</i> , pp. 1237-1242.	
Zhou, Mengjie	Carleton University
Huang, Minyi	Carleton University
15:20-15:40	WeB09.5
<i>Linearly-Solvable Mean-Field Approximation for Multi-Team Road Traffic Games</i> , pp. 1243-1248.	
Pedram, Ali Reza	University of Texas, Austin
Tanaka, Takashi	University of Texas, Austin
15:40-16:00	WeB09.6
<i>A Mean Field Approach to Model Flows of Agents with Path Preferences Over a Network</i> , pp. 1249-1254.	
Bagagiolo, Fabio	University of Trento
Maggistro, Rosario	Università Ca' Foscari Venezia
Pesenti, Raffaele	University of Venice - Ca' Foscari
WeB10	Méditerranée C12
Orchestrating Movement of Smart Vehicles in Smart Cities (Invited Session)	
Chair: Malikopoulos, Andreas	University of Delaware
Co-Chair: Su, Rong	Nanyang Technological University
Organizer: Vahidi, Ardan	Clemson University
Organizer: Su, Rong	Nanyang Technological University
14:00-14:20	WeB10.1
<i>A Hybrid Traffic Light Control Strategy Based on Branching Ratio Estimation and Congestion Identification (I)</i> , pp. 1255-1260.	
Zhang, Yicheng	Nanyang Technological University
Chen, Qixing	Nanyang Technological University

Su, Rong	Nanyang Technological University
Zhang, Yi	Nanyang Technological University
Sun, Chunyang	Nanyang Technological University

14:20-14:40 WeB10.2

Optimal Path Planning for Connected and Automated Vehicles at Urban Intersections (I), pp. 1261-1266.

Malikopoulos, Andreas A.	University of Delaware
Zhao, Liuhui	University of Delaware

14:40-15:00 WeB10.3

Distributed Ledger Technology for Smart Mobility: Variable Delay Models (I), pp. 1267-1272.

Cullen, Andrew	Imperial College London
Ferraro, Pietro	University College Dublin
King, Christopher	Northeastern University
Shorten, Robert	Imperial College London

15:00-15:20 WeB10.4

Stochastic Modeling and Optimal Control for Automated Overtaking (I), pp. 1273-1278.

Gao, Yulong	KTH Royal Institute of Technology
Jiang, Frank J.	University of California, Berkeley
Johansson, Karl H.	KTH Royal Institute of Technology
Xie, Lihua	Nanyang Tech. University

15:20-15:40 WeB10.5

Real-Time Ecological Velocity Planning for Plug-In Hybrid Vehicles with Partial Communication to Traffic Lights (I), pp. 1279-1285.

Bae, Sangjae	University of California, Berkeley
Choi, Yongkeun	University of California, Berkeley
Kim, Yeojun	University of California, Berkeley
Guanetti, Jacopo	University of California, Berkeley
Borrelli, Francesco	University of California, Berkeley
Moura, Scott	University of California, Berkeley

15:40-16:00 WeB10.6

Reinforcement Learning Augmented Optimization for Smart Mobility (I), pp. 1286-1292.

Overko, Roman	University College Dublin
Ordóñez-Hurtado, Rodrigo H.	IBM Research - Ireland
Zhuk, Sergiy	IBM
Shorten, Robert	University College Dublin

WeB11 Galliéni 1
Markov Processes I (Regular Session)

Chair: Karlsson, Johan	KTH Royal Institute of Technology
Co-Chair: Ornik, Melkior	University of Illinois, Urbana Champaign

14:00-14:20 WeB11.1

Stochastic Primal-Dual Methods for Learning Mixture Policies in MDPs, pp. 1293-1300.

Badiei Khuzani, Masoud	Stanford University
Vasudevan, Varun	Stanford University
Ren, Hongyi	Stanford University
XXing, Lei	Stanford University

14:20-14:40 WeB11.2

Sensitivity Analysis for MDP Congestion Games, pp. 1301-1306.

Li, Sarah H.Q.	University of Washington
Calderone, Dan	University of Washington
Ratliff, Lillian J.	University of Washington
Acikmese, Behcet	University of Washington

14:40-15:00 WeB11.3

Scalable Filtering of Large Graph-Coupled Hidden Markov Models, pp. 1307-1314.

Haksar, Ravi N.	Stanford University
Lorenzetti, Joseph	Stanford University
Schwager, Mac	Stanford University

15:00-15:20 WeB11.4

Controlling Heterogeneous Stochastic Growth Processes on Lattices with Limited Resources, pp. 1315-1322.

Haksar, Ravi N.	Stanford University
Solowjow, Friedrich	Max Planck Institute for Intelligent Systems
Trimpe, Sebastian	Max Planck Institute for Intelligent Systems
Schwager, Mac	Stanford University

15:20-15:40 WeB11.5

Optimal Deceptive and Reference Policies for Supervisory Control, pp. 1323-1330.

Karabag, Mustafa O.	University of Texas, Austin
Ornik, Melkior	University of Illinois, Urbana Champaign
Topcu, Ufuk	University of Texas, Austin

15:40-16:00 WeB11.6

Estimating Ensemble Flows on a Hidden Markov Chain, pp. 1331-1338.

Haasler, Isabel	KTH Royal Institute of Technology
Ringh, Axel	The Hong Kong University of Science and Technology
Chen, Yongxin	Georgia Institute of Technology
Karlsson, Johan	KTH Royal Institute of Technology

WeB12 Galliéni 2
Quantum Information and Control (Regular Session)

Chair: Sarlette, Alain	INRIA Paris
Co-Chair: Rouchon, Pierre	Mines ParisTech

14:00-14:20 WeB12.1

Effect of Quantum Mechanical Global Phase Factor on Error versus Sensitivity Limitation in Quantum Routing, pp. 1339-1344.

Jonckheere, Edmond	University of Southern California
Schirmer, Sophie	Swansea University
Langbein, Frank C.	Cardiff University

14:20-14:40 WeB12.2

Active versus Passive Coherent Equalization of Passive Linear Quantum Systems, pp. 1345-1350.

Ugrinovskii, Valery	University of New South Wales
James, Matthew R.	Australian National University

14:40-15:00 WeB12.3

Optimal Waveform for Fast Entrainment of Weakly Forced Quantum Nonlinear Dissipative Oscillators, pp. 1351-1356.

Kato, Yuzuru	Tokyo Institute of Technology
Nakao, Hiroya	Tokyo Institute of Technology

15:00-15:20	WeB12.4
<i>H1-Control of an Ensemble of Half-Spin Systems Replacing Rabi Pulses by Adiabatic Following</i> , pp. 1357-1361.	
Maciel Neto, Ulisses Alves	Amazônia Azul Technologies of Defense
Pereira da Silva, Paulo Sergio	University de Sao Paulo
Beauchard, Karine	CNRS, CMLS, Ecole Polytechnique
Rouchon, Pierre	Mines ParisTech
15:20-15:40	WeB12.5
<i>A Palette of Approaches for Adiabatic Elimination in Bipartite Open Quantum Systems with Hamiltonian Dynamics on Target</i> , pp. 1362-1368.	
Forni, Paolo	Mines ParisTech & INRIA (QUANTIC)
Launay, Timothée	Mines Paristech
Sarlette, Alain	INRIA Paris
Rouchon, Pierre	Mines ParisTech
15:40-16:00	WeB12.6
<i>Minimizing Decoherence on Target in Bipartite Open Quantum Systems</i> , pp. 1369-1376.	
Forni, Paolo	Mines ParisTech & INRIA (QUANTIC)
Sarlette, Alain	INRIA Paris
WeB13 Galliéni 4	
Predictive Control for Linear Systems II (Regular Session)	
Chair: Allgöwer, Frank	University of Stuttgart
Co-Chair: de Jager, Bram	Technische Universiteit Eindhoven
14:00-14:20	WeB13.1
<i>Dual Adaptive MPC for Output Tracking of Linear Systems</i> , pp. 1377-1382.	
Soloperto, Raffaele	University of Stuttgart
Koehler, Johannes	University of Stuttgart
Muller, Matthias A.	Leibniz University Hannover
Allgöwer, Frank	University of Stuttgart
14:20-14:40	WeB13.2
<i>Linear Robust Adaptive Model Predictive Control: Computational Complexity and Conservatism</i> , pp. 1383-1388.	
Koehler, Johannes	University of Stuttgart
Andina, Elisa	Universita Di Bologna - M.Sc. Student
Soloperto, Raffaele	Raffaele Soloperto
Muller, Matthias A.	Leibniz University Hannover
Allgöwer, Frank	University of Stuttgart
14:40-15:00	WeB13.3
<i>Instant MPC for Linear Systems and Dissipativity-Based Stability Analysis</i> , pp. 1389-1394.	
Yoshida, Keisuke	Keio University
Inoue, Masaki	Keio University
Hatanaka, Takeshi	Tokyo Institute of Technology
15:00-15:20	WeB13.4
<i>Parallelizing LQR Computation through Endpoint-Explicit Riccati Recursion</i> , pp. 1395-1402.	
Laine, Forrest, J.	University of California, Berkeley
Tomlin, Claire J.	University of California, Berkeley

15:20-15:40	WeB13.5
<i>Adversarial Model Predictive Control Via Second-Order Cone Programming</i> , pp. 1403-1409.	
Guthrie, James	Johns Hopkins University
Mallada, Enrique	Johns Hopkins University
15:40-16:00	WeB13.6
<i>A System-Theoretic Approach to Construct a Banded Null Basis to Efficiently Solve MPC-Based QP Problems</i> , pp. 1410-1415.	
Yang, Jiaheng	Eindhoven University of Technology
Meijer, Tomas Jesse	Eindhoven University of Technology
Dolk, Victor Sebastiaan	Eindhoven University of Technology
de Jager, Bram	Eindhoven University of Technology
Heemels, W.P.M.H.	Eindhoven University of Technology

WeB14 Galliéni 7	
Lyapunov Methods II (Regular Session)	
Chair: Normand-Cyrot, Dorothee	CNRS
Co-Chair: Poonawala, Hasan A.	University of Kentucky
14:00-14:20	WeB14.1
<i>Magnetic Force Modelling and Nonlinear Switched Control of an Electromagnetic Actuator</i> , pp. 1416-1421.	
Deschoux, Flavien	LAAS CNRS
Gouaisbaut, Frederic	University of Toulouse, LAAS CNRS
Ariba, Yassine	Icam
14:20-14:40	WeB14.2
<i>Control-Lyapunov and Control-Barrier Functions Based Quadratic Program for Spatio-Temporal Specifications</i> , pp. 1422-1429.	
Garg, Kunal	University of Michigan-Ann Arbor
Panagou, Dimitra	University of Michigan, Ann Arbor
14:40-15:00	WeB14.3
<i>Discrete Port-Controlled Hamiltonian Dynamics and Average Passivation</i> , pp. 1430-1435.	
Moreschini, Alessio	Sapienza University of Rome
Mattioni, Mattia	University of Roma La Sapienza
Monaco, Salvatore	University of Roma La Sapienza
Normand-Cyrot, Dorothee	CNRS
15:00-15:20	WeB14.4
<i>Switched Motorized and Functional Electrical Stimulation Cycling Controllers for Power Tracking</i> , pp. 1436-1441.	
Chang, Chen-Hao	Syracuse University
Duenas, Victor H	Syracuse University
15:20-15:40	WeB14.5
<i>Stability Analysis Via Refinement of Piece-Wise Linear Lyapunov Functions</i> , pp. 1442-1447.	
Poonawala, Hasan A.	University of Kentucky
15:40-16:00	WeB14.6
<i>A Control Lyapunov Perspective on Episodic Learning Via</i>	

Projection to State Stability, pp. 1448-1455.

Taylor, Andrew	California Institute of Technology
Dorobantu, Victor	California Institute of Technology
Krishnamoorthy, Meera	California Institute of Technology
Le, Hoang M.	California Institute of Technology
Yue, Yisong	California Institute of Technology
Ames, Aaron D.	California Institute of Technology

WeB15 Rhodes GH
Optimality Conditions for Control Problems I (Invited Session)

Chair: Frankowska, Helene	CNRS and Sorbonne University, Campus Pierre Et Marie Curie
Co-Chair: Chittaro, Francesca	Université de Toulon
Organizer: Chittaro, Francesca	Université de Toulon
Organizer: Frankowska, Helene	CNRS and Sorbonne University, Campus Pierre Et Marie Curie
Organizer: Poggiolini, Laura	University of Firenze

14:00-14:20 WeB15.1

On Second-Order Necessary Conditions in Optimal Control of Problems with Mixed Final Point Constraints (I), pp. 1456-1461.

Frankowska, Helene	CNRS and Sorbonne University, Campus Pierre Et Marie Curie
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14:20-14:40 WeB15.2

Constrained Bang-Bang-Singular Extremals (I), pp. 1462-1467.

Poggiolini, Laura	University of Firenze
Stefani, Gianna	University of Firenze

14:40-15:00 WeB15.3

Some Results on Second Order Controllability Conditions (I), pp. 1468-1473.

Soravia, Pierpaolo	University of Padova
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15:00-15:20 WeB15.4

Necessary Conditions Involving Lie Brackets for Impulsive Optimal Control Problems (I), pp. 1474-1479.

Motta, Monica	University of Padua, Italy
Aronna, María Soledad	Fundação Getulio Vargas
Rampazzo, Franco	University of Padua

15:20-15:40 WeB15.5

Second Order Conditions for a Control Problem with Discontinuous Cost (I), pp. 1480-1485.

Bayen, T�rence	Universit� de Montpellier
Pfeiffer, Laurent	Graz University

15:40-16:00 WeB15.6

Iterative Method Using the Generalized Hopf Formula: Avoiding Spatial Discretization for Computing Solutions of Hamilton-Jacobi Equations for Nonlinear Systems, pp. 1486-1493.

Lee, Donggun	University of California, Berkeley
Tomlin, Claire J.	University of California, Berkeley

WeB16 Rhodes AB
Optimization II (Regular Session)

Chair: Nedich, Angelia	Arizona State University
Co-Chair: Karlsson, Niklas	Oath

14:00-14:20 WeB16.1

A Geometric Phasor Extremum Seeking Control Approach with Measured Constraints, pp. 1494-1500.

Atta, Khalid	Lule� University of Technology
Guay, Martin	Queens University
Lucchese, Riccardo	LTU Lule� University of Technology

14:20-14:40 WeB16.2

Acceleration in First Order Quasi-Strongly Convex Optimization by ODE Discretization, pp. 1501-1506.

Zhang, Jingzhao	MIT
Sra, Suvrit	MIT
Jadbabaie, Ali	MIT

14:40-15:00 WeB16.3

Random Minibatch Projection Algorithms for Convex Feasibility Problems, pp. 1507-1512.

Nedich, Angelia	Arizona State University
Necoara, Ion	University Politehnica Bucharest

15:00-15:20 WeB16.4

Adaptive Optimization and Control in Online Advertising, pp. 1513-1518.

Karlsson, Niklas	Verizon Media
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15:20-15:40 WeB16.5

Nested Distributed Gradient Methods with Adaptive Quantized Communication, pp. 1519-1525.

Berahas, Albert S.	Lehigh University
Iakovidou, Charikleia	Northwestern University
Wei, Ermin	Northwestern University

15:40-16:00 WeB16.6

Distributionally Robust Portfolio Optimization, pp. 1526-1531.

Bardakci, Ibrahim Ekrem	Pennsylvania State University
Lagoa, Constantino M.	Pennsylvania State University

WeB17 Rhodes CD
Switched Systems II (Regular Session)

Chair: Sznaier, Mario	Northeastern University
Co-Chair: Ozay, Necmiye	University of Michigan

14:00-14:20 WeB17.1

Maximum-A-Posteriori Estimation of Jump Box-Jenkins Models, pp. 1532-1537.

Breschi, Valentina	Politecnico di Milano
Piga, Dario	University of Applied Sciences and Arts of Southern Switzerland
Bemporad, Alberto	IMT Institute for Advanced Studies Lucca

14:20-14:40 WeB17.2

Generation of Optimal Walking-Like Motions Using Dynamic Models with Switches, Switch Costs, and State Jumps, pp. 1538-1543.

Kirches, Christian	Technical University of Braunschweig
Kostina, Professor Dr. Ekaterina A.	Heidelberg University
Meyer, Andreas	IWR Heidelberg
Schl�der, Matthias	Heidelberg University

14:40-15:00 WeB17.3

Simultaneous Mode, Input and State Set-Valued Observers

with Applications to Resilient Estimation against Sparse Attacks, pp. 1544-1550.

Khajenejad, Mohammad Arizona State University
Yong, Sze Zheng Arizona State University

15:00-15:20 WeB17.4

An Exponential Stability Result for a Class of Linear Switched Systems and Its Application, pp. 1551-1556.

Liu, Tao Shenzhen Research Institute, the Chinese University of Hong Kong
Lee, Ti-Chung University of Science and Technology
Huang, Jie The Chinese University of Hong Kong

15:20-15:40 WeB17.5

Safety Control with Preview Automaton, pp. 1557-1564.

Liu, Zexiang University of Michigan
Ozay, Necmiye University of Michigan

15:40-16:00 WeB17.6

Global Exponential Stabilization of Language Constrained Switched Linear Discrete-Time System Based on the S-Procedure Approach, pp. 1565-1570.

Song, Yang Shanghai University
Jin, Yunyun Shanghai University
Wang, Yan Jiangnan University
Yang, Taicheng University of Sussex

WeB18 Rhodes EF
Observers for Nonlinear Systems II (Regular Session)

Chair: Ferrara, Antonella University of Pavia
Co-Chair: Rapaport, Alain U. Montpellier, INRA, Montpellier SupAgro

14:00-14:20 WeB18.1

A Multi Observers Approach When Observability Index Is Higher Than the State Dimension - a Case Study -, pp. 1571-1576.

Haidar, Ihab ENSEA
Barbot, Jean Pierre ENSEA
Rapaport, Alain U. Montpellier, INRA, Montpellier SupAgro

14:20-14:40 WeB18.2

Conservatism Reduction for Nonlinear Takagi-Sugeno Observer : Interconnected System Approach, pp. 1577-1582.

Arioui, Hichem Evry Val d'Essonne University
Ichalal, Dalil Université d'Evry Val d'Essonne, IBISC Lab
Nehaoua, lamri Evry Univeristy
Mammar, Said Université d'Evry IBISC

14:40-15:00 WeB18.3

Higher Order Sliding Mode Observers in Power Grids with Traditional and Renewable Sources, pp. 1583-1588.

Rinaldi, Gianmario University of Pavia
Menon, Prathyush P University of Exeter
Edwards, Christopher University of Exeter
Ferrara, Antonella University of Pavia

15:00-15:20 WeB18.4

Design of Robust Lyapunov-Based Observers for Nonlinear Systems with Sum-Of-Squares Programming, pp. 1589-1594.

Pylorof, Dimitrios US Army Research Laboratory
Bakolas, Efstathios University of Texas, Austin
Chan, Kevin US Army Research Laboratory

15:20-15:40 WeB18.5

State Observation of a Specific Class of Unknown Nonlinear SISO Systems Using Linear Kalman Filtering, pp. 1595-1600.

Amokrane, Fawzia Institut FEMTO-ST
Piat, Emmanuel Institut FEMTO-ST
Abadie, Joël Institut FEMTO-ST
Drouot, Adrien Institut FEMTO-ST
Escareño, Juan ENSIL-ENSCI @ University of Limoges

15:40-16:00 WeB18.6

Structure and Velocity Estimation of a Moving Object Via Synthetic Persistence by a Network of Stationary Cameras, pp. 1601-1606.

Bell, Zachary I. University of Florida
Harris, Christian University of Florida
Sun, Runhan University of Florida
Dixon, Warren E. University of Florida

WeB19 Galliéni 5
Advances in Nonlinear Filtering and Stochastic Control with Partial Information II (Invited Session)

Chair: Yuksel, Serdar Queen's University
Co-Chair: Mehta, Prashant G. University of Illinois, Urbana Champaign
Organizer: Mehta, Prashant G. University of Illinois, Urbana Champaign
Organizer: Yuksel, Serdar Queen's University

14:00-14:20 WeB19.1

What Is the Lagrangian for Nonlinear Filtering? (I), pp. 1607-1614.

Kim, Jin Won University of Illinois, Urbana Champaign
Mehta, Prashant G. University of Illinois, Urbana Champaign
Meyn, Sean P. University of Florida

14:20-14:40 WeB19.2

Belief Estimation by Agents in Major Minor LQG Mean Field Games (I), pp. 1615-1622.

Firoozi, Dena McGill University
Caines, Peter E. McGill University

14:40-15:00 WeB19.3

Observability and Filter Stability for Partially Observed Markov Processes (I), pp. 1623-1628.

McDonald, Curtis, James Queen's University
Yuksel, Serdar Queen's University

15:00-15:20 WeB19.4

Approximate Information State for Partially Observed Systems (I), pp. 1629-1636.

Subramanian, Jayakumar McGill University
Mahajan, Aditya McGill University

15:20-15:40 WeB19.5

Feedback Particle Filter with Correlated Noises, pp. 1637-1643.

Luo, Xue Beihang University

Miao, Huimin	Beihang University
15:40-16:00	WeB19.6
<i>Stability of Optimal Filter Higher-Order Derivatives</i> , pp. 1644-1649.	
Tadic, Vladislav	University of Bristol
Doucet, Arnaud	University of Oxford
WeB20	Rhodes 10
Event-Triggered Control Based on Lyapunov Methods (Invited Session)	
Chair: Noroozi, Navid	Otto Von Guericke Universitat Magdeburg
Co-Chair: Heemels, W.P.M.H.	Eindhoven University of Technology
Organizer: Heemels, W.P.M.H.	Eindhoven University of Technology
Organizer: Hirche, Sandra	Technische Universität München
Organizer: Johansson, Karl H.	KTH Royal Institute of Technology
14:00-14:20	WeB20.1
<i>State-Feedback Event-Holding Control for Nonlinear Systems (I)</i> , pp. 1650-1655.	
Wang, Wei	University of Melbourne
Nesic, Dragan	University of Melbourne
Postoyan, Romain	CNRS, CRAN, Université de Lorraine
Shames, Iman	University of Melbourne
Heemels, W.P.M.H.	Eindhoven University of Technology
14:20-14:40	WeB20.2
<i>Periodic Event-Triggered Control with a Relaxed Triggering Condition (I)</i> , pp. 1656-1661.	
Szymanek, Aleksandra	Delft University of Technology
de Albuquerque Gleizer, Gabriel	Delft University of Technology
Mazo Jr., Manuel	Delft University of Technology
14:40-15:00	WeB20.3
<i>Inter-Event Times Analysis for Planar Linear Event-Triggered Controlled Systems (I)</i> , pp. 1662-1667.	
Postoyan, Romain	CNRS, CRAN, Université de Lorraine
Sanfelice, Ricardo G.	University of California, Santa Cruz
Heemels, W.P.M.H.	Eindhoven University of Technology
15:00-15:20	WeB20.4
<i>Distributed Event-Based Control and Stability of Interconnected Systems</i> , pp. 1668-1673.	
Theodosios, Dionysios	KTH Royal Institute of Technology
Dimarogonas, Dimos V.	KTH Royal Institute of Technology
15:20-15:40	WeB20.5
<i>On Integral Input-To-State Stability of Event-Triggered Control Systems</i> , pp. 1674-1679.	
Mousavi, Seyed Hossein	Ryerson University
Noroozi, Navid	Otto Von Guericke Universitat Magdeburg
Geiselhart, Roman	University of Ulm
Koegel, Markus	Otto Von Guericke Universitat Magdeburg

Findeisen, Rolf	Otto Von Guericke Universitat Magdeburg
15:40-16:00	WeB20.6
<i>Nonlinear Dynamic Periodic Event-Triggered Control with Robustness to Packet Loss Based on Non-Monotonic Lyapunov Functions (I)</i> , pp. 1680-1685.	
Hertneck, Michael	University of Stuttgart
Linsenmayer, Steffen	University of Stuttgart
Allgöwer, Frank	University of Stuttgart
WeB21	Risso 6
Network Analysis and Control II (Regular Session)	
Chair: Monshizadeh, Nima	University of Groningen
Co-Chair: Wang, Hanlei	Beijing Institute of Control Engineering
14:00-14:20	WeB21.1
<i>Network Modification Using a Novel Gramian-Based Edge Centrality</i> , pp. 1686-1691.	
Chanekar, Prasad Vilas	University of California, San Diego
Nozari, Erfan	University of California, San Diego
Cortes, Jorge	University of California, San Diego
14:20-14:40	WeB21.2
<i>Design of Sustainable Resource Consumption Networks</i> , pp. 1692-1697.	
Ruf, Sebastian F.	Northeastern University
Hale, Matthew	University of Florida
Manzoor, Talha	Namal College
Muhammad, Abubakr	Lahore University of Management Sciences
14:40-15:00	WeB21.3
<i>Task-Space Bilateral Control of Teleoperators with Time-Varying Delay</i> , pp. 1698-1703.	
Wang, Hanlei	Beijing Institute of Control Engineering
15:00-15:20	WeB21.4
<i>A Continuous Threshold Model of Cascade Dynamics</i> , pp. 1704-1709.	
Zhong, Yaofeng Desmond	Princeton University
Leonard, Naomi Ehrlich	Princeton University
15:20-15:40	WeB21.5
<i>Plausible Deniability As a Notion of Privacy</i> , pp. 1710-1715.	
Monshizadeh, Nima	University of Groningen
Tabuada, Paulo	University of California, Los Angeles
15:40-16:00	WeB21.6
<i>On Node Controllability and Observability in Complex Dynamical Networks</i> , pp. 1716-1721.	
Lo Iudice, Francesco	Univeristy of Napoli Federico II
Sorrentino, Francesco	University of New Mexico
Garofalo, Franco	University of Napoli
WeB22	Risso 7
Identification II (Regular Session)	
Chair: Usai, Elio	University of Cagliari
Co-Chair: Smith, Roy S.	ETH Zurich

14:00-14:20	WeB22.1
<i>Adaptive Parameter Estimation for Infinite-Dimensional LTI Systems with Finite-Time Convergence</i> , pp. 1722-1727.	
Pisano, Alessandro	University of Cagliari
Kapetina, Mirna N.	University of Novi Sad
Rapaic, Milan R.	University of Novi Sad
Usai, Elio	University of Cagliari
14:20-14:40	WeB22.2
<i>Identification of Low-Order Models Using Rational Orthonormal Basis Functions</i> , pp. 1728-1733.	
Manngård, Mikael	Åbo Akademi University
Toivonen, Hannu T.	Abo Akademi University
14:40-15:00	WeB22.3
<i>Data Informativity for the Identification of MISO FIR Systems with Filtered White Noise Excitation</i> , pp. 1734-1739.	
Colin, Kévin	Ecole Centrale de Lyon
Bombois, Xavier	Ecole Centrale de Lyon
Bako, Laurent	Ecole Centrale de Lyon
Morelli, Federico	Ecole Centrale de Lyon
15:00-15:20	WeB22.4
<i>Kernel-Based Identification of Positive Systems</i> , pp. 1740-1745.	
Khosravi, Mohammad	ETH Zurich, Automatic Control Lab
Smith, Roy S.	ETH Zurich
15:20-15:40	WeB22.5
<i>Efficient Identification of Linear Evolutions in Nonlinear Vector Fields: Koopman Invariant Subspaces</i> , pp. 1746-1751.	
Haseli, Masih	University of California, San Diego
Cortes, Jorge	University of California, San Diego
15:40-16:00	WeB22.6
<i>Persistent Excitation Condition for MIMO Volterra System Identification with Gaussian Distributed Input Signals</i> , pp. 1752-1757.	
Hu, Yangsheng	University of California, San Diego
Tan, Li	University of California, San Diego
de Callafon, Raymond A.	University of California, San Diego

WeB23 Risso 8
Model Learning for Control (Invited Session)

Chair: Zeilinger, Melanie N.	ETH Zurich
Co-Chair: Muller, Matthias A.	Leibniz University Hannover
Organizer: Schoellig, Angela P	University of Toronto
Organizer: Trimpe, Sebastian	Max Planck Institute for Intelligent Systems
Organizer: Zeilinger, Melanie N.	ETH Zurich
Organizer: Muller, Matthias A.	Leibniz University Hannover
14:00-14:20	WeB23.1
<i>An Efficient Reachability-Based Framework for Provably Safe Autonomous Navigation in Unknown Environments (I)</i> , pp. 1758-1765.	
Bajcsy, Andrea	University of California, Berkeley
Bansal, Somil	University of California, Berkeley
Bronstein, Eli	University of California, Berkeley
Tolani, Varun	University of California, Berkeley

Tomlin, Claire J.	University of California, Berkeley
14:20-14:40	WeB23.2
<i>Local Asymptotic Stability Analysis and Region of Attraction Estimation with Gaussian Processes</i> , pp. 1766-1771.	
Lederer, Armin	Technische Universität München
Hirche, Sandra	Technische Universität München
14:40-15:00	WeB23.3
<i>Learning for Control: A Bayesian Scenario Approach (I)</i> , pp. 1772-1777.	
Garatti, Simone	Politecnico di Milano
Campi, M. C.	University of Brescia
15:00-15:20	WeB23.4
<i>One-Shot Verification of Dissipativity Properties from Input-Output Data</i> , pp. 1778-1783.	
Romer, Anne	University of Stuttgart
Berberich, Julian	University of Stuttgart
Koehler, Johannes	University of Stuttgart
Allgöwer, Frank	University of Stuttgart
15:20-15:40	WeB23.5
<i>Active Training Trajectory Generation for Inverse Dynamics Model Learning with Deep Neural Networks (I)</i> , pp. 1784-1790.	
Zhou, Siqi	University of Toronto
Schoellig, Angela P	University of Toronto
15:40-16:00	WeB23.6
<i>Hierarchical Event-Triggered Learning for Cyclically Excited Systems with Application to Wireless Sensor Networks</i> , pp. 1791-1796.	
Beuchert, Jonas	Technische Universität Berlin
Solowjow, Friedrich	Max Planck Institute for Intelligent Systems
Raisch, Joerg	Technische Universität Berlin
Trimpe, Sebastian	Max Planck Institute for Intelligent Systems
Seel, Thomas	Technische Universität Berlin

WeB24 Hermès
Learning II (Regular Session)

Chair: Tabuada, Paulo	University of California, Los Angeles
Co-Chair: Pasqualetti, Fabio	University of California, Riverside
14:00-14:20	WeB24.1
<i>A Dynamical Biomolecular Neural Network</i> , pp. 1797-1802.	
Moorman, Andrew	Massachusetts Institute of Technology
Cuba Samaniego, Christian	University of California, Riverside
Maley, Carlo	Arizona State University
Weiss, Ron	MIT
14:20-14:40	WeB24.2
<i>Data-Driven Control for SISO Feedback Linearizable Systems with Unknown Control Gain</i> , pp. 1803-1808.	
Tabuada, Paulo	University of California, Los Angeles
Frailé, Lucas	University of California, Los Angeles
14:40-15:00	WeB24.3
<i>Forgetting Factor Kalman Filter with Dependent Noise</i>	

<i>Processes</i> , pp. 1809-1815.	
Dokoupil, Jakub	CEITEC, Brno University of Technology
Vaclavek, Pavel	Brno University of Technology
15:00-15:20	WeB24.4
<i>Spectral Characterization of the Multi-Seasonal Component of the Italian Electric Load: A LASSO-FFT Approach</i> , pp. 1816-1821.	
Incremona, Alessandro	University of Pavia
De Nicolao, Giuseppe	University of Pavia
15:20-15:40	WeB24.5
<i>Distributed Robust Statistical Learning: Byzantine Mirror Descent</i> , pp. 1822-1827.	
Ding, Dongsheng	University of Southern California
Wei, Xiaohan	University of Southern California
Jovanovic, Mihailo R.	University of Southern California
15:40-16:00	WeB24.6
<i>A Fundamental Performance Limitation for Adversarial Classification</i> , pp. 1828-1833.	
Al Makdah, Abed AlRahman	University of California Riverside
Katewa, Vaibhav	University of California Riverside
Pasqualetti, Fabio	University of California, Riverside
WeB25 Athéna	
Multi-Agent Systems II (Regular Session)	
Chair: Tron, Roberto	Boston University
Co-Chair: Poovendran, Radha	University of Washington
14:00-14:20	WeB25.1
<i>Distributed 3-D Bearing-Only Orientation Localization</i> , pp. 1834-1841.	
Leonardos, Spyridon	University of Pennsylvania
Daniilidis, Kostas	University of Pennsylvania
Tron, Roberto	Boston University
14:20-14:40	WeB25.2
<i>Potential-Based Advice for Stochastic Policy Learning</i> , pp. 1842-1849.	
Xiao, Baicen	University of Washington
Ramasubramanian, Bhaskar	University of Washington
Clark, Andrew	Worcester Polytechnic Institute
Hajishirzi, Hannaneh	University of Washington
Bushnell, Linda	University of Washington
Poovendran, Radha	University of Washington
14:40-15:00	WeB25.3
<i>Distributed Algorithm for Solving the Bottleneck Assignment Problem</i> , pp. 1850-1855.	
Khoo, Mitchell	University of Melbourne
Wood, Tony A.	University of Melbourne
Manzie, Chris	University of Melbourne
Shames, Iman	University of Melbourne
15:00-15:20	WeB25.4
<i>PageRank Computation Via Web Aggregation in Distributed Randomized Algorithms</i> , pp. 1856-1861.	
Suzuki, Atsushi	Tokyo Institute of Technology
Ishii, Hideaki	Tokyo Institute of Technology
15:20-15:40	WeB25.5

<i>Formation Control for Multiple Agents with Local Measurements: Continuous-Time and Sampled-Data-Based Cases</i> , pp. 1862-1867.	
Wang, Chen	Peking University
Li, Shuai	Peking University
Xia, Weiguo	Dalian University of Technology
Sun, Jinan	Peking University
Xie, Guangming	Peking University
15:40-16:00	WeB25.6
<i>Global Uniform Asymptotic Stability of a Generalized Adaptive Bellman-Ford Algorithm</i> , pp. 1868-1873.	
Mo, Yuanqiu	University of Iowa
Dasgupta, Soura	University of Iowa
Beal, Jacob	Raytheon BBN Technologies
WeC01 Méditerranée 1	
Biological Rhythms and Oscillators (Invited Session)	
Chair: Giordano, Giulia	Delft University of Technology
Co-Chair: Singh, Abhyudai	University of Delaware
Organizer: Giordano, Giulia	Delft University of Technology
Organizer: Singh, Abhyudai	University of Delaware
16:30-16:50	WeC01.1
<i>Semidefinite Programming for Turing Instability Analysis in Molecular Communication Networks (I)</i> , pp. 1874-1880.	
Hori, Yutaka	Keio University
Miyazako, Hiroki	University of Tokyo
16:50-17:10	WeC01.2
<i>Compensating for Sensor Error in the Model Predictive Control of Circadian Clock Phase</i> , pp. 1881-1886.	
Brown, Lindsey S.	Harvard John A. Paulson School of Engineering and Applied Scienc
Klerman, Elizabeth B.	Harvard Medical School, Brigham and Women's Hospital
Doyle III, Francis J.	Harvard University
17:10-17:30	WeC01.3
<i>Periodic Switching in a Recombinase-Based Molecular Circuit</i> , pp. 1887-1892.	
Cuba Samaniego, Christian	University of California, Riverside
Giordano, Giulia	Delft University of Technology
Franco, Elisa	University of California, Los Angeles
17:30-17:50	WeC01.4
<i>Nonlinear Dynamics of a Positive Hybrid Observer for the Impulsive Goodwin's Oscillator: A Design Study (I)</i> , pp. 1893-1898.	
Yamalova, Diana	Uppsala University
Medvedev, Alexander V.	Uppsala University
Zhusubaliyev, Zhanybai	South West State University (Kursk State Technical University)
Proskurnikov, Anton V.	Politecnico Di Torino
17:50-18:10	WeC01.5
<i>Rapid Circadian Entrainment in Models of Circadian Genes Regulation</i> , pp. 1899-1906.	
Yin, Jiawei	Rensselaer Polytechnic Institute
Julius, Agung	Rensselaer Polytechnic Institute
Wen, John T.	Rensselaer Polytechnic Institute

18:10-18:30	WeC01.6
<i>Global Exponential Stability of Delayed Coupled Repressilators in Artificial Oscillatory Networks</i> , pp. 1907-1912.	
Liu, Zexing	Heilongjiang University
Zhang, Xian	Heilongjiang University
Wang, Xin	Heilongjiang University

WeC02 Méditerranée 2
Power Systems Applications (Regular Session)

Chair: Ilic, Marija	Massachusetts Institute of Technology
Co-Chair: Curioni, Gabriele	Fraunhofer IWES

16:30-16:50	WeC02.1
<i>A PID Controller for Direct Load Control of Thermostatically Controlled Appliances</i> , pp. 1913-1918.	

yazdkhasti, pegah	University of New Brunswick
Diduch, C.P.	University of New Brunswick

16:50-17:10	WeC02.2
<i>Distributed State Estimation for AC Power Systems Using Gauss-Newton ALADIN</i> , pp. 1919-1924.	

Du, Xu	ShanghaiTech University
Engelmann, Alexander	Karlsruhe Institute of Technology
Jiang, Yuning	ShanghaiTech University
Faulwasser, Timm	Karlsruhe Institute of Technology
Houska, Boris	ShanghaiTech University

17:10-17:30	WeC02.3
<i>Nested Reinforcement Learning Based Control for Protective Relays in Power Distribution Systems</i> , pp. 1925-1930.	

Wu, Dongqi	Texas A&M University
Zheng, Xiangtian	Texas A&M University
Kalathil, Dileep	Texas A&M University
Xie, Le	Texas A&M University

17:30-17:50	WeC02.4
<i>Robust Drive-Train Test Bench Control Framework Via Hardware-In-The-Loop with Mechanical Inertia Emulation Capability</i> , pp. 1931-1936.	

Curioni, Gabriele	Fraunhofer IWES
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17:50-18:10	WeC02.5
<i>Modeling and Distributed Control of Microgrids: A Negative Feedback Approach</i> , pp. 1937-1944.	

Miao, Xia	Massachusetts Institute of Technology
Ilic, Marija	Massachusetts Institute of Technology

18:10-18:30	WeC02.6
<i>Alternative Control Approach for the Offshore Grid of Wind Power Plants</i> , pp. 1945-1950.	

Díaz Sanahuja, Carlos	Universitat Jaume I
Peñarrocha, Ignacio	Universitat Jaume I
Vidal-Albalade, Ricardo	Universitat Jaume I

WeC03 Méditerranée 5
Adaptive Control III (Regular Session)

Chair: Chen, Kaiwen	Imperial College London
Co-Chair: Michailidis, George	University of Florida

16:30-16:50	WeC03.1
<i>Adaptive Impedance Control with Setpoint Force Tracking for Unknown Soft Environment Interactions</i> , pp. 1951-1958.	

Stephens, Trevor	University of Minnesota
Awasthi, Chaitanya	University of Minnesota
Kowalewski, Timothy	University of Minnesota

16:50-17:10	WeC03.2
<i>Reinforcement Learning with Sparse Bellman Error Extrapolation for Infinite-Horizon Approximate Optimal Regulation</i> , pp. 1959-1964.	

Greene, Max L.	University of Florida
Deptula, Patryk	University of Florida
Nivison, Scott	Air Force Research Laboratory
Dixon, Warren E.	University of Florida

17:10-17:30	WeC03.3
<i>Output-Feedback I&I Adaptive Control for Linear Systems with Time-Varying Parameters</i> , pp. 1965-1970.	

Chen, Kaiwen	Imperial College London
Astolfi, Alessandro	Imperial College & University of Rome

17:30-17:50	WeC03.4
<i>Disturbance Rejection Via Affine Adaptive State Feedback Control</i> , pp. 1971-1976.	

Sofrony, Jorge Ivan	National University of Colombia
Herrera, David	National University of Colombia

17:50-18:10	WeC03.5
<i>On Applications of Bootstrap in Continuous Space Reinforcement Learning</i> , pp. 1977-1984.	

Shirani Faradonbeh, Mohamad Kazem	University of Michigan
Tewari, Ambuj	None
Michailidis, George	University of Florida

18:10-18:30	WeC03.6
<i>Approximate Optimal Adaptive Control of Partially Unknown Linear Continuous-Time Systems with State Delay</i> , pp. 1985-1990.	

Moghadam, Rohollah	Missouri University of Science and Technology
Jagannathan, Sarangapani	Missouri University of Science & Tech

WeC04 Méditerranée A2
Discrete Event Systems (Regular Session)

Chair: Coogan, Samuel	Georgia Institute of Technology
Co-Chair: van Schuppen, Jan H.	Van Schuppen Control Research

16:30-16:50	WeC04.1
<i>Context-Free Forbidden Path Control of Net Condition/Event Systems</i> , pp. 1991-1996.	

ZHANG, JIAFENG	Xidian University
Luo, Guangchao	Xidian University
Li, Zhiwu	Xidian University
Frey, Georg	Saarland University

16:50-17:10	WeC04.2
<i>Monitor-Based Runtime Assurance for Temporal Logic Specifications</i> , pp. 1997-2002.	

Abate, Matthew	Georgia Institute of Technology
Feron, Eric	Georgia Institute of Technology
Coogan, Samuel	Georgia Institute of Technology

17:10-17:30 WeC04.3

Critical Observability of Petri Nets with Unknown Initial Marking, pp. 2003-2008.

Cong, Xuya	Xidian University
Fanti, Maria Pia	Politecnico di Bari
Mangini, Agostino Marcello	Politecnico di Bari
Li, Zhiwu	Xidian University

17:30-17:50 WeC04.4

A Unifying Approach to Maximal Permissiveness in Modular Control of Discrete-Event Systems, pp. 2009-2014.

Komenda, Jan	Czech Academy of Sciences
Lin, Feng	Wayne State Univ
van Schuppen, Jan H.	Van Schuppen Control Research

17:50-18:10 WeC04.5

Attack-Resilient Supervisory Control with Intermittently Secure Communication, pp. 2015-2020.

Wang, Yu	Duke University
Pajic, Miroslav	Duke University

18:10-18:30 WeC04.6

Discovering of the Unobservable Behaviour of an Interpreted Petri Net Model, pp. 2021-2026.

Basile, Francesco	University of Salerno
Faraut, Gregory	ENS Paris-Saclay
Lesage, Jean-jacques	Ens Cachan
Ferrara, Luigi	University of Salerno

WeC05 Méditerranée C4
Constrained Control (Regular Session)

Chair: Garone, Emanuele	Université Libre de Bruxelles
Co-Chair: Serrani, Andrea	The Ohio State University

16:30-16:50 WeC05.1

Two Constructive Solutions to Orbital Stabilization of Nonlinear Systems Via Passivity-Based Control, pp. 2027-2032.

Yi, Bowen	Shanghai Jiao Tong University
Ortega, Romeo	LSS-SUPELEC
Wu, Dongjun	Harbin Institute of Technology
Zhang, Weidong	Shanghai Jiaotong Univ

16:50-17:10 WeC05.2

Constrained Control of Linear Discrete-Time Systems under Quartic Performance Criterion, pp. 2033-2038.

Liberati, Francesco	Sapienza University of Rome
Garone, Emanuele	Université Libre de Bruxelles

17:10-17:30 WeC05.3

Constrained-Inversion MRAC: An Approach Combining Hard Constraints and Adaptation in Uncertain Nonlinear Systems, pp. 2039-2045.

Bosso, Alessandro	University of Bologna
Serrani, Andrea	The Ohio State University
Conficoni, Christian	Alma Mater Studiorum, University of Bologna
Tilli, Andrea	University of Bologna

17:30-17:50 WeC05.4

A Scalable Controlled Set Invariance Framework with Practical Safety Guarantees, pp. 2046-2053.

Gurriet, Thomas	California Institute of Technology
Mote, Mark	Georgia Institute of Technology
Singletery, Andrew	Georgia Institute of Technology
Feron, Eric	Georgia Institute of Technology
Ames, Aaron D.	California Institute of Technology

17:50-18:10 WeC05.5

Compositional Synthesis of Decentralized Robust Set-Invariance Controllers for Large-Scale Linear Systems, pp. 2054-2059.

Ghasemi, Kasra	Boston University
Sadraddini, Sadra	Massachusetts Institute of Technology
Belta, Calin	Boston University

18:10-18:30 WeC05.6

From Obstacle-Based Space Partitioning to Corridors and Path Planning. a Convex Lifting Approach, pp. 2060-2065.

Ioan, Daniel	L2S-University Paris-Sud-CentraleSupélec-CNR, Université Paris Saclay
Olaru, Sorin	CentraleSupélec - INRIA Saclay
Prodan, Ionela	Grenoble Institute of Technology (Grenoble INP) - Esisar
Stoican, Florin	UPB (Politehnica University of Bucharest)
Niculescu, Silviu-Iulian	CNRS-Supelec

WeC06 Méditerranée A3
Control of Networks II (Regular Session)

Chair: Baggio, Giacomo	University of California, Riverside
Co-Chair: Astolfi, Daniele	Université Claude Bernard Lyon 1

16:30-16:50 WeC06.1

Optimizing Average Controllability of Networked Systems, pp. 2066-2071.

Srighakollapu, Manikya Valli	Indian Institute of Technology, Madras
Kalaimani, Rachel Kalpana	Indian Institute of Technology, Madras
Pasumarthy, Ramkrishna	Indian Institute of Technology, Madras

16:50-17:10 WeC06.2

Data-Driven Minimum-Energy Controls for Linear Systems, pp. 2072-2077.

Baggio, Giacomo	University of California, Riverside
Katewa, Vaibhav	University of California, Riverside
Pasqualetti, Fabio	University of California, Riverside

17:10-17:30 WeC06.3

Synchronization in Networks of Identical Nonlinear Systems Via Dynamic Dead Zones, pp. 2078-2083.

Casadei, Giacomo	Ecole Centrale Lyon
Astolfi, Daniele	Université Claude Bernard Lyon 1
Alessandri, Angelo	University of Genova
Zaccarian, Luca	LAAS-CNRS and University of Trento

17:30-17:50 WeC06.4

Cooperative Aerial Load Transportation Via Sampled Communication, pp. 2084-2089.

Rossi, Enrica	University of Padova
Tognon, Marco	LAAS-CNRS
Carli, Ruggero	University of Padova
Schenato, Luca	University of Padova
Cortés, Juan	LAAS-CNRS
Franchi, Antonio	LAAS-CNRS

17:50-18:10 WeC06.5

Decentralized Gain Adaptation for Optimal Pinning Controllability of Complex Networks, pp. 2090-2095.

Di Meglio, Anna	University of Napoli Federico II
De Lellis, Pietro	University of Napoli Federico II
di Bernardo, Mario	University of Napoli Federico II

18:10-18:30 WeC06.6

Time Scale Design for Network Resilience, pp. 2096-2101.

Foight, Dillon	University of Washington
Hudoba de Badyn, Mathias	University of Washington
Mesbahi, Mehran	University of Washington

WeC07 Méditerranée A1
Robotics III (Regular Session)

Chair: Ghorbel, Fathi H.	Rice Univ
Co-Chair: Chen, Zheng	University of Houston

16:30-16:50 WeC07.1

Vector Autoregressive POMDP Model Learning and Planning for Human-Robot Collaboration, pp. 2102-2107.

Zheng, Wei	University of Notre Dame
Lin, Hai	University of Notre Dame

16:50-17:10 WeC07.2

On the Design of Cyber-Physical Control System for a Smart Pedelec (Ebike), pp. 2108-2113.

Mannion, Andrew	University College Dublin
Lhachemi, Hugo	University College Dublin
Russo, Giovanni	University College Dublin
Sweeney, Shaun	Moixa Technology
Shorten, Robert	University College Dublin

17:10-17:30 WeC07.3

The Bouncing Penny and Nonholonomic Impacts, pp. 2114-2119.

Clark, William	University of Michigan
Bloch, Anthony M.	University of Michigan

17:30-17:50 WeC07.4

Optimal Trajectory Planning and Control of Buoyancy Control Device Enabled by Water Electrolyzer, pp. 2120-2125.

zuo, wenyu	University of Houston
Yi, Xiongfeng	University of Houston
Ghorbel, Fathi H.	Rice Univ
Chen, Zheng	University of Houston

17:50-18:10 WeC07.5

On Impact De-Orbiting for Satellites Using a Prescribed Impedance Behavior, pp. 2126-2131.

Nanos, Kostas	National Technical University of Athens
Xydi-Chrysafi, Foteini	National Technical University of Athens
Papadopoulos, Evangelos	National Technical University of Athens

Athens

18:10-18:30 WeC07.6

Force-Moment Decoupling and Rotor-Failure Robustness for Star-Shaped Generically-Tilted Multi-Rotors, pp. 2132-2137.

Michieletto, Giulia	University of Padova
Cenedese, Angelo	University of Padova
Franchi, Antonio	LAAS-CNRS

WeC08 Méditerranée 3
Estimation and Control of PDE Systems III (Invited Session)

Chair: Demetriou, Michael A.	Worcester Polytechnic Institute
Co-Chair: Fahroo, Fariba	AFOSR
Organizer: Demetriou, Michael A.	Worcester Polytechnic Institute
Organizer: Fahroo, Fariba	AFOSR
Organizer: Le Gorrec, Yann	Ensmm, Femto-St / As2m

16:30-16:50 WeC08.1

Isostable Reduction and Boundary Feedback Control for Nonlinear Convective Flows (I), pp. 2138-2143.

Wilson, Dan	University of Tennessee
Djouadi, Seddik	University of Tennessee

16:50-17:10 WeC08.2

Feedback Kernel Approximations and Sensor Selection for Controlled 2D Parabolic PDEs Using Computational Geometry Methods (I), pp. 2144-2150.

Demetriou, Michael A.	Worcester Polytechnic Institute
Hu, Weiwei	University of Georgia

17:10-17:30 WeC08.3

Network-Based Boundary Observer-Controller Design for 1D Heat Equation (I), pp. 2151-2156.

Katz, Rami	Tel Aviv University
Fridman, Emilia	Tel-Aviv University
Selivanov, Anton	KTH Royal Institute of Technology

17:30-17:50 WeC08.4

Robust Nonlinear State Estimation for Thermal-Fluid Models Using Reduced-Order Models: The Case of the Boussinesq Equations (I), pp. 2157-2162.

Benosman, Mouhacine	Mitsubishi Electric Research Laboratories
Borggaard, Jeff	Virginia Tech

17:50-18:10 WeC08.5

On-Line Dynamic Mode Decomposition of Fluid Flows Using Moving Horizon Estimation (I), pp. 2163-2168.

Alessandri, Angelo	University of Genova
Bagnerini, Patrizia	University of Genova
Carmeli, Claudio	University of Genova
Gaggero, Mauro	National Research Council of Italy
Lengani, Davide	University of Genova
Simoni, Daniele	University of Genova

18:10-18:30 WeC08.6

Stabilization of a 2-D Reaction-Diffusion Equation with a Coupled PDE Evolving on Its Boundary (I), pp. 2169-2174.

Vazquez, Rafael	University of Seville
Krstic, Miroslav	University of California, San Diego
Zhang, Jing	Donghua University
Qi, Jie	Donghua University

WeC09	Méditerranée B12
Game Theory I (Regular Session)	
Chair: Dong, Roy	University of Illinois, Urbana Champaign
Co-Chair: Brown, Philip N.	University of Colorado, Colorado Springs
16:30-16:50	WeC09.1
<i>Designing for Emergent Security in Heterogeneous Human-Machine Teams</i> , pp. 2175-2180.	
Brown, Philip N.	University of Colorado, Colorado Springs
16:50-17:10	WeC09.2
<i>Decision Making in Dynamic and Interactive Environments Based on Cognitive Hierarchy Theory, Bayesian Inference, and Predictive Control</i> , pp. 2181-2187.	
Li, Sisi	University of Michigan
Li, Nan	University of Michigan
Girard, Anouck	University of Michigan
Kolmanovsky, Ilya V.	University of Michigan
17:10-17:30	WeC09.3
<i>Strategic Inference with a Single Private Sample</i> , pp. 2188-2193.	
Miehling, Erik	University of Illinois, Urbana Champaign
Dong, Roy	University of Illinois, Urbana Champaign
Langbort, Cedric	University of Illinois, Urbana Champaign
Basar, Tamer	University of Illinois, Urbana Champaign
17:30-17:50	WeC09.4
<i>Sensor-Reveal Games</i> , pp. 2194-2200.	
Hespanha, Joao P.	University of California, Santa Barbara
Garagic, Denis	BAE Systems FAST Labs
17:50-18:10	WeC09.5
<i>Strategic Storage Operation in Wholesale Electricity Markets: A Game Theoretic Analysis</i> , pp. 2201-2207.	
Huang, Qisheng	Singapore University of Technology and Design
Xu, Yunjian	Chinese University of Hong Kong
Courcoubetis, Costas	Singapore University of Technology and Design
18:10-18:30	WeC09.6
<i>Constrained Mean-Field-Type Games: Stationary Case</i> , pp. 2208-2213.	
Barreiro-Gomez, Julian	New York University, Abu Dhabi (NYUAD)
Tembine, Hamidou	NYU
WeC10	Méditerranée C12
New Mobility Systems (Invited Session)	
Chair: Cassandras, Christos G.	Boston University
Co-Chair: Su, Rong	Nanyang Technological University
Organizer: Cassandras, Christos G.	Boston University

Organizer: Su, Rong Nanyang Technological University
Organizer: Malikopoulos, Andreas A. University of Delaware

16:30-16:50 WeC10.1

Sensitivity Analysis and Relaxation of the Static Traffic Assignment Problem with Capacity Constraints to Assess the Impact of Traffic Incidents (I), pp. 2214-2219.

Cabannes, Theophile University of California, Berkeley
Glista, Elizabeth University of California, Berkeley
Dwarakanath, Kshama University of California, Berkeley
Rao, Xu University of California, Berkeley
Veeravalli, Tanya University of California, Berkeley
Bayen, Alexandre University of California, Berkeley

16:50-17:10 WeC10.2

Time and Energy-Optimal Lane Change Maneuvers for Cooperating Connected and Automated Vehicles (I), pp. 2220-2225.

Chen, Rui Boston University
Cassandras, Christos G. Boston University
Tahmasbi-Sarvestani, Amin Honda R&D Americas

17:10-17:30 WeC10.3

Exploiting Beneficial Information Sharing among Autonomous Vehicles (I), pp. 2226-2232.

Han, Songyang University of Connecticut
Fu, Jie Worcester Polytechnic Institute
Miao, Fei University of Connecticut

17:30-17:50 WeC10.4

Contention-Resolving Model Predictive Control for Coordinating Automated Vehicles at a Traffic Intersection (I), pp. 2233-2238.

Yao, Ningshi Georgia Institute of Technology
Malisoff, Michael Louisiana State University
Zhang, Fumin Georgia Institute of Technology

17:50-18:10 WeC10.5

Cumulative Prospect Theory Based Dynamic Pricing for Shared Mobility on Demand Services (I), pp. 2239-2244.

Guan, Yue Massachusetts Institute of Technology
Annaswamy, Anuradha M. Massachusetts Institute of Technology
tseng, eric Ford Motor Company

18:10-18:30 WeC10.6

Eco-Routing of Connected Plug-In Hybrid Electric Vehicles (I), pp. 2245-2250.

Guanetti, Jacopo University of California, Berkeley
Kim, Yeojun University of California, Berkeley
Borrelli, Francesco University of California, Berkeley

WeC11 Galliéni 1

Markov Processes II (Regular Session)

Chair: He, Xingkang KTH Royal Institute of Technology
Co-Chair: Carè, Algo University of Brescia

16:30-16:50 WeC11.1

Incentive Design for Temporal Logic Objectives, pp. 2251-2258.

Savas, Yagiz University of Texas, Austin

Gupta, Vijay	University of Notre Dame
Ornik, Melkior	University of Illinois, Urbana Champaign
Ratliff, Lillian J.	University of Washington
Topcu, Ufuk	University of Texas, Austin

16:50-17:10 WeC11.2

Parameter-Dependent Poisson Equations: Tools for Stochastic Approximation in a Markovian Framework, pp. 2259-2264.

Carè, Algo	University of Brescia
Csáji, Balázs	SZTAKI
Gerencsér, Balázs	Alfréd Rényi Institute of Mathematics
Gerencsér, László	MTA SZTAKI
Rasonyi, Miklos	Hungarian Academy

17:10-17:30 WeC11.3

Reward-Based Deception with Cognitive Bias, pp. 2265-2270.

Wu, Bo	University of Texas, Austin
Cubuktepe, Murat	University of Texas, Austin
Bharadwaj, Sudarshanan	University of Texas, Austin
Topcu, Ufuk	University of Texas, Austin

17:30-17:50 WeC11.4

Unpredictable Planning under Partial Observability, pp. 2271-2277.

Hibbard, Michael	University of Texas, Austin
Savas, Yagiz	University of Texas, Austin
Wu, Bo	University of Texas, Austin
Tanaka, Takashi	University of Texas, Austin
Topcu, Ufuk	University of Texas, Austin

17:50-18:10 WeC11.5

Network Weight Estimation for Binary-Valued Observation Models, pp. 2278-2283.

Xing, Yu	Academy of Mathematics and Systems Science, Chinese Academy of S
He, Xingkang	KTH Royal Institute of Technology
Fang, Haitao	Chinese Academy of Sciences
Johansson, Karl H.	KTH Royal Institute of Technology

18:10-18:30 WeC11.6

Satisfiability Bounds for Omega-Regular Properties in Bounded-Parameter Markov Decision Processes, pp. 2284-2291.

Weininger, Maximilian	Technical University of Munich
Meggendorfer, Tobias	Technical University of Munich
Kretinsky, Jan	Technical University of Munich

WeC12 Gallieni 2
Analytic and Geometric Tools in Quantum Control (Invited Session)

Chair: Chambrion, Thomas	Université de Lorraine
Co-Chair: Ticozzi, Francesco	University of Padova
Organizer: Chambrion, Thomas	Université de Bourgogne

16:30-16:50 WeC12.1

On the Compatibility between the Adiabatic and the Rotating Wave Approximations in Quantum Control (I), pp. 2292-2297.

Augier, Nicolas	CMAP Polytechnique
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Boscain, Ugo V.	CNRS
Sigalotti, Mario	INRIA Paris

16:50-17:10 WeC12.2

Quantum Control in Infinite Dimensions and Banach-Lie Algebras (I), pp. 2298-2303.

Keyl, Michael	FU Berlin
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17:10-17:30 WeC12.3

On Exponential Stabilization of Two-Qubit Systems (I), pp. 2304-2309.

Liang, Weichao	L2S CentraleSupélec
Amini, Nina H.	CNRS, L2S, CentraleSupélec
Mason, Paolo	CNRS, Laboratoire Des Signaux Et Systèmes, Supélec

17:30-17:50 WeC12.4

The Whole from the Parts: Quantum Markovian Stabilizing Dynamics and Ground-State Cooling under Locality Constraints (I), pp. 2310-2315.

Ticozzi, Francesco	University of Padova
Karuvade, Salini	University of Calgary
Viola, Lorenza	Dartmouth College

17:50-18:10 WeC12.5

Impulsive Control of the Bilinear Schrödinger Equation: Propagators and Attainable Sets (I), pp. 2316-2321.

Boussaïd, Nabile	Université de Franche-Comté
Caponigro, Marco	Conservatoire National Des Arts Et Métiers
Chambrion, Thomas	Université de Bourgogne

18:10-18:30 WeC12.6

Reachable Sets from Toy Models to Controlled Markovian Quantum Systems (I), pp. 2322-2329.

Dirr, Gunther	University of Wuerzburg
vom Ende, Frederik	Technical University Munich (TUM)
Schulte-Herbrueggen, Thomas	Technical University Munich (TUM)

WeC13 Gallieni 4
Predictive Control for Nonlinear Systems (Regular Session)

Chair: Lobo Pereira, Fernando	Porto University
Co-Chair: Houska, Boris	ShanghaiTech University

16:30-16:50 WeC13.1

Performance Bounds for Stochastic Receding Horizon Control with Randomly Sampled Measurements, pp. 2330-2335.

Tanwani, Aneel	Laas -- Cnrs
Chatterjee, Debasish	Indian Institute of Technology, Bombay
Gruene, Lars	University of Bayreuth

16:50-17:10 WeC13.2

Learning Model Predictive Control for Connected Autonomous Vehicles, pp. 2336-2343.

Jafarzadeh, Hassan	University of Virginia
Fleming, Cody	University of Virginia

17:10-17:30 WeC13.3

A Framework for the Sustainable Control and Optimization of Resources in Agriculture, pp. 2344-2349.

Lobo Pereira, Fernando	Porto University
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Pena, Ismael da Silva	São Paulo State University (Unesp), Institute of Biosciences,
Silva, Geraldo Nunes	Universidade Estadual Paulista (UNESP)
17:30-17:50	WeC13.4
<i>A Time Splitting Based Real-Time Iteration Scheme for Nonlinear MPC</i> , pp. 2350-2355.	
Jiang, Yuning	ShanghaiTech University
Jones, Colin N.	EPFL
Houska, Boris	ShanghaiTech University
17:50-18:10	WeC13.5
<i>A Model Predictive Control Framework for Asymptotic Stabilization of Discretized Hybrid Dynamical Systems</i> , pp. 2356-2361.	
Ojaghi, Pegah	University of California, Santa Cruz
Altin, Berk	University of California, Santa Cruz
Sanfelice, Ricardo G.	University of California, Santa Cruz
18:10-18:30	WeC13.6
<i>Approximate Multiparametric Mixed-Integer Convex Programming</i> , pp. 2362-2367.	
Malyuta, Danylo	University of Washington
Acikmese, Behcet	University of Washington
WeC14	Galliéni 7
Lyapunov Methods III (Regular Session)	
Chair: Wisniewski, Rafal	Aalborg University
Co-Chair: Hendrickx, Julien M.	Université Catholique de Louvain
16:30-16:50	WeC14.1
<i>Safe Reachability Verification of Nonlinear Switched Systems Via a Barrier Density</i> , pp. 2368-2372.	
Kivilcim, Aysegul	Aalborg University
Karabacak, Özkan	Aalborg University
Wisniewski, Rafal	Aalborg University
16:50-17:10	WeC14.2
<i>Universal Formula for Smooth Safe Stabilization</i> , pp. 2373-2378.	
Ong, Pio	University of California, San Diego
Cortes, Jorge	University of California, San Diego
17:10-17:30	WeC14.3
<i>Kinetic-Potential Energy Shaping for Mechanical Systems with Applications to Tracking</i> , pp. 2379-2384.	
Ferguson, Joel	University of Newcastle
Donaire, Alejandro	University of Newcastle
Middleton, Richard	University of Newcastle
17:30-17:50	WeC14.4
<i>Trajectory Convergence from Coordinate-Wise Decrease of Quadratic Energy Functions, and Applications to Platoons</i> , pp. 2385-2390.	
Hendrickx, Julien M.	Université Catholique de Louvain
Gerencsér, Balázs	Alfréd Rényi Institute of Mathematics
Fidan, Baris	University of Waterloo
17:50-18:10	WeC14.5

<i>On the Relation between Detectability and Dissipativity for Nonlinear Discrete Time Systems</i> , pp. 2391-2396.	
Gruene, Lars	University of Bayreuth
Höger, Matthias	Siemens AG
18:10-18:30	WeC14.6
<i>Relaxing the Hamilton Jacobi Bellman Equation to Construct Inner and Outer Bounds on Reachable Sets</i> , pp. 2397-2404.	
Jones, Morgan	Arizona State University
Peet, Matthew M.	Arizona State University
WeC15	Rhodes GH
Optimality Conditions for Control Problems II (Invited Session)	
Chair: Poggiolini, Laura	University of Firenze
Co-Chair: Chittaro, Francesca	Université de Toulon
Organizer: Chittaro, Francesca	Université de Toulon
Organizer: Frankowska, Helene	CNRS and Sorbonne University, Campus Pierre Et Marie Curie
Organizer: Poggiolini, Laura	University of Firenze
16:30-16:50	WeC15.1
<i>Sufficient Conditions for Time Optimality of Systems with Control on the Disk (I)</i> , pp. 2405-2409.	
Caillaud, Jean-Baptiste	Université Côte d'Azur, CNRS, INRIA, LJAD
Orieux, Michaël	SISSA
16:50-17:10	WeC15.2
<i>On Optimal Control Problems with Nonregular Mixed Constraints (I)</i> , pp. 2410-2415.	
Becerril, Jorge	Universidade do Porto
de Pinho, Maria Do Rosario	Universidade do Porto, Fac. Engenharia
17:10-17:30	WeC15.3
<i>On Second Order Necessary Conditions in Infinite Dimensional Optimal Control with State Constraints (I)</i> , pp. 2416-2421.	
Frankowska, Helene	CNRS and Sorbonne University, Campus Pierre Et Marie Curie
Marchini, Elsa Maria	Politecnico di Milano
Mazzola, Marco	Sorbonne Université
17:30-17:50	WeC15.4
<i>The Turnpike Property in Nonlinear Optimal Control a Geometric Approach</i> , pp. 2422-2427.	
Sakamoto, Noboru	Nanzan University
Pighin, Dario	Universidad Autónoma de Madrid
Zuazua, Enrique	DeustoTech, Universidad de Deusto
17:50-18:10	WeC15.5
<i>Second-Order Necessary Conditions for Optimal Control Problems with Fixed Terminal Time and Free Terminal State</i> , pp. 2428-2435.	
Özparpucu, Mehmet Can	German Aerospace Center, DLR
18:10-18:30	WeC15.6
<i>Modelling Uncertainty in Reinforcement Learning (I)</i> , pp. 2436-2441.	
Palladino, Michele	GSSI - Gran Sasso Science Institute
Murray, Ryan	Pennsylvania State University

WeC16		Rhodes AB
Optimization III (Regular Session)		
Chair: Tallapragada, Pavankumar	Indian Institute of Science	
Co-Chair: Ishizaki, Takayuki	Tokyo Institute of Technology	
16:30-16:50	WeC16.1	
<i>Predicting Mode Confusion through Mixed Integer Linear Programming</i> , pp. 2442-2448.		
Sivaramakrishnan, Vignesh	University of New Mexico	
Thapliyal, Omanshu	Purdue University	
P. Vinod, Abraham	University of Texas, Austin	
Oishi, Meeko	University of New Mexico	
Hwang, Inseok	Purdue University	
16:50-17:10	WeC16.2	
<i>A Distributed Online Convex Optimization Algorithm with Improved Dynamic Regret</i> , pp. 2449-2454.		
Zhang, Yan	Duke University	
Ravier, Robert	Duke University	
Zavlanos, Michael M.	Duke University	
Tarokh, Vahid	Duke University	
17:10-17:30	WeC16.3	
<i>Prediction in Online Convex Optimization for Parametrizable Objective Functions</i> , pp. 2455-2460.		
Ravier, Robert	Duke University	
Calderbank, A.R.	Duke University	
Tarokh, Vahid	Duke University	
17:30-17:50	WeC16.4	
<i>Optimal Scheduling of Storage Batteries and Power Generators Based on Interval Prediction of Photovoltaics - Monotonicity Analysis for State of Charge -</i> , pp. 2461-2466.		
Koike, Masakazu	Tokyo University of Marine Science and Technology	
Ishizaki, Takayuki	Tokyo Institute of Technology	
Ramdani, Nacim	University of Orleans	
Imura, Jun-ichi	Tokyo Institute of Technology	
17:50-18:10	WeC16.5	
<i>Optimal Coverage Control and Stochastic Multi-Target Tracking</i> , pp. 2467-2472.		
Khaledyan, Milad	University of New Mexico	
Puthuvana Vinod, Abraham	University of Texas, Austin	
Oishi, Meeko	University of New Mexico	
Richards, John A.	Sandia National Laboratories	
18:10-18:30	WeC16.6	
<i>Robust Optimization Via Discrete-Time Saddle Point Algorithm</i> , pp. 2473-2478.		
Ebrahimi, Keivan	Iowa State University	
Elia, Nicola	University of Minnesota	
Vaidya, Umesh	Iowa State University	

WeC17		Rhodes CD
Switched Systems III (Regular Session)		
Chair: Kader, Zohra	L2S, CentraleSupélec, Paris	
Co-Chair: Raïssi, Tarek	Conservatoire National Des Arts Et Métiers	
16:30-16:50	WeC17.1	
<i>Interval Estimation for Discrete-Time LPV Switched Systems</i> ,		

pp. 2479-2484.	Zammali, Chaima	Conservatoire National Des Arts Et Métiers (CNAM), Cedric Lab
	Van Gorp, Jeremy	CNAM
	Ping, Xubin	Xidian University
	Raïssi, Tarek	Conservatoire National Des Arts Et Métiers
16:50-17:10	WeC17.2	
<i>Reference Tracking for Linear Time Invariant Systems with a Relay Control</i> , pp. 2485-2490.		
	Kader, Zohra	L2S, CentraleSupélec, Paris
	Girard, Antoine	CNRS
17:10-17:30	WeC17.3	
<i>Free-Matrices Min-Projection Control for High Frequency DC-DC Converters</i> , pp. 2491-2496.		
	Serieye, Mathias	LAAS-CNRS
	Albea Sanchez, Carolina	LAAS CNRS; University de Toulouse 3
	Seuret, Alexandre	CNRS
17:30-17:50	WeC17.4	
<i>Switching Signal Estimation Based on Interval Observer for a Class of Switched Linear Systems</i> , pp. 2497-2502.		
	Zammali, Chaima	Conservatoire National Des Arts Et Métiers (CNAM), Cedric Lab
	VAN GORP, Jeremy	CNAM
	Ping, Xubin	Xidian University
	Raïssi, Tarek	Conservatoire National Des Arts Et Métiers
17:50-18:10	WeC17.5	
<i>A Semidefinite Programming Approach for Stochastic Switched Optimal Control Problems</i> , pp. 2503-2508.		
	Davoudi, Ramtin	Tarbiat Modares University
	Hosseini, S. Mohammad	Tarbiat Modares University
	Ramezani, Amin	Tarbiat Modares University
18:10-18:30	WeC17.6	
<i>Switched Linear Systems Meet Markov Decision Processes: Stability Guaranteed Policy Synthesis</i> , pp. 2509-2515.		
	Wu, Bo	University of Texas, Austin
	Cubuktepe, Murat	University of Texas, Austin
	Topcu, Ufuk	University of Texas, Austin

WeC18		Rhodes EF
Observers for Nonlinear Systems III (Regular Session)		
Chair: Verriest, Erik I.	Georgia Institute of Technology	
Co-Chair: Millerioux, Gilles	Lorraine University	
16:30-16:50	WeC18.1	
<i>Nonlinear Observers for Stereo-Vision-Aided Inertial Navigation</i> , pp. 2516-2521.		
	Wang, Miaomiao	Western University
	Tayebi, Abdelhamid	Lakehead University
16:50-17:10	WeC18.2	
<i>Detecting Limit Cycles in Dimension Two</i> , pp. 2522-2527.		
	Verriest, Erik I.	Georgia Institute of Technology
	Murali, Vishal	Georgia Institute of Technology
17:10-17:30	WeC18.3	
<i>Contact Force Observer for Space Robots</i> , pp. 2528-2535.		

Cavenago, Francesco	Politecnico di Milano
Giordano, Alessandro	Technical University of Munich
Massimo	
Massari, Mauro	Politecnico di Milano

17:30-17:50 WeC18.4

Attitude Observation for Second Order Attitude Kinematics, pp. 2536-2542.

Ng, Yonhon	Australian National University
van Goor, Pieter	Australian National University
Mahony, Robert	Australian National University,
Hamel, Tarek	Université de Nice Sophia Antipolis

17:50-18:10 WeC18.5

A Geometric Observer Design for Visual Localisation and Mapping, pp. 2543-2549.

van Goor, Pieter	Australian National University
Mahony, Robert	Australian National University,
Hamel, Tarek	Université de Nice Sophia Antipolis
Trumpf, Jochen	Australian National University

18:10-18:30 WeC18.6

Flatness and Submersivity of Discrete-Time Dynamical Systems, pp. 2550-2555.

GUILLOT, PHILIPPE	Université Paris 8
Millerioux, Gilles	Lorraine University

WeC19 Gallieni 5
Stochastic Systems I (Regular Session)

Chair: Georgiou, Tryphon T. University of California, Irvine
Co-Chair: Bitmead, Robert R. University of California San Diego

16:30-16:50 WeC19.1

On Optimal Steering of a Non-Markovian Gaussian Process, pp. 2556-2561.

Alpago, Daniele	University of Padova
Chen, Yongxin	Georgia Institute of Technology
Georgiou, Tryphon T.	University of California, Irvine
Pavon, Michele	University of Padova

16:50-17:10 WeC19.2

Surrogate Problems for Tractable Excitation Management in Stochastic MPC, pp. 2562-2567.

Brüggemann, Sven	University of California, San Diego
Bitmead, Robert R.	University of California San Diego

17:10-17:30 WeC19.3

Estimating the Probability of Safe Landing for Aircrafts, pp. 2568-2573.

Semakov, Sergei	Moscow Institute of Physics and Technology, Moscow Aviation Inst
Semakov, Ivan	Moscow Aviation Institute, Tinkoff Bank

17:30-17:50 WeC19.4

Compositional Verification of Large-Scale Stochastic Systems Via Relaxed Small-Gain Conditions, pp. 2574-2579.

Lavaei, Abolfazl	Technical University of Munich (TUM)
Zamani, Majid	University of Colorado Boulder

17:50-18:10 WeC19.5

The Impact of Execution Delay on Kelly-Based Stock Trading: High-Frequency versus Buy and Hold, pp. 2580-2585.

Hsieh, Chung-Han	University of Wisconsin-Madison
Barmish, B. Ross	Boston University
Gubner, John A.	University of Wisconsin-Madison

18:10-18:30 WeC19.6

Conditionally-Minimax Nonlinear Filtering for Continuous-Discrete Stochastic Observation Systems: Comparative Study in Target Tracking, pp. 2586-2591.

Borisov, Andrey	Frc Csc Ras
Bosov, Alexey	Frc Csc Ras
Miller, Gregory	Frc Csc Ras

WeC20 Rhodes 10
Event-Triggered and Self-Triggered Control for Distributed Systems (Invited Session)

Chair: Heemels, W.P.M.H. Eindhoven University of Technology

Co-Chair: Johansson, Karl H. KTH Royal Institute of Technology
Organizer: Heemels, W.P.M.H. Eindhoven University of Technology

Organizer: Hirche, Sandra Technische Universität München
Organizer: Johansson, Karl H. KTH Royal Institute of Technology

16:30-16:50 WeC20.1

Event-Based Switching for Sampled-Data Output Feedback Control: Applications to Cascade and Feedforward Control (I), pp. 2592-2597.

Iwaki, Takuya	KTH Royal Institute of Technology
Fridman, Emilia	Tel-Aviv University
Johansson, Karl H.	KTH Royal Institute of Technology

16:50-17:10 WeC20.2

Distributed Dynamic Event-Triggered Algorithms with Positive Minimum Inter-Event Times on Weight-Balanced Digraphs (I), pp. 2598-2603.

Berneburg, James	George Mason University
Nowzari, Cameron	George Mason University

17:10-17:30 WeC20.3

Event-Triggered Consensus for Multi-Agent Systems with Guaranteed Robust Positive Minimum Inter-Event Times (I), pp. 2604-2609.

Dolk, Victor Sebastiaan	Eindhoven University of Technology
Postoyan, Romain	CNRS, CRAN, Université de Lorraine
Heemels, W.P.M.H.	Eindhoven University of Technology

17:30-17:50 WeC20.4

A Symbolic Approach to the Self-Triggered Design for Networked Control Systems, pp. 2610-2615.

Hashimoto, Kazumune	Osaka University
Saoud, Adhane	CentraleSupélec
Kishida, Masako	National Institute of Informatics
Ushio, Toshimitsu	Osaka University
Dimarogonas, Dimos V.	KTH Royal Institute of Technology

17:50-18:10 WeC20.5

Control-Guided Communication: Efficient Resource Arbitration and Allocation in Multi-Hop Wireless Control Systems, pp. 2616-2621.

Baumann, Dominik	Max Planck Institute for Intelligent Systems
Mager, Fabian	TU Dresden
Zimmerling, Marco	TU Dresden
Trimpe, Sebastian	Max Planck Institute for Intelligent Systems

WeC21 Risso 6
Sensor and Control Networks (Regular Session)

Chair: Antunes, Duarte	Eindhoven University of Technology
Co-Chair: Mirkin, Leonid	Technion - IIT

16:30-16:50 WeC21.1

[An L2-Consistent Data Transmission Sequence for Linear Systems](#), pp. 2622-2627.

Balaghi I., M. Hadi	Eindhoven University of Technology
Antunes, Duarte	Eindhoven University of Technology
Heemels, W.P.M.H.	Eindhoven University of Technology

16:50-17:10 WeC21.2

[Asynchronous Multi-Rate Sampled-Data Control: An Embedded Model Control Perspective](#), pp. 2628-2633.

Perez Montenegro, Carlos Norberto	Politecnico di Torino
Colangelo, Luigi	Politecnico di Torino
Pardo Álvarez, José María	Universidad Politécnica de Madrid - Politecnico di Torino
Rizzo, Alessandro	Politecnico di Torino
Novara, Carlo	Politecnico di Torino

17:10-17:30 WeC21.3

[H2 Control under Intermittent Sampling and Small Communication Delays](#), pp. 2634-2639.

Goldenshluger, Alexander	University of Haifa
Mirkin, Leonid	Technion - IIT

17:30-17:50 WeC21.4

[Distributed Kalman-Filtering: Distributed Optimization Viewpoint](#), pp. 2640-2645.

Ryu, Kunhee	Kwangwoon University
Back, Juhoon	Kwangwoon University

17:50-18:10 WeC21.5

[Consensus-Based Distributed 3D Pose Estimation with Noisy Relative Measurements](#), pp. 2646-2653.

Cristofalo, Eric	Stanford University
Montijano, Eduardo	Universidad de Zaragoza
Schwager, Mac	Stanford University

18:10-18:30 WeC21.6

[Game Theoretical Approach to Sequential Hypothesis Test with Byzantine Sensors](#), pp. 2654-2659.

Li, Zishuo	Tsinghua University
Mo, Yilin	Tsinghua University
Hao, Fei	Beijing University of Aeronautics and Astronautics

WeC22 Risso 7

Identification III (Regular Session)

Chair: Aljanaideh, Khaled	Jordan University of Science and Technology
Co-Chair: Sojoudi, Somayeh	University of California, Berkeley

16:30-16:50 WeC22.1

[Piecewise Affine System Identification: A Least Harmonic Mean Approach](#), pp. 2660-2665.

Bako, Laurent	Ecole Centrale de Lyon
Yahya, Olfa	Université de Gabès

16:50-17:10 WeC22.2

[From Dirac Structure to State Model: Identification of Linear Time-Varying Port-Hamiltonian Systems](#), pp. 2666-2671.

Rapisarda, Paolo	University of Southampton
Branford, Edward	College of Engineering, Mathematics and Physical Sciences, Unive

17:10-17:30 WeC22.3

[Subspace Methods for Multi-Channel Sum-Of-Exponentials Common Dynamics Estimation](#), pp. 2672-2675.

Markovsky, Ivan	Vrije Universiteit Brussel
Liu, Tianxiang	RIKEN Center for Advanced Intelligence Project
Takeda, Akiko	University of Tokyo

17:30-17:50 WeC22.4

[Sample Complexity Lower Bounds for Linear System Identification](#), pp. 2676-2681.

Jedra, Yassir	KTH Royal Institute of technology
Proutiere, Alexandre	KTH Royal Institute of technology

17:50-18:10 WeC22.5

[Learning Sparse Dynamical Systems from a Single Sample Trajectory](#), pp. 2682-2689.

Fattahi, Salar	University of California, Berkeley
Matni, Nikolai	University of Pennsylvania
Sojoudi, Somayeh	University of California, Berkeley

18:10-18:30 WeC22.6

[Errors-In-Variables Identification of Composite Noncausal-FIR/IIR Models with Application to Transmissibility Identification](#), pp. 2690-2695.

Aljanaideh, Khaled	Jordan University of Science and Technology
Diversi, Roberto	University of Bologna

WeC23 Risso 8

Learning-Based Model Predictive Control (Invited Session)

Chair: Trimpe, Sebastian	Max Planck Institute for Intelligent Systems
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Co-Chair: Zeilinger, Melanie N.	ETH Zurich
Organizer: Schoellig, Angela P	University of Toronto
Organizer: Trimpe, Sebastian	Max Planck Institute for Intelligent Systems

Organizer: Zeilinger, Melanie N.	ETH Zurich
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Organizer: Muller, Matthias A.	Leibniz University Hannover
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16:30-16:50 WeC23.1

[Regularized and Distributionally Robust Data-Enabled Predictive Control \(I\)](#), pp. 2696-2701.

Coulson, Jeremy	ETH Zürich
Lygeros, John	ETH Zürich
Dörfler, Florian	ETH Zürich

16:50-17:10 WeC23.2

Sample-Based Learning Model Predictive Control for Linear Uncertain Systems (I), pp. 2702-2707.

Rosolia, Ugo	University of California, Berkeley
Borrelli, Francesco	University of California, Berkeley

17:10-17:30 WeC23.3

Model Predictive Control Using Efficient Gaussian Processes for Unknown Disturbance Inputs (I), pp. 2708-2713.

Grasshoff, Jan	Universität Zu Lübeck
Maennel, Georg	Universität Zu Lübeck
Abbas, Hossam	University of Lübeck
Rostalski, Philipp	University of Luebeck

17:30-17:50 WeC23.4

Performance-Oriented Model Learning for Data-Driven MPC Design, pp. 2714-2719.

Piga, Dario	University of Applied Sciences and Arts of Southern Switzerland
Forgione, Marco	SUPSI
Formentin, Simone	Politecnico di Milano
Bemporad, Alberto	IMT Institute for Advanced Studies Lucca

17:50-18:10 WeC23.5

Model Predictive Control Design for Dynamical Systems Learned by Echo State Networks, pp. 2720-2725.

Bugliari Armenio, Luca	Politecnico di Milano
Terzi, Enrico	Politecnico di Milano
Farina, Marcello	Politecnico di Milano
Scattolini, Riccardo	Politecnico di Milano

18:10-18:30 WeC23.6

Probabilistic Verification and Reachability Analysis of Neural Networks Via Semidefinite Programming (I), pp. 2726-2731.

Fazlyab, Mahyar	University of Pennsylvania
Morari, Manfred	University of Pennsylvania
Pappas, George J.	University of Pennsylvania

WeC24 Hermès
Learning III (Regular Session)

Chair: Preciado, Victor M.	University of Pennsylvania
Co-Chair: Mehta, Prashant G.	University of Illinois, Urbana Champaign

16:30-16:50 WeC24.1

Data-Driven Stabilization of Nonlinear Systems Via Tree-Based Ensemble Learning, pp. 2732-2737.

Aydinoglu, Alp	University of Pennsylvania
Becker, Cassiano	University of Pennsylvania
Preciado, Victor M.	University of Pennsylvania

16:50-17:10 WeC24.2

Decision Variance in Risk-Averse Online Learning, pp. 2738-2744.

Vakili, Sattar	Prowler.io
Boukouvalas, Alexis	Prowler.io
Zhao, Qing	Cornell University

17:10-17:30 WeC24.3

Distributed Online Learning Over Time-Varying Graphs Via Proximal Gradient Descent, pp. 2745-2751.

Dixit, Rishabh	Rutgers University
Bedi, Amrit S.	Indian Institute of Technology Kanpur
Rajawat, Ketan	Indian Institute of Technology Kanpur
Koppel, Alec	U.S. Army Research Laboratory

17:30-17:50 WeC24.4

Nonlinear Reduced Order Source Identification under Uncertainty, pp. 2752-2757.

Khodayi-mehr, Reza	Duke University
Zavlanos, Michael M.	Duke University

17:50-18:10 WeC24.5

Q-Learning for POMDP: An Application to Learning Locomotion Gaits, pp. 2758-2763.

Wang, Tixian	University of Illinois, Urbana Champaign
Taghvaei, Amirhossein	University of Illinois, Urbana Champaign
Mehta, Prashant G.	University of Illinois, Urbana Champaign

18:10-18:30 WeC24.6

An Online Sample-Based Method for Mode Estimation Using ODE Analysis of Stochastic Approximation Algorithms, pp. 2764-2769.

Kamanchi, Chandramouli	Indian Institute of Science, Bangalore
Diddigi, Raghuram Bharadwaj	Indian Institute of Science, Bangalore
K.J., Prabuchandran	Indian Institute of Science, Bangalore
Bhatnagar, Shalabh	Indian Institute of Science, Bangalore

WeC25 Athéna
Multi-Agent Systems III (Regular Session)

Chair: Karimodini, Ali	North Carolina A&T State University
Co-Chair: Sakurama, Kazunori	Kyoto University

16:30-16:50 WeC25.1

On-The-Fly Decentralized Tasking of Autonomous Vehicles, pp. 2770-2775.

Tadewos, Tadewos Getahun	North Carolina A&T State University
Shamgah, Laya	North Carolina A&T State University
Karimodini, Ali	North Carolina A&T State University

16:50-17:10 WeC25.2

Automatic Safe Behaviour Tree Synthesis for Autonomous Agents, pp. 2776-2781.

Tadewos, Tadewos Getahun	North Carolina A&T State University
Shamgah, Laya	North Carolina A&T State University
Karimodini, Ali	North Carolina A&T State University

17:10-17:30	WeC25.3
<i>Formation-Oriented Motion Coordination of Multi-Agent Systems Over Relative Measurements</i> , pp. 2782-2787.	
Sakurama, Kazunori	Kyoto University
17:30-17:50	WeC25.4
<i>Towards Assume-Guarantee Profiles for Autonomous Vehicles</i> , pp. 2788-2795.	
Phan, Tung, M	California Institute of Technology
Cai, Karena	Ms
Murray, Richard M.	California Institute of Technology
17:50-18:10	WeC25.5
<i>Asynchronous Decision-Making Dynamics under Imitation Update Rule in Heterogeneous Populations</i> , pp. 2796-2801.	
Fu, Yiheng	University of Alberta
Ramazi, Pouria	University of Alberta
18:10-18:30	WeC25.6
<i>Surrogate Optimal Control for Strategic Multi-Agent Systems</i> , pp. 2802-2807.	
Hespanhol, Pedro	University of California, Berkeley
Aswani, Anil	University of California, Berkeley

Technical Program for Thursday December 12, 2019

ThSP1	Apollon
Distributed Machine Learning Over Networks (Semiplenary Session)	
Chair: Sepulchre, Rodolphe	University of Cambridge
08:30-09:30	ThSP1.1
<i>Distributed Machine Learning Over Networks*</i> .	
Bach, Francis	INRIA - Ecole Normale Supérieure
ThSP2	Athéna
The Curse of Linearity and Time-Invariance (Semiplenary Session)	
Chair: Prieur, Christophe	CNRS
08:30-09:30	ThSP2.1
<i>The Curse of Linearity and Time-Invariance*</i> .	
Astolfi, Alessandro	Imperial College & University of Rome
ThA01	Méditerranée 1
Control Methods for Biology and Bioprocesses (Invited Session)	
Chair: Giraldi, Laetitia	INRIA Sophia-Antipolis Méditerranée
Co-Chair: Chaves, Madalena	INRIA
Organizer: Chaves, Madalena	INRIA
Organizer: Giraldi, Laetitia	INRIA Sophia-Antipolis Méditerranée
10:00-10:20	ThA01.1
<i>An Antithetic Integral Rein Controller for Bio-Molecular Networks (I)</i> , pp. 2808-2813.	
Gupta, Ankit	ETH Zürich
Khammash, Mustafa H.	ETH Zurich
10:20-10:40	ThA01.2
<i>A Hybrid Control against Species Invasion in the Chemostat (I)</i> , pp. 2814-2819.	
Tani, Fatima Zahra	Université de Montpellier
Rapaport, Alain	U. Montpellier, INRA, Montpellier SupAgro
Bayen, TERENCE	Université de Montpellier
10:40-11:00	ThA01.3
<i>Some Remarks on Robust Gene Regulation in a Biomolecular Integral Controller (I)</i> , pp. 2820-2825.	
Agrawal, Deepak Kumar	Northeastern University
Marshal, Ryan	University of Minnesota
Ali Al-Radhawi, Muhammad	Massachusetts Institute of Technology
Noireaux, Vincent	University of Minnesota
Sontag, Eduardo	Northeastern University
11:00-11:20	ThA01.4
<i>Coupling and Synchronization of Piecewise Linear Genetic Regulatory Systems (I)</i> , pp. 2826-2831.	
Chaves, Madalena	INRIA
Scardovi, Luca	University of Toronto
Firippi, Eleni	INRIA
11:20-11:40	ThA01.5
<i>Proportional and Derivative Controllers for Buffering Noisy Gene Expression</i> , pp. 2832-2837.	

Modi, Saurabh	University of Delaware
Dey, Supravat	Department of Electrical and Computer Engineering, University of Delaware
Singh, Abhyudai	University of Delaware
11:40-12:00	ThA01.6
<i>Global Asymptotic Stability of a Genetic Negative Feedback Loop with an Affine Control</i> , pp. 2838-2843.	
Chambon, Lucie	INRIA
Gouze, Jean-Luc	INRIA

ThA02	Méditerranée 2
Linear Matrix Inequalities (Regular Session)	
Chair: Ravazzi, Chiara	National Research Council of Italy (CNR)
Co-Chair: Kojima, Akira	Tokyo Metropolitan University
10:00-10:20	ThA02.1
<i>H_∞ Filter Design for Discrete-Time Linear Positive Systems</i> , pp. 2844-2849.	
Krokavec, Dusan	Technical University of Kosice, Slovakia
Filasova, Anna	Technical University of Kosice, Slovakia
10:20-10:40	ThA02.2
<i>A Calculation Method of Parameter-Dependent LMIs on Bernstein Polynomial Basis: Polytopic Representation Case</i> , pp. 2850-2857.	
Kojima, Akira	Tokyo Metropolitan University
10:40-11:00	ThA02.3
<i>A Strictly Bounded Real Lemma for Singular Markovian Jump Systems</i> , pp. 2858-2861.	
Park, Chaneun	Postech
Park, In Seok	Postech
Park, PooGyeon	Pohang University of Sci. & Technology
11:00-11:20	ThA02.4
<i>Robust Data-Driven Neuro-Adaptive Observers with Lipschitz Activation Functions</i> , pp. 2862-2867.	
Chakrabarty, Ankush	Mitsubishi Electric Research Laboratories (MERL)
Zemouche, Ali	CRAN UMR CNRS 7039 & INRIA: EPI-DISCO
Rajamani, Rajesh	University of Minnesota
Benosman, Mouhacine	Mitsubishi Electric Research Laboratories
11:20-11:40	ThA02.5
<i>On the Design of Structured Stabilizers for LTI Systems</i> , pp. 2868-2873.	
Ferrante, Francesco	GIPSA-Lab and Université Grenoble Alpes
Dabbene, Fabrizio	CNR-IEIIT
Ravazzi, Chiara	National Research Council of Italy (CNR)
11:40-12:00	ThA02.6
<i>Asymptotic Unknown Input Decoupling Observer for Discrete-Time LTI Systems</i> , pp. 2874-2879.	
lchalal, Dalil	Université d'Evry Val d'Essonne, IBISC Lab
Mammar, Said	Université d'Evry IBISC

ThA03 Méditerranée 5
Adaptive Control IV (Regular Session)

Chair: Bai, He Oklahoma State University
 Co-Chair: Padhi, Radhakant Indian Institute of Science

10:00-10:20 ThA03.1

Cooperative Manipulation of an Unknown Payload with Concurrent Mass and Drag Force Estimation, pp. 2880-2885.

Thapa, Sandesh Oklahoma State University
 Self, Ryan Oklahoma State University
 Kamalapurkar, Rushikesh Oklahoma State University
 Bai, He Oklahoma State University

10:20-10:40 ThA03.2

Output-Constrained Robust Adaptive Control for Uncertain Nonlinear MIMO Systems with Unknown Control Directions, pp. 2886-2891.

Sachan, Kapil Indian Institute of Science
 Padhi, Radhakant Indian Institute of Science

10:40-11:00 ThA03.3

Adaptive Backstepping Control for a Fully-Actuated Rigid-Body in a Dual-Quaternion Framework, pp. 2892-2897.

Andersen, Tom Stian UiT the Arctic University of Norway
 Kristiansen, Raymond UiT - the Arctic University of Norway

11:00-11:20 ThA03.4

Gradient Based Pre-Filter Design for Data-Driven Parameter Updating for Regulatory Controller Based on Variance Evaluation, pp. 2898-2903.

Okada, Shogo Tokyo Metropolitan University
 Yokoyama, Tsukasa Tokyo Metropolitan University
 Masuda, Shiro Tokyo Metropolitan University

11:20-11:40 ThA03.5

Adaptive Estimation of a Vector Point Process Model, pp. 2904-2909.

Solo, Victor University of New South Wales
 Pasha, Syed Ahmed Air University

11:40-12:00 ThA03.6

Initial Excitation Based Adaptive Observer with Multiple Switching, pp. 2910-2915.

Katiyar, Atul Indian Institute of Technology, Delhi
 Basu Roy, Sayan Indian Institute of Technology, Delhi
 Bhasin, Shubhendu Indian Institute of Technology, Delhi

ThA04 Méditerranée A2
Fault Detection and Diagnosis (Regular Session)

Chair: Torres, Lizeth Universidad Nacional Autónoma de México
 Co-Chair: Besancon, Gildas GIPSA-Lab, Grenoble INP

10:00-10:20 ThA04.1

A Novel Deep DPCA-SVM Method for Fault Detection in Industrial Processes, pp. 2916-2921.

Zhang, Jian University of Electronic Science

Zou, Jianxiao and Technology of China
 University of Electronic Science and Technology of China
 Zhang, Jiyang University of Electronic Science and Technology of China
 Tao, Qian University of Electronic Science and Technology of China
 Gui, Xingtai University of Electronic Science and Technology of China
 Xu, Hongbing University of Electronic Science and Technology of China
 Fan, Shicai University of Electronic Science and Technology of China

10:20-10:40 ThA04.2

Smooth Residual Generation for Robust Isolation of Faults in Manipulators Using Joint Torque Sensors, pp. 2922-2927.

Namvar, Mehrzad Sharif University of Technology
 Karami, Sasan Sharid Univerity of Technology

10:40-11:00 ThA04.3

Minimizing Side-Channel Attack Vulnerability Via Schedule Randomization, pp. 2928-2933.

Vreman, Nils Lund University
 Pates, Richard Lund University
 Krueger, Kristin Technische Universität Kaiserslautern
 Fohler, Gerhard Technische Universität Kaiserslautern
 Maggio, Martina Lund University

11:00-11:20 ThA04.4

Fault Isolation Based on Online Sparse Optimization of Streaming Faulty Data, pp. 2934-2939.

Li, Wenqing New York University Abu Dhabi
 Wang, Yue New York University
 Jabari, Saif Eddin New York University Abu Dhabi

11:20-11:40 ThA04.5

Invariant-Set Based Minimal Detectable Fault Computation of Discrete-Time LPV Systems with Bounded Uncertainties, pp. 2940-2945.

Tan, Junbo Tsingahu University
 Olaru, Sorin CentraleSupélec - INRIA Saclay
 Roman, Monica University of Craiova
 Xu, Feng Tsinghua University

11:40-12:00 ThA04.6

Port-Hamiltonian Models for Flow of Incompressible Fluids in Rigid Pipelines with Faults, pp. 2946-2951.

Torres Ortiz, Flor Lizeth Universidad Nacional Autónoma de México
 Besancon, Gildas GIPSA-Lab, Grenoble INP, CNRS

ThA05 Méditerranée C4
Building Automation (Regular Session)

Chair: Rostampour, Vahab University of Groningen
 Co-Chair: Jain, Tushar Indian Institute of Technology Mandi

10:00-10:20 ThA05.1

Steady-State Analysis of HVAC Performance Using Indoor Fans in Control Design, pp. 2952-2957.

G. Ordóñez, Joaquín University of Seville

Danielson, Claus	Mitsubishi Electric Research Labs
Bortoff, Scott A.	Mitsubishi Electric Research Laboratories
Limon, Daniel	University of Seville
Di Cairano, Stefano	Mitsubishi Electric Research Labs
10:20-10:40	ThA05.2
<i>Identification of Aggregate Building Thermal Dynamic Model and Unmeasured Internal Heat Load from Data</i> , pp. 2958-2963.	
Guo, Zhong	University of Florida
Coffman, Austin	University of Florida
Munk, Jeffrey	Oak Ridge National Laboratory
Im, Piljae	Oak Ridge National Laboratory
Barooah, Prabir	University of Florida
10:40-11:00	ThA05.3
<i>Diagnosis of Actuator Faults in VAV-HVAC System Using a Bilinear Observer</i> , pp. 2964-2969.	
A, Mona Subramaniam	Indian Institute of Technology Mandi
Jain, Tushar	Indian Institute of Technology Mandi
Yame, Joseph Julien	Université de Lorraine
11:00-11:20	ThA05.4
<i>Modeling and Boundary Control Design for a High-Rise Building Structure</i> , pp. 2970-2975.	
Song, Yuhua	University of Science and Technology Beijing
Han, Zhiji	University of Science and Technology Beijing
He, Xiuyu	University of Science and Technology Beijing
He, Wei	University of Science and Technology Beijing
11:20-11:40	ThA05.5
<i>Buildings-To-Grid Integration with High Wind Power Penetration</i> , pp. 2976-2981.	
Rostampour, Vahab	University of Groningen
Badings, Thom S.	University of Groningen
Scherpen, Jacquelin M.A.	University of Groningen
11:40-12:00	ThA05.6
<i>A Local Market Model for Community Microgrids</i> , pp. 2982-2987.	
Savelli, Iacopo	University of Siena
Cornelusse, Bertrand	University of Liège
Paoletti, Simone	University of Siena
Giannitrapani, Antonio	University of Siena
Vicino, Antonio	University of Siena
ThA06	Méditerranée A3
Optimization Algorithms I (Regular Session)	
Chair: Li, Na	Harvard University
Co-Chair: Fawzi, Hamza	University of Cambridge
10:00-10:20	ThA06.1
<i>CODES: Cooperative Data-Enabled Extremum Seeking for Multi-Agent Systems</i> , pp. 2988-2993.	
Poveda, Jorge I.	University of Colorado, Boulder
Vamvoudakis, Kyriakos G.	Georgia Institute of Technology

Benosman, Mouhacine	Mitsubishi Electric Research Laboratories
10:20-10:40	ThA06.2
<i>A System Theoretical Perspective to Gradient-Tracking Algorithms for Distributed Quadratic Optimization</i> , pp. 2994-2999.	
Bin, Michelangelo	University of Bologna
Notarnicola, Ivano	University of Bologna
Marconi, Lorenzo	University of Bologna
Notarstefano, Giuseppe	University of Bologna
10:40-11:00	ThA06.3
<i>Inducing Uniform Asymptotic Stability in Non-Autonomous Accelerated Optimization Dynamics Via Hybrid Regularization</i> , pp. 3000-3005.	
Poveda, Jorge I.	University of Colorado, Boulder
Li, Na	Harvard University
11:00-11:20	ThA06.4
<i>Distributed Submodular Maximization with Bounded Communication Cost</i> , pp. 3006-3011.	
Castiglia, Timothy	Rensselaer Polytechnic Institute
Patterson, Stacy	Rensselaer Polytechnic Institute
11:20-11:40	ThA06.5
<i>AnySOS: An Anytime Algorithm for SOS Programming</i> , pp. 3012-3017.	
Driggs, Derek	University of Cambridge
Fawzi, Hamza	University of Cambridge
11:40-12:00	ThA06.6
<i>Annealing for Distributed Global Optimization</i> , pp. 3018-3025.	
Swenson, Brian	Princeton University
Kar, Soumya	Carnegie Mellon University
Poor, H. Vincent	Princeton University
Moura, Jose' M. F.	Carnegie Mellon University
ThA07	Méditerranée A1
Robotics IV (Regular Session)	
Chair: Solo, Victor	University of New South Wales
Co-Chair: Xin, Xin	Okayama Prefectural University
10:00-10:20	ThA07.1
<i>Ito, Stratonovich and Geometry</i> , pp. 3026-3032.	
Solo, Victor	University of New South Wales
Chirikjian, Gregory	Johns Hopkins University
10:20-10:40	ThA07.2
<i>Numerical Methods for Stochastic Differential Equations in Stiefel Manifolds Via the Cayley Transform</i> , pp. 3033-3038.	
Solo, Victor	University of New South Wales
Wang, Zhichao	University of New South Wales
10:40-11:00	ThA07.3
<i>Energy Shaping Control with Virtual Spring and Damper for Powered Exoskeletons</i> , pp. 3039-3045.	
Lin, Jianping	University of Texas, Dallas
Divekar, Nikhil	University of Texas, Dallas
Lv, Ge	Carnegie Mellon University
Gregg, Robert D.	University of Michigan
11:00-11:20	ThA07.4
<i>Optimal Control of Piecewise-Smooth Control Systems Via</i>	

Singular Perturbations, pp. 3046-3053.

Westenbroek, Tyler	University of California, Berkeley
Xiong, Xiaobin	California Institute of Technology
Ames, Aaron D.	California Institute of Technology
Sastry, Shankar	University of California, Berkeley

11:20-11:40 ThA07.5

Linear Controllability and Observability of N-Link Underactuated Planar Revolute Robot Moving in Constantly Rotating Frame in Horizontal Plane, pp. 3054-3059.

Xin, Xin	Okayama Prefectural University
Izumi, Shinsaku	Okayama Prefectural University
Yamasaki, Taiga	Okayama Prefectural University
Lin, Wei	Case Western Reserve University

11:40-12:00 ThA07.6

Optimal Stochastic Evasive Maneuvers Using the Schrodinger's Equation, pp. 3060-3065.

Farokhi, Farhad	University of Melbourne and CSIRO
Egerstedt, Magnus	Georgia Institute of Technology

ThA08 Méditerranée 3
Estimation and Control of PDE Systems IV (Invited Session)

Chair: Fahroo, Fariba	AFOSS
Co-Chair: Demetriou, Michael A.	Worcester Polytechnic Institute
Organizer: Demetriou, Michael A.	Worcester Polytechnic Institute
Organizer: Fahroo, Fariba	AFOSS
Organizer: Le Gorrec, Yann	Ensmm, Femto-St / As2m

10:00-10:20 ThA08.1

Adaptive Boundary Observer Design for a Class of Nonlinear Wave PDEs with Uncertain Domain and Boundary Parameters (I), pp. 3066-3071.

Benabdelhadi, Abdeljalil	Université Ibn Tofail, Kénitra
Giri, Fouad	University of Caen Normandie
Ahmed-Ali, Tarek	ENSICAEN
Krstic, Miroslav	University of California, San Diego
El Fadil, Hassan	Ibn Tofail University, Kénitra
Chaoui, F.Z.	ENSET

10:20-10:40 ThA08.2

Direct Adaptive Control of Non-Minimum Phase Linear Infinite-Dimensional Systems in Hilbert Space Using a Zero Dynamics Estimator (I), pp. 3072-3079.

Balas, Mark	Embry-Riddle Aeronautical University
Frost, Susan	NASA Ames Research Center

10:40-11:00 ThA08.3

ISS Synthesis of Parabolic Systems with Uncertain Parameters Using In-Domain Sensing and Actuation (I), pp. 3080-3085.

Orlov, Yury	CICESE
Autriquet, Laurent	ISTIA - University of Angers
Perez, Laetitia	University of Nantes IUT

11:00-11:20 ThA08.4

Observer Design for a Coupled ODE-PDE System from a Wellbore Reservoir Drilling Model (I), pp. 3086-3091.

Camacho-Solorio, Leobardo	University of California, San Diego
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Velmurugan, Naveen	MINES ParisTech
Di Meglio, Florent	MINES ParisTech
Krstic, Miroslav	University of California, San Diego

11:20-11:40 ThA08.5

Control Law Realification for the Feedback Stabilization of a Class of Diagonal Infinite-Dimensional Systems with Delay Boundary Control, pp. 3092-3097.

Lhachemi, Hugo	University College Dublin
Shorten, Robert	University College Dublin
Prieur, Christophe	CNRS

11:40-12:00 ThA08.6

Optimal Maintenance Design for a Simple Repairable System (I), pp. 3098-3103.

Hu, Weiwei	University of Georgia
Boardman, Nicki	Oklahoma State University
Mishra, Rohit	Oklahoma State University

ThA09 Méditerranée B12
Game Theory II (Regular Session)

Chair: Hayakawa, Tomohisa	Tokyo Institute of Technology
Co-Chair: Hohmann, Soeren	Karlsruhe Institute of Technology

10:00-10:20 ThA09.1

Learning Nash Equilibria in Monotone Games, pp. 3104-3109.

Tatarenko, Tatiana	TU Darmstadt
Kamgarpour, Maryam	ETH Zurich

10:20-10:40 ThA09.2

Cooperative Energy Scheduling for Microgrids under Peak Demand Energy Plans, pp. 3110-3115.

Valibeygi, Amir	University of California, San Diego
de Callafon, Raymond A.	University of California, San Diego

10:40-11:00 ThA09.3

Social Welfare Improvement for Noncooperative Dynamical Systems with Tax/Subsidy Approach, pp. 3116-3121.

Yan, Yuyue	Tokyo Institute of Technology
Hayakawa, Tomohisa	Tokyo Institute of Technology

11:00-11:20 ThA09.4

Stability Analysis of Nash Equilibrium in Loss-Aversion-Based Noncooperative Dynamical Systems, pp. 3122-3127.

Yan, Yuyue	Tokyo Institute of Technology
Hayakawa, Tomohisa	Tokyo Institute of Technology
Thanomvajamun, Nutthanun	Tokyo Institute of Technology

11:20-11:40 ThA09.5

Solution Sets for Inverse Non-Cooperative Linear-Quadratic Differential Games, pp. 3128-3133.

Inga, Jairo	Karlsruhe Institute of Technology
Bischoff, Esther	Karlsruhe Institute of Technology
Molloy, Timothy L.	Queensland University of Technology

Flad, Michael	Karlsruhe Institute of Technology
Hohmann, Soeren	Karlsruhe Institute of Technology

11:40-12:00 ThA09.6

Relative Best Response Dynamics in Finite and Convex Network Games, pp. 3134-3139.

Govaert, Alain	Rijksuniversiteit Groningen
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Cenedese, Carlo University of Groningen
 Grammatico, Sergio Delft University of Technology
 Cao, Ming University of Groningen

Co-Chair: Ebenbauer, University of Stuttgart
 Christian

10:00-10:20 ThA11.1

Interval Input-State-Output Estimation for Linear Port-Hamiltonian Systems with Application to Power Distribution Systems, pp. 3176-3183.

Pfeifer, Martin Karlsruhe Institute of Technology
 Krebs, Stefan Karlsruhe Institute of Technology
 Hofmann, Felix Robert Bosch GmbH
 Kupper, Martin Karlsruhe Institute of Technology
 Hohmann, Soeren Karlsruhe Institute of Technology

10:20-10:40 ThA11.2

Toward Tractable Global Solutions to Maximum-Likelihood Estimation Problems Via Sparse Sum-Of-Squares Relaxations, pp. 3184-3189.

Rodrigues, Diogo KTH Royal Institute of Technology
 Abdalmoaty, Mohamed KTH Royal Institute of Technology
 Hjalmarsson, Håkan KTH Royal Institute of Technology

10:40-11:00 ThA11.3

Dynamic Set-Inversion Procedure to Design Interval-Based State Estimators for Discrete-Time LPV Systems, pp. 3190-3195.

Krebs, Stefan Institute of Control Systems,
 Karlsruhe Institute of Technology
 Meslem, Nacim GIPSA-LAB, CNRS
 Hohmann, Soeren Karlsruhe Institute of Technology

11:00-11:20 ThA11.4

Tuning-Free, Low Memory Robust Estimator to Mitigate GPS Spoofing Attacks, pp. 3196-3201.

Lee, Junhwan University of Texas, San Antonio
 Taha, Ahmad University of Texas, San Antonio
 Gatsis, Nikolaos University of Texas, San Antonio
 Akopian, David University of Texas, San Antonio

11:20-11:40 ThA11.5

Ellipsoid-Based Interval Estimation for Takagi-Sugeno Fuzzy Systems, pp. 3202-3207.

Zhang, wenhan School of Astronautics, Harbin
 Institute of Technology
 Wang, Zhenhua Harbin Institute of Technology
 Raïssi, Tarek Conservatoire National Des Arts
 Et Métiers
 Shen, Yi Harbin Institute of Technology
 Zhang, Fengdi Beijing Aerospace Automatic
 Control Institute
 Xu, Min Beijing Aerospace Automatic
 Control Institute

11:40-12:00 ThA11.6

Proximity Moving Horizon Estimation for Linear Time-Varying Systems and a Bayesian Filtering View, pp. 3208-3213.

Gharbi, Meriem University of Stuttgart
 Ebenbauer, Christian University of Stuttgart

ThA12 Galliéni 2

Research and Development on Control for Fusion Facilities
 (Invited Session)

Chair: Vu, Ngoc Minh Trang LCIS
 Co-Chair: Nouailletas, Rémy Cea - Irfm

ThA10 Méditerranée C12

Novel Approaches to Traffic Estimation and Control Using Automated Vehicles (Invited Session)

Chair: Stern, Raphael University of Minnesota
 Co-Chair: Delle Monache, INRIA Grenoble Rhône - Alpes
 Maria Laura
 Organizer: Stern, Raphael University of Minnesota
 Organizer: Delle Monache, INRIA Grenoble Rhône - Alpes
 Maria Laura

10:00-10:20 ThA10.1

Highway Traffic Control with Moving Bottlenecks of Connected and Automated Vehicles for Travel Time Reduction (I), pp. 3140-3145.

Piacentini, Giulia University of Pavia
 Ferrara, Antonella University of Pavia
 Papamichail, Ioannis Technical University of Crete
 Papageorgiou, Markos Technical University of Crete

10:20-10:40 ThA10.2

Stop-And-Go Wave Dissipation Using Accumulated Controlled Moving Bottlenecks in Multi-Class CTM Framework (I), pp. 3146-3151.

Cicic, Mladen KTH Royal Institute of Technology
 Johansson, Karl H. KTH Royal Institute of Technology

10:40-11:00 ThA10.3

Lagrangian Models for Controlling Large-Scale Heterogeneous Traffic (I), pp. 3152-3157.

Molnar, Tamas Gabor University of Michigan
 upadhyay, devesh Ford
 Hopka, Mike Ford Motor Company
 van Nieuwstadt, Michiel J. Ford Research and Innovation
 Center
 Orosz, Gabor University of Michigan

11:00-11:20 ThA10.4

Conditions for Improving the Computational Efficiency of Decentralized Optimal Merging Controllers for Connected and Automated Vehicles, pp. 3158-3163.

Xiao, Wei Boston University
 Cassandras, Christos G. Boston University

11:20-11:40 ThA10.5

Sample Average Approximation of CVaR-Based Wardrop Equilibrium in Routing under Uncertain Costs, pp. 3164-3169.

Cherukuri, Ashish University of Groningen

11:40-12:00 ThA10.6

Analysis of a Stochastic Model for Coordinated Platooning of Heavy-Duty Vehicles, pp. 3170-3175.

Xiong, Xi New York University
 Xiao, Erdong New York University
 Jin, Li New York University

ThA11 Galliéni 1

Estimation I (Regular Session)

Chair: Hjalmarsson, Håkan KTH Royal Institute of Technology

Organizer: Nouailletas, Rémy	Cea - Irfm
Organizer: Vu, Ngoc Minh Trang	EPFL
Organizer: van Berkel, Matthijs	Dutch Institute for Fundamental Energy Research
Organizer: Pajares, Andres	Lehigh University
Organizer: Carnevale, Daniele	University of Roma
Organizer: Mameche, Hamza	CNRS GIPSA-LAB - University Grenoble Alpes

10:00-10:20 ThA12.1

WEST Magnetic Control (I), pp. 3214-3219.

Nouailletas, Rémy	Cea - Irfm
Nardon, Eric	CEA/IRFM
Moreau, Philippe	CEA Cadarache
Reux, Cédric	CEA
Truong, Tran-Phuc-Hai	CEA

10:20-10:40 ThA12.2

A Novel Frequency Domain Maximum Likelihood Approach for Estimating Transport Coefficients in Cylindrical Geometry for Nuclear Fusion Devices (I), pp. 3220-3226.

van Berkel, Matthijs	Dutch Institute for Fundamental Energy Research
Oosterwegel, Gerard	Eindhoven University of Technology
Anthouissen, Martijn	Eindhoven University of Technology
Zwart, Hans	University of Twente
Vandersteen, Gerd G.	Vrije University Brussels

10:40-11:00 ThA12.3

Nonlinear PDE-Based Control of the Electron Temperature in H-Mode Tokamak Plasmas (I), pp. 3227-3232.

Mameche, Hamza	University Grenoble Alpes
Witrant, Emmanuel	Université Grenoble Alpes
Prieur, Christophe	CNRS

11:00-11:20 ThA12.4

Integrated Robust Control of Individual Scalar Variables in Tokamaks (I), pp. 3233-3238.

Pajares, Andres	Lehigh University
Schuster, Eugenio	Lehigh University

11:20-11:40 ThA12.5

Nonlinear Adaptive Burn Control of Two-Temperature Tokamak Plasmas, pp. 3239-3244.

Graber, Vincent	Lehigh University
Schuster, Eugenio	Lehigh University

ThA13 Galliéni 4
Smart Grid I (Regular Session)

Chair: Lavaei, Javad	University of California, Berkeley
Co-Chair: Lestas, Ioannis	University of Cambridge

10:00-10:20 ThA13.1

Towards Robust and Scalable Power System State Estimation, pp. 3245-3252.

Jin, Ming	University of California, Berkeley
Molybog, Igor	University of California, Berkeley
Mohammadi Ghazi, Reza	University of California, Berkeley
Lavaei, Javad	University of California, Berkeley

10:20-10:40 ThA13.2

Frequency Regulation Using Sparse Learned Controllers in Power Grids with Variable Inertia Due to Renewable Energy, pp. 3253-3259.

Hidalgo-Gonzalez, Patricia	University of California, Berkeley
Henriquez-Auba, Rodrigo	University of California, Berkeley
Callaway, Duncan S.	University of California, Berkeley
Tomlin, Claire J.	University of California, Berkeley

10:40-11:00 ThA13.3

Transactive Control Approach to Trip Optimization in Electric Railways, pp. 3260-3265.

D'Achiardi, David	Massachusetts Institute of Technology
Pilo de la Fuente, Eduardo	Universidad Francisco de Vitoria
Mazumder, Sudip	University of Illinois, Chicago
Annaswamy, Anuradha M.	Massachusetts Institute of Technology

11:00-11:20 ThA13.4

Model Predictive Control for Micro Grid Stabilisation in Case of Loss of Units, pp. 3266-3271.

K/BIDI, Fabrice	Université de La Réunion
Damour, Cédric	Université de La Réunion
Grondin, Dominique	Université de La Réunion
Hilaret, Mickael	Université de Franche-Comté
Benne, Michel	Université de La Réunion

11:20-11:40 ThA13.5

Chance-Constrained SPDS-Based Decentralized Control of Distributed Energy Resources, pp. 3272-3278.

Liu, Mingxi	University of Utah
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11:40-12:00 ThA13.6

Frequency Regulation with Thermostatic Load Participation in Power Networks, pp. 3279-3284.

Kasis, Andreas	University of Cambridge
Lestas, Ioannis	University of Cambridge

ThA14 Galliéni 7
Lyapunov Methods IV (Regular Session)

Chair: Petersen, Ian R.	Australian National University
Co-Chair: Seeber, Richard	Graz University of Technology

10:00-10:20 ThA14.1

Guaranteeing Disturbance Rejection and Control Signal Continuity for the Saturated Super-Twisting Algorithm, pp. 3285-3290.

Seeber, Richard	Graz University of Technology
Horn, Martin	Graz University of Technology

10:20-10:40 ThA14.2

Optimal Lyapunov-Based Reaching Time Bounds for the Super-Twisting Algorithm, pp. 3291-3296.

Seeber, Richard	Graz University of Technology
Horn, Martin	Graz University of Technology

10:40-11:00 ThA14.3

Filter-Based Feedback Control for a Class of Markovian Open Quantum Systems, pp. 3297-3302.

Liu, Yanan	University of New South Wales
Dong, Daoyi	University of New South Wales
Petersen, Ian R.	Australian National University

Yonezawa, Hidehiro	University of New South Wales
11:00-11:20	ThA14.4
<i>Distributed Observer Design for Omniscience Asymptotically Aimed at a Class of Nonlinear System</i> , pp. 3303-3308.	
Xu, Haotian	Shanghai Jiao Tong University
Wang, Jingcheng	Shanghai Jiao Tong University
Wang, Hongyuan	Shanghai Jiao Tong University
Wang, Bohui	Xidian University
Bai, Miaoshun	Shanghai Municipal Engineering Design Institute
11:20-11:40	ThA14.5
<i>Enhanced State Feedback Control of T-S Fuzzy Systems with Time-Delays</i> , pp. 3309-3315.	
Lian, Zhi	University of Adelaide
He, Yong	China University of Geosciences
Zhang, Chuan-Ke	China University of Geosciences
Shi, Peng	University of Adelaide
Wu, Min	China University of Geosciences
11:40-12:00	ThA14.6
<i>Integral Control Design Using the Implicit Lyapunov Function Approach</i> , pp. 3316-3321.	
Mercado Uribe, José Angel	Universidad Nacional Autonoma de Mexico
Moreno, Jaime A.	Universidad Nacional Autonoma de Mexico
Polyakov, Andrey	INRIA Lille Nord-Europe
Efimov, Denis	INRIA
ThA15	Rhodes GH
Optimal Control I (Regular Session)	
Chair: Mareels, Iven	IBM
Co-Chair: Kerrigan, Eric C.	Imperial College London
10:00-10:20	ThA15.1
<i>Reinforcement Learning for Adaptive Periodic Linear Quadratic Control</i> , pp. 3322-3327.	
Pang, Bo	New York University
Jiang, Zhong-Ping	New York University
Mareels, Iven	IBM
10:20-10:40	ThA15.2
<i>Optimal Control of MIMO Input-Quadratic Nonlinear Systems</i> , pp. 3328-3333.	
Sassano, Mario	University of Rome, Tor Vergata
Astolfi, Alessandro	Imperial College & University of Rome
10:40-11:00	ThA15.3
<i>A Min-Plus-SDDP Algorithm for Deterministic Multistage Convex Programming</i> , pp. 3334-3339.	
Akian, Marianne	INRIA and CMAP, Ecole Polytechnique CNRS
Chancelier, Jean-Philippe	ENPC
Tran, Benoît	Ecole Des Ponts ParisTech
11:00-11:20	ThA15.4
<i>On the Optimal Control of Volterra Integro-Differential Equations</i> , pp. 3340-3345.	
Azhmyakov, Vadim	Universidad EAFIT
Egerstedt, Magnus	Georgia Institute of Technology

Verriest, Erik I.	Georgia Institute of Technology
11:20-11:40	ThA15.5
<i>Characterization of the Game of Two Cars Using Reachable Sets for Feedback Strategies</i> , pp. 3346-3351.	
Chaudhari, Aditya	Indian Institute of Technology, Bombay
Chakraborty, Debraj	Indian Institute of Technology, Bombay
11:40-12:00	ThA15.6
<i>External Constraint Handling for Solving Optimal Control Problems with Simultaneous Approaches and Interior Point Methods</i> , pp. 3352-3357.	
Nie, Yuanbo	Imperial College London
Kerrigan, Eric C.	Imperial College London
ThA16	Rhodes AB
Optimization IV (Regular Session)	
Chair: Clark, Andrew	Worcester Polytechnic Institute
Co-Chair: Shames, Iman	University of Melbourne
10:00-10:20	ThA16.1
<i>Inner Approximations of the Maximal Positively Invariant Set for Polynomial Dynamical Systems</i> , pp. 3358-3363.	
Oustry, Antoine	Ecole Polytechnique and RTE
Tacchi, Matteo	LAAS-CNRS and RTE
Henrion, Didier	LAAS-CNRS
10:20-10:40	ThA16.2
<i>Online Optimisation Using Zeroth Order Oracles</i> , pp. 3364-3369.	
Shames, Iman	University of Melbourne
Selvaratnam, Daniel	University of Melbourne
Manton, Jonathan H.	University of Melbourne
10:40-11:00	ThA16.3
<i>The FBstab Quadratic Programming Method Applied to Model Predictive Control: An Implicit Condensing Approach</i> , pp. 3370-3376.	
Liao-McPherson, Dominic	University of Michigan
Kolmanovsky, Ilya V.	University of Michigan
11:00-11:20	ThA16.4
<i>Towards Redundant Constraint Removal in Scenario Approximation of Optimal Control Problems with Multiplicative Model Uncertainty</i> , pp. 3377-3382.	
Nasir, Hasan	National University of Sciences and Technology
Weyer, Erik	University of Melbourne
Shames, Iman	University of Melbourne
Cantoni, Michael	University of Melbourne
11:20-11:40	ThA16.5
<i>A Submodular Optimization Approach to the Metric Traveling Salesman Problem with Neighborhoods</i> , pp. 3383-3390.	
Clark, Andrew	Worcester Polytechnic Institute
11:40-12:00	ThA16.6
<i>Matroid-Constrained Approximately Supermodular Optimization for Near-Optimal Actuator Scheduling</i> , pp. 3391-3398.	
De Oliveira Chamon, Luiz Fernando	University of Pennsylvania
Amice, Alexandre	University of Pennsylvania

ThA17	Rhodes CD
Switched Systems IV (Regular Session)	
Chair: Jungers, Raphaël M.	University of Louvain
Co-Chair: Daafouz, Jamal	Université de Lorraine, CRAN, CNRS
10:00-10:20	ThA17.1
<i>Polyhedral Path-Complete Lyapunov Functions</i> , pp. 3399-3404.	
Athanasopoulos, Nikolaos	Queen's University Belfast
Jungers, Raphaël M.	University of Louvain
10:20-10:40	ThA17.2
<i>Optimistic Planning for the Near-Optimal Control of Nonlinear Switched Discrete-Time Systems with Stability Guarantees</i> , pp. 3405-3410.	
Granzotto, Mathieu	CNRS, CRAN, Université de Lorraine
Postoyan, Romain	CNRS, CRAN, Université de Lorraine
Busoniu, Lucian	Technical University of Cluj-Napoca
Nesic, Dragan	University of Melbourne
Daafouz, Jamal	Université de Lorraine, CRAN, CNRS
10:40-11:00	ThA17.3
<i>A Nonlinear Switched Control Strategy for Permanent Magnet Synchronous Machines</i> , pp. 3411-3416.	
Egidio, Lucas N.	School of Mechanical Engineering, UNICAMP
Deaecto, Grace S.	FEM/UNICAMP
Hespanha, Joao P.	University of California, Santa Barbara
Geromel, Jose C.	UNICAMP
11:00-11:20	ThA17.4
<i>Worst-Case Optimal Data-Driven Estimators for Switched Discrete-Time Linear Systems</i> , pp. 3417-3422.	
Dai, Tianyu	Northeastern University
Sznaier, Mario	Northeastern University
11:20-11:40	ThA17.5
<i>A Controlled Murali-Lakshmanan-Chua Memristor Circuit to Mimic Neuron Dynamics</i> , pp. 3423-3428.	
Innocenti, Giacomo	University of Firenze
Di Marco, Mauro	University of Siena
Tesi, Alberto	University of Firenze
Forti, Mauro	University of Siena
11:40-12:00	ThA17.6
<i>Efficient Identification of Error-In-Variables Switched Systems Via a Sum-Of-Squares Polynomial Based Subspace Clustering Method</i> , pp. 3429-3434.	
Ozby, Bengisu	Northeastern University
Camps, Octavia I.	Northeastern University
Sznaier, Mario	Northeastern University
ThA18	Rhodes EF
Estimation and Observer Design in Nonlinear Systems (Invited Session)	
Chair: Zemouche, Ali	CRAN UMR CNRS 7039 & INRIA:

Co-Chair: Rajamani, Rajesh
 Organizer: Zemouche, Ali
 University of Minnesota
 CRAN UMR CNRS 7039 & INRIA:
 EPI-DISCO

Organizer: Rajamani, Rajesh
 University of Minnesota

10:00-10:20 ThA18.1

Luenberger Observers for Discrete-Time Nonlinear Systems (I), pp. 3435-3440.

Brivadis, Lucas
 Andrieu, Vincent
 Serres, Ulysse
 LAGEPP, Université Lyon 1
 Université de Lyon
 Université Claude Bernard Lyon 1

10:20-10:40 ThA18.2

Observer Design for Nonlinear Systems with Sampled and Transformed Measurements (I), pp. 3441-3446.

González de Cossío, Francisco
 Nadri, Madiha
 Dufour, Pascal
 Université Claude Bernard Lyon 1
 Université Claude Bernard Lyon 1
 Université de Lyon, Université Claude Bernard Lyon 1, CNRS

10:40-11:00 ThA18.3

Interval Observer Synthesis for Polytopic Systems and Conic Systems (I), pp. 3447-3452.

Tahir, Adam
 Xu, Xiangru
 Acikmese, Behcet
 University of Washington
 University of Wisconsin-Madison
 University of Washington

11:00-11:20 ThA18.4

An I&I Observer-Based Controller with Guaranteed Stability for Vehicles with Roll Dynamics, pp. 3453-3458.

Cisneros, Rafael
 Romero, Jose Guadalupe
 Ley-Rosas, Juan José
 Maghenem, Mohamed Adlene
 Instituto Tecnológico Autónomo de México
 Instituto Tecnológico Autónomo de México
 Cinvestav Gdl
 University of California Santa Cruz

11:20-11:40 ThA18.5

Unified Hinf Observer for a Class of Nonlinear Lipschitz Systems: Application to a Real ER Automotive Suspension, pp. 3459-3464.

PHAM, Thanh-Phong
 Sename, Olivier
 Dugard, Luc
 University Grenoble Alpes, CNRS, Grenoble INP
 Grenoble INP / GIPSA-Lab
 CNRS

11:40-12:00 ThA18.6

An Output Feedback Stabilizer for MIMO Nonlinear Systems with Uncertain Input Gain: Nonlinear Nominal Input Gain, pp. 3465-3470.

Ha, Wonseok
 Back, Juhoon
 Kwangwoon University
 Kwangwoon University

ThA19 Galliéni 5

Stochastic Systems II (Regular Session)

Chair: Tsiotras, Panagiotis
 Co-Chair: Scarciotti, Giordano
 Georgia Institute of Technology
 Imperial College London

10:00-10:20 ThA19.1

Sampling-Based Stability Evaluation with Second-Order Margins for Unknown Systems with Gaussian Processes, pp. 3471-3477.

Ito, Yuji	Toyota Central R&d Labs., Inc
Fujimoto, Kenji	Kyoto University
Tadokoro, Yukihiro	TOYOTA Central R&D Lab., Inc

10:20-10:40 ThA19.2

Control by Social Influence: Durables vs. Non-Durables, pp. 3478-3483.

Pradelski, Bary S. R.	Centre National de La Recherche Scientifique, France
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10:40-11:00 ThA19.3

Nonlinear Uncertainty Control with Iterative Covariance Steering, pp. 3484-3490.

Ridderhof, Jack	Georgia Institute of Technology
Okamoto, Kazuhide	Georgia Institute of Technology
Tsiotras, Panagiotis	Georgia Institute of Technology

11:00-11:20 ThA19.4

Universal Feedback Controllers and Inverse Optimality for Nonlinear Stochastic Systems, pp. 3491-3496.

Haddad, Wassim M.	Georgia Institute of Technology
Jin, Xu	University of Kentucky

11:20-11:40 ThA19.5

Input Hard Constrained Optimal Covariance Steering, pp. 3497-3502.

Okamoto, Kazuhide	Georgia Institute of Technology
Tsiotras, Panagiotis	Georgia Institute of Technology

11:40-12:00 ThA19.6

Normal Form and Exact Feedback Linearisation of Nonlinear Stochastic Systems: The Ideal Case, pp. 3503-3508.

Mellone, Alberto	Imperial College London
Scarciotti, Giordano	Imperial College London

ThA20 Rhodes 10
Distributed Control I (Regular Session)

Chair: Chong, Michelle S.	KTH Royal Institute of Technology
Co-Chair: Casavola, Alessandro	University of Calabria

10:00-10:20 ThA20.1

On Second Order Consensus Protocols Allowing Joint-Agent Interactions, pp. 3509-3514.

Tesi, Alessandro	Technical University of Munich
Angeli, David	Imperial College

10:20-10:40 ThA20.2

Voltage Regulation of a Power Distribution Network in a Radial Configuration with a Class of Sector-Bounded Droop Controllers, pp. 3515-3520.

Chong, Michelle S.	KTH Royal Institute of Technology
Umsonst, David	KTH Royal Institute of Technology
Sandberg, Henrik	KTH Royal Institute of Technology

10:40-11:00 ThA20.3

Exponential and Practical Exponential Stability of Second-Order Formation Control Systems, pp. 3521-3526.

Suttner, Raik	University of Wuerzburg
Sun, Zhiyong	Lund University

11:00-11:20 ThA20.4

Plug-And-Play Distributed Supervision Schemes for Decoupled Interconnected Dynamical Systems, pp. 3527-3532.

Tedesco, Francesco	University of Calabria
Casavola, Alessandro	University of Calabria
Russo, Raffaele	University of Calabria

11:20-11:40 ThA20.5

Iterative Algorithms for Distributed Leader-Follower Model Predictive Control, pp. 3533-3539.

Ferraz, Henrique	University of California, Santa Barbara
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Hespanha, Joao P.	University of California, Santa Barbara
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11:40-12:00 ThA20.6

Hierarchical Model Decomposition for Distributed Design of Global Controllers, pp. 3540-3545.

Sasahara, Hampei	KTH Royal Institute of Technology
Ishizaki, Takayuki	Tokyo Institute of Technology
Imura, Jun-ichi	Tokyo Institute of Technology
Sandberg, Henrik	KTH Royal Institute of Technology
Johansson, Karl H.	KTH Royal Institute of Technology

ThA21 Risso 6
Networked Control Systems I (Regular Session)

Chair: Kibangou, Alain	University Grenoble Alpes
Co-Chair: Zhou, Tong	Tsinghua University, Beijing, 100084, CHINA

10:00-10:20 ThA21.1

Allocating Marketing Resources Over Social Networks: A Long-Term Analysis, pp. 3546-3551.

Satheeskumar Varma, Vineeth	CNRS
Lasaulce, Samson	Supélec Paris
Mounthanyvong, Julien	CentraleSupélec, Université Paris-Sud

Morarescu, Irinel-Constantin	CRAN, CNRS, Université de Lorraine
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10:20-10:40 ThA21.2

Generic Delay-L Left Invertibility of Structured Systems with Scalar Unknown Input, pp. 3552-3556.

Garin, Federica	INRIA
Kibangou, Alain	University Grenoble Alpes

10:40-11:00 ThA21.3

Combined Flocking and Region-Based Shape Control for Multi-Agent Systems, pp. 3557-3562.

Fang, Wenxin	Nanjing University
Zhao, Jiabao	Nanjing University
Pan, Yuchen	Jinling High School, Nanjing

11:00-11:20 ThA21.4

a Novel Defense Strategy against Zero-Dynamics Attacks in Multi-Agent Systems, pp. 3563-3568.

Mao, Yanbing	Binghamton University-SUNY
Akyol, Emrah	SUNY Binghamton
Zhang, Ziang	Binghamton University

11:20-11:40 ThA21.5

A Distributed Algorithm That Finds Almost Best Possible Estimate under Non-Vanishing and Time-Varying Measurement Noise, pp. 3569-3574.

Lee, Jin Gyu	Seoul National University
Shim, Hyungbo	Seoul National University

11:40-12:00 ThA21.6
Topology and Subsystem Parameter Based Verification for the Controllability/Observability of a Networked Dynamic System, pp. 3575-3580.
 Zhou, Tong Tsinghua University, Beijing, 100084, CHINA

ThA22 Risso 7
Identification IV (Regular Session)

Chair: Sato, Kazuhiro Kitami Institute of Technology
 Co-Chair: Weyer, Erik University of Melbourne

10:00-10:20 ThA22.1
Confidence Regions for Parameters of Errors-In-Variables Systems Using Sign Perturbed Sums, pp. 3581-3586.

Moravej Khorasani, Masoud University of Melbourne
 Weyer, Erik University of Melbourne

10:20-10:40 ThA22.2
Granger Causality of Gaussian Signals from Quantized Measurements, pp. 3587-3592.

Ahmadi, Salman University of Melbourne, Australia
 Nair, Girish N. University of Melbourne
 Weyer, Erik University of Melbourne

10:40-11:00 ThA22.3
Riemannian Gradient-Based Online Identification Method for Linear Systems with Symmetric Positive-Definite Matrix, pp. 3593-3598.

Sato, Hiroyuki Kyoto University
 Sato, Kazuhiro Kitami Institute of Technology

11:00-11:20 ThA22.4
Frequency Domain Maximum Likelihood Identification with Gaussian Input-Output Uncertainty, pp. 3599-3604.

Verbeke, Dieter Vrije Universiteit Brussel
 Moravej Khorasani, Masoud University of Melbourne

11:20-11:40 ThA22.5
Nonlinearity Measures for Data-Driven System Analysis and Control, pp. 3605-3610.

Martin, Tim University of Stuttgart
 Allgöwer, Frank University of Stuttgart

11:40-12:00 ThA22.6
Construction Methods of the Nearest Positive System, pp. 3611-3616.

Sato, Kazuhiro Kitami Institute of Technology
 Takeda, Akiko University of Tokyo

ThA23 Risso 8
Machine Learning in Control, Theory and Applications I (Invited Session)

Chair: Gaudio, Joseph E. Massachusetts Institute of Technology
 Co-Chair: Dibaji, Seyed Mehran Massachusetts Institute of Technology
 Organizer: Gaudio, Joseph E. Massachusetts Institute of Technology
 Organizer: Dibaji, Seyed Mehran Massachusetts Institute of Technology
 Organizer: Gibson, Travis E. Harvard Medical School

Organizer: Annaswamy, Anuradha M. Massachusetts Institute of Technology

10:00-10:20 ThA23.1
Heterogeneous Formation Control of Multiple Rotorcrafts with Unknown Dynamics Using Reinforcement Learning (I), pp. 3617-3622.

Liu, Hao Beihang University
 Peng, Fachun Beihang University
 Modares, Hamidreza Michigan State University
 Kiumarsi, Bahare University of Illinois, Urbana Champaign

Lewis, Frank L. University of Texas, Arlington

10:20-10:40 ThA23.2
Nonparametric System Identification of Stochastic Switched Linear Systems (I), pp. 3623-3628.

Sarkar, Tuhin Massachusetts Institute of Technology
 Rakhlin, Alexander University of Pennsylvania
 Dahleh, Munther A. Massachusetts Institute of Technology

10:40-11:00 ThA23.3
Decentralized Verification for Dissipativity of Cascade Interconnected Systems (I), pp. 3629-3634.

Kanellopoulos, Aris Georgia Institute of Technology
 Vamvoudakis, Kyriakos G. Georgia Institute of Technology
 Gupta, Vijay University of Notre Dame

11:00-11:20 ThA23.4
Non-Bayesian Social Learning with Uncertain Models Over Time-Varying Directed Graphs (I), pp. 3635-3640.

Uribe, Cesar Massachusetts Institute of Technology
 Hare, James Army Research Laboratory
 Kaplan, Lance Army Research Laboratory
 Jadbabaie, Ali MIT

11:20-11:40 ThA23.5
Secure Linear Quadratic Regulator Using Sparse Model-Free Reinforcement Learning (I), pp. 3641-3647.

Kiumarsi, Bahare University of Illinois, Urbana Champaign
 Basar, Tamer University of Illinois, Urbana Champaign

11:40-12:00 ThA23.6
Finite Sample Analysis of Stochastic System Identification (I), pp. 3648-3654.

Tsiamis, Anastasios University of Pennsylvania
 Pappas, George J. University of Pennsylvania

ThA24 Hermès
Machine Learning I (Regular Session)

Chair: Vidyasagar, Mathukumalli Indian Institute of Technology Hyderabad
 Co-Chair: Paschalidis, Ioannis Boston University Ch.

10:00-10:20 ThA24.1
A Distributionally Robust Optimization Approach for Multivariate Linear Regression under the Wasserstein Metric, pp. 3655-3660.

Chen, Ruidi Boston University

Paschalidis, Ioannis Ch.	Boston University
10:20-10:40	ThA24.2
<i>Deterministic Construction of Bipolar Matrices for Compressed Sensing</i> , pp. 3661-3663.	
Ranjan, Shashank	Indian Institute of Technology, Hyderabad, India
Vidyasagar, Mathukumalli	Indian Institute of Technology Hyderabad
10:40-11:00	ThA24.3
<i>Convergence of Parameter Estimates for Regularized Mixed Linear Regression Models</i> , pp. 3664-3669.	
Wang, Taiyao	Boston University
Paschalidis, Ioannis Ch.	Boston University
11:00-11:20	ThA24.4
<i>Deep Convolutional Networks in System Identification</i> , pp. 3670-3676.	
Andersson, Carl	Uppsala University
H. Ribeiro, Antônio	UFMG
Tiels, Koen	Uppsala University
Wahlström, Niklas	Uppsala University
Schön, Thomas (Bo)	Uppsala University
11:20-11:40	ThA24.5
<i>An Information-Theoretic On-Line Learning Principle for Specialization in Hierarchical Decision-Making Systems</i> , pp. 3677-3684.	
Hihn, Heinke	Ulm University
Gottwald, Sebastian	Ulm University
Braun, Daniel	Ulm University
ThA25	Athéna
Multi-Agent Systems IV (Regular Session)	
Chair: Franceschelli, Mauro	University of Cagliari
Co-Chair: Dimarogonas, Dimos V.	KTH Royal Institute of Technology
10:00-10:20	ThA25.1
<i>Herding an Adversarial Swarm in an Obstacle Environment</i> , pp. 3685-3690.	
Chipade, Vishnu S.	University of Michigan, Ann Arbor
Panagou, Dimitra	University of Michigan, Ann Arbor
10:20-10:40	ThA25.2
<i>Dynamic Consensus on the Median Value in Open Multi-Agent Systems</i> , pp. 3691-3697.	
Sanai Dashti, Zohreh Al Zahra	University of Cagliari
Seatzu, Carla	University of Cagliari
Franceschelli, Mauro	University of Cagliari
10:40-11:00	ThA25.3
<i>Control Barrier Functions for Multi-Agent Systems under Conflicting Local Signal Temporal Logic Tasks</i> , pp. 3698-3703.	
Lindemann, Lars	KTH Royal Institute of Technology
Dimarogonas, Dimos V.	KTH Royal Institute of Technology
11:00-11:20	ThA25.4
<i>On a Two Cutters and Fugitive Ship Differential Game</i> , pp. 3704-3709.	
Pachter, Meir	AFIT/ENG
Wasz, Patrick	US Air Force

11:20-11:40	ThA25.5
<i>Robust Containment Control in Multi-Agent Systems with Common Coordinate Frames and Bearing Angle Measurements</i> , pp. 3710-3717.	
Santilli, Matteo	University of Roma Tre
Franceschelli, Mauro	University of Cagliari
Gasparri, Andrea	University of Roma Tre
11:40-12:00	ThA25.6
<i>Consensus of Heterogeneous Systems with Constraints in a Switching Network - a Governor Approach</i> , pp. 3718-3723.	
Ong, Chong-Jin	National University of Singapore
Djamari, Djati Wibowo	National University of Singapore
ThA26	Apollon
Self-Tuning and Reinforcement Learning (Tutorial Session)	
Chair: Matni, Nikolai	University of Pennsylvania
Co-Chair: Rantzer, Anders	Lund University
Organizer: Matni, Nikolai	University of Pennsylvania
Organizer: Rantzer, Anders	Lund University
10:00-10:05	ThA26.1
<i>Introduction to Control Theory for Reinforcement Learning (I)*</i> .	
Rantzer, Anders	Lund University
10:05-10:35	ThA26.2
<i>From Self-Tuning Regulators to Reinforcement Learning and Back Again (I)</i> , pp. 3724-3740.	
Matni, Nikolai	University of Pennsylvania
Proutiere, Alexandre	KTH Royal Institute of Technology
Rantzer, Anders	Lund University
Tu, Stephen	University of California, Berkeley
10:35-11:05	ThA26.3
<i>Optimally Controlling Unknown Discrete Systems (I)*</i> .	
Proutiere, Alexandre	KTH Royal Institute of Technology
11:05-11:35	ThA26.4
<i>Optimization Based Approaches to Exploration/exploitation (I)*</i> .	
Rantzer, Anders	Lund University
11:35-12:00	ThA26.5
<i>Concentration Bounds for System Identification (I)</i> , pp. 3741-3749.	
Matni, Nikolai	University of Pennsylvania
Tu, Stephen	University of California, Berkeley
ThB01	Méditerranée 1
Biological Applications (Regular Session)	
Chair: Rizzo, Alessandro	Politecnico di Torino
Co-Chair: Srivastava, Vaibhav	Michigan State University
14:00-14:20	ThB01.1
<i>A Mathematical Framework for Modeling Propagation of Infectious Diseases with Mobile Individuals</i> , pp. 3750-3755.	
Possieri, Corrado	Politecnico di Torino
Rizzo, Alessandro	Politecnico di Torino
14:20-14:40	ThB01.2
<i>A Grey-Box Identification Approach for a Human Alertness Model</i> , pp. 3756-3761.	
Lima, Marcelo	Instituto Mauá de Tecnologia

Romano, Rodrigo Alvite	Instituto Mauá de Tecnologia
Pait, Felipe	University Sao Paulo
Folkard, Simon	University Paris Descartes
Parro, Vanderlei	Escola de Engenharia Maua

14:40-15:00 ThB01.3

Model Predictive Control of the Blood Glucose Concentration for Critically Ill Patients in Intensive Care Units, pp. 3762-3769.

Reenberg, Asbjørn	Technical University of Denmark
Boiroux, Dimitri	Technical University of Denmark
Ritschel, Tobias Kasper	2-Control ApS
Skovborg	
Jorgensen, John Bagterp	Technical University of Denmark

15:00-15:20 ThB01.4

Modeling and Control of Measles Epidemic Spread with Immunodepressed Individuals and Possible Complications, pp. 3770-3775.

Iacoviello, Daniela	University of Rome La Sapienza
Di Giamberardino, Paolo	University of Roma La Sapienza

15:20-15:40 ThB01.5

Epidemic Spreading in Time-Varying Networks with Activity-Driven Infectivity, pp. 3776-3781.

Zhang, Yuan	Fudan University
Jian-Bo, Wang	Fudan University
Li, Cong	Fudan University
Li, Xiang	Fudan University

ThB02 Méditerranée 2

Linear Parameter-Varying Systems (Regular Session)

Chair: Petreczky, Mihaly	UMR CNRS 9189, Ecole Centrale de Lille
Co-Chair: Castelan, Eugenio B.	Universidade Federal de Santa Catarina

14:00-14:20 ThB02.1

Input-To-State Stabilization of Discrete-Time LPV Systems with Bounded Time-Varying State Delay and Saturating Actuators through a Dynamic Controller, pp. 3782-3787.

de Souza, Carla	Universidade Federal de Santa Catarina
Castelan, Eugenio B.	Universidade Federal de Santa Catarina
Leite, Valter J. S.	CEFET/MG - Campus Divinopolis

14:20-14:40 ThB02.2

State Estimation of LPV Discrete-Time Systems with Application to Output Feedback Stabilization, pp. 3788-3792.

Chaib Draa, Khadidja	Université du Luxembourg
Zemouche, Ali	CRAN UMR CNRS 7039 & INRIA: EPI-DISCO
Rajamani, Rajesh	University of Minnesota
Wang, Yan	University of Minnesota
Bedouhene, Fazia	University of Mouloud Mammeri, Tizi-Ouzou
Karimi, Hamid Reza	Politecnico di Milano
Laleg-Kirati, Taous-Meriem	King Abdullah University of Science and Technology (KAUST)

14:40-15:00 ThB02.3

Passivity Analysis of Rational LPV Systems Using Finsler's Lemma, pp. 3793-3798.

Polcz, Péter	Pázmány Péter Catholic University
Kulcsar, Balazs	Chalmers University of Technology
Peni, Tamas	MTA-SZTAKI
Szederkényi, Gábor	Computer and Automation Research Institute

15:00-15:20 ThB02.4

Decoupling Unknown Input Observer for Nonlinear Quasi-LPV Systems, pp. 3799-3804.

Ichalal, Dalil	Université d'Evry Val d'Essonne, IBISC Lab
Guerra, Thierry Marie	University of Valenciennes and Hainaut Cambresis

15:20-15:40 ThB02.5

Consistent and Computationally Efficient Estimation for Stochastic LPV State-Space Models: Realization Based Approach, pp. 3805-3810.

Mejari, Manas	IDSIA Dalle Molle Institute for Artificial Intelligence
Petreczky, Mihaly	UMR CNRS 9189, Ecole Centrale de Lille

ThB03 Méditerranée 5

Autonomous Systems I (Regular Session)

Chair: Baillieul, John	Boston University
Co-Chair: Chung, Soon-Jo	California Institute of Technology

14:00-14:20 ThB03.1

Trajectory Optimization for Chance-Constrained Nonlinear Stochastic Systems, pp. 3811-3818.

Nakka, Yashwanth Kumar	California Institute of Technology
Chung, Soon-Jo	California Institute of Technology

14:20-14:40 ThB03.2

Perceptual Control with Large Feature and Actuator Networks, pp. 3819-3826.

Baillieul, John	Boston University
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14:40-15:00 ThB03.3

Intent-Aware Probabilistic Trajectory Estimation for Collision Prediction with Uncertainty Quantification, pp. 3827-3832.

Patterson, Andrew	University of Illinois
Lakshmanan, Arun	University of Illinois
Hovakimyan, Naira	University of Illinois

15:00-15:20 ThB03.4

Adaptive Leader-Follower Coordination of Lagrangian Multi-Agent Systems under Transient Constraints, pp. 3833-3838.

Verginis, Christos	Electrical Engineering, KTH Royal Institute of Technology
Dimarogonas, Dimos V.	KTH Royal Institute of Technology

15:20-15:40 ThB03.5

Resilient Trajectory Planning in Adversarial Environments, pp. 3839-3846.

Clark, Andrew	Worcester Polytechnic Institute
Li, Zhouchi	Worcester Polytechnic Institute

15:40-16:00 ThB03.6

Optimal Distance-Based Formation Producing Control of Multi-Agent Systems with Energy Constraints and Collision Avoidance, pp. 3847-3853.

Babazadeh, Reza	Concordia University
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ThB04	Méditerranée A2
Fault Tolerant Systems (Regular Session)	
Chair: Zocca, Alessandro	California Institute of Technology
Co-Chair: He, Wei	University of Science and Technology Beijing
14:00-14:20	ThB04.1
<i>Resilient Control Design for Hybrid Systems against Switching and Data Injection Attacks</i> , pp. 3854-3859.	
Sun, Dawei	Purdue University Sch of Aero and Astro
Hwang, Inseok	Purdue University
14:20-14:40	ThB04.2
<i>Fault-Tolerant Control for a Vibrating Nanobeam System</i> , pp. 3860-3864.	
Yue, Xinling	University of Electronic Science and Technology of China
He, Xiuyu	University of Science and Technology Beijing
Liu, Jinkun	Beihang University
He, Wei	University of Science and Technology Beijing
14:40-15:00	ThB04.3
<i>Sensor Redundancy for Robustness in Nonlinear State Estimation</i> , pp. 3865-3870.	
Yang, Guitao	Imperial College London
Rezaee, Hamed	Imperial College London
Parisini, Thomas	Imperial College & University of Trieste
15:00-15:20	ThB04.4
<i>Less Is More: Real-Time Failure Localization in Power Systems</i> , pp. 3871-3877.	
Guo, Linqi	California Institute of Technology
Liang, Chen	California Institute of Technology
Zocca, Alessandro	California Institute of Technology
Low, Steven	California Institute of Technology
Wierman, Adam	California Institute of Technology
15:20-15:40	ThB04.5
<i>Secure Networked Control Via Software Rejuvenation</i> , pp. 3878-3884.	
Griffioen, Paul	Carnegie Mellon University
Romagnoli, Raffaele	Carnegie Mellon University
Krogh, Bruce H.	Carnegie Mellon Univ
Sinopoli, Bruno	Washington University in St Louis
15:40-16:00	ThB04.6
<i>Fallback Strategies in Operation Control of Microgrids with Communication Failures</i> , pp. 3885-3891.	
Loeser, Inga	Technische Universität Berlin, Germany
Sampathirao, Ajay Kumar	Technische Universität Berlin, Germany
Hofmann, Steffen	TU Berlin
Raisch, Joerg	Technical University Berlin

ThB05	Méditerranée C4
Distributed Sensing, Control and Automation (Invited Session)	
Chair: Yang, Tao	University of North Texas
Co-Chair: Ghosh, Bijoy	Texas Tech University
Organizer: Yang, Tao	Northeastern University
Organizer: Ghosh, Bijoy	Texas Tech University
Organizer: Wu, Junfeng	KTH Royal Institute of Technology
14:00-14:20	ThB05.1
<i>State Estimation under Stochastic Event-Triggering Conditions with Quantized-Level Energy-Harvesting Sensors (I)</i> , pp. 3892-3897.	
Yu, Hao	University of Alberta
Hao, Fei	Beijing University of Aeronautics and Astronautics
Chen, Tongwen	University of Alberta
14:20-14:40	ThB05.2
<i>Efficient Linear Sensor Fusion Over Multiple Lossy Channels with Local Observability</i> , pp. 3898-3903.	
Wu, Yuchi	The Hong Kong University of Science and Technology
Li, Yuzhe	Northeastern University
Shi, Ling	Hong Kong University of Science and Technology
14:40-15:00	ThB05.3
<i>Observer-Based Leader-Follower Tracking Control for High-Order Multi-Agent Systems with Limited Measurement Information (I)</i> , pp. 3904-3909.	
Yan, Chuan	University of Kansas
Fang, Huazhen	University of Kansas
15:00-15:20	ThB05.4
<i>Distributed Consensus-Based Kalman Filtering for Estimation with Multiple Moving Targets (I)</i> , pp. 3910-3915.	
Lian, Bosen	University of Texas, Arlington
Wan, Yan	University of Texas, Arlington
Zhang, Ya	Southeast University
Liu, Mushuang	University of Texas, Arlington
Lewis, Frank L.	University of Texas, Arlington
Abad, Alexandra	Lockheed Martin
Setter, Tina	Lockheed Martin Advanced Technology Laboratories
Chai, Tianyou	Northeastern University
15:20-15:40	ThB05.5
<i>Gaussianity-Preserving Event-Based State Estimation with an FIR-Based Stochastic Trigger</i> , pp. 3916-3921.	
Schmitt, Eva Julia	TU Dresden
Noack, Benjamin	Karlsruhe Institute of Technology
Krippner, Wolfgang	Karlsruhe Institute of Technology
Hanebeck, Uwe D.	Karlsruhe Institute of Technology
15:40-16:00	ThB05.6
<i>Credibility of State and Friction Coefficient Estimation in Vehicle Dynamics Using UKF</i> , pp. 3922-3927.	
Wielitzka, Mark	Leibniz Universität Hannover
Ortmaier, Tobias	Leibniz Universität Hannover

ThB06		Méditerranée A3
Optimization Algorithms II (Regular Session)		
Chair: Poveda, Jorge I.	University of Colorado, Boulder	
Co-Chair: Quijano, Nicanor	Universidad de Los Andes	
14:00-14:20	ThB06.1	
<i>A Second-Order Saddle Point Method for Time-Varying Optimization</i> , pp. 3928-3935.		
Tang, Yujie	Harvard University	
Low, Steven	California Institute of Technology	
14:20-14:40	ThB06.2	
<i>Gradient Based Restart FISTA</i> , pp. 3936-3941.		
Alamo, Teodoro	University of Seville	
Krupa, Pablo	University of Seville	
Limon, Daniel	University of Seville	
14:40-15:00	ThB06.3	
<i>Local Convergence of Generalized Gauss-Newton and Sequential Convex Programming</i> , pp. 3942-3947.		
Diehl, Moritz	University of Freiburg	
Messerer, Florian	University of Freiburg	
15:00-15:20	ThB06.4	
<i>Multiway K-Cut in Static and Dynamic Graphs: A Maximum Entropy Principle Approach</i> , pp. 3948-3953.		
Baranwal, Mayank	University of Michigan	
Srivastava, Amber	University of Illinois, Urbana Champaign	
Salapaka, Srinivasa M.	University of Illinois, Urbana Champaign	
15:20-15:40	ThB06.5	
<i>Hybrid Robust Optimal Resource Allocation with Momentum</i> , pp. 3954-3959.		
Ochoa, Daniel E.	University of Colorado, Boulder	
Poveda, Jorge I.	University of Colorado, Boulder	
Uribe, Cesar	Massachusetts Institute of Technology	
Quijano, Nicanor	Universidad de Los Andes	
15:40-16:00	ThB06.6	
<i>A Stochastic Interpretation of Stochastic Mirror Descent: Risk-Sensitive Optimality</i> , pp. 3960-3965.		
Azizan Ruhi, Navid	Caltech	
Hassibi, Babak	Caltech	
ThB07		Méditerranée A1
Robotics V (Regular Session)		
Chair: Arioui, Hichem	Evry Val d'Essonne University	
Co-Chair: Prandini, Maria	Politecnico di Milano	
14:00-14:20	ThB07.1	
<i>Robustness of Periodic Orbits of Impulsive Systems À La Poincaré</i> , pp. 3966-3971.		
Veer, Sushant	Princeton University	
Poulakakis, Ioannis	University of Delaware	
14:20-14:40	ThB07.2	
<i>Realization of R-Robust Formations in the Plane Using Control Barrier Functions</i> , pp. 3972-3977.		
Guerrero-Bonilla, Luis	University of Pennsylvania	
Kumar, Vijay	University of Pennsylvania	

14:40-15:00	ThB07.3	
<i>An Admissible Heuristic to Improve Convergence in Kinodynamic Planners Using Motion Primitives</i> , pp. 3978-3983.		
Sakcak, Basak	Politecnico di Milano	
Bascetta, Luca	Politecnico di Milano	
Ferretti, Gianni	Politecnico di Milano	
Prandini, Maria	Politecnico di Milano	
15:00-15:20	ThB07.4	
<i>Robust Barrier Functions for a Fully Autonomous, Remotely Accessible Swarm-Robotics Testbed</i> , pp. 3984-3990.		
Emam, Yousef	Georgia Institute of Technology	
Glotfelter, Paul	Georgia Institute of Technology	
Egerstedt, Magnus	Georgia Institute of Technology	
15:20-15:40	ThB07.5	
<i>Depth Estimation for a Point Feature: Structure from Motion & Stability Analysis</i> , pp. 3991-3996.		
Benyoucef, Rayane	Evry, Paris Saclay	
Nehaoua, lamri	Evry Univeristy	
Hadj-Abdelkader, Hicham	University of Evry - Paris Saclay	
Arioui, Hichem	Evry Val d'Essonne University	
15:40-16:00	ThB07.6	
<i>Designing Image-Based Control Systems Considering Workload Variations</i> , pp. 3997-4004.		
Mohamed, Sajid	Eindhoven University of Technology	
Awan, Asad Ullah	Technical University of Munich	
Goswami, Dip	Eindhoven University of Technology	
Basten, Twan	Eindhoven University of Technology	
ThB08		Méditerranée 3
Estimation and Control of PDE Systems V (Invited Session)		
Chair: Demetriou, Michael A.	Worcester Polytechnic Institute	
Co-Chair: Fahroo, Fariba	AFOSR	
Organizer: Demetriou, Michael A.	Worcester Polytechnic Institute	
Organizer: Fahroo, Fariba	AFOSR	
Organizer: Le Gorrec, Yann	Ensmm, Femto-St / As2m	
14:00-14:20	ThB08.1	
<i>Distributed Modeling of Structural Systems Based on Finite Element Methods with Application to an Actuated Beam (I)</i> , pp. 4005-4010.		
Heinke, Simon	Hamburg University of Technology	
Schug, Ann-Kathrin	Hamburg University of Technology	
Werner, Herbert	Hamburg University of Technology	
14:20-14:40	ThB08.2	
<i>Well-Posedness of Networked Scalar Semilinear Balance Laws Subject to Nonlinear Boundary Control Operators (I)</i> , pp. 4011-4016.		
Tang, Shuxia	Texas Tech University	
Keimer, Alexander	University of California, Berkeley	
Bayen, Alexandre	University of California, Berkeley	
14:40-15:00	ThB08.3	
<i>Performance Output Tracking and Robustness of Multi-Dimensional Heat Equation with Non-Collocated Control and Unmatched Disturbance (I)</i> , pp. 4017-4022.		

Zhou, Hua-Cheng Guo, Bao-Zhu	Tel Aviv University The Chinese Academy of Sciences
15:00-15:20	ThB08.4
<i>Nonlinear Feedback Control of a Class of Semilinear Parabolic PDEs (I)</i> , pp. 4023-4028.	
Franco-de los Reyes, Hugo Schaum, Alexander Meurer, Thomas Alvarez, Jesus	Institute of Engineering, National Autonomous University of Mexico Christian-Albrechts-University Kiel Kiel University Autonomous Metropolitan University, Iztapalapa
15:20-15:40	ThB08.5
<i>On Local Finite-Time Stabilization of the Viscous Burgers Equation Via Boundary Switched Linear Feedback (I)</i> , pp. 4029-4034.	
Espitia, Nicolas Polyakov, Andrey Fridman, Emilia	INRIA INRIA Lille Nord-Europe Tel-Aviv University
15:40-16:00	ThB08.6
<i>Enthalpy-Based Full-State Feedback Control of the Stefan Problem with Hysteresis (I)</i> , pp. 4035-4040.	
Chen, Zhelin Bentsman, Joseph Thomas, Brian G.	University of Illinois University of Illinois Colorado School of Mines
ThB09	Méditerranée B12
Game Theory III (Regular Session)	
Chair: Lamperski, Andrew Co-Chair: Ye, Maojiao	University of Minnesota Nanjing University of Science and Technology
14:00-14:20	ThB09.1
<i>When Smoothness Is Not Enough: Toward Exact Quantification and Optimization of the Price-Of-Anarchy</i> , pp. 4041-4046.	
Chandan, Rahul Paccagnan, Dario Marden, Jason R.	University of California, Santa Barbara University of California, Santa Barbara University of California, Santa Barbara
14:20-14:40	ThB09.2
<i>A RISE-Based Distributed Robust Nash Equilibrium Seeking Strategy for Networked Games</i> , pp. 4047-4052.	
Ye, Maojiao	Nanjing University of Science and Technology
14:40-15:00	ThB09.3
<i>Learning Equilibria in Stochastic Information Flow Tracking Games with Partial Knowledge</i> , pp. 4053-4060.	
Misra, Shruti Moothedath, Shana Hosseini, Hossein Allen, Joey Bushnell, Linda Lee, Wenke Poovendran, Radha	University of Washington University of Washington University of Washington Georgia Institute of Technology University of Washington Georgia Institute of Technology University of Washington
15:00-15:20	ThB09.4

<i>Zero-Sum Stochastic Games with Asymmetric Information</i> , pp. 4061-4066.	
Kartik, Dhruva Nayyar, Ashutosh	University of Southern California University of Southern California
15:20-15:40	ThB09.5
<i>Construction of the Barrier for Reach-Avoid Differential Games in Three-Dimensional Space with Four Equal-Speed Players</i> , pp. 4067-4072.	
Yan, Rui Shi, Zongying Zhong, Yisheng	Tsinghua University Tsinghua University Tsinghua University
15:40-16:00	ThB09.6
<i>Newton's Method and Differential Dynamic Programming for Unconstrained Nonlinear Dynamic Games</i> , pp. 4073-4078.	
Di, Bolei Lamperski, Andrew	University of Minnesota University of Minnesota
ThB10	Méditerranée C12
Control for Large Scale Traffic Networks (Invited Session)	
Chair: Delle Monache, Maria Laura Co-Chair: Canudas de Wit, Carlos Organizer: Delle Monache, Maria Laura Organizer: Bekiaris-Liberis, Nikolaos Organizer: Canudas de Wit, Carlos	INRIA Grenoble Rhône - Alpes CNRS, GIPSA-Lab INRIA Grenoble Rhône - Alpes Technical University of Crete CNRS, GIPSA-Lab
14:00-14:20	ThB10.1
<i>Model-Based Deep Reinforcement Learning for CACC in Mixed-Autonomy Vehicle Platoons (I)</i> , pp. 4079-4084.	
Chu, Tianshu Kalabic, Uros V.	Stanford University Mitsubishi Electric Research Laboratories (MERL)
14:20-14:40	ThB10.2
<i>Robust Tracking Control Design for Fluid Traffic Dynamics (I)</i> , pp. 4085-4090.	
Tumash, Liudmila Canudas de Wit, Carlos Delle Monache, Maria Laura	CNRS, GIPSA-Lab CNRS, GIPSA-Lab INRIA Grenoble Rhône - Alpes
14:40-15:00	ThB10.3
<i>On Routing Drivers through Persuasion in the Long Run (I)</i> , pp. 4091-4096.	
Zhu, Yixian Savla, Ketan	University of Southern California University of Southern California
15:00-15:20	ThB10.4
<i>A Study on Minimum Time Regulation of a Bounded Congested Road with Upstream Flow Control (I)</i> , pp. 4097-4102.	
Tang, Shuxia Keimer, Alexander Goatin, Paola Bayen, Alexandre	Texas Tech University University of California, Berkeley INRIA University of California, Berkeley
15:20-15:40	ThB10.5
<i>Optimal Tolling for Heterogeneous Traffic Networks with Mixed Autonomy</i> , pp. 4103-4108.	

Lazar, Daniel	University of California, Santa Barbara
Coogan, Samuel	Georgia Institute of Technology
Pedarsani, Ramtin	UCSB
15:40-16:00	ThB10.6
<i>Behavior and Management of Stochastic Multiple-Origin-Destination Traffic Flows Sharing a Common Link</i> , pp. 4109-4114.	
Jin, Li	New York University
Wen, Yining	New York University

ThB11	Galliéni 1
Estimation II (Regular Session)	

Chair: Farina, Francesco	University of Bologna
Co-Chair: Jaubertie, Carine	LAAS-CNRS
14:00-14:20	ThB11.1

Adaptive Input Estimation in Linear Dynamical Systems with Applications to Learning-From-Observations, pp. 4115-4120.

Curi, Sebastian Martin	ETH Zürich
Levy, Kfir. Y.	ETH Zürich
Krause, Andreas	ETH Zurich

14:20-14:40	ThB11.2
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Distributed Set Membership Estimation with Time-Varying Graph Topology, pp. 4121-4126.

Farina, Francesco	University of Bologna
Garulli, Andrea	University of Siena
Giannitrapani, Antonio	University of Siena

14:40-15:00	ThB11.3
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Unique Maximum Likelihood Localization of Nuclear Sources, pp. 4127-4132.

Anderson, Brian D.O.	Australian National University/NICTA
Dasgupta, Soura	University of Iowa
Baidoo-Williams, Henry Ernest	Amazon
Anjum, Md Fahim	University of Iowa
Mudumbai, Raghuraman	University of Iowa

15:00-15:20	ThB11.4
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Distributed Secure State Estimation Using Diffusion Kalman Filters and Reachability Analysis, pp. 4133-4139.

Alanwar, Amr	Technische Universität München
Said, Hazem	Ain Shams University
Althoff, Matthias	Technische Universität München

15:20-15:40	ThB11.5
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Zero-Order Moving Horizon Estimation, pp. 4140-4146.

Baumgärtner, Katrin	University of Freiburg
Zanelli, Andrea	University of Freiburg
Diehl, Moritz	University of Freiburg

15:40-16:00	ThB11.6
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Optimal Experiment Design for Bounded-Error Estimation of Nonlinear Models, pp. 4147-4154.

Denis-Vidal, Lilliane	University of Compiegne
Jaubertie, Carine	LAAS-CNRS
Kieffer, Michel	Université Paris-Sud

ThB12	Galliéni 2
Communication Networks (Regular Session)	

Chair: Malabre, Michel	CNRS
Co-Chair: Chen, Wei	Hong Kong University of Science and Technology

14:00-14:20	ThB12.1
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Learning Arrival Rates to Improve Common Information Based Multiple Access Protocol, pp. 4155-4160.

Vasal, Deepanshu	University of Michigan, Ann Arbor
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14:20-14:40	ThB12.2
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Stabilizability of Discrete-Time SISO System Using MIMO Communication, pp. 4161-4165.

Srazhidinov, Radik	Hong Kong University of Science and Technology
Chen, Wei	Hong Kong University of Science and Technology
Qiu, Li	Hong Kong University of Science and Technology

14:40-15:00	ThB12.3
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UAV Trajectory Planning for Delay Tolerant Communications, pp. 4166-4171.

Bonilla Licea, Daniel	Université Internationale de Rabat
Bonilla, Moises E.	CINVESTAV-IPN
Ghogho, Mounir	International University of Rabat
Malabre, Michel	CNRS-UMR6004-CD0962

15:00-15:20	ThB12.4
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Efficient Consensus-Based Formation Control with Discrete-Time Broadcast Updates, pp. 4172-4177.

Molinari, Fabio	Technical University Berlin
Raisch, Joerg	Technical University Berlin

15:20-15:40	ThB12.5
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Stochastic Control with Stale Information--Part I: Fully Observable Systems, pp. 4178-4182.

Soleymani, Touraj	KTH Royal Institute of Technology
Baras, John S.	University of Maryland
Johansson, Karl H.	KTH Royal Institute of Technology

15:40-16:00	ThB12.6
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Theory and Implementation of Event-Triggered Stabilization Over Digital Channels (I), pp. 4183-4188.

Khojasteh, Mohammad Javad	University of California, San Diego
Hedayatpour, Mojtaba	DOT Technology Corporation
Franceschetti, Massimo	University of California, San Diego

ThB13	Galliéni 4
Control and Demand Response in Smart Grids (Invited Session)	

Chair: Dvorkin, Yury	New York University
Co-Chair: Deka, Deepjyoti	Los Alamos National Lab
Organizer: Dvorkin, Yury	New York University
Organizer: Deka, Deepjyoti	Los Alamos National Lab

14:00-14:20	ThB13.1
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A Tractable Formulation for Multi-Period Linearized Optimal Power Flow in Presence of Thermostatically Controlled Loads (I), pp. 4189-4194.

Benenati, Emilio	ETH Zürich
Colombino, Marcello	McGill University
Dall'Anese, Emiliano	University of Colorado, Boulder

14:20-14:40	ThB13.2
<i>Kullback-Leibler-Quadratic Optimal Control of Flexible Power Demand (I)</i> , pp. 4195-4201.	
Camardella, Neil	University of Florida
Busic, Ana	INRIA
Ji, Yuting	Stanford University
Meyn, Sean P.	University of Florida
14:40-15:00	ThB13.3
<i>Mitigation of Coincident Peak Charges Via Approximate Dynamic Programming (I)</i> , pp. 4202-4207.	
Dowling, Chase	University of Washington
Zhang, Baosen	University of Washington
15:00-15:20	ThB13.4
<i>Aggregate Capacity for TCLs Providing Virtual Energy Storage with Cycling Constraints (I)</i> , pp. 4208-4215.	
Coffman, Austin	University of Florida
Busic, Ana	INRIA
Barooh, Prabir	University of Florida
15:20-15:40	ThB13.5
<i>Optimal Strategic Pricing Attacks in Smart Grids: A Dynamic Programming Approach</i> , pp. 4216-4221.	
El Chamie, Mahmoud	United Technologies Research Center
Ren, Lingyu	United Technologies Research Center
Manikantan Shila, Devu	United Technologies Research Center
15:40-16:00	ThB13.6
<i>A Distributionally Robust Joint Chance Constraint Approach to Smart Charging of Plug-In Electric Vehicles</i> , pp. 4222-4227.	
Casini, Marco	University of Siena
Vicino, Antonio	University of Siena
Zanvettor, Giovanni Gino	University of Siena
ThB14	Galliéni 7
Nonlinear Feedback (Regular Session)	
Chair: Mahony, Robert	Australian National University,
Co-Chair: Khorrami, Farshad	NYU Tandon School of Engineering
14:00-14:20	ThB14.1
<i>Asymptotic Tracking Via Funnel Control</i> , pp. 4228-4233.	
Lee, Jin Gyu	University of Cambridge
Trenn, Stephan	University of Groningen
14:20-14:40	ThB14.2
<i>Interconnection through U-Average Passivity in Discrete Time</i> , pp. 4234-4239.	
Moreschini, Alessio	University of Roma La Sapienza
Mattioni, Mattia	University of Roma La Sapienza
Monaco, Salvatore	University of Roma La Sapienza
Normand-Cyrot, Dorothée	CNRS
14:40-15:00	ThB14.3
<i>Adaptive Output-Feedback Prescribed-Time Stabilization of Uncertain Nonlinear Strict-Feedback-Like Systems</i> , pp. 4240-4245.	
Krishnamurthy, Prashanth	NYU Tandon School of Engineering

Khorrami, Farshad	NYU Tandon School of Engineering
Krstic, Miroslav	University of California, San Diego
15:00-15:20	ThB14.4
<i>Oracle-Based Economic Predictive Control</i> , pp. 4246-4251.	
Manzano, Jose Maria	Universidad de Sevilla
nadales, Juan	Universidad de Sevilla
Muñoz de la Peña, David	Universidad de Sevilla
Limon, Daniel	Universidad de Sevilla
15:20-15:40	ThB14.5
<i>A Lyapunov-Based Approach to Exploit Asymmetries in Robotic Dual-Arm Task Resolution</i> , pp. 4252-4258.	
Rodrigues Marcal de Almeida, Diogo	KTH Royal Institute of Technology, EECS, RPL
Karayiannidis, Yiannis	Chalmers University of Technology
15:40-16:00	ThB14.6
<i>A Novel Passivity-Based Trajectory Tracking Control for Conservative Mechanical Systems</i> , pp. 4259-4266.	
Mahony, Robert	Australian National University,

ThB15 Rhodes GH
Optimal Control II (Regular Session)

Chair: Jorgensen, John	Technical University of Denmark
Bagterp	
Co-Chair: Hendrickx, Julien M.	Université Catholique de Louvain

14:00-14:20 ThB15.1

Reduced Order Modeling for Nonlinear PDE-Constrained Optimization Using Neural Networks, pp. 4267-4272.

Mücke, Nikolaj Takata	Technical University of Denmark
Hjuler Christiansen, Lasse	Technical University of Denmark
Engsig-Karup, Allan Peter	Technical University of Denmark
Jorgensen, John Bagterp	Technical University of Denmark

14:20-14:40 ThB15.2

Torque Control of a Hydrostatic Transmission Applied to a Wheel Loader, pp. 4273-4279.

Zips, Patrik	AIT Austrian Institute of Technology
Lobe, Amadeus Cosimo	Center for Vision, Automation & Control, AIT Austrian Institute
Trachte, Adrian	Robert Bosch GmbH
Kugi, Andreas	Vienna University of Technology

14:40-15:00 ThB15.3

Optimal Multi-Agent Persistent Monitoring of the Uncertain State of a Finite Set of Targets, pp. 4280-4285.

Pinto, Samuel C.	Boston University
Andersson, Sean B.	Boston University
Hendrickx, Julien M.	Université Catholique de Louvain
Cassandras, Christos G.	Boston University

15:00-15:20 ThB15.4

Robust Moment-Based Energy-Maximising Optimal Control of Wave Energy Converters, pp. 4286-4291.

Faedo, Nicolás	Centre for Ocean Energy Research, Maynooth University
García Violini, Demián	Centre for Ocean Energy Research, Maynooth University
Scarciotti, Giordano	Imperial College London

Astolfi, Alessandro Imperial College & University of Rome
 Ringwood, John V. NUI Maynooth, Ireland

15:20-15:40 ThB15.5

Consistent Approximation of Optimal Control Problems Using Bernstein Polynomials, pp. 4292-4297.

Cichella, Venanzio University of Iowa
 Kaminer, Isaac Naval Postgraduate School
 Walton, Claire Naval Postgraduate School, Monterey, CA

Hovakimyan, Naira University of Illinois, Urbana Champaign

Pascoal, Antonio Manuel Inst. Superior Tecnico

15:40-16:00 ThB15.6

On LP Formulations of Optimal Control Problems with Time Averaging and Time Discounting Criteria in Non-Ergodic Case, pp. 4298-4303.

Borkar, Vivek S. Indian Institute of Technology
 Gaitsgory, Vladimir Macquarie University
 Shvartsman, Ilya Penn State Harrisburg

ThB16 Rhodes AB
Numerical Methods for Real-Time Model Predictive Control I
 (Invited Session)

Chair: Kerrigan, Eric C. Imperial College London
 Co-Chair: Nie, Yuanbo Imperial College London
 Organizer: McInerney, Ian Imperial College London
 Organizer: Kerrigan, Eric C. Imperial College London
 Organizer: Nie, Yuanbo Imperial College London

14:00-14:20 ThB16.1

An Iterative Horizon-Splitting Method for Model Predictive Control (I), pp. 4304-4310.

Deng, Haoyang Kyoto University
 Ohtsuka, Toshiyuki Kyoto University

14:20-14:40 ThB16.2

Alternating Direction of Multipliers Method for Block Circulant Model Predictive Control (I), pp. 4311-4316.

Kempf, Idris University of Oxford
 Goulart, Paul J. University of Oxford
 Duncan, Stephen University of Oxford

14:40-15:00 ThB16.3

Exact Complexity Certification of a Standard Primal Active-Set Method for Quadratic Programming (I), pp. 4317-4324.

Arnström, Daniel Linköping University
 Axehill, Daniel Linköping University

15:00-15:20 ThB16.4

QPALM: A Newton-Type Proximal Augmented Lagrangian Method for Quadratic Programs (I), pp. 4325-4330.

Hermans, Ben Katholieke Universiteit Leuven
 Themelis, Andreas Katholieke Universiteit Leuven
 Patrinos, Panagiotis Katholieke Universiteit Leuven

15:20-15:40 ThB16.5

Modeling Round-Off Error in the Fast Gradient Method for Predictive Control (I), pp. 4331-4336.

McInerney, Ian Imperial College London
 Kerrigan, Eric C. Imperial College London

Constantinides, George A. Imperial College London

15:40-16:00 ThB16.6

A Hamiltonian Decomposition-Based Splitting Method for Interior Point Solvers in Model Predictive Control (I), pp. 4337-4342.

Poupard, Eduardo Festo AG & Co.KG
 Heath, William Paul University of Manchester
 Güttel, Stefan University of Manchester

ThB17 Rhodes CD
Formal Verification and Synthesis I (Regular Session)

Chair: Zamani, Majid University of Colorado Boulder
 Co-Chair: Sadraddini, Sadra Massachusetts Institute of Technology

14:00-14:20 ThB17.1

Dynamic Quantization Based Symbolic Abstractions for Nonlinear Control Systems, pp. 4343-4348.

Ren, Wei KTH Royal Institute of Technology
 Dimarogonas, Dimos V. KTH Royal Institute of Technology

14:20-14:40 ThB17.2

Approximately Symbolic Models for a Class of Continuous-Time Nonlinear Systems, pp. 4349-4354.

Yu, Pian KTH Royal Institute of Technology
 Dimarogonas, Dimos V. KTH Royal Institute of Technology

14:40-15:00 ThB17.3

Controller Synthesis for Nonlinear Systems with Reachability Specifications Using Monotonicity, pp. 4355-4360.

Sinyakov, Vladimir CNRS
 Girard, Antoine CNRS

15:00-15:20 ThB17.4

Control from Signal Temporal Logic Specifications with Smooth Cumulative Quantitative Semantics, pp. 4361-4366.

Haghighi, Iman Boston University
 Mehdipour, Noushin Boston University
 Bartocci, Ezio Vienna University of Technology
 Belta, Calin Boston University

15:20-15:40 ThB17.5

Linear Encodings for Polytope Containment Problems, pp. 4367-4372.

Sadraddini, Sadra Massachusetts Institute of Technology
 Tedrake, Russ Massachusetts Institute of Technology

15:40-16:00 ThB17.6

Verification of Switched Stochastic Systems Via Barrier Certificates, pp. 4373-4378.

Anand, Mahathi Ludwig Maximilian University of Munich
 Jagtap, Pushpak Technical University of Munich
 Zamani, Majid University of Colorado, Boulder

ThB18 Rhodes EF
Security in Cyber-Physical Systems I (Invited Session)

Chair: Ren, Xiaoqiang KTH
 Co-Chair: Sinopoli, Bruno Washington University in St Louis
 Organizer: Ren, Xiaoqiang Shanghai University

Organizer: Mo, Yilin Tsinghua University
 Organizer: Sinopoli, Bruno Washington University in St Louis
 Organizer: Johansson, Karl H. KTH Royal Institute of Technology

14:00-14:20 ThB18.1

A Network Monitoring Game with Heterogeneous Component Criticality Levels (I), pp. 4379-4384.

Milosevic, Jezdimir KTH Royal Institute of Technology
 Dahan, Mathieu Georgia Institute of Technology
 Amin, Saurabh Massachusetts Institute of Technology
 Sandberg, Henrik KTH Royal Institute of Technology

14:20-14:40 ThB18.2

Optimal Stealthy Attacks on Actuators for Strictly Proper Systems, pp. 4385-4390.

Teixeira, André M. H. Uppsala University

14:40-15:00 ThB18.3

Attack Resilient Interconnected Second Order Systems: A Game-Theoretic Approach, pp. 4391-4396.

Pirani, Mohammad KTH Royal Institute of Technology
 Taylor, Joshua A. University of Toronto
 Sinopoli, Bruno Washington University in St Louis

15:00-15:20 ThB18.4

Secure Navigation of Robots in Adversarial Environments, pp. 4397-4402.

Bianchin, Gianluca University of California, Riverside
 Liu, Yin-Chen University of California, Riverside
 Pasqualetti, Fabio University of California, Riverside

15:20-15:40 ThB18.5

On the Design of Security-Guaranteeing Dynamic Watermarks, pp. 4403-4408.

Satchidanandan, Bharadwaj Texas A&M University
 Kumar, P. R. Texas A&M University

15:40-16:00 ThB18.6

Risk and Security Tradeoffs in Graphical Coordination Games, pp. 4409-4414.

Paarporn, Keith University of California, Santa Barbara
 Alizadeh, Mahnoosh University of California Santa Barbara
 Marden, Jason R. University of California, Santa Barbara

ThB19 Galliéni 5
Stochastic Systems III (Regular Session)

Chair: Wisniewski, Rafal Aalborg University
 Co-Chair: Ossareh, Hamid University of Vermont

14:00-14:20 ThB19.1

Mean Stability of a Class of Two-Time-Scale Markov Jump Linear Systems, pp. 4415-4420.

dos Santos, Felipe Otávio National Laboratory for Scientific Computing-LNCC
 Todorov, Marcos LNCC
 Fragoso, Marcelo Lnc / Mct

14:20-14:40 ThB19.2

Robustness Margins for Continuous-Time Markov Jump Linear Systems with Uncertain Transition Rates, pp. 4421-

4426.

Dos Santos, Dayana Cristine National Laboratory for Scientific Computing - LNCC

Todorov, Marcos LNCC
 Fragoso, Marcelo Lnc / Mct

14:40-15:00 ThB19.3

Semi-Parametric Uncertainty Bounds for Binary Classification, pp. 4427-4432.

Csáji, Balázs SZTAKI
 Tamás, Ambrus Institute for Computer Science and Control, Hungarian Academy Of

15:00-15:20 ThB19.4

New Insights on P-Safety of Stochastic Systems, pp. 4433-4438.

Bujorianu, Luminita Manuela University of Strathclyde
 Wisniewski, Rafal Aalborg University

15:20-15:40 ThB19.5

Lyapunov Exponent of Rank One Matrices: Ergodic Formula and Inapproximability of the Optimal Distribution, pp. 4439-4445.

Altschuler, Jason MIT
 Parrilo, Pablo A. Massachusetts Institute of Technology

15:40-16:00 ThB19.6

Quasilinear Control of Feedback Systems with Multivariate Nonlinearities, pp. 4446-4452.

Brahma, Sarnaduti University of Vermont
 Ossareh, Hamid University of Vermont

ThB20 Rhodes 10
Distributed Control II (Regular Session)

Chair: Zelazo, Daniel Technion - Israel Institute of Technology

Co-Chair: Mylvaganam, Thulasi Imperial College London

14:00-14:20 ThB20.1

Price Control for Heterogeneous Thermostatically Controlled Loads in Communication and Computation Delay Environments, pp. 4453-4458.

Zou, Suli Beijing Institute of Technology
 chen, zhe EPFL
 Lygeros, John ETH Zurich

14:20-14:40 ThB20.2

Maximum Hands-Off Distributed Bearing-Based Formation Control, pp. 4459-4464.

Ikeda, Takuya Kyoto University
 Zelazo, Daniel Technion - Israel Institute of Technology
 Kashima, Kenji Kyoto University

14:40-15:00 ThB20.3

Robust Nonlinear Consensus Seeking, pp. 4465-4470.

Stankovic, Srdjan S. University of Belgrade
 Beko, Marko COPELABS, Universidade Lusófona de Humanidades e Tecnologias
 Stankovic, Milos S. Vlatacom Institute Ltd

15:00-15:20	ThB20.4
<i>Distributed LQR Design for Identical Dynamically Coupled Systems: Application to Load Frequency Control of Multi-Area Power Grid</i> , pp. 4471-4476.	
Vlahakis, Eleftherios	City, University of London
Dritsas, Leonidas	ASPETE
Halikias, George	City University
15:20-15:40	ThB20.5
<i>A Game Theoretic Framework for Distributed Control of Multi-Agent Systems with Acyclic Communication Topologies</i> , pp. 4477-4482.	
Cappello, Domenico	Imperial College London
Mylvaganam, Thulasi	Imperial College London
15:40-16:00	ThB20.6
<i>Output-Feedback Formation Tracking of Second-Order Multi-Agent Systems with Asynchronous Variable Sampled Data</i> , pp. 4483-4488.	
Ajwad, Syed Ali	Université de Poitiers
Moulay, Emmanuel	Université de Poitiers
Defoort, Michael	UVHC
Menard, Tomas	University of Caen
Coirault, Patrick	ENSIP-LIAS
ThB21	Risso 6
Networked Control Systems II (Regular Session)	
Chair: Altafini, Claudio	Linköping University
Co-Chair: Knorn, Steffi	Uppsala University
14:00-14:20	ThB21.1
<i>The Effect of Uniform Quantization on Parameter Estimation of Compound Distributions</i> , pp. 4489-4494.	
Seifullaev, Ruslan	Uppsala University
Knorn, Steffi	Uppsala University
Ahlen, Anders	Uppsala University
14:20-14:40	ThB21.2
<i>Distributed Robust Optimal Filter Design Over Sensor Networks with Data Packet Dropouts</i> , pp. 4495-4500.	
Feng, Yu	Zhejiang University of Technology
Chen, Zhuoming	Zhejiang University of Technology
14:40-15:00	ThB21.3
<i>A Dynamical Approach to Privacy Preserving Average Consensus</i> , pp. 4501-4506.	
Altafini, Claudio	Linköping University
15:00-15:20	ThB21.4
<i>Determination of Security Index for Linear Cyber-Physical Systems Subject to Malicious Cyber Attacks</i> , pp. 4507-4513.	
Baniamerian, Amir	Concordia University
Khorasani, Khashayar	Concordia University
Meskin, Nader	Qatar University
15:20-15:40	ThB21.5
<i>Networked Control of Coupled Subsystems: Spectral Decomposition and Low-Dimensional Solutions</i> , pp. 4514-4520.	
Gao, Shuang	McGill University
Mahajan, Aditya	McGill University
15:40-16:00	ThB21.6
<i>Finite Time Semistability and Consensus in Networks with</i>	

Communication Uncertainty, pp. 4521-4526.

Haddad, Wassim M.	Georgia Institute of Technology
Rajpurohit, Tanmay	Georgia Institute of Technology
Jin, Xu	University of Kentucky

ThB22	Risso 7
Theoretical Foundations for the Representation and Identification of Dynamic Networks I (Invited Session)	
Chair: Van den Hof, Paul M.J.	Eindhoven University of Technology
Co-Chair: Warnick, Sean	Brigham Young University
Organizer: Van den Hof, Paul M.J.	Eindhoven University of Technology
Organizer: Warnick, Sean	Brigham Young University
14:00-14:20	ThB22.1
<i>On Random Matrix Theory and Autoregressive Modeling (I)</i> , pp. 4527-4532.	
Solo, Victor	University of New South Wales
14:20-14:40	ThB22.2
<i>A Dynamic Network Approach to Identification of Physical Systems (I)</i> , pp. 4533-4538.	
Kivits, E.M.M. (Lizan)	Eindhoven University of Technology
Van den Hof, Paul M.J.	Eindhoven University of Technology
14:40-15:00	ThB22.3
<i>Network Stability, Realisation and Random Model Generation (I)</i> , pp. 4539-4544.	
Yue, Zuogong	University of New South Wales
Thunberg, Johan	Halmstad University
Goncalves, Jorge	University of Luxembourg
15:00-15:20	ThB22.4
<i>Corruption Detection in Networks of Bi-Directional Dynamical Systems</i> , pp. 4545-4550.	
Subramanian, Venkat Ram	University of Minnesota
Lamperski, Andrew	University of Minnesota
Salapaka, Murti V.	University of Minnesota
15:20-15:40	ThB22.5
<i>Sensor Placement Strategies for Some Classes of Nonlinear Dynamic Systems Via Lyapunov Theory</i> , pp. 4551-4556.	
Nugroho, Sebastian Adi	University of Texas, San Antonio
Taha, Ahmad	University of Texas, San Antonio
15:40-16:00	ThB22.6
<i>Strong Structural Controllability of Signed Networks</i> , pp. 4557-4562.	
Mousavi, Shima Sadat	Sharif University of Technology
Haeri, Mohammad	Sharif University of Technology
Mesbahi, Mehran	University of Washington
ThB23	Risso 8
Machine Learning in Control, Theory and Applications II (Invited Session)	
Chair: Annaswamy, Anuradha M.	Massachusetts Institute of Technology
Co-Chair: Gibson, Travis E.	Harvard Medical School
Organizer: Gaudio, Joseph E.	Massachusetts Institute of

Organizer: Dibaji, Seyed Mehran	Massachusetts Institute of Technology
Organizer: Gibson, Travis E.	Harvard Medical School
Organizer: Annaswamy, Anuradha M.	Massachusetts Institute of Technology

14:00-14:20 ThB23.1

Connections between Adaptive Control and Optimization in Machine Learning (I), pp. 4563-4568.

Gaudio, Joseph E.	Massachusetts Institute of Technology
Gibson, Travis E.	Harvard Medical School
Annaswamy, Anuradha M.	Massachusetts Institute of Technology
Bolender, Michael	Air Force Research Laboratory
Lavretsky, Eugene	The Boeing Co.

14:20-14:40 ThB23.2

Shared Linear Quadratic Regulation Control: A Reinforcement Learning Approach (I), pp. 4569-4576.

Abu-Khalaf, Murad	Massachusetts Institute of Technology
Karaman, Sertac	Massachusetts Institute of Technology
Rus, Daniela	MIT

14:40-15:00 ThB23.3

Robust Model-Free Learning and Control without Prior Knowledge (I), pp. 4577-4582.

Ho, Dimitar	Caltech
Doyle, John C.	Caltech

15:00-15:20 ThB23.4

Optimal Delay Assignment in Delay-Aware Control of Cyber-Physical Systems: A Machine Learning Approach, pp. 4583-4588.

Pauli, Patricia	Universität Stuttgart
Dibaji, Seyed Mehran	Massachusetts Institute of Technology
Annaswamy, Anuradha M.	Massachusetts Institute of Technology
Chakraborty, Aranya	North Carolina State University

15:20-15:40 ThB23.5

Cause Mining and Controller Synthesis with STL, pp. 4589-4594.

Saglam, Irmak	Middle East Technical University
Aydin Gol, Ebru	Middle East Technical University

15:40-16:00 ThB23.6

A Learning Framework for Versatile STL Controller Synthesis, pp. 4595-4600.

Varnai, Peter	KTH Royal Institute of Technology
Dimarogonas, Dimos V.	KTH Royal Institute of Technology

ThB24 Hermès
Machine Learning II (Regular Session)

Chair: Peet, Matthew M.	Arizona State University
Co-Chair: alimo, shahrouz	NASA Jet Propulsion Laboratory (JPL)

14:00-14:20 ThB24.1

Deep Model Reference Adaptive Control, pp. 4601-4608.

Joshi, Girish	University of Illinois, Urbana Champaign
Chowdhary, Girish	University of Illinois, Urbana Champaign

14:20-14:40 ThB24.2

Transforming Policy Via Reward Advancement, pp. 4609-4614.

Wu, Guojun	WPI
Li, Yanhua	Worcester Polytechnic Institute (WPI)
Luo, Jun	Shenzhen Institutes of Advanced Technology

14:40-15:00 ThB24.3

Inferring Particle Interaction Physical Models and Their Dynamical Properties, pp. 4615-4621.

Matei, Ion	Palo Alto Research Center
Mavridis, Christos	University of Maryland
Baras, John S.	University of Maryland
Zhenirovskyy, Maksym	Palo Alto Research Center

15:00-15:20 ThB24.4

Using SDP to Parameterize Universal Kernel Functions, pp. 4622-4629.

Colbert, Brendon	Arizona State University
Peet, Matthew M.	Arizona State University

15:20-15:40 ThB24.5

Risk-Averse Explore-Then-Commit Algorithms for Finite-Time Bandits, pp. 4630-4635.

Yekkehkhany, Ali	University of Illinois, Urbana Champaign
Arian, Ebrahim	University of Illinois, Urbana Champaign
Hajiesmaili, Mohammad	University of Massachusetts, Amherst
Nagi, Rakesh	University of Illinois, Urbana Champaign

15:40-16:00 ThB24.6

Delaunay-Based Derivative-Free Optimization Via Global Surrogates with Safe and Exact Function Evaluations, pp. 4636-4641.

Zhao, Muhan	University of California, San Diego
Alimo, Shahrouz	NASA Jet Propulsion Laboratory (JPL)
Beyhaghi, Pooriya	University of California, San Diego
Bewley, Thomas	University of California, San Diego

ThB25 Athéna
Decentralized Control (Regular Session)

Chair: Fridman, Emilia	Tel-Aviv University
Co-Chair: Cannon, Mark	University of Oxford

14:00-14:20 ThB25.1

Decentralized Predictor Feedback of Large-Scale Systems under Input Delays, pp. 4642-4647.

Zhu, Yang	Zhejiang University
Fridman, Emilia	Tel-Aviv University

14:20-14:40 ThB25.2

A Port-Hamiltonian Approach to Plug-And-Play Voltage and Frequency Control in Islanded Inverter-Based AC Microgrids, pp. 4648-4655.

Strehle, Felix	Karlsruhe Institute of Technology
Malan, Albertus Johannes	Karlsruhe Institute of Technology
Krebs, Stefan	Karlsruhe Institute of Technology
Hohmann, Soeren	Karlsruhe Institute of Technology

14:40-15:00 ThB25.3

When Does a Multi-Channel Linear System Have a Structurally Fixed Spectrum?, pp. 4656-4661.

Liu, Fengjiao	Yale University
Morse, A. Stephen	Yale Univ

15:00-15:20 ThB25.4

Convex Symmetric Stochastic Dynamic Teams and Their Mean-Field Limit, pp. 4662-4667.

Sanjari, Seyed Sina	Queen's University
Yuksel, Serdar	Queen's University

15:20-15:40 ThB25.5

On Feasible Sets for Coalitional MPC, pp. 4668-4673.

Baldivieso Monasterios, Pablo Rodolfo	University of Sheffield
Trodden, Paul Anthony	University of Sheffield
Cannon, Mark	University of Oxford

15:40-16:00 ThB25.6

Distributed Off-Policy Actor-Critic Reinforcement Learning with Policy Consensus, pp. 4674-4679.

Zhang, Yan	Duke University
Zavlanos, Michael M.	Duke University

ThB26 Apollon
Autonomous Vehicles and Traffic Control in Mixed Autonomy Environments (Tutorial Session)

Chair: Delle Monache, Maria Laura	INRIA Grenoble Rhône - Alpes
Co-Chair: Sprinkle, Jonathan	University of Arizona
Organizer: Delle Monache, Maria Laura	INRIA Grenoble Rhône - Alpes
Organizer: Sprinkle, Jonathan	University of Arizona
Organizer: Vasudevan, Ramanarayan	University of Michigan
Organizer: Work, Daniel B.	Vanderbilt University

16:30-16:35 ThB26.1

Autonomous Vehicles: From Vehicular Control to Traffic Control (I), pp. 4680-4696.

Delle Monache, Maria Laura	INRIA Grenoble Rhône - Alpes
Sprinkle, Jonathan	University of Arizona
Vasudevan, Ramanarayan	University of Michigan
Work, Daniel B.	Vanderbilt University

16:35-17:05 ThB26.2

*Techniques for Online Verification of Autonomous Vehicle Control (I)**.

Vasudevan, Ramanarayan	University of Michigan
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17:05-17:35 ThB26.3

*Realistic Control & Sensing for Autonomous Vehicles (I)**.

Sprinkle, Jonathan	University of Arizona
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17:35-18:05 ThB26.4

*Traffic Modeling (I)**.

Delle Monache, Maria Laura	INRIA Grenoble Rhône - Alpes
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18:05-18:30 ThB26.5

*Eulerian to Lagrangian Traffic Estimation & Control (I)**.

Work, Daniel B.	Vanderbilt University
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ThC01 Méditerranée 1
Control Theory in Neuroscience (Invited Session)

Chair: Singh, Abhyudai	University of Delaware
Co-Chair: Pequito, Sergio	Rensselaer Polytechnic Institute
Organizer: Singh, Abhyudai	University of Delaware
Organizer: Chaillet, Antoine	CentraleSupélec
Organizer: Jafarian, Matin	KTH Royal Institute of Technology

16:30-16:50 ThC01.1

A Framework to Control Functional Connectivity in the Human Brain (I), pp. 4697-4704.

Menara, Tommaso	University of California, Riverside
Baggio, Giacomo	University of California, Riverside
Bassett, Danielle	University of Pennsylvania
Pasqualetti, Fabio	University of California, Riverside

16:50-17:10 ThC01.2

A Separation Principle for Discrete-Time Fractional-Order Dynamical Systems and Its Implications to Closed-Loop Neurotechnology, pp. 4705-4710.

Chatterjee, Sarthak	Rensselaer Polytechnic Institute
Romero, Orlando	Rensselaer Polytechnic Institute
Pequito, Sergio	Rensselaer Polytechnic Institute

17:10-17:30 ThC01.3

Synchronization of Quadratic Integrate-And-Fire Spiking Neurons: Constant versus Voltage-Dependent Couplings, pp. 4711-4716.

Jafarian, Matin	KTH Royal Institute of Technology
Johansson, Karl H.	KTH Royal Institute of Technology

17:30-17:50 ThC01.4

On Phase Reduction and Time Period of Noisy Oscillators (I), pp. 4717-4722.

Aminzare, Zahra	University of Iowa
Holmes, Philip	Princeton University
Srivastava, Vaibhav	Michigan State University

17:50-18:10 ThC01.5

The Sensitivity Function of Excitable Feedback Systems (I), pp. 4723-4728.

Franci, Alessio	Universidad Nacional Autónoma de México
Drion, Guillaume	Montefiore Institute
Sepulchre, Rodolphe	University of Cambridge

18:10-18:30 ThC01.6

Modeling and Characterization of Neuronal Synapses Using Stochastic Hybrid Systems (I), pp. 4729-4734.

Vahdat, Zahra	University of Delaware
Xu, Zikai	University of Delaware
Singh, Abhyudai	University of Delaware

ThC02 Méditerranée 2
Control Applications (Regular Session)

Chair: Rapaport, Alain	U. Montpellier, INRA, Montpellier SupAgro
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Co-Chair: Julius, Agung	Rensselaer Polytechnic Institute
16:30-16:50	ThC02.1
<i>Periodic Controls for Discriminating Density Dependent Growth in the Chemostat</i> , pp. 4735-4740.	
Tani, Fatima Zahra	Université de Montpellier
Rapaport, Alain	U. Montpellier, INRA, Montpellier SupAgro
Bayen, T�rence	Universit� de Montpellier
16:50-17:10	ThC02.2
<i>Indicator of Alarm Risk on Product Degradation, Prediction for Alarms Grouping, Using Alarms Data in Semiconductor Manufacturing</i> , pp. 4741-4746.	
AL-KHARAZ, Mohammed	Laboratoire d'Informatique Et Syst�mes (LIS) - Aix Marseille Uni
Ananou, Bouchra	LSIS
Ouladsine, Mustapha	Universit� D'aix Marseille III
Combal, Michel	ST Microelectronics
Pinaton, Jacques	STMicroelectronics
17:10-17:30	ThC02.3
<i>Nonlinear Model Predictive Control with Explicit Back-Offs for Gaussian Process State Space Models</i> , pp. 4747-4754.	
Bradford, Eric	Norwegian University of Science and Technology
Imsland, Lars	Norwegian University of Science and Technology
Del Rio Chanona, Antonio	Imperial College London
17:30-17:50	ThC02.4
<i>Parameter Identifiability in a Novel Kinetic Adsorption Isotherm for Multi-Modal Chromatography</i> , pp. 4755-4760.	
Cebulla, Dominik H.	TU Braunschweig
Kirches, Christian	Technical University of Braunschweig
Potschka, Andreas	Heidelberg
17:50-18:10	ThC02.5
<i>Graph Temporal Logic Inference for Classification and Identification</i> , pp. 4761-4768.	
Xu, Zhe	University of Texas, Austin
Nettekoven, Alexander	University of Texas, Austin
Julius, Agung	Rensselaer Polytechnic Institute
Topcu, Ufuk	University of Texas, Austin
18:10-18:30	ThC02.6
<i>Identification of Outliers in Graph Signals</i> , pp. 4769-4776.	
Gopalakrishnan, Karthik	Massachusetts Institute of Technology
Li, Max	Massachusetts Institute of Technology
Balakrishnan, Hamsa	Massachusetts Institute of Technology
ThC03	M�diterran�e 5
Autonomous Systems II (Regular Session)	
Chair: Xue, Wenchao	Academy of Mathematics and Systems Science, Chinese Academy of Sciences
Co-Chair: Bopardikar, Shaunak D.	Michigan State University
16:30-16:50	ThC03.1

<i>Navigation of a Quadratic Potential with Ellipsoidal Obstacles</i> , pp. 4777-4784.	
Kumar, Harshat	University of Pennsylvania
Paternain, Santiago	University of Pennsylvania
Ribeiro, Alejandro	University of Pennsylvania
16:50-17:10	ThC03.2
<i>Consensus Control for Leader-Follower Multi-Agent Systems under Prescribed Performance Guarantees</i> , pp. 4785-4790.	
Chen, Fei	KTH
Dimarogonas, Dimos V.	KTH Royal Institute of Technology
17:10-17:30	ThC03.3
<i>On Active Disturbance Rejection Based Path Following Control for Unmanned Roller</i> , pp. 4791-4796.	
Chen, Sen	Academy of Mathematics and Systems Science, Chinese Academy of S
Song, Kang	Tianjin University
Zhao, Longtong	Tianjin University
Xue, Wenchao	Academy of Mathematics and Systems Science, Chinese Academy of S
Xie, Hui	Tianjin University
Huang, Yi	Chinese Academy of Sciences
17:30-17:50	ThC03.4
<i>Safe Policy Synthesis in Multi-Agent POMDPs Via Discrete-Time Barrier Functions</i> , pp. 4797-4803.	
Ahmadi, Mohamadreza	California Institute of Technology
Singletary, Andrew	Georgia Institute of Technology
Burdick, Joel W.	California Institute of Technology
Ames, Aaron D.	California Institute of Technology
17:50-18:10	ThC03.5
<i>Dynamic Boundary Guarding against Radially Incoming Targets</i> , pp. 4804-4809.	
Bajaj, Shivam	Michigan State University
Bopardikar, Shaunak D.	Michigan State University
18:10-18:30	ThC03.6
<i>Reachability-Based Safety Guarantees Using Efficient Initializations</i> , pp. 4810-4816.	
Herbert, Sylvia	University of California, Berkeley
Bansal, Somil	University of California, Berkeley
Ghosh, Shromona	University of California, Berkeley
Tomlin, Claire J.	University of California, Berkeley
ThC04	M�diterran�e A2
Fuzzy Systems and Evolutionary Computing (Regular Session)	
Chair: Campos, Victor	Universidade Federal de Minas Gerais
Co-Chair: Chadli, Mohammed	Universit� de Picardie-Jules Verne
16:30-16:50	ThC04.1
<i>Vehicle Sideslip Angle Estimation Based on Switched Fuzzy Model</i> , pp. 4817-4822.	
Zhang, Qian	Harbin Institute of Technology
Liu, Zhiyuan	Harbin Institute of Technology
Gu, mingqin	Alibaba Group
zhao, chunming	Alibaba Group
Jia, Fengjiao	Harbin Institute of Technology

16:50-17:10	ThC04.2
<i>Local Stability Analysis and Estimation of Domains of Attraction for Nonlinear Systems Via Takagi-Sugeno Fuzzy Modeling</i> , pp. 4823-4828.	
Gomes, Izabella O.	University of Campinas
Tognetti, Eduardo Stockler	University of Brasilia
Oliveira, Ricardo C. L. F.	University of Campinas - UNICAMP
Peres, Pedro L. D.	University of Campinas
17:10-17:30	ThC04.3
<i>Simultaneous Estimation of State and Unknown Input with L_∞ Guarantee on Error-Bounds for Fuzzy Descriptor Systems</i> , pp. 4829-4834.	
Nguyen, Anh-Tu	Université Polytechnique Des Hauts-De-France
Guerra, Thierry Marie	University of Valenciennes and Hainaut Cambresis
Campos, Victor	Universidade Federal de Minas Gerais
17:30-17:50	ThC04.4
<i>Development of Dynamic Multi-Objective Feature Extraction Optimization Method to Detect M/OD Impact Damages</i> , pp. 4835-4840.	
Xue, Ting	School of Automation Engineering, University of Electronic Science and Technology of China
Yin, Chun	University of Electronic Science and Technology of China
Huang, Xuegang	Aerodynamics Institute, China Aerodynamics Research and Development
Dadras, Sara	Ford Motor Company
Cheng, Yuhua	University of Electronic Science and Technology of China
Dadras, Soodeh	Utah State University
17:50-18:10	ThC04.5
<i>On the Particle Swarm Optimization Improvement Using Time Delay Auto Synchronization</i> , pp. 4841-4846.	
Tomaszek, Lukas	VSB-TU Ostrava
Zelinka, Ivan	VSB-TU Ostrava
Chadli, Mohammed	University of Paris-Saclay
18:10-18:30	ThC04.6
<i>A Proposal of the "Group Egogram" for Group Work Aptitude Analysis</i> , pp. 4847-4851.	
Matsuki, Hiroto	National Institute of Technology, Kumamoto College
Ohki, Makoto	National Institute of Technology, Kumamoto College
ThC05	Méditerranée C4
Energy Systems (Regular Session)	
Chair: Diehl, Moritz	University of Freiburg
Co-Chair: Almassalkhi, Mads	University of Vermont
16:30-16:50	ThC05.1
<i>An Adaptive Passivity-Based Controller for a Wind Energy Conversion System</i> , pp. 4852-4857.	
Cisneros, Rafael	Instituto Tecnológico Autónomo de México
Gao, Rui	North Carolina State University
Ortega, Romeo	LSS-SUPELEC

Husain, Iqbal	University of Akron
16:50-17:10	ThC05.2
<i>Convex Inner Approximation of the Feeder Hosting Capacity Limits on Dispatchable Demand</i> , pp. 4858-4864.	
Nazir, Nawaf	University of Vermont
Almassalkhi, Mads	University of Vermont
17:10-17:30	ThC05.3
<i>Optimal Control of Stacked Multi-Kite Systems for Utility-Scale Airborne Wind Energy</i> , pp. 4865-4870.	
De Schutter, Jochem	ALU Freiburg
Leuthold, Rachel	University of Freiburg
Bronnenmeyer, Thilo	Kiteswarms GmbH
Paelinck, Reinhart	Kiteswarms Ltd
Diehl, Moritz	University of Freiburg
17:30-17:50	ThC05.4
<i>Optimal Design and Management of a Hybrid Energy Storage System</i> , pp. 4871-4876.	
Kim, Eugene	University of Michigan
Shin, Kang G.	University of Michigan
17:50-18:10	ThC05.5
<i>Optimal Control for Scheduling and Pricing Intra-Day Natural Gas Transport on Pipeline Networks</i> , pp. 4877-4884.	
Zlotnik, Anatoly	Los Alamos National Laboratory
Sundar, Kaarthik	Los Alamos National Laboratory
Rudkevich, Alexandr	Newton Energy Group
Beylin, Alexandr	Newton Energy Group
Li, Xindi	Tabor's Caramanis Rudkevich
18:10-18:30	ThC05.6
<i>Fuzzy-Variable Gain Super Twisting Algorithm Control Design for Direct-Drive PMSG Wind Turbines</i> , pp. 4885-4890.	
Benzaouia, Soufyane	LGEM - Université Mohamed Premier - Oujda / MIS - Université De
Rabhi, Abdelhamid	MIS
Zouggar, Smail	University Mohammed First Oujda
ThC06	Méditerranée A3
Optimization Algorithms III (Regular Session)	
Chair: Cucuzzella, Michele	University of Groningen
Co-Chair: Hu, Guoqiang	Nanyang Technological University
16:30-16:50	ThC06.1
<i>QPAS: Dual Active Set Solver for Mixed Constraint Quadratic Programming</i> , pp. 4891-4897.	
Fält, Mattias	Lund University
Giselsson, Pontus	Lund University
16:50-17:10	ThC06.2
<i>On the Performance of Exact Diffusion Over Adaptive Networks</i> , pp. 4898-4903.	
Yuan, Kun	University of California, Los Angeles
Alghunaim, Sulaiman A.	University of California, Los Angeles
Ying, Bicheng	University of California, Los Angeles
Sayed, Ali H.	EPFL
17:10-17:30	ThC06.3

Charging Plug-In Electric Vehicles As a Mixed-Integer Aggregative Game, pp. 4904-4909.

Cenedese, Carlo	University of Groningen
Fabiani, Filippo	Delft University of Technology
Cucuzzella, Michele	University of Groningen
Scherpen, Jacquélien M.A.	University of Groningen
Cao, Ming	University of Groningen
Grammatico, Sergio	Delft University of Technology

17:30-17:50 ThC06.4

Randomized Gradient-Free Distributed Online Optimization with Time-Varying Objective Functions, pp. 4910-4915.

Pang, Yipeng	Nanyang Technological University
Hu, Guoqiang	Nanyang Technological University

17:50-18:10 ThC06.5

Chordal Decomposition in Rank Minimized Semidefinite Programs with Applications to Subspace Clustering, pp. 4916-4921.

Miller, Jared	Northeastern University
Zheng, Yang	University of Oxford
Roig-Solvas, Biel	Northeastern University
Sznaier, Mario	Northeastern University
Papachristodoulou, Antonis	University of Oxford

18:10-18:30 ThC06.6

SPSA Method Using Diagonalized Hessian Estimate, pp. 4922-4927.

Sun, Shiqing	Johns Hopkins University
Spall, James C.	Johns Hopkins Univ

ThC07 Méditerranée A1
Aerospace (Regular Session)

Chair: Invernizzi, Davide	Politecnico di Milano
Co-Chair: louembet, christophe	LAAS-CNRS

16:30-16:50 ThC07.1

Sliding Mode Control Applied to a Multivariate Underactuated Control Moment Gyroscope, pp. 4928-4933.

Toriumi, Fabio	Polytechnic School of University of São Paulo
Angelico, Bruno	University of Sao Paulo

16:50-17:10 ThC07.2

Impulsive Zone Model Predictive Control for Rendezvous Hovering Phase, pp. 4934-4939.

Louembet, Christophe	LAAS-CNRS
González, Alejandro H.	CONICET-Universidad Nacional Del Litoral
Arantes Gilz, Paulo Ricardo	LAAS-CNRS

17:10-17:30 ThC07.3

Time-Varying Radome Slope Estimation for Passive Homing Anti-Ship Missiles, pp. 4940-4945.

Ra, Won-Sang	Agency for Defense Development
Ahn, Sejoon	Agency for Defense Development
Lee Yunha	Cranfield University
Whang, Ick Ho	The Agency for Defense Development

17:30-17:50 ThC07.4

Sum-Of-Norms Model Predictive Control for Spacecraft

Maneuvering, pp. 4946-4951.

Leomanni, Mirko	University of Siena
Bianchini, Gianni	University of Siena
Garulli, Andrea	University of Siena
Giannitrapani, Antonio	University of Siena
Quartullo, Renato	University of Siena

17:50-18:10 ThC07.5

Integral ISS-Based Cascade Stabilization for Vectored-Thrust UAVs, pp. 4952-4957.

Invernizzi, Davide	Politecnico di Milano
Lovera, Marco	Politecnico di Milano
Zaccarian, Luca	LAAS-CNRS and University of Trento

18:10-18:30 ThC07.6

Sliding Mode Fault Tolerant Control Allocation with Saturation Avoidance for a Blended Wing Body Aircraft, pp. 4958-4963.

Vile, Liam	University of Exeter
Alwi, Halim	University of Exeter
Edwards, Christopher	University of Exeter

ThC08 Méditerranée 3

Distributed Parameter Systems I (Regular Session)

Chair: Auriol, Jean	University of Calgary
Co-Chair: Polyakov, Andrey	INRIA Lille Nord-Europe

16:30-16:50 ThC08.1

Delay-Robust Stabilization of a Hyperbolic PDE-ODE System, pp. 4964-4970.

Auriol, Jean	University of Calgary
Bribiesca Argomedo, Federico	Université de Lyon, INSA Lyon, CNRS, Ampère

16:50-17:10 ThC08.2

On the Ball-Marsden-Slemrod Obstruction for Bilinear Control Systems, pp. 4971-4976.

Boussaïd, Nabile	Université de Franche-Comté
Caponigro, Marco	Conservatoire National Des Arts Et Métiers
Chambrion, Thomas	Université de Bourgogne

17:10-17:30 ThC08.3

A Maximum Principle-Based Approach for Input-To-State Stability Analysis of Parabolic Equations with Boundary Disturbances, pp. 4977-4983.

Zheng, Jun	Southwest Jiaotong University
Zhu, Guchuan	Ecole Polytechnique de Montreal

17:30-17:50 ThC08.4

Direct Predictive Boundary Control of a First-Order Quasilinear Hyperbolic PDE, pp. 4984-4989.

Strecker, Timm	University of Melbourne
Aamo, Ole Morten	NTNU
Cantoni, Michael	University of Melbourne

17:50-18:10 ThC08.5

Characterization of Finite/Fixed-Time Stability of Evolution Inclusions, pp. 4990-4995.

Polyakov, Andrey	INRIA Lille Nord-Europe
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18:10-18:30 ThC08.6

Strictly Proper Control Design for the Stabilization of 2x2

Linear Hyperbolic ODE-PDE-ODE Systems, pp. 4996-5001.

Bou Saba, David INSA de Lyon
 Bribiesca Argomedo, Federico Université de Lyon, INSA Lyon, CNRS, Ampère
 Di Loreto, Michael INSA Lyon
 Eberard, Damien Université de Lyon, INSA Lyon

ThC09 Méditerranée B12

Game Theory IV (Regular Session)

Chair: Marden, Jason R. University of California, Santa Barbara
 Co-Chair: Margellos, Kostas University of Oxford

16:30-16:50 ThC09.1

Robustness of Stochastic Learning Dynamics to Player Heterogeneity in Games, pp. 5002-5007.

Jaleel, Hassan Lahore University of Management Sciences
 Abbas, Waseem Vanderbilt University
 Shamma, Jeff S. King Abdullah University of Science and Technology (KAUST)

16:50-17:10 ThC09.2

Utilizing Information Optimally to Influence Distributed Network Routing, pp. 5008-5013.

Ferguson, Bryce L. University of California, Santa Barbara
 Brown, Philip N. University of Colorado, Colorado Springs
 Marden, Jason R. University of California, Santa Barbara

17:10-17:30 ThC09.3

A Class of Near-Optimal Local Minima for Witsenhausen's Problem, pp. 5014-5019.

Ajorlou, Amir Massachusetts Institute of Technology
 Jadbabaie, Ali MIT

17:30-17:50 ThC09.4

Distributed GNE Seeking Over Networks in Aggregative Games with Coupled Constraints Via Forward-Backward Operator Splitting, pp. 5020-5025.

Gadjov, Dian University of Toronto
 Pavel, Lacra University of Toronto

17:50-18:10 ThC09.5

Probabilistic Sensitivity of Nash Equilibria in Multi-Agent Games: A Wait-And-Judge Approach, pp. 5026-5031.

Fele, Filiberto University of Oxford
 Margellos, Kostas University of Oxford

18:10-18:30 ThC09.6

Q-Learning with Side Information in Multi-Agent Finite Games, pp. 5032-5037.

Sylvestre, Mathieu University of Toronto
 Pavel, Lacra University of Toronto

ThC10 Méditerranée C12

Modeling, Estimation, and Control of Large-Scale Network Systems (Invited Session)

Chair: Deplano, Diego University of Cagliari
 Co-Chair: Niazi, Muhammad Gipsa-Lab / CNRS

Umar B.
 Organizer: Niazi, Muhammad Gipsa-Lab / CNRS
 Umar B.
 Organizer: Deplano, Diego University of Cagliari

16:30-16:50 ThC10.1

Structure-Based Clustering Algorithm for Model Reduction of Large-Scale Network Systems (I), pp. 5038-5043.

Niazi, Muhammad Umar B. Gipsa-Lab / CNRS
 Cheng, Xiaodong Eindhoven University of Technology
 Canudas de Wit, Carlos CNRS, GIPSA-Lab
 Scherpen, Jacquélien M.A. University of Groningen

16:50-17:10 ThC10.2

Investigating Stability of Laplacians on Signed Digraphs Via Eventual Positivity (I), pp. 5044-5049.

Altafini, Claudio Linköping University

17:10-17:30 ThC10.3

Boundary Control for Output Regulation in Scale-Free Positive Networks (I), pp. 5050-5055.

Nikitin, Denis CNRS, GIPSA-Lab
 Canudas de Wit, Carlos CNRS, GIPSA-Lab
 Frasca, Paolo CNRS, GIPSA-Lab, University Grenoble Alpes

17:30-17:50 ThC10.4

Scale-Free Estimation of the Average State in Large-Scale Systems, pp. 5056-5061.

Niazi, Muhammad Umar B. Gipsa-Lab / CNRS
 Deplano, Diego University of Cagliari
 Canudas de Wit, Carlos CNRS, GIPSA-Lab
 Kibangou, Alain University Grenoble Alpes

17:50-18:10 ThC10.5

H2 Sub-Optimal Model Reduction for Second-Order Network Systems (I), pp. 5062-5067.

Yu, Lanlin University of Science and Technology of China
 Cheng, Xiaodong Eindhoven University of Technology
 Scherpen, Jacquélien M.A. University of Groningen
 Gort, Emma University of Groningen

18:10-18:30 ThC10.6

Spectral Representations of Graphons in Very Large Network Systems Control (I), pp. 5068-5075.

Gao, Shuang McGill University
 Caines, Peter E. McGill University

ThC11 Galliéni 1

Estimation III (Regular Session)

Chair: Meurer, Thomas Kiel University
 Co-Chair: Zorzi, Mattia University of Padova

16:30-16:50 ThC11.1

Impulsive Observer Design for a Class of Continuous Biological Reactors, pp. 5076-5081.

Feketa, Petro Christian-Albrechts-University Kiel
 Schaum, Alexander Christian-Albrechts-University Kiel
 Jerono, Pascal Kiel University
 Meurer, Thomas Kiel University

16:50-17:10	ThC11.2
<i>Strong Consistency of the Distributed Stochastic Gradient Algorithm</i> , pp. 5082-5087.	
Gan, Die	Chinese Academy of Science
Liu, Zhixin	Academy of Mathematics and Systems Science, Chinese Academy of Science
17:10-17:30	ThC11.3
<i>Fusion of Sensors Data in Automotive Radar Systems: A Spectral Estimation Approach</i> , pp. 5088-5093.	
Zhu, Bin	University of Padova
Ferrante, Augusto	University of Padova
Karlsson, Johan	KTH Royal Institute of Technology
Zorzi, Mattia	University of Padova
17:30-17:50	ThC11.4
<i>Variable Exponential Forgetting for Estimation of the Statistics of the Normal-Wishart Distribution with a Constant Precision</i> , pp. 5094-5100.	
Dokoupil, Jakub	CEITEC, Brno University of Technology
Vaclavek, Pavel	Brno University of Technology
17:50-18:10	ThC11.5
<i>Online Failure Probability Estimation under State Estimation Error and Its Application to Angle of Attack Control of a Reentry Vehicle</i> , pp. 5101-5106.	
Merlinge, Nicolas	ONERA
Cantou, Thibault	ONERA
Dahia, Karim	ONERA
18:10-18:30	ThC11.6
<i>Attack-Resilient Estimation for Linear Discrete-Time Stochastic Systems with Input and State Constraints</i> , pp. 5107-5112.	
Wan, Wenbin	University of Illinois, Urbana Champaign
Kim, Hunmin	University of Illinois Urbana Champaign
Hovakimyan, Naira	University of Illinois, Urbana Champaign
Voulgaris, Petros G.	University of Illinois, Urbana Champaign
ThC12	Galliéni 2
Networks (Regular Session)	
Chair: Paschalidis, Ioannis Ch.	Boston University
Co-Chair: Smith, Stephen L.	University of Waterloo
16:30-16:50	ThC12.1
<i>Joint Estimation of OD Demands and Cost Functions in Transportation Networks from Data</i> , pp. 5113-5118.	
Wollenstein-Betech, Salomon	Boston University
Sun, Chuangchuang	Ohio State University
Zhang, Jing	Mitsubishi Electric Research Laboratories
Paschalidis, Ioannis Ch.	Boston University
16:50-17:10	ThC12.2
<i>On Re-Balancing Self-Interested Agents in Ride-Sourcing Transportation Networks</i> , pp. 5119-5125.	
Sadeghi Yengejeh, Armin	University of Waterloo

Smith, Stephen L.	University of Waterloo
17:10-17:30	ThC12.3
<i>Compositional Synthesis of Symbolic Models for Networks of Switched Systems</i> , pp. 5126-5131.	
Swikir, Abdalla	Technical University of Munich
Zamani, Majid	University of Colorado Boulder
17:30-17:50	ThC12.4
<i>No Switching Policy Is Optimal for a Linear System with a Bottleneck Entrance</i> , pp. 5132-5137.	
Sadeghi, Mahdiar	Northeastern University
Ali Al-Radhawi, Muhammad	Massachusetts Institute of Technology
Margaliot, Michael	Tel Aviv University
Sontag, Eduardo	Northeastern University
17:50-18:10	ThC12.5
<i>Multi-Dimensional Continuous Type Population Potential Games</i> , pp. 5138-5143.	
Calderone, Dan	University of Washington
Ratliff, Lillian J.	University of Washington
18:10-18:30	ThC12.6
<i>Towards Resilient Supervisors against Sensor Deception Attacks (I)</i> , pp. 5144-5149.	
Meira-Goes, Romulo	University of Michigan
Marchand, Herve	INRIA Rennes - Bretagne Atlantique
Lafortune, Stephane	University of Michigan
ThC13	Galliéni 4
Smart Grid II (Regular Session)	
Chair: Damm, Gilney	Evry University
Co-Chair: Khorrani, Farshad	NYU Tandon School of Engineering
16:30-16:50	ThC13.1
<i>A Two-Stage Market Mechanism for Electricity with Renewable Generation</i> , pp. 5150-5155.	
Dahlin, Nathan	University of Southern California
Jain, Rahul	University of Southern California
16:50-17:10	ThC13.2
<i>An Optimal Defense Strategy against Data Integrity Attacks in Smart Grids</i> , pp. 5156-5161.	
Salehghaffari, Hossein	NYU, Tandon School of Engineering
Khorrani, Farshad	NYU Tandon School of Engineering
17:10-17:30	ThC13.3
<i>Privacy of Real-Time Pricing in Smart Grid</i> , pp. 5162-5167.	
GhoddousiBoroujeni, Mahrokh	Sharif University of Technology
Fay, Dominik	KTH Royal Institute of Technology
Dimitrakakis, Christos	Chalmers University of Technology
Kamgarpour, Maryam	ETH Zurich
17:30-17:50	ThC13.4
<i>A Nonlinear Distributed Control Strategy for a DC MicroGrid Using Hybrid Energy Storage for Voltage Stability</i> , pp. 5168-5173.	
Perez, Filipe	UNIFEI, CentraleSupélec

Damm, Gilney	Evry University
Ribeiro, Paulo Fernando	UNIFEI
Lagarrigue, Françoise	Laboratoire Des Signaux Et Systèmes
Gali Dol, Lilia	Efficacity Institute

17:50-18:10 ThC13.5

Customer Incentives for Gaming Demand Response Baselines, pp. 5174-5179.

Ellman, Douglas	University of Hawaii, Manoa
Xiao, Yuanzhang	University of Hawaii, Manoa

18:10-18:30 ThC13.6

Energy Management for Timely Charging a System of Drones, pp. 5180-5186.

Liu, Jiashang	The Ohio State University
Li, Wenxin	The Ohio State University
Shroff, Ness B.	The Ohio State University
Sinha, Prasun	Ohio State University

ThC14 Gallieni 7
Time-Varying Systems (Regular Session)

Chair: Wirth, Fabian	University of Passau
Co-Chair: Scorletti, Gerard	Ecole Centrale de Lyon

16:30-16:50 ThC14.1

Coppel's Inequality for Linear Systems on Time Scales, pp. 5187-5192.

Russo, Giovanni	University College Dublin
Wirth, Fabian	University of Passau

16:50-17:10 ThC14.2

Stability Analysis of Time-Varying Systems with Harmonic Oscillations Using IQC Frequency Domain Multipliers, pp. 5193-5198.

AYALA-CUEVAS, Jorge	Ecole Centrale de Lyon
Saggin, Fabricio	Ecole Centrale de Lyon
Korniienko, Anton	Ecole Centrale de Lyon, Laboratoire Ampère
Scorletti, Gerard	Ecole Centrale de Lyon

17:10-17:30 ThC14.3

Gain Scheduled Control of Bounded Multilinear Discrete Time Systems with Uncertainties: An Iterative LMI Approach, pp. 5199-5205.

Grunert, Tim	Vaillant GmbH
Dehnert, Robert	University of Wuppertal
Kummert, Anton	University of Wuppertal
Tibken, Bernd	University of Wuppertal
Fielsch, Sven	University of Wuppertal

17:30-17:50 ThC14.4

Detectability Analysis and Observer Design for Linear Time Varying Systems, pp. 5206-5211.

Tranninger, Markus	Graz University of Technology
Seeber, Richard	Graz University of Technology
Zhuk, Sergiy	IBM
Steinberger, Martin	Graz University of Technology
Horn, Martin	Graz University of Technology

17:50-18:10 ThC14.5

Stabilization and Exponential Estimation of Linear Discrete-Time Systems with Input and State Delays Base on a Novel

Controller Design Approach, pp. 5212-5216.

Li, Haifang	Heilongjiang University
Wang, Xin	Heilongjiang University
Xue, Yu	Heilongjiang University

18:10-18:30 ThC14.6

Maintaining Ferment, pp. 5217-5222.

Goyal, Mohak	Indian Institute of Technology, Bombay
Chatterjee, Debasish	Indian Institute of Technology, Bombay
Karamchandani, Nikhil	Indian Institute of Technology Bombay
Manjunath, D	INDIAN INSTITUTE OF TECHNOLOGY Bombay, India

ThC15 Rhodes GH
Optimal Control III (Regular Session)

Chair: Anderson, James	California Institute of Technology
Co-Chair: Leve, Frederick	AFOSR

16:30-16:50 ThC15.1

Spectrum Shaping Methods for Predictive Control Approaches Applied to a Grid-Connected Power Electronics Converter, pp. 5223-5230.

Stickan, Benjamin	Institute for Solar Energy Systems Freiburg
Rutquist, Per	Department of Microsystems Engineering, IMTEK
Geyer, Tobias	ABB Corporate Research
Diehl, Moritz	University of Freiburg

16:50-17:10 ThC15.2

On Closed-Loop Lyapunov Stability with Minimum-Time MPC Feedback Laws for Discrete-Time Systems, pp. 5231-5237.

Sutherland, Richard	University of Michigan
Kolmanovsky, Ilya V.	University of Michigan
Girard, Anouck	University of Michigan, Ann Arbor
Leve, Frederick	AFOSR
Petersen, Christopher	Air Force Research Laboratory

17:10-17:30 ThC15.3

Optimal Control for Continuous-Time Nonlinear Systems Based on a Linear-Like Policy Iteration, pp. 5238-5243.

TAHIROVIC, Adnan	University of Sarajevo
Astolfi, Alessandro	Imperial College & University of Rome

17:30-17:50 ThC15.4

Quasi-Stochastic Approximation and Off-Policy Reinforcement Learning, pp. 5244-5251.

Bernstein, Andrey	National Renewable Energy Lab (NREL)
Chen, Yue	National Renewable Energy Laboratory
Colombino, Marcello	McGill University
Dall'Anese, Emiliano	University of Colorado, Boulder
Mehta, Prashant G.	University of Illinois, Urbana Champaign
Meyn, Sean P.	University of Florida

17:50-18:10 ThC15.5

Distributed Optimization of Nonlinear Multi-Agent Systems:

A Small-Gain Approach, pp. 5252-5257.

Liu, Tengfei Northeastern University
Qin, Zhengyan Northeastern University
Hong, Yiguang Chinese Academy of Sciences
Jiang, Zhong-Ping New York University

18:10-18:30 ThC15.6

System Level Synthesis with State and Input Constraints, pp. 5258-5263.

Chen, Yuxiao California Institute of Technology
Anderson, James California Institute of Technology

ThC16 Rhodes AB
Numerical Methods for Real-Time Model Predictive Control II
(Invited Session)

Chair: McInerney, Ian Imperial College London
Co-Chair: Kerrigan, Eric C. Imperial College London
Organizer: McInerney, Ian Imperial College London
Organizer: Kerrigan, Eric C. Imperial College London
Organizer: Nie, Yuanbo Imperial College London

16:30-16:50 ThC16.1

A Parallel Decomposition Scheme for Solving Long-Horizon Optimal Control Problems (I), pp. 5264-5271.

Shin, Sungho University of Wisconsin-Madison
Faulwasser, Timm Karlsruhe Institute of Technology
Zanon, Mario IMT Institute for Advanced Studies
Lucca
Zavala, Victor M. University of Wisconsin-Madison

16:50-17:10 ThC16.2

Nonlinear Model Predictive Control for Distributed Motion Planning in Road Intersections Using PANOC (I), pp. 5272-5278.

Katriniok, Alexander Ford Research & Innovation Center
Sopasakis, Pantelis Katholieke Universiteit Leuven
Schuurmans, Mathijs Katholieke Universiteit Leuven
Patrinos, Panagiotis Katholieke Universiteit Leuven

17:10-17:30 ThC16.3

Towards a Modular Framework for Distributed Model Predictive Control of Nonlinear Neighbor-Affine Systems (I), pp. 5279-5284.

Burk, Daniel Friedrich-Alexander-University
Erlangen-Nuremberg
Völz, Andreas Friedrich-Alexander-University
Erlangen-Nuremberg
Graichen, Knut University Erlangen-Nürnberg
(FAU)

17:30-17:50 ThC16.4

Real-Time Model Predictive Control Based on Prediction-Correction Algorithms (I), pp. 5285-5291.

Paternain, Santiago University of Pennsylvania
Morari, Manfred University of Pennsylvania
Ribeiro, Alejandro University of Pennsylvania

17:50-18:10 ThC16.5

Efficient and More Accurate Representation of Solution Trajectories in Numerical Optimal Control, pp. 5292-5297.

Nie, Yuanbo Imperial College London
Kerrigan, Eric C. Imperial College London

18:10-18:30 ThC16.6

The Advanced Step Real Time Iteration for NMPC, pp. 5298-5305.

Nurkanović, Armin Siemens AG
Zanelli, Andrea University of Freiburg
Albrecht, Sebastian Siemens AG
Diehl, Moritz University of Freiburg

ThC17 Rhodes CD
Formal Verification and Synthesis II (Regular Session)

Chair: Pappas, George J. University of Pennsylvania
Co-Chair: Ozay, Necmiye University of Michigan

16:30-16:50 ThC17.1

Transfer Planning for Temporal Logic Tasks, pp. 5306-5311.

Luo, Xusheng Duke University
Zavlanos, Michael M. Duke University

16:50-17:10 ThC17.2

Average-Based Robustness for Continuous-Time Signal Temporal Logic, pp. 5312-5317.

Mehdipour, Noushin Boston University
Vasile, Cristian Ioan Massachusetts Institute of Technology
Belta, Calin Boston University

17:10-17:30 ThC17.3

Tight Decomposition Functions for Mixed Monotonicity, pp. 5318-5322.

Yang, Liren University of Michigan
Ozay, Necmiye University of Michigan

17:30-17:50 ThC17.4

Opportunistic Synthesis in Reactive Games under Information Asymmetry, pp. 5323-5329.

Kulkarni, Abhishek Worcester Polytechnic Institute
Fu, Jie Worcester Polytechnic Institute

17:50-18:10 ThC17.5

Topological Approximate Dynamic Programming under Temporal Logic Constraints, pp. 5330-5337.

li, Iening Worcester Polytechnic Institute
Fu, Jie Worcester Polytechnic Institute

18:10-18:30 ThC17.6

Reinforcement Learning for Temporal Logic Control Synthesis with Probabilistic Satisfaction Guarantees, pp. 5338-5343.

Hasanbeig, Hosein University of Oxford
Kantaros, Yiannis University of Pennsylvania
Abate, Alessandro University of Oxford
kroening, Daniel University of Oxford
Pappas, George J. University of Pennsylvania
Lee, Insup University of Pennsylvania

ThC18 Rhodes EF
Security in Cyber-Physical Systems II (Invited Session)

Chair: Johansson, Karl H. KTH Royal Institute of Technology
Co-Chair: Mo, Yilin Tsinghua University
Organizer: Ren, Xiaoqiang Shanghai University
Organizer: Mo, Yilin Tsinghua University
Organizer: Sinopoli, Bruno Washington University in St Louis

Organizer: Johansson, Karl H. KTH Royal Institute of Technology	
16:30-16:50	ThC18.1
<i>Secure Distributed Filtering for Unstable Dynamics under Compromised Observations (I)</i> , pp. 5344-5349.	
He, Xingkang	KTH Royal Institute of Technology
Ren, Xiaoqiang	KTH Royal Institute of Technology
Sandberg, Henrik	KTH Royal Institute of Technology
Johansson, Karl H.	KTH Royal Institute of Technology
16:50-17:10	ThC18.2
<i>Supervisory Control of Discrete Event Systems in the Presence of Sensor and Actuator Attacks (I)</i> , pp. 5350-5355.	
Wang, Yu	Duke University
Pajic, Miroslav	Duke University
17:10-17:30	ThC18.3
<i>Filtering Approaches for Dealing with Noise in Anomaly Detection (I)</i> , pp. 5356-5361.	
Hashemi, Navid	University of Texas, Dallas
Verdugo, Eduardo	Centro De Investigación Científica Y De Educación Superior De En
Peña, Jonatán	Centro De Investigación Científica Y De Educación Superior De En
Ruths, Justin	University of Texas, Dallas
17:30-17:50	ThC18.4
<i>Study on Realizable Generalized Hold Functions As a Countermeasure against Zero Dynamics Attack (I)</i> , pp. 5362-5367.	
Ha, Jongsoo	Seoul National University
Shim, Hyungbo	Seoul National University
17:50-18:10	ThC18.5
<i>When Is the Secure State-Reconstruction Problem Hard? (I)</i> , pp. 5368-5373.	
Mao, Yanwen	University of California, Los Angeles
Mitra, Aritra	Purdue University
Sundaram, Shreyas	Purdue University
Tabuada, Paulo	University of California, Los Angeles
18:10-18:30	ThC18.6
<i>Protecting Assets with Heterogeneous Valuations under Behavioral Probability Weighting (I)</i> , pp. 5374-5379.	
Abdallah, Mustafa	Purdue University
Naghizadeh, Parinaz	Purdue University
Cason, Timothy	Purdue University
Bagchi, Saurabh	Purdue University
Sundaram, Shreyas	Purdue University

ThC19	Galliéni 5
Stochastic Systems IV (Regular Session)	
Chair: Findeisen, Rolf	OVG University Magdeburg
Co-Chair: Peaucelle, Dimitri	LAAS-CNRS, Université de Toulouse
16:30-16:50	ThC19.1
<i>Finite-Time Stabilization and Robust Control of Stochastic Nonlinear System Based on Hamiltonian Realization</i> , pp. 5380-5385.	
Wang, Min	Zhengzhou University
Liu, Yanhong	Zhengzhou University

Cao, Guizhou	Zhengzhou University
16:50-17:10	ThC19.2
<i>Linear Noisy Networks with Stochastic Components</i> , pp. 5386-5391.	
Sevuktekin, Noyan	University of Illinois, Urbana Champaign
Raginsky, Maxim	University of Illinois, Urbana Champaign
Singer, Andrew	University of Illinois, Urbana Champaign
17:10-17:30	ThC19.3
<i>Sequential Chance Optimization for Flow-Tube Based Control of Probabilistic Nonlinear Systems</i> , pp. 5392-5399.	
M. Jasour, Ashkan	Massachusetts Institute of Technology
Williams, Brian	Massachusetts Institute of Technology
17:30-17:50	ThC19.4
<i>Static Output Feedback Stabilization of Discrete-Time Linear Systems with Stochastic Dynamics Determined by an I.i.d. Process</i> , pp. 5400-5405.	
Hosoe, Yohei	Kyoto University
Peaucelle, Dimitri	LAAS-CNRS, Université de Toulouse
17:50-18:10	ThC19.5
<i>On Noise-To-State Stability of Stochastic Discrete-Time Systems Via Finite-Step Lyapunov Functions</i> , pp. 5406-5411.	
Noroozi, Navid	Otto Von Guericke Universität Magdeburg
Jackson, Roxanne R.	University of Passau
Quevedo, Daniel E.	Paderborn University
Wirth, Fabian	University of Passau
Findeisen, Rolf	Otto Von Guericke Universität Magdeburg
18:10-18:30	ThC19.6
<i>A Modified Technique for Spectral Factorization of Infinite-Dimensional Systems Using Subspace Techniques</i> , pp. 5412-5419.	
Lao, Yejun	University of Michigan
Scruggs, Jeff	University of Michigan

ThC20	Rhodes 10
Distributed Control III (Regular Session)	
Chair: Nguyen, Dinh Hoa	Kyushu University
Co-Chair: Panagou, Dimitra	University of Michigan, Ann Arbor
16:30-16:50	ThC20.1
<i>Robust Dynamic Average Consensus with Prescribed Performance</i> , pp. 5420-5425.	
Stamouli, Charalampia	National Tech. Univ. of Athens
Bechlioulis, Charalampos P.	National Tech. Univ. of Athens
Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens
16:50-17:10	ThC20.2
<i>Adaptive Output Consensus Design in Clustered Networks of Heterogeneous Linear Multi-Agent Systems</i> , pp. 5426-5431.	
Pham, Van Thiem	University of Reims Champagne-Ardenne
Messai, Nadhir	Université de Reims Champagne-Ardenne

Nguyen, Dinh Hoa Manamanni, Noureddine	Kyushu University University of Reims
17:10-17:30	ThC20.3
<i>Resilient Leader-Follower Consensus with Time-Varying Leaders in Discrete-Time Systems</i> , pp. 5432-5437.	
Usevitch, James Panagou, Dimitra	University of Michigan-Ann Arbor University of Michigan, Ann Arbor
17:30-17:50	ThC20.4
<i>Resilient Exponential Consensus with Time-Varying Adversary Attacks and Asynchronous Events</i> , pp. 5438-5443.	
Xia, Weiguo Liu, Ji Li, Shuang Sun, Xi-Ming Han, Min	Dalian University of Technology Stony Brook University Dalian University of Technology Dalian University of Technology Dalian University of Technology
17:50-18:10	ThC20.5
<i>Structural Robustness to Noise in Consensus Networks: Impact of Average Degrees and Average Distances</i> , pp. 5444-5449.	
Yazicioglu, Yasin Abbas, Waseem Shabbir, Mudassir	University of Minnesota Information Technology University Information Technology University
18:10-18:30	ThC20.6
<i>Network Realizable Controllers with an Application to Strongly Connected Distributed Systems</i> , pp. 5450-5455.	
Kukuksayacigil, Gulnihal Naghnaeian, Mohammad Elia, Nicola	Iowa State University Clemson University University of Minnesota
ThC21	Risso 6
Networked Control Systems III (Regular Session)	
Chair: Taha, Ahmad Co-Chair: Kan, Zhen	University of Texas, San Antonio University of Iowa
16:30-16:50	ThC21.1
<i>Characterizing Herdability of Signed Networks Via Graph Walks</i> , pp. 5456-5461.	
She, Baike Cai, Mingyu Kan, Zhen	University of Iowa University of Iowa University of Iowa
16:50-17:10	ThC21.2
<i>Asynchronous Consensus of Continuous-Time Multiagent Systems with Minimum Communication</i> , pp. 5462-5467.	
Sawant, Vishal Chakraborty, Debraj Pal, Debasattam	Indian Institute of Technology, Bombay Indian Institute of Technology, Bombay Indian Institute of Technology, Bombay
17:10-17:30	ThC21.3
<i>On the Computation of a Lower Bound on Strong Structural Controllability in Networks</i> , pp. 5468-5473.	
Shabbir, Mudassir Abbas, Waseem Yazicioglu, Yasin	Information Technology University Vanderbilt University University of Minnesota
17:30-17:50	ThC21.4

<i>State Estimation in Water Distribution Networks through a New Successive Linear Approximation</i> , pp. 5474-5479.	
Wang, Shen Taha, Ahmad Sela, Lina Gatsis, Nikolaos Giacomoni, Marcio	University of Texas, San Antonio University of Texas, San Antonio University of Texas, Austin University of Texas, San Antonio University of Texas, San Antonio
17:50-18:10	ThC21.5
<i>Reverse Average Dwell-Times for Networked Control Systems</i> , pp. 5480-5485.	
Heijmans, Stefan H. J. Postoyan, Romain Nesic, Dragan Heemels, W.P.M.H.	Eindhoven University of Technology CNRS, CRAN, Université de Lorraine University of Melbourne Eindhoven University of Technology
18:10-18:30	ThC21.6
<i>Constrained Online Learning in Networks with Sublinear Regret and Fit</i> , pp. 5486-5493.	
Paternain, Santiago Lee, Soomin Zavlanos, Michael M. Ribeiro, Alejandro	University of Pennsylvania Georgia Institute of Technology Duke University University of Pennsylvania
ThC22	Risso 7
Theoretical Foundations for the Representation and Identification of Dynamic Networks II (Invited Session)	
Chair: Warnick, Sean Co-Chair: Van den Hof, Paul M.J. Organizer: Van den Hof, Paul M.J. Organizer: Warnick, Sean	Brigham Young University Eindhoven University of Technology Eindhoven University of Technology Brigham Young University
16:30-16:50	ThC22.1
<i>Local Module Identification in Dynamic Networks with Correlated Noise: The Full Input Case (I)</i> , pp. 5494-5499.	
Van den Hof, Paul M.J. Ramaswamy, Karthik R. Dankers, Arne Bottegal, Giulio	Eindhoven University of Technology Eindhoven University of Technology University of Calgary TU Eindhoven
16:50-17:10	ThC22.2
<i>Network Identification with Partial Excitation and Measurement (I)</i> , pp. 5500-5506.	
Bazanella, Alexandre S. Gevers, Michel Hendrickx, Julien M.	Univ. Federal do Rio Grande do Sul Université Catholique de Louvain Université Catholique de Louvain
17:10-17:30	ThC22.3
<i>Allocation of Excitation Signals for Generic Identifiability of Dynamic Networks (I)</i> , pp. 5507-5512.	
Cheng, Xiaodong Shi, Shengling Van den Hof, Paul M.J.	Eindhoven University of Technology Eindhoven University of Technology Eindhoven University of Technology

17:30-17:50 ThC22.4
Topology Identification of Heterogeneous Networks of Linear Systems (I), pp. 5513-5518.

van Waarde, Henk J. University of Groningen
Tesi, Pietro University of Firenze
Camlibel, M. Kanat University of Groningen

17:50-18:10 ThC22.5
Generalized Sensing and Actuation Schemes for Local Module Identification in Dynamic Networks (I), pp. 5519-5524.

Ramaswamy, Karthik R. Eindhoven University of Technology
Van den Hof, Paul M.J. Eindhoven University of Technology
Dankers, Arne University of Calgary

18:10-18:30 ThC22.6
Designing Local Inputs to Identify Link Failures in a Diffusive Network: A Graph Perspective (I), pp. 5525-5530.

Xue, Mengran Washington State University

ThC23 Risso 8
Machine Learning in Complex Networks I (Invited Session)

Chair: Basar, Tamer University of Illinois, Urbana Champaign
Co-Chair: Liu, Ji Stony Brook University
Organizer: Basar, Tamer University of Illinois, Urbana Champaign
Organizer: Liu, Ji Stony Brook University
Organizer: Shi, Wei Arizona State University
Organizer: Zhang, Kaiqing University of Illinois, Urbana Champaign

16:30-16:50 ThC23.1
Policy Gradient Using Weak Derivatives for Reinforcement Learning (I), pp. 5531-5537.

Bhatt, Sujay Cornell University
Koppel, Alec U.S. Army Research Laboratory
Krishnamurthy, Vikram Cornell University

16:50-17:10 ThC23.2
Distributed Stochastic Gradient Method for Non-Convex Problems with Applications in Supervised Learning (I), pp. 5538-5543.

George, Jemin U.S. Army Research Laboratory
Yang, Tao Northeastern University
Bai, He Oklahoma State University
Gurram, Prudhvi Booz Allen Hamilton

17:10-17:30 ThC23.3
Distributed Learning in Network Games: A Dual Averaging Approach (I), pp. 5544-5549.

Talebi, Shahriar University of Washington
Alemzadeh, Siavash University of Washington
Ratiiff, Lillian J. University of Washington
Mesbahi, Mehran University of Washington

17:30-17:50 ThC23.4
Stochastic Bregman Parallel Direction Method of Multipliers for Distributed Optimization, pp. 5550-5555.

Yu, Yue University of Washington
Acikmese, Behcet University of Washington

17:50-18:10 ThC23.5
Reinforcement Learning for Decentralized Stochastic Control (I), pp. 5556-5561.

Yongacoglu, Bora Queen's University
Arslan, Gurdal University of Hawaii, Manoa
Yuksel, Serdar Queen's University

18:10-18:30 ThC23.6
A Communication-Efficient Multi-Agent Actor-Critic Algorithm for Distributed Reinforcement Learning (I), pp. 5562-5567.

Lin, Yixuan Stony Brook University
Zhang, Kaiqing University of Illinois, Urbana Champaign
Yang, Zhuoran Princeton University
Wang, Zhaoran Northwestern University
Basar, Tamer University of Illinois, Urbana Champaign
Sandhu, Romeil Stony Brook University
Liu, Ji Stony Brook University

ThC24 Hermès
Recent Advances in Iterative Learning Control and Repetitive Learning Control: From Theory to Applications (Invited Session)

Chair: Tan, Ying University of Melbourne
Co-Chair: Li, Yanan University of Sussex
Organizer: Sebastian, Gijo University of Melbourne
Organizer: Tan, Ying University of Melbourne
Organizer: Oomen, Tom Eindhoven University of Technology
Organizer: Chu, Bing University of Southampton
Organizer: Freeman, Christopher T. University of Southampton
Organizer: Barton, Kira University of Michigan, Ann Arbor

16:30-16:50 ThC24.1
Spatial Repetitive Learning Control for Trajectory Learning in Human-Robot Collaboration (I), pp. 5568-5573.

Xia, Jinggang Southwest Jiaotong University, School of Electrical Engineering
Li, Yanan University of Sussex
Yang, Lin Southwest Jiaotong University, School of Electrical Engineering
Huang, Deqing Southwest Jiaotong University

16:50-17:10 ThC24.2
Distributed Norm Optimal Iterative Learning Control for Formation of Networked Dynamical Systems (I), pp. 5574-5579.

Chen, Bin University of Southampton
Chu, Bing University of Southampton

17:10-17:30 ThC24.3
Flexible-Time Economic Iterative Learning Control: A Case Study in Airborne Wind Energy (I), pp. 5580-5586.

Cobb, Mitchell North Carolina State University
Wu, Maxwell University of Michigan
Barton, Kira University of Michigan, Ann Arbor
Vermillion, Christopher North Carolina State University

17:30-17:50 ThC24.4
Iterative Learning Control of FES with Embedded Simultaneous Volitional EMG (I), pp. 5587-5592.

Sa-e, Sakariya	University of Southampton
Freeman, Christopher T.	University of Southampton
Yang, Kai	University of Southampton

17:50-18:10 ThC24.5

Iterative Learning Control of the Displacements of a Cantilever Beam (I), pp. 5593-5598.

Patan, Maciej	University of Zielona Gora
Klimkowicz, Kamil	University of Zielona Gora
Maniarski, Robert	University of Zielona Góra
Patan, Krzysztof	University of Zielona Gora
Rogers, Eric	University of Southampton

18:10-18:30 ThC24.6

Frequency Domain Design of a Robust Iterative Learning Control Via Convex Optimization Techniques (I), pp. 5599-5604.

Mandra, Slawomir	Nicolaus Copernicus University
Galkowski, Krzysztof	University of Zielona Gora
Aschemann, Harald	University of Rostock
Rauh, Andreas	University of Rostock

ThC25	Athéna
Large-Scale Systems (Regular Session)	

Chair: Görges, Daniel	University of Kaiserslautern
Co-Chair: Mironchenko, Andrii	University of Passau

16:30-16:50 ThC25.1

Detectability of Intermittent Zero-Dynamics Attack in Networked Control Systems, pp. 5605-5610.

Mao, Yanbing	Binghamton University-SUNY
Jafarnejadsani, Hamidreza	University of Illinois, Urbana Champaign
Zhao, Pan	University of Illinois, Urbana Champaign
Akyol, Emrah	SUNY Binghamton
Hovakimyan, Naira	University of Illinois, Urbana Champaign

16:50-17:10 ThC25.2

Social Power Convergence on Duplex Influence Networks with Self-Appraisals, pp. 5611-5616.

Kang, Rongrong	Fudan University
Li, Cong	Fudan University
Li, Xiang	Fudan University

17:10-17:30 ThC25.3

Small-Gain Theorems for Stability of Infinite Networks, pp. 5617-5622.

Mironchenko, Andrii	University of Passau
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17:30-17:50 ThC25.4

A Distributed Approach for the Detection of Covert Attacks in Interconnected Systems with Stochastic Uncertainties, pp. 5623-5628.

Barboni, Angelo	Imperial College London
Gallo, Alexander	Imperial College London
Boem, Francesca	University College London
Parisini, Thomas	Imperial College & University of Trieste

17:50-18:10 ThC25.5

Robust Finite Frequency H_∞ Model Reduction for Uncertain

2D Continuous Systems, pp. 5629-5634.

El-Amrani, Abderrahim	University of Sidi Mohammed Ben Abdellah
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Boukili, Bensalem	Fez
El Hajjaji, Ahmed	University of Picardie-Jules Verne
Hmamed, Abdelaziz	Faculty of Science Dhar Elmhraz
Boumhidi, Ismail	USMBA

18:10-18:30 ThC25.6

Stabilizing Distributed Model Predictive Control Using the Consensus Form of ADMM, pp. 5635-5640.

Rostami, Ramin	University of Kaiserslautern
Costantini, Giuliano	University of Kaiserslautern
Görges, Daniel	University of Kaiserslautern

Technical Program for Friday December 13, 2019

FrP1	Apollon
Feedback and Uncertainty: Some Basic Problems and Theorems (Plenary Session)	
Chair: Bitmead, Robert R.	University of California San Diego
08:30-09:30	FrP1.1
<i>Feedback and Uncertainty: Some Basic Problems and Theorems*</i> .	
Guo, Lei	Academy of Mathematics and Systems Science, Chinese Academy of Sciences
FrA01	Méditerranée 1
Nonlinear Modeling and Estimation in Biomedical Systems (Invited Session)	
Chair: Medvedev, Alexander V.	Uppsala University
Co-Chair: Knorn, Steffi	Uppsala University
Organizer: Medvedev, Alexander V.	Uppsala University
Organizer: Knorn, Steffi	Otto-Von-Guericke University Magdeburg
10:00-10:20	FrA01.1
<i>Identification of Continuous Volterra Models with Explicit Time Delay through Series of Laguerre Functions (I)</i> , pp. 5641-5646.	
Bro, Viktor	Uppsala University
Medvedev, Alexander V.	Uppsala University
10:20-10:40	FrA01.2
<i>Data-Driven Modelling of Fatigue in Pelvic Floor Muscles When Performing Kegel Exercises (I)</i> , pp. 5647-5653.	
Kask, Nathalie	Luleå University of Technology
Budgett, David M	Auckland Bioengineering Institute, University of Auckland
Kruger, Jennifer A	Auckland Bioengineering Institute, University of Auckland
Nielsen, Poul M F	Department of Engineering Science, University of Auckland
Varagnolo, Damiano	NTNU - Norwegian University of Science and Technology
Knorn, Steffi	Otto-Von-Guericke University Magdeburg
10:40-11:00	FrA01.3
<i>Meal Estimation from Continuous Glucose Monitor Data Using Kalman Filtering and Hypothesis Testing (I)</i> , pp. 5654-5661.	
Staal, Odd Martin	NTNU, Norwegian University of Science and Technology
Sælid, Steinar	Prediktor Medical AS
Fougner, Anders Lyngvi	Norwegian University of Science and Technology (NTNU)
Stavdahl, Øyvind	NTNU, Norwegian University of Science and Technology
11:00-11:20	FrA01.4
<i>Optimal Control Modulation of HIV Reservoir Formation Rate by Antigen Infusion (I)</i> , pp. 5662-5667.	
Jagarapu, Aditya	University of Delaware
Piovosio, Michael J.	University of Delaware
Zurakowski, Ryan	University of Delaware

11:20-11:40	FrA01.5
<i>Sensorless Nonlinear Stroke Controller for an Implantable Undulating Membrane Pump</i> , pp. 5668-5673.	
Scheffler, Mattias	Pimm Umr Cnrs
Mechbal, Nazih	Arts Et Métiers ParisTech
Rebillat, Marc	Arts & Metiers Paristech
Monteiro, Eric	Arts & Metiers Paristech
Barabino, Nicolas	CORWAVE
11:40-12:00	FrA01.6
<i>Optimal Duration and Planning of Switching Treatments Taking Drug Toxicity into Account: A Convex Optimisation Approach</i> , pp. 5674-5679.	
Devia, Carlos Andres	Delft University of Technology
Giordano, Giulia	Delft University of Technology
FrA02	Méditerranée 2
Linear Systems I (Regular Session)	
Chair: Niemann, Henrik	Technical University of Denmark
Co-Chair: Dilip, Sanand	Indian Institute of Technology, Kharagpur
10:00-10:20	FrA02.1
<i>Towards Data-Driven LPV Controller Synthesis Based on Frequency Response Functions</i> , pp. 5680-5685.	
Bloemers, Tom	Eindhoven University of Technology
Tóth, Roland	Eindhoven University of Technology
Oomen, Tom	Eindhoven University of Technology
10:20-10:40	FrA02.2
<i>Gramian Optimization with Input-Power Constraints</i> , pp. 5686-5691.	
Baggio, Giacomo	University of California, Riverside
Zampieri, Sandro	University of Padova
Scherer, Carsten W.	University of Stuttgart
10:40-11:00	FrA02.3
<i>A Controller Architecture with Anti-Windup</i> , pp. 5692-5697.	
Niemann, Henrik	Technical University of Denmark
11:00-11:20	FrA02.4
<i>The Controllability Gramian, the Hadamard Product and the Optimal Actuator and Sensor Placement Problem</i> , pp. 5698-5703.	
Dilip, Sanand	Indian Institute of Technology, Kharagpur
11:20-11:40	FrA02.5
<i>On Reachability and Null-Controllability of Nonstrict Convex Processes</i> , pp. 5704-5709.	
Eising, Jaap	University of Groningen
Camlibel, M. Kanat	University of Groningen
11:40-12:00	FrA02.6
<i>Fractional-Order Memory Reset Control for Integer-Order LTI Systems</i> , pp. 5710-5715.	
Weise, Christoph	TU Ilmenau
Wulff, Kai	TU Ilmenau
Reger, Johann	TU Ilmenau

FrA03	Méditerranée 5
Autonomous Vehicles (Regular Session)	
Chair: Liu, Lantao	Indiana University
Co-Chair: Ferrari, Riccardo M.G.	Delft University of Technology
10:00-10:20	FrA03.1
<i>Multi-Objective and Model-Predictive Tree Search for Spatiotemporal Informative Planning</i> , pp. 5716-5722.	
Chen, Weizhe	Indiana University Bloomington
Liu, Lantao	Indiana University
10:20-10:40	FrA03.2
<i>Decentralized Radial Segregation in Heterogeneous Swarms of Robots</i> , pp. 5723-5728.	
Bernardes Ferreira Filho, Edson	Universidade Federal de Minas Gerais
Pimenta, Luciano	Universidade Federal de Minas Gerais
10:40-11:00	FrA03.3
<i>Dynamic Vehicle Routing in Presence of Random Recalls</i> , pp. 5729-5734.	
Bopardikar, Shaunak D.	Michigan State University
Srivastava, Vaibhav	Michigan State University
11:00-11:20	FrA03.4
<i>An Observer-Based Longitudinal Control of Car-Like Vehicles Platoon Navigating in an Urban Environment</i> , pp. 5735-5741.	
Khalifa, Ahmed	Faculty of Electronics Engineering, Menoufia University
Kermorgant, Olivier	École Centrale Nantes
Dominguez, Salvador	Ecole Centrale de Nantes
Martinet, Philippe	IRCCyN
11:20-11:40	FrA03.5
<i>A Sliding Mode Observer Approach for Attack Detection and Estimation in Autonomous Vehicle Platoons Using Event Triggered Communication</i> , pp. 5742-5747.	
Keijzer, Twan	Delft University of Technology
Ferrari, Riccardo M.G.	Delft University of Technology
11:40-12:00	FrA03.6
<i>A Predictive Vector-Field Based Lane-Changing Controller</i> , pp. 5748-5753.	
Huang, Lixing	University of Michigan
Panagou, Dimitra	University of Michigan, Ann Arbor
FrA04	Méditerranée A2
Modern Computational and Algorithmic Challenges on Switched Systems (Invited Session)	
Chair: Mason, Paolo	CNRS, Laboratoire Des Signaux Et Systèmes, Supélec
Co-Chair: Jungers, Raphaël M.	University of Louvain
Organizer: Girard, Antoine	CNRS
Organizer: Jungers, Raphaël M.	University of Louvain
Organizer: Wang, Zheming	University of Louvain
10:00-10:20	FrA04.1
<i>Estimation Entropy for Regular Linear Switched Systems (I)</i> , pp. 5754-5759.	
Scabin Vicinansa, Guilherme	University of Illinois, Urbana

Liberzon, Daniel	Champaign University of Illinois, Urbana Champaign
10:20-10:40	FrA04.2
<i>Dissipativeness and Dissipativity of Discrete-Time Switched Linear Systems (I)</i> , pp. 5760-5765.	
Jungers, Marc	CNRS - Université de Lorraine
Ferrante, Francesco	GIPSA-Lab and Université Grenoble Alpes
Loheac, Jerome	CNRS, Université de Lorraine
10:40-11:00	FrA04.3
<i>Stabilizability of Markov Jump Linear Systems Modeling Wireless Networked Control Scenarios (I)</i> , pp. 5766-5772.	
Zacchia Lun, Yuriy	IMT School for Advanced Studies Lucca
D'Innocenzo, Alessandro	University of L'Aquila
11:00-11:20	FrA04.4
<i>Extended Projected Dynamical Systems with Applications to Hybrid Integrator-Gain Systems (I)</i> , pp. 5773-5778.	
Sharif, Bardia	Eindhoven University of Technology
Heertjes, Marcel	Eindhoven University of Technology
Heemels, W.P.M.H.	Eindhoven University of Technology
11:20-11:40	FrA04.5
<i>Fault Detectability Analysis of Switched Affine Systems with Linear Temporal Logic Constraints (I)</i> , pp. 5779-5786.	
Yang, Liren	University of Michigan
Ozay, Necmiye	University of Michigan
11:40-12:00	FrA04.6
<i>Lyapunov Functions for Shuffle Asymptotic Stability of Discrete-Time Switched Systems</i> , pp. 5787-5792.	
Girard, Antoine	CNRS
Mason, Paolo	CNRS, Laboratoire Des Signaux Et Systèmes, Supélec

FrA05	Méditerranée C4
Robust Control I (Regular Session)	
Chair: Ossmann, Daniel	German Aerospace Center (DLR)
Co-Chair: Yagoubi, Mohamed	IMT Atlantique
10:00-10:20	FrA05.1
<i>Robust Derivative Feedback Control for Systems with Uncertain Equilibrium States</i> , pp. 5793-5798.	
Arthur, Khalid M.	University of New Hampshire
Yoon, Se Young (Pablo)	University of New Hampshire
10:20-10:40	FrA05.2
<i>A Robust Tracking Control for Unicycle Mobile Robots: An Attractive Ellipsoid Approach</i> , pp. 5799-5804.	
Martínez, Contreras, Edgar Alejandro	Tecnológico Nacional de Mexico/ Instituto Tecnológico de La Laguna
Ríos, Héctor	CONACYT-Tecnológico Nacional de México/ Instituto Tecnológico de La Laguna
Mera, Manuel	UPIBI-IPN
González-Sierra, Jaime	Instituto Tecnológico de La Laguna

10:40-11:00	FrA05.3
<i>Robustness Analysis of Continuous Periodic Systems Using Integral Quadratic Constraints</i> , pp. 5805-5810.	
Ossmann, Daniel	Munich University of Applied Sciences
Pfifer, Harald	University of Nottingham
11:00-11:20	FrA05.4
<i>Projection/Reflection-Based Techniques for Multi-Objective Control Synthesis under Information Structure Constraints</i> , pp. 5811-5818.	
Yagoubi, Mohamed	CNRS-UMR 6004-CD0962
11:20-11:40	FrA05.5
<i>Revisit of LQG Control--A New Paradigm with Recovered Robustness</i> , pp. 5819-5825.	
Chen, Xiang	University of Windsor
Zhou, Kemin	Shandong University of Science and Technology
Tan, Ying	University of Melbourne
11:40-12:00	FrA05.6
<i>Robust Nash Static Output Feedback Strategy for Uncertain Markov Jump Delay Stochastic Systems</i> , pp. 5826-5831.	
Mukaidani, Hiroaki	Hiroshima University
Ramasamy, Saravanakumar	Hiroshima University
Xu, Hua	University of Tsukuba
Zhuang, Weihua	University of Waterloo
FrA06	Méditerranée A3
Optimization Algorithms IV (Regular Session)	
Chair: Poveda, Jorge I.	University of Colorado, Boulder
Co-Chair: Han, Shuo	University of Illinois, Chicago
10:00-10:20	FrA06.1
<i>Byzantine-Resilient Stochastic Gradient Descent for Distributed Learning: A Lipschitz-Inspired Coordinate-Wise Median Approach</i> , pp. 5832-5837.	
Yang, Haibo	Iowa State University
Zhang, Xin	Iowa State University
Fang, Minghong	Iowa State University
Liu, Jia	Iowa State University
10:20-10:40	FrA06.2
<i>First-Order Optimization Algorithms with Resets and Hamiltonian Flows</i> , pp. 5838-5843.	
Teel, Andrew R.	University of California, Santa Barbara
Poveda, Jorge I.	University of Colorado, Boulder
Le, Justin	University of California, Santa Barbara
10:40-11:00	FrA06.3
<i>Distributed Algorithm for Economic Dispatch Problem with Separable Losses</i> , pp. 5844-5849.	
Lee, Seungjoon	Seoul National University
Shim, Hyungbo	Seoul National University
11:00-11:20	FrA06.4
<i>A Control-Theoretic Approach to Analysis and Parameter Selection of Douglas-Rachford Splitting</i> , pp. 5850-5855.	
Seidman, Jacob H.	University of Pennsylvania
Fazlyab, Mahyar	University of Pennsylvania

Preciado, Victor M.	University of Pennsylvania
Pappas, George J.	University of Pennsylvania
11:20-11:40	FrA06.5
<i>Systematic Design of Decentralized Algorithms for Consensus Optimization</i> , pp. 5856-5861.	
Han, Shuo	University of Illinois, Chicago
11:40-12:00	FrA06.6
<i>Distributed Alternating Direction Method of Multipliers for Linearly-Constrained Optimization Over a Network</i> , pp. 5862-5867.	
Carli, Raffaele	Politecnico di Bari
Dotoli, Mariagrazia	Politecnico di Bari
FrA07	Méditerranée A1
Flight Control (Regular Session)	
Chair: Hamel, Tarek	Université de Nice Sophia Antipolis
Co-Chair: Pucci, Daniele	Istituto Italiano Di Tecnologia
10:00-10:20	FrA07.1
<i>Robust Multivariable Sliding Mode Attitude Control for Enhanced Helicopter Handling Qualities</i> , pp. 5868-5873.	
Halbe, Omkar	Technical University of Munich
Hajek, Manfred	Technical University of Munich
10:20-10:40	FrA07.2
<i>Stabilizing a VTOL Aircraft Based on Controlled Lagrangian Method</i> , pp. 5874-5879.	
Chen, Guanjun	Beihang University
Huo, Wei	Beijing University of Aero. & Astro
10:40-11:00	FrA07.3
<i>Automatic Control of Convertible Fixed-Wing Drones with Vectorized Thrust</i> , pp. 5880-5887.	
anglade, andre	I3S, Université Cote D Azur, CNRS, Sophia Antipolis, France,
KAI, Jean-Marie	I3S CNRS Université Côte D'Azur
Hamel, Tarek	Université de Nice Sophia Antipolis
Samson, Claude	I3s/CNRS
11:00-11:20	FrA07.4
<i>An Algebraic Solution for Tracking Bernoulli's Lemniscate Flight Trajectory in Airborne Wind Energy Systems</i> , pp. 5888-5893.	
Saraiva da Silva, Ramiro	Federal University of Santa Catarina
De Lellis, Marcelo	Federal University of Santa Catarina
Bruhns Bastos, Matheus	Federal University of Santa Catarina
Trofino, Alexandre	Federal University of Santa Catarina
11:20-11:40	FrA07.5
<i>On the Existence of Flight Equilibria in Longitudinal Dynamics</i> , pp. 5894-5899.	
Pucci, Daniele	Istituto Italiano Di Tecnologia
11:40-12:00	FrA07.6
<i>Limitations in Filtering Structural Vibrations for Unstable Missiles Control</i> , pp. 5900-5905.	
Hexner, Gyorgy	RAFAEL, Haifa ISRAEL

Kristalny, Maxim Technion-IIT
 Mirkin, Leonid Technion-IIT

FrA08 Méditerranée 3
Distributed Parameter Systems II (Regular Session)

Chair: Georges, Didier Grenoble Institute of Engineering
 Co-Chair: Zare, Armin University of Southern California

10:00-10:20 FrA08.1

Stabilization of PDE-ODE Cascade Systems Using Sylvester Equations, pp. 5906-5911.

Natarajan, Vivek Indian Institute of Technology, Bombay

10:20-10:40 FrA08.2

A Variational Calculus Approach to Wildfire Monitoring Using a Low-Discrepancy Sequence-Based Deployment of Sensors, pp. 5912-5917.

Georges, Didier Grenoble Institute of Engineering

10:40-11:00 FrA08.3

Drag Reduction in Turbulent Channel Flow Over Spatially Periodic Surfaces, pp. 5918-5923.

Ran, Wei University of Southern California
 Zare, Armin University of Texas, Dallas
 Jovanovic, Mihailo R. University of Southern California

11:00-11:20 FrA08.4

Sensor and Actuator Placement for Proportional Feedback Control in Advection-Diffusion Equations, pp. 5924-5929.

Veldman, Daniël Eindhoven University of Technology

Fey, Rob H.B. Eindhoven University of Technology

Zwart, Hans University of Twente

van de Wal, Marc ASML

van den Boom, Joris ASML

Nijmeijer, Hendrik Eindhoven University of Technology

11:20-11:40 FrA08.5

Combined Backstepping/second-Order Sliding-Mode Boundary Stabilization of an Unstable Reaction-Diffusion Process, pp. 5930-5935.

Pisano, Alessandro University of Cagliari

Orlov, Yury CICESE

Pilloni, Alessandro University of Cagliari

Usai, Elio University of Cagliari

11:40-12:00 FrA08.6

Optimal Control for Cancer Chemotherapy under Tumor Heterogeneity, pp. 5936-5941.

Wang, Shuo University of Texas, Arlington

FrA09 Méditerranée B12
Game Theory V (Regular Session)

Chair: Grammatico, Sergio Delft University of Tech
 Co-Chair: Pavel, Lacro University of Toronto

10:00-10:20 FrA09.1

Discounted Mirror Descent Dynamics in Concave Games, pp. 5942-5947.

Gao, Bolin University of Toronto

Pavel, Lacro University of Toronto

10:20-10:40 FrA09.2

Distributed Generalized Nash Equilibrium Seeking in Aggregative Games under Partial-Decision Information Via Dynamic Tracking, pp. 5948-5954.

Belgioioso, Giuseppe Eindhoven University of Technology

Nedich, Angelia Arizona State University

Grammatico, Sergio Delft University of Technology

10:40-11:00 FrA09.3

Entropy-Regularized Stochastic Games, pp. 5955-5962.

Savas, Yagiz University of Texas, Austin

Ahmadi, Mohamadreza California Institute of Technology

Tanaka, Takashi University of Texas, Austin

Topcu, Ufuk University of Texas, Austin

11:00-11:20 FrA09.4

Solving Ergodic Markov Decision Processes and Perfect Information Zero-Sum Stochastic Games by Variance Reduced Deflated Value Iteration, pp. 5963-5970.

Akian, Marianne INRIA and CMAP, Ecole Polytechnique CNRS

Gaubert, Stephane INRIA and Ecole Polytechnique

Qu, Zheng University of Edinburgh

Saadi, Omar CMAP, Ecole Polytechnique and INRIA

11:20-11:40 FrA09.5

Linear Equilibria for Dynamic LQG Games with Asymmetric Information and Dependent Types, pp. 5971-5976.

Heydaribeni, Nasimeh University of Michigan, Ann Arbor

Anastasopoulos, Achilleas University of Michigan

11:40-12:00 FrA09.6

Characterizing the Interplay between Information and Strength in Blotto Games, pp. 5977-5982.

Paarporn, Keith University of California, Santa Barbara

Chandan, Rahul University of California, Santa Barbara

Alizadeh, Mahnoosh University of California Santa Barbara

Marden, Jason R. University of California, Santa Barbara

FrA10 Méditerranée C12
Sliding-Mode Control I (Regular Session)

Chair: Orlov, Yury CICESE

Co-Chair: Levant, Arie Tel-Aviv University

10:00-10:20 FrA10.1

Robust and Optimal Control of Systems with Time Varying Unilateral Constraints Using Non-Smooth Transformation, pp. 5983-5988.

Oza, Harshal B. Ahmedabad University

Orlov, Yury CICESE

10:20-10:40 FrA10.2

On the Discretization of the Super-Twisting Algorithm, pp. 5989-5994.

Koch, Stefan Graz University of Technology

Reichhartinger, Markus Graz University of Technology

Horn, Martin	Graz University of Technology
10:40-11:00	FrA10.3
<i>Semi-Implicit Discretization of the Uniform Robust Exact Differentiator</i> , pp. 5995-6000.	
Wetzlinger, Maximilian	Graz University of Technology
Reichhartinger, Markus	Graz University of Technology
Horn, Martin	Graz University of Technology
Fridman, Leonid	Universidad Nacional Autonoma de Mexico
Moreno, Jaime A.	Universidad Nacional Autonoma de Mexico
11:00-11:20	FrA10.4
<i>Continuous Sliding-Mode Control for a Class of Underactuated Systems</i> , pp. 6001-6006.	
Ovalle, Luis	TecNM/Instituto Tecnológico de La Laguna
Ríos, Héctor	CONACYT-Tecnológico Nacional de México/ Instituto Tecnológico de La Laguna
Llama, Miguel	Instituto Tecnológico de La Laguna
11:20-11:40	FrA10.5
<i>Discrete-Time Model Reference Adaptive Sliding Mode Control for Systems in State-Space Representation</i> , pp. 6007-6012.	
Steinberger, Martin	Graz University of Technology
Horn, Martin	Graz University of Technology
Ferrara, Antonella	University of Pavia
11:40-12:00	FrA10.6
<i>Homogeneous Filtering and Differentiation Based on Sliding Modes</i> , pp. 6013-6018.	
Levant, Arie	Tel-Aviv University
FrA11	Galliéni 1
Estimation IV (Regular Session)	
Chair: Antunes, Duarte	Eindhoven University of Technology
Co-Chair: Cantoni, Michael	University of Melbourne
10:00-10:20	FrA11.1
<i>A Robust State Estimator for Multi-Agent Systems under Impulsive Noise and Missing Measurements</i> , pp. 6019-6024.	
Xie, Junfei	San Diego State University
Garcia Carrillo, Luis Rodolfo	Texas A&M University - Corpus Christi
Jin, Lei	Texas A&M University-Corpus Christi
Hespanha, Joao P.	University of California, Santa Barbara
10:20-10:40	FrA11.2
<i>An Adaptive and Incremental Approach to Quantile Estimation</i> , pp. 6025-6031.	
Joseph, Ajin	Indian Institute of Science
Bhatnagar, Shalabh	Indian Institute of Science
10:40-11:00	FrA11.3
<i>Optimization Based Input Preview Filtering for Dynamical Systems</i> , pp. 6032-6037.	
Lang, Adair	University of Melbourne
Cantoni, Michael	University of Melbourne

11:00-11:20	FrA11.4
<i>Filtering and Smoothing in the Presence of Outliers Using Duality and Relaxed Dynamic Programming</i> , pp. 6038-6043.	
Andrien, Alex Rudolf Petrus	Eindhoven University of Technology
Antunes, Duarte	Eindhoven University of Technology
11:20-11:40	FrA11.5
<i>Tracking of Multiple Targets across Distributed Platforms with FOV Constraints</i> , pp. 6044-6049.	
Allik, Bethany	US Army Research Laboratory
11:40-12:00	FrA11.6
<i>Distributed Tracking Via Simultaneous Perturbation Stochastic Approximation-Based Consensus Algorithm</i> , pp. 6050-6055.	
Erofeeva, Victoria	Saint Petersburg State University
Granichin, Oleg	Saint Petersburg State University
Amelina, Natalia	Saint Petersburg State University
Ivanskiy, Yury	Saint Petersburg State University
Jiang, Yuming	Norwegian University of Science and Technology
FrA12	Galliéni 2
System Cones and Phase Bounded Systems (Invited Session)	
Chair: Qiu, Li	Hong Kong University of Science and Technology
Co-Chair: Chen, Wei	Hong Kong University of Science and Technology
Organizer: Chen, Wei	Peking University
Organizer: Qiu, Li	Hong Kong University of Science and Technology
10:00-10:20	FrA12.1
<i>Input-Feedforward-Passivity-Based Distributed Optimization Over Directed and Switching Topologies (I)</i> , pp. 6056-6061.	
Li, Mengmou	University of Hong Kong
Chesi, Graziano	University of Hong Kong
Hong, Yiguang	Chinese Academy of Sciences
10:20-10:40	FrA12.2
<i>Phase Analysis of MIMO LTI Systems (I)</i> , pp. 6062-6067.	
Chen, Wei	Peking University
Wang, Dan	Hong Kong University of Science and Technology
Khong, Sei Zhen	University of Hong Kong
Qiu, Li	Hong Kong University of Science and Technology
10:40-11:00	FrA12.3
<i>On the Optimal Control of Relaxation Systems (I)</i> , pp. 6068-6073.	
Pates, Richard	Lund University
Bergeling, Carolina	Lund University
Rantzer, Anders	Lund University
11:00-11:20	FrA12.4
<i>Karpelevich Theorem and the Positive Realization of Matrices</i> , pp. 6074-6079.	
Cacace, Filippo	Università Campus Biomedico di Roma
Germani, Alfredo	University of L'Aquila

Manes, Costanzo	University of L'Aquila
11:20-11:40	FrA12.5
<i>Controllability-Gramian Submatrices for a Network Consensus Model</i> , pp. 6080-6085.	
Roy, Sandip	Washington State University
Xue, Mengran	Washington State University
11:40-12:00	FrA12.6
<i>Finding Cones for K-Cooperative Systems</i> , pp. 6086-6091.	
Kousoulidis, Dimitris	University of Cambridge
Forni, Fulvio	University of Cambridge
FrA13	Galliéni 4
Uncertain Systems I (Regular Session)	
Chair: Guay, Martin	Queens University
Co-Chair: Campi, M. C.	University of Brescia
10:00-10:20	FrA13.1
<i>Change Detection with the Kernel Cumulative Sum Algorithm</i> , pp. 6092-6099.	
Flynn, Thomas	Brookhaven National Laboratory
Yoo, Shinjae	Brookhaven National Laboratory
10:20-10:40	FrA13.2
<i>Sieving Out Unnecessary Constraints in Scenario Optimization with an Application to Power Systems</i> , pp. 6100-6105.	
Picallo, Miguel	ETH Zurich
Dörfler, Florian	ETH Zurich
10:40-11:00	FrA13.3
<i>Extremum Seeking Regulator Design with Derivative Action for Uncertain Systems</i> , pp. 6106-6111.	
Guay, Martin	Queens University
Atta, Khalid	Luleå University of Technology
11:00-11:20	FrA13.4
<i>Switching-Based Rejection of Multi-Sinusoidal Disturbance in Uncertain Stable Linear Systems under Measurement Noise</i> , pp. 6112-6117.	
Wang, Yang	Imperial College London
Pin, Gilberto	Electrolux Italia S.p.A. (Italy)
Serrani, Andrea	The Ohio State University
Parisini, Thomas	Imperial College & University of Trieste
11:20-11:40	FrA13.5
<i>Non-Stochastic Hypothesis Testing with Application to Privacy against Hypothesis-Testing Adversary</i> , pp. 6118-6123.	
Farokhi, Farhad	University of Melbourne and CSIRO
11:40-12:00	FrA13.6
<i>The Scenario Approach Meets Uncertain Game Theory and Variational Inequalities</i> , pp. 6124-6129.	
Paccagnan, Dario	University of California, Santa Barbara
Campi, M. C.	University of Brescia
FrA14	Galliéni 7
Stability of Nonlinear Systems I (Regular Session)	
Chair: Morgansen, Kristi A.	University of Washington

Co-Chair: Efimov, Denis	INRIA
10:00-10:20	FrA14.1
<i>Model Development and Stability Analysis for a Shape-Controlled, Bluff-Body Hydrodynamic Vehicle</i> , pp. 6130-6137.	
Adibi, Sierra A.	University of Washington
Morgansen, Kristi A.	University of Washington
10:20-10:40	FrA14.2
<i>Geometric Attitude Control Via Contraction on Manifolds with Automatic Gain Selection</i> , pp. 6138-6145.	
Vang, Bee	Boston University
Tron, Roberto	Boston University
10:40-11:00	FrA14.3
<i>Higher Order Derivatives of Lyapunov Functions for Stability of Systems with Inputs</i> , pp. 6146-6151.	
Liu, Shenyu	Coordinated Science Laboratory, University of Illinois, Urbana Champaign
Liberzon, Daniel	University of Illinois, Urbana Champaign
11:00-11:20	FrA14.4
<i>Towards Enhancing Robustness of Prescribed Performance Controllers in the Presence of Control Input Delays</i> , pp. 6152-6157.	
Bikas, Lampros N.	Aristotle University of Thessaloniki
Rovithakis, George A.	Aristotle University of Thessaloniki
11:20-11:40	FrA14.5
<i>Long-Term Behavior of Mean-Field Noisy Bounded Confidence Models with Distributed Radicals</i> , pp. 6158-6163.	
Sharifi Kolarijani, Mohamad Amin	Delft University of Technology
Proskurnikov, Anton V.	Politecnico di Torino
Mohajerin Esfahani, Peyman	Delft University of Technology
11:40-12:00	FrA14.6
<i>Robust Stability Analysis and Implementation of Persidskii Systems</i> , pp. 6164-6168.	
Efimov, Denis	INRIA
Aleksandrov, Alexander	Saint Petersburg State University
FrA15	Rhodes GH
Optimal Control IV (Regular Session)	
Chair: van Keulen, Thijs	Eindhoven University of Technology
Co-Chair: Maggistro, Rosario	Università Ca' Foscari Venezia
10:00-10:20	FrA15.1
<i>Online Active Perception for Partially Observable Markov Decision Processes with Limited Budget</i> , pp. 6169-6174.	
Ghasemi, Mahsa	University of Texas, Austin
Topcu, Ufuk	University of Texas, Austin
10:20-10:40	FrA15.2
<i>A Framework for the Control of Bilevel Sweeping Processes</i> , pp. 6175-6180.	
T. Khalil, Nathalie	Universidade do Porto
Lobo Pereira, Fernando	Universidade do Porto
10:40-11:00	FrA15.3
<i>State Space Collapse in Resource Allocation for Demand Dispatch</i> , pp. 6181-6188.	

Mathias, Joel	University of Florida
Moye, Robert	University of Florida
Meyn, Sean P.	University of Florida
Warrington, Joseph	ETH Zurich

11:00-11:20 FrA15.4

Adaptive Dynamic Programming Using Lyapunov Function Constraints, pp. 6189-6194.

Göhr, Thomas	Technische Universität Chemnitz
Osinenko, Pavel	Technische Universität Chemnitz
Streif, Stefan	Technische Universität Chemnitz

11:20-11:40 FrA15.5

Optimal Motion of a Scallop: Some Case Studies, pp. 6195-6200.

Zoppello, Marta	Politecnico di Torino
Maggiro, Rosario	Università Ca' Foscari Venezia

11:40-12:00 FrA15.6

Solution for the Continuous-Time Infinite-Horizon Linear Quadratic Regulator Subject to Scalar State Constraints, pp. 6201-6206.

van Keulen, Thijs	Eindhoven University of Technology
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FrA16 Rhodes AB
Real-Time Optimization Methods for Power Systems (Invited Session)

Chair: Colombino, Marcello	NREL
Co-Chair: Scherpen, Jacquélien M.A.	University of Groningen
Organizer: Colombino, Marcello	McGill University

10:00-10:20 FrA16.1

Towards Robustness Guarantees for Feedback-Based Optimization (I), pp. 6207-6214.

Colombino, Marcello	McGill University
Simpson-Porco, John W.	University of Waterloo
Bernstein, Andrey	National Renewable Energy Lab (NREL)

10:20-10:40 FrA16.2

Distributed Control of DC Microgrids Using Primal-Dual Dynamics (I), pp. 6215-6220.

Kosaraju, Krishna Chaitanya	University of Groningen
Cucuzzella, Michele	University of Groningen
Scherpen, Jacquélien M.A.	University of Groningen

10:40-11:00 FrA16.3

On the Convergence of the Inexact Running Krasnosel'skii-Mann Method, pp. 6221-6226.

Dall'Anese, Emiliano	University of Colorado, Boulder
Simonetto, Andrea	IBM Research Ireland
Bernstein, Andrey	National Renewable Energy Lab (NREL)

11:00-11:20 FrA16.4

Sufficient Conditions for Exact Semidefinite Relaxation of Optimal Power Flow in Unbalanced Multiphase Radial Networks, pp. 6227-6233.

Zhou, Fengyu	California Institute of Technology
Chen, Yue	Tsinghua University
Low, Steven	California Institute of Technology

11:20-11:40 FrA16.5

Penalized Push-Sum Algorithm for Constrained Distributed Optimization with Application to Energy Management in Smart Grid, pp. 6234-6241.

Tatarenko, Tatiana	Technical University of Darmstadt
Zimmermann, Jan	Technical University of Darmstadt
Willert, Volker	Technical University of Darmstadt
Adamy, Jürgen	Technical University of Darmstadt

11:40-12:00 FrA16.6

Distributed Model Predictive Control for Autonomous Droop-Controlled Inverter-Based Microgrids, pp. 6242-6248.

Anderson, Sean	University of California, Berkeley
Hidalgo-Gonzalez, Patricia	University of California, Berkeley
Dobbe, Roel	University of California, Berkeley
Tomlin, Claire J.	University of California, Berkeley

FrA17 Rhodes CD
Formal Methods in Control (Invited Session)

Chair: Reissig, Gunther	Bundeswehr University Munich
Co-Chair: Kong, Zhaodan	University of California, Davis
Organizer: Reissig, Gunther	Bundeswehr University Munich
Organizer: Ehlers, Ruediger	Clausthal University of Technology

10:00-10:20 FrA17.1

Computing Controlled Invariant Sets in Two Moves (I), pp. 6249-6254.

Anevlavis, Tzani	University of California, Los Angeles
Tabuada, Paulo	University of California, Los Angeles

10:20-10:40 FrA17.2

Efficient Synthesis for Monotone Transition Systems and Directed Safety Specifications (I), pp. 6255-6260.

Saoud, Adhane	CentraleSupélec
Ivanova, Elena	CNRS, CentraleSupélec, Université Paris-Sud, Université Paris-Sa
Girard, Antoine	CNRS

10:40-11:00 FrA17.3

Incremental Abstraction Computation for Symbolic Controller Synthesis in a Changing Environment (I), pp. 6261-6268.

Bai, Yunjun	SKLCS, Institute of Software, Chinese Academy of Sciences, Univ
Mallik, Kaushik	MPI-SWS (Max Planck Institute for Software Systems)
Schmuck, Anne-Kathrin	MPI-SWS
Zufferey, Damien	MPI-SWS
Majumdar, Rupak	University of California, Los Angeles

11:00-11:20 FrA17.4

Semantic Inference for Cyber-Physical Systems with Signal Temporal Logic, pp. 6269-6274.

Chen, Gang	University of California, Davis
Liu, Mei	University of Hong Kong
Kong, Zhaodan	University of California, Davis

11:20-11:40 FrA17.5

Strategy Synthesis for Surveillance-Evasion Games with Learning-Enabled Visibility Optimization (I), pp. 6275-6281.

Bharadwaj, Sudarshanan	University of Texas, Austin
Ly, Louis	University of Texas, Austin
Wu, Bo	University of Texas, Austin
Tsai, Yen Hsi Richard	University of Texas, Austin
Topcu, Ufuk	University of Texas, Austin

11:40-12:00 FrA17.6

Temporal Logic Planning in Uncertain Environments with Probabilistic Roadmaps and Belief Spaces, pp. 6282-6287.

Haesaert, Sofie	Eindhoven University of Technology
Thakker, Rohan A	Jet Propulsion Lab
Nilsson, Petter	California Institute of Technology
Agha-mohammadi, Ali-akbar	NASA-JPL, California Institute of Technology
Murray, Richard M.	California Institute of Technology

FrA18 Rhodes EF
Hybrid Systems I (Regular Session)

Chair: Normand-Cyrot, Dorothée	CNRS
Co-Chair: Sanfelice, Ricardo G.	University of California, Santa Cruz

10:00-10:20 FrA18.1

Disturbance Decoupling in Nonlinear Impulsive Systems, pp. 6288-6294.

Zattoni, Elena	Università di Bologna
Perdon, Anna Maria	Università Politecnica delle Marche
Conte, Giuseppe	Università Politecnica delle Marche
Moog, Claude H.	CNRS

10:20-10:40 FrA18.2

Optimal Walking Speed Transitions for Fully Actuated Bipedal Robots, pp. 6295-6300.

Murali, Vishal	Georgia Institute of Technology
Ames, Aaron D.	California Institute of Technology
Verriest, Erik I.	Georgia Institute of Technology

10:40-11:00 FrA18.3

Time-Optimal Control for the Hybrid Double Integrator with State-Driven Jumps, pp. 6301-6306.

Cristofaro, Andrea	University of Oslo
Possieri, Corrado	Politecnico di Torino
Sassano, Mario	University of Rome, Tor Vergata

11:00-11:20 FrA18.4

On the Zero-Dynamics of a Class of Hybrid LTI Systems: A Geometric Approach, pp. 6307-6312.

Mattioni, Mattia	University of Roma La Sapienza
Monaco, Salvatore	University of Roma La Sapienza
Normand-Cyrot, Dorothée	CNRS

11:20-11:40 FrA18.5

Robust Regulation for Linear Systems Using Impulsive Observers, pp. 6313-6318.

Jaramillo, Oscar David	Center for Research and Advanced Studies of the National Polytec.
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Castillo-Toledo, Bernardino	CINVESTAV-GDL, Mexico
Di Gennaro, Stefano	University of L'Aquila

11:40-12:00 FrA18.6

Multiple Barrier Function Certificates for Weak Forward Invariance in Hybrid Inclusions, pp. 6319-6324.

Maghenem, Mohamed Adlene	University of California, Santa Cruz
Sanfelice, Ricardo G.	University of California, Santa Cruz

FrA19 Galliéni 5
Stochastic Optimal Control I (Regular Session)

Chair: Basar, Tamer	University of Illinois, Urbana Champaign
Co-Chair: Jain, Rahul	University of Southern California

10:00-10:20 FrA19.1

Convex Optimization Over Sequential Linear Feedback Policies with Continuous-Time Chance Constraints, pp. 6325-6331.

Oguri, Kenshiro	University of Colorado
Ono, Masahiro	Jet Propulsion Laboratory, California Institute of Technology
McMahon, Jay	University of Colorado

10:20-10:40 FrA19.2

Monte Carlo Tree Search with Optimal Computing Budget Allocation, pp. 6332-6337.

Li, Yunchuan	University of Maryland
Fu, Michael C.	University of Maryland
Xu, Jie	George Mason University

10:40-11:00 FrA19.3

Sequential Dynamic Resource Allocation for Epidemic Control, pp. 6338-6343.

Fekom, Mathilde	ENS Paris-Saclay
Vayatis, Nicolas	Ecole Normale Supérieure de Cachan
Kalogeratos, Argyris	ENS Paris Saclay

11:00-11:20 FrA19.4

Empirical Algorithms for Stochastic Systems with Continuous States and Actions, pp. 6344-6349.

Sharma, Hiteshi	USC
Jain, Rahul	University of Southern California
Haskell, William B.	National University of Singapore

11:20-11:40 FrA19.5

Stochastic Zero-Sum Differential Games for Forward-Backward SDEs, pp. 6350-6355.

Moon, Jun	University of Seoul
Basar, Tamer	University of Illinois, Urbana Champaign

11:40-12:00 FrA19.6

Optimization-Based Estimation of Expected Values with Application to Stochastic Programming, pp. 6356-6361.

Chinchilla, Raphael	University of California, Santa Barbara
Hespanha, Joao P.	University of California, Santa Barbara

FrA20		Rhodes 10
Distributed Control IV (Regular Session)		
Chair: Sandberg, Henrik	KTH Royal Institute of Technology	
Co-Chair: Notarstefano, Giuseppe	University of Bologna	
10:00-10:20	FrA20.1	
<i>A Randomized Block Subgradient Approach to Distributed Big Data Optimization</i> , pp. 6362-6367.		
Farina, Francesco	University of Bologna	
Notarstefano, Giuseppe	University of Bologna	
10:20-10:40	FrA20.2	
<i>A Graph-Theoretic Approach to the H_∞ Performance of Leader-Follower Consensus on Directed Networks</i> , pp. 6368-6373.		
Pirani, Mohammad	KTH Royal Institute of Technology	
Sandberg, Henrik	KTH Royal Institute of Technology	
Johansson, Karl H.	KTH Royal Institute of Technology	
10:40-11:00	FrA20.3	
<i>Distributed Constraint-Coupled Optimization Over Random Time-Varying Graphs Via Primal Decomposition and Block Subgradient Approaches</i> , pp. 6374-6379.		
Camisa, Andrea	University of Bologna	
Farina, Francesco	University of Bologna	
Notarnicola, Ivano	University of Bologna	
Notarstefano, Giuseppe	University of Bologna	
11:00-11:20	FrA20.4	
<i>Asynchronous Distributed Optimization Via Dual Decomposition and Block Coordinate Ascent</i> , pp. 6380-6385.		
Lin, Yankai	University of Melbourne	
Shames, Iman	University of Melbourne	
Nesic, Dragan	University of Melbourne	
11:20-11:40	FrA20.5	
<i>A General Framework of Exact Primal-Dual First-Order Algorithms for Distributed Optimization</i> , pp. 6386-6391.		
Mansoori, Fatemeh	Northwestern University	
Wei, Ermin	Northwestern University	
11:40-12:00	FrA20.6	
<i>Dynamic Reduction of the Iterations Requirement in a Distributed Model Predictive Control</i> , pp. 6392-6397.		
DAI, XIANG	CentraleSupélec	
Bourdais, Romain	CentraleSupélec	
Gueguen, Herve	CentraleSupélec	
FrA21		
Networked Control Systems IV (Regular Session)		Risso 6
Chair: Hanebeck, Uwe D.	Karlsruhe Institute of Technology	
Co-Chair: Touri, Behrouz	University of California, San Diego	
10:00-10:20	FrA21.1	
<i>Scheduling for Stabilization Over Capacity-Constrained Channels</i> , pp. 6398-6403.		
Rokade, Kiran	Indian Institute of Technology, Madras	
Kamath, Gopal Krishna	Texas A&M University	
Kalaimani, Rachel Kalpana	Indian Institute of Technology, Madras	
10:20-10:40	FrA21.2	

<i>Near-Optimal Solution to Non-Uniform Sampling Problem in Kalman Filtering</i> , pp. 6404-6411.		
Hartman, David	University of Maryland, College Park	
Baras, John S.	University of Maryland	
10:40-11:00	FrA21.3	
<i>Event-Triggered Approximate Leader-Follower Consensus with Resilience to Byzantine Adversaries</i> , pp. 6412-6417.		
Zegers, Federico	University of Florida	
Deptula, Patryk	University of Florida	
Shea, John M.	University of Florida	
Dixon, Warren E.	University of Florida	
11:00-11:20	FrA21.4	
<i>On Discrete-Time H_∞ Optimization under Intermittent Communications</i> , pp. 6418-6423.		
Braksmayer, Maor	Technion - IIT	
Mirkin, Leonid	Technion - IIT	
11:20-11:40	FrA21.5	
<i>Sequence-Based Stochastic Receding Horizon Control Using IMM Filtering and Value Function Approximation</i> , pp. 6424-6430.		
Rosenthal, Florian	Karlsruhe Institute of Technology	
Hanebeck, Uwe D.	Karlsruhe Institute of Technology	
11:40-12:00	FrA21.6	
<i>On Graphs with Bounded and Unbounded Convergence Times in Social Hegselmann-Krause Dynamics</i> , pp. 6431-6436.		
Parasnis, Rohit Yashodhar	University of California, San Diego	
Franceschetti, Massimo	University of California, San Diego	
Touri, Behrouz	University of California, San Diego	
FrA22		
Nonlinear Systems Identification I (Regular Session)		Risso 7
Chair: Prandini, Maria	Politecnico di Milano	
Co-Chair: Andersson, Sean B.	Boston University	
10:00-10:20	FrA22.1	
<i>Local Model Networks for the Identification of Nonlinear State Space Models</i> , pp. 6437-6442.		
Schüssler, Max	University of Siegen	
Münker, Tobias	University of Siegen	
Nelles, Oliver	University of Siegen	
10:20-10:40	FrA22.2	
<i>Variable Selection for a Nonparametric Nonlinear System by Directional Regression</i> , pp. 6443-6448.		
Cheng, Changming	Shang Jiaotong University	
Bai, Er-Wei	University of Iowa	
10:40-11:00	FrA22.3	
<i>Data-Based Robust MPC with Componentwise Hölder Kinky Inference</i> , pp. 6449-6454.		
Manzano, Jose Maria	University of Seville	
Limon, Daniel	University of Seville	
Muñoz de la Peña, David	University of Seville	
Calliess, Jan-Peter	University of Oxford	
11:00-11:20	FrA22.4	
<i>Occupation Kernels and Densely Defined Liouville Operators for System Identification</i> , pp. 6455-6460.		

Rosenfeld, Joel A.	University of South Florida
Kamalapurkar, Rushikesh	Oklahoma State University
Russo, Benjamin	Farmingdale State College
Johnson, Taylor T	Vanderbilt University

11:20-11:40 FrA22.5

Nonlinear System Identification with Model Structure Selection Via Distributed Computation, pp. 6461-6466.

Bianchi, Federico	Politecnico di Milano
Falsone, Alessandro	Politecnico di Milano
Prandini, Maria	Politecnico di Milano
Piroddi, Luigi	Politecnico di Milano

11:40-12:00 FrA22.6

Simultaneous Localization and Parameter Estimation for Single Particle Tracking Via Sigma Points Based EM, pp. 6467-6472.

Lin, Ye	Boston University
Andersson, Sean B.	Boston University

FrA23 Risso 8
Machine Learning in Complex Networks II (Invited Session)

Chair: Patrinos, Panagiotis	Katholieke Universiteit Leuven
Co-Chair: Zhang, Kaiqing	University of Illinois, Urbana Champaign
Organizer: Basar, Tamer	University of Illinois, Urbana Champaign
Organizer: Liu, Ji	Stony Brook University
Organizer: Shi, Wei	Arizona State University
Organizer: Zhang, Kaiqing	University of Illinois, Urbana Champaign

10:00-10:20 FrA23.1

Off-Policy Reinforcement-Learning Algorithm to Solve Minimax Games on Graphs (I), pp. 6473-6478.

Lopez Mejia, Victor Gabriel	University of Texas, Arlington
Vamvoudakis, Kyriakos G.	Georgia Institute of Technology
Wan, Yan	University of Texas, Arlington
Lewis, Frank L.	University of Texas, Arlington

10:20-10:40 FrA23.2

Exploiting Fast Decaying and Locality in Multi-Agent MDP with Tree Dependence Structure (I), pp. 6479-6486.

Qu, Guannan	Harvard University
Li, Na	Harvard University

10:40-11:00 FrA23.3

Completion of Rectangular Matrices Using Asymmetric Ramanujan Graphs, pp. 6487-6490.

Burnwal, Shantanu Prasad	Indian Institute of Technology, Hyderabad
Vidyasagar, Mathukumalli	Indian Institute of Technology, Hyderabad

11:00-11:20 FrA23.4

Learning Safe Policies Via Primal-Dual Methods, pp. 6491-6497.

Paternain, Santiago	University of Pennsylvania
Calvo-Fullana, Miguel	University of Pennsylvania
de Oliveira Chamon, Luiz Fernando	University of Pennsylvania
Ribeiro, Alejandro	University of Pennsylvania

11:20-11:40 FrA23.5

Safe Learning-Based Control of Stochastic Jump Linear Systems: A Distributionally Robust Approach (I), pp. 6498-6503.

Schuermans, Mathijs	Katholieke Universiteit Leuven
Sopasakis, Pantelis	Katholieke Universiteit Leuven
Patrinos, Panagiotis	Katholieke Universiteit Leuven

11:40-12:00 FrA23.6

Avoiding Chatter in an Online Co-Learning Algorithm Predicting Human Intention (I), pp. 6504-6509.

Young, Carol	Georgia Institute of Technology
Yao, Ningshi	Georgia Institute of Technology
Zhang, Fumin	Georgia Institute of Technology

FrA24 Hermès
Iterative Learning Control I (Regular Session)

Chair: Rogers, Eric	University of Southampton
Co-Chair: Lin, Zongli	University of Virginia

10:00-10:20 FrA24.1

Using Reinforcement Learning for Model-Free Linear Quadratic Control with Process and Measurement Noises, pp. 6510-6517.

Adib Yaghmaie, Farnaz	Linköping University
Gustafsson, Fredrik	Linköping University

10:20-10:40 FrA24.2

Design of Iterative Learning Control Schemes for Spatially Interconnected Systems, pp. 6518-6523.

Maniarski, Robert	University of Zielona Góra
Klimkowicz, Kamil	University of Zielona Góra
Paszke, Wojciech	University of Zielona Góra
Rogers, Eric	University of Southampton

10:40-11:00 FrA24.3

Motion Control of a Soft Circular Crawling Robot Via Iterative Learning Control, pp. 6524-6529.

Chi, Haozhen	Zhejiang University
Li, Xuefang	Imperial College London
Liang, Wenyu	National University of Singapore
Wu, Yan	A*STAR Institute for Infocomm Research
Ren, Qinyuan	Zhejiang University

11:00-11:20 FrA24.4

Constrained Observer Based Iterative Learning Control Design in the Repetitive Process Setting, pp. 6530-6535.

Emelianova, Julia	Arzamas Polytechnic Institute of R.E. Alekseev Nizhny Novgorod
Pakshin, Pavel	Arzamas Polytechnic Institute of R.E. Alekseev Nizhny Novgorod
Galkowski, Krzysztof	University of Zielona Góra
Rogers, Eric	University of Southampton

11:20-11:40 FrA24.5

Model-Free Optimal Stabilization of Unknown Time Delay Systems Using Adaptive Dynamic Programming, pp. 6536-6541.

Rizvi, Syed Ali Asad	University of Virginia
Wei, Yusheng	University of Virginia
Lin, Zongli	University of Virginia

11:40-12:00 FrA24.6

[Intermittent Sampling in Iterative Learning Control: A Monotonically-Convergent Gradient-Descent Approach with Application to Time Stamping](#), pp. 6542-6547.

Strijbosch, Nard Eindhoven University of Technology

Oomen, Tom Eindhoven University of Technology

FrA25 Athéna
Power Systems I (Regular Session)

Chair: Ferrari-Trecate, Giancarlo Ecole Polytechnique Fédérale de Lausanne

Co-Chair: Henrion, Didier LAAS-CNRS

10:00-10:20 FrA25.1

[Generalized Active Disturbance Rejection Controller for Load Frequency Control in Power Systems](#), pp. 6548-6553.

Jain, Shivam Indian Institute of Technology, Roorkee

Hote, Yogesh Vijay Indian Institute of Technology, Roorkee

10:20-10:40 FrA25.2

[Learning Graph Parameters from Linear Measurements: Fundamental Trade-Offs and Application to Electric Grids](#), pp. 6554-6559.

Li, Tongxin 1993

Werner, Lucien California Institute of Technology

Low, Steven California Institute of Technology

10:40-11:00 FrA25.3

[A Nonlinear Coordinated Approach to Enhance the Transient Stability of Wind Energy-Based Power Systems](#), pp. 6560-6565.

Morshed, Mohammad Javad University of Louisiana, Lafayette

sardoueinassab, zahra University of Louisiana, Lafayette

Fekih, Afef University of Louisiana, Lafayette

11:00-11:20 FrA25.4

[A Supervisory Control Structure for Voltage-Controlled Islanded DC Microgrids](#), pp. 6566-6571.

La Bella, Alessio Politecnico di Milano

Nahata, Pulkit École Polytechnique Fédérale de Lausanne

Ferrari-Trecate, Giancarlo École Polytechnique Fédérale de Lausanne

11:20-11:40 FrA25.5

[Maximal Positively Invariant Set Determination for Transient Stability Assessment in Power Systems](#), pp. 6572-6577.

Oustry, Antoine École Polytechnique and RTE

Cardozo, Carmen RTE

Panciatichi, Patrick RTE

Henrion, Didier LAAS-CNRS

11:40-12:00 FrA25.6

[Robust Real-Time Inverter-Based Reactive Power Compensation](#), pp. 6578-6583.

Gwynn, Benjamin None

de Callafon, Raymond A. University of California, San Diego

FrA26 Apollon

Payoff Dynamics and Higher-Order Learning in Population Games (Tutorial Session)

Chair: Park, Shinkyu Princeton University

Co-Chair: Martins, Nuno C. University of Maryland

Organizer: Park, Shinkyu Princeton University

Organizer: Martins, Nuno C. University of Maryland

Organizer: Shamma, Jeff S. King Abdullah University of Science and Technology (KAUST)

10:00-10:05 FrA26.1

[Introduction to Payoff Dynamics and Higher Order Learning in Population Games \(I\)*](#).

Shamma, Jeff S. King Abdullah University of Science and Technology (KAUST)

10:05-10:35 FrA26.2

[Population Games: Motivation and Foundational Concepts \(I\)*](#).

Shamma, Jeff S. King Abdullah University of Science and Technology (KAUST)

10:35-11:10 FrA26.3

[Stability Analysis: Potential and Contractive Games \(I\)*](#).

Martins, Nuno C. University of Maryland

11:10-12:00 FrA26.4

[From Population Games to Payoff Dynamics Models: A Passivity-Based Approach \(I\)](#), pp. 6584-6601.

Park, Shinkyu Princeton University

Martins, Nuno C. University of Maryland

Shamma, Jeff S. King Abdullah University of Science and Technology (KAUST)

FrB01 Méditerranée 1

Biomolecular Systems (Regular Session)

Chair: Zechner, Christoph Max Planck Institute of Molecular Cell Biology and Genetics

Co-Chair: Gyorgy, Andras New York University, Abu Dhabi

14:00-14:20 FrB01.1

[Combining Transcriptional and Translational Resource Allocation Controllers for Synthetic Circuits](#), pp. 6602-6609.

Darlington, Alexander University of Warwick

Bates, Declan G. University of Warwick

14:20-14:40 FrB01.2

[Path Mutual Information for a Class of Biochemical Reaction Networks](#), pp. 6610-6615.

Duso, Lorenzo Max Planck Institute of Molecular Cell Biology and Genetics

Zechner, Christoph Max Planck Institute of Molecular Cell Biology and Genetics

14:40-15:00 FrB01.3

[Time-Scale Separation Based Design of Biomolecular Feedback Controllers](#), pp. 6616-6621.

Grunberg, Theodore Massachusetts Institute of Technology

Del Vecchio, Domitilla Massachusetts Institute of Technology

15:00-15:20 FrB01.4

[How Cell-To-Cell Heterogeneity and Scarce Resources Shape the Population-Level Stability Profile of Toggle Switches](#), pp. 6622-6627.

Gyorgy, Andras New York University, Abu Dhabi

15:20-15:40 FrB01.5

Qualitative Behavior and Robustness of Dendritic Trafficking, pp. 6628-6633.

Aljaberi, Saeed University of Cambridge
O'Leary, Timothy University of Cambridge
Forni, Fulvio University of Cambridge

15:40-16:00 FrB01.6

PID and State Feedback Controllers Using DNA Strand Displacement Reactions, pp. 6634-6639.

Paulino, Nuno University of Warwick
Foo, Mathias Coventry University
Kim, Jongmin Pohang University of Science and Technology
Bates, Declan G. University of Warwick

FrB02 Méditerranée 2

Linear Systems II (Regular Session)

Chair: Azuma, Shun-ichi Nagoya University

Co-Chair: Hu, Xiaoming KTH Royal Institute of Technology

14:00-14:20 FrB02.1

Globally Optimal Least-Squares ARMA Model Identification Is an Eigenvalue Problem, pp. 6640-6645.

Vermeersch, Christof Katholieke Universiteit Leuven
De Moor, Bart L.R. Katholieke Universiteit Leuven

14:20-14:40 FrB02.2

Data-Driven Output Channel Design for Maximizing Passivity Index, pp. 6646-6650.

Tanemura, Masaya Shinshu University
Azuma, Shun-ichi Nagoya University

14:40-15:00 FrB02.3

A Probabilistic Measure for Optimal Actuator and Sensor Placement for Linear Systems with Packet Dropouts, pp. 6651-6656.

Dilip, Sanand Indian Institute of Technology, Kharagpur

15:00-15:20 FrB02.4

An Input-Output Parametrization of Stabilizing Controllers: Amidst Youla and System Level Synthesis, pp. 6657-6662.

Furieri, Luca ETH Zurich
Zheng, Yang University of Oxford
Papachristodoulou, Antonis University of Oxford
Kamgarpour, Maryam ETH Zurich

15:20-15:40 FrB02.5

Inverse Optimal Control for Finite-Horizon Discrete-Time Linear Quadratic Regulator under Noisy Output, pp. 6663-6668.

Zhang, Han KTH Royal Institute of Technology
Li, Yibei KTH Royal Institute of Technology
Hu, Xiaoming KTH Royal Institute of Technology

FrB03 Méditerranée 5

Automotive Control I (Regular Session)

Chair: Kolmanovsky, Ilya V. University of Michigan

Co-Chair: Donkers, M.C.F. Eindhoven University of Technology

14:00-14:20 FrB03.1

Nonlinear Traction Control Design, Stability Analysis and Experiments for Vehicles with On-Demand 4WD Torque Bias Systems, pp. 6669-6674.

Reichensdörfer, Elias Technical University of Munich and BMW Group

Degel, Wolfgang BMW M

Odenthal, Dirk German Aerospace Center (dlr) Oberpfaffenhofen

Wollherr, Dirk Technische Universität München

14:20-14:40 FrB03.2

Global Solutions to the Complete Vehicle Energy Management Problem Via Forward-Backward Operator Splitting, pp. 6675-6680.

Padilla Cazar, G. P. Eindhoven University of Technology

Belgioioso, Giuseppe Eindhoven University of Technology

Donkers, M.C.F. Eindhoven University of Technology

14:40-15:00 FrB03.3

Bayesian Learning of Tire Friction with Automotive-Grade Sensors by Gaussian-Process State-Space Models, pp. 6681-6686.

Berntorp, Karl Mitsubishi Electric Research Labs

Kitano, Hiroaki Mitsubishi Electric Corp., Adv. Technology R&D Center

15:00-15:20 FrB03.4

A One-Step Feasible Negotiation Algorithm for Distributed Trajectory Generation of Autonomous Vehicles, pp. 6687-6693.

Kneissl, Maximilian DENSO Automotive Deutschland GmbH

Molin, Adam DENSO Automotive Deutschland GmbH

Esen, Hasan DENSO Automotive Deutschland GmbH

Hirche, Sandra Technische Universität München

15:20-15:40 FrB03.5

Robust Hierarchical MPC for Handling Long Horizon Demand Forecast Uncertainty with Application to Automotive Thermal Management, pp. 6694-6699.

Amini, Mohammad Reza University of Michigan

Kolmanovsky, Ilya V. University of Michigan

Sun, Jing University of Michigan

15:40-16:00 FrB03.6

A Time-Efficient Integrated Path-Tracking and Control Allocation Method for Autonomous Electric Vehicle, pp. 6700-6705.

Li, Boyuan Cranfield University

Siampis, Efsthios Delta Motorsport

Lin, Chenhui Cranfield University

Longo, Stefano Cranfield University

Velenis, Efsthios Cranfield University

FrB04 Méditerranée A2

Analysis and Control Methods to Improve Resilience of Discrete-Event Systems (Invited Session)

Chair: Su, Rong Nanyang Technological University

Co-Chair: Yin, Xiang Shanghai Jiao Tong University
 Organizer: Su, Rong Nanyang Technological University
 Organizer: Yin, Xiang Shanghai Jiao Tong University

14:00-14:20 FrB04.1

Online Supervisory Control of Networked Discrete-Event Systems with Control Delays (I), pp. 6706-6711.

Liu, Zhaocong Shanghai Jiao Tong University
 Yin, Xiang Shanghai Jiao Tong University
 Shu, Shaolong Tongji University
 Li, Shaoyuan Shanghai Jiao Tong University

14:20-14:40 FrB04.2

Verification of AA-Diagnosability in Probabilistic Finite Automata Is PSPACE-Hard (I), pp. 6712-6717.

Keroglou, Christoforos University of Michigan, Ann Arbor
 Hadjicostis, Christoforos N. University of Cyprus

14:40-15:00 FrB04.3

Verification of Nonblockingness in Bounded Petri Nets with a Semi-Structural Approach (I), pp. 6718-6723.

Gu, Chao Xidian University & University of Cagliari
 Ma, Ziyue Xidian University
 Li, Zhiwu Xidian University
 Giua, Alessandro University of Cagliari

15:00-15:20 FrB04.4

Predictive Supervisory Control for Timed Discrete Event Systems under Communication Delays (I), pp. 6724-6729.

Miao, Chengshi Tongji University
 Shu, Shaolong Tongji University
 Lin, Feng Wayne State University

15:20-15:40 FrB04.5

Supervisor Synthesis for Networked Discrete Event Systems with Communication Delays and Lossy Channels (I), pp. 6730-6735.

Zhu, Yuting Nanyang Technological University
 Lin, Liyong University of Toronto
 Ware, Simon Nanyang Technological University
 Su, Rong Nanyang Technological University

15:40-16:00 FrB04.6

Opacity of Networked Discrete Event Systems (I), pp. 6736-6741.

Yang, Jingkai Sun Yat-Sen University
 Deng, Weilin Sun Yat-Sen University
 Jiang, Cheng Sun Yat-Sen University
 Qiu, Daowen Sun Yat-Sen University

FrB05 Méditerranée C4

Robust Control II (Regular Session)

Chair: Manchester, Ian R. University of Sydney
 Co-Chair: Mohajerin Esfahani, Delft University of Technology
 Peyman

14:00-14:20 FrB05.1

Robust Linear Quadratic Regulator: Exact Tractable Reformulation, pp. 6742-6747.

Jongeneel, W. Delft University of Technology
 Summers, Tyler H. University of Texas, Dallas
 Mohajerin Esfahani, Peyman Delft University of Technology

14:20-14:40 FrB05.2

The $H_{\infty,P}$ Norm As the Differential $L_{2,P}$ Gain of a p -Dominant System, pp. 6748-6753.

Padoan, Alberto University of Cambridge
 Forni, Fulvio University of Cambridge
 Sepulchre, Rodolphe University of Cambridge

14:40-15:00 FrB05.3

Output Strictly Negative Imaginary Systems and Its Connections to Dissipativity Theory, pp. 6754-6759.

Bhowmick, Parijat University of Manchester
 Lanzon, Alexander University of Manchester

15:00-15:20 FrB05.4

Robust LQG for Markov Jump Linear Systems, pp. 6760-6765.

Tzortzis, Ioannis University of Cyprus
 Charalambous, Charalambos University of Cyprus
 D.
 Hadjicostis, Christoforos N. University of Cyprus

15:20-15:40 FrB05.5

Robust Contraction Analysis of Nonlinear Systems Via Differential IQC, pp. 6766-6771.

Wang, Ruigang University of Sydney
 Manchester, Ian R. University of Sydney

15:40-16:00 FrB05.6

H-Infinity Static Output-Feedback Control for Positive Uncertain Discrete-Time Linear Systems, pp. 6772-6777.

Spagolla, Amanda University of Campinas
 Morais, Cecilia F. University of Campinas
 Oliveira, Ricardo C. L. F. University of Campinas
 Peres, Pedro L. D. University of Campinas

FrB06 Méditerranée A3

Neural Networks (Regular Session)

Chair: Khargonekar, Pramod University of California, Irvine
 Co-Chair: Ushio, Toshimitsu Osaka University

14:00-14:20 FrB06.1

Expanding Kinodynamic Optimization Solutions with Recurrent Neural Networks and Path-Tracking Control, pp. 6778-6784.

Shaffer, Joshua University of Maryland
 Xu, Huan University of Maryland, College Park

14:20-14:40 FrB06.2

Working Memory Augmentation for Improved Learning in Neural Adaptive Control, pp. 6785-6792.

Muthirayan, Deepan University of California, Irvine
 Khargonekar, Pramod University of California, Irvine

14:40-15:00 FrB06.3

Networked Control of Nonlinear Systems under Partial Observation Using Continuous Deep Q-Learning, pp. 6793-6798.

Ikemoto, Junya Osaka University
 Ushio, Toshimitsu Osaka University

15:00-15:20 FrB06.4

Port-Hamiltonian Approach to Neural Network Training, pp. 6799-6806.

Massaroli, Stefano The Univeristy of Tokyo

Poli, Michael	Korea Advanced Institute of Science and Technology
Califano, Federico	University of Twente
Faragasso, Angela	University of Tokyo
Park, Jinkyoo	Korea Advanced Institute of Science and Technology
Yamashita, Atsushi	University of Tokyo
Asama, Hajime	University of Tokyo
15:20-15:40	FrB06.5
<i>Deep Forward-Backward SDEs for Min-Max Control</i> , pp. 6807-6814.	
Wang, Ziyi	Georgia Institute of Technology
Lee, Keuntaek	Georgia Institute of Technology
Pereira, Marcus	Georgia Institute of Technology
Exarchos, Ioannis	Georgia Institute of Technology
Theodorou, Evangelos A.	Georgia Institute of Technology
15:40-16:00	FrB06.6
<i>Reduced Order Observer for Structure from Motion Using Concurrent Learning</i> , pp. 6815-6820.	
Rotithor, Ghananeel	University of Connecticut
Trombetta, Daniel	University of Connecticut
Kamalapurkar, Rushikesh	Oklahoma State University
Dani, Ashwin P	University of Connecticut

FrB07 Méditerranée A1
Methodologies for the Design and for the Control of Miniaturized Mechatronic Systems (Invited Session)

Chair: Rakotondrabe, Micky	FEMTO-ST Institute
Co-Chair: Boudaoud, Mokrane	Sorbonne Université
Organizer: Rakotondrabe, Micky	ENIT Tarbes
Organizer: Boudaoud, Mokrane	Sorbonne Université
Organizer: Al Janaideh, Mohammad	Memorial University

14:00-14:20 FrB07.1

An RST Control Design Based on Interval Technique for Piezomicropositioning Systems with Rate-Dependent Hysteresis Nonlinearities (I), pp. 6821-6826.

Rakotondrabe, Micky	ENIT Tarbes
Al Janaideh, Mohammad	Memorial University

14:20-14:40 FrB07.2

Simple Technique for Integrating Position and Force Sensors in Space Constrained Piezoelectric Driven Micro-Positioners (I), pp. 6827-6831.

Zarif Mansour, Sepehr	1990
Seethaler, Rudolf	UBC

14:40-15:00 FrB07.3

Iterative Learning Control for High-Speed Rosette Trajectory Tracking (I), pp. 6832-6837.

Nikooienejad, Nastaran	University of Texas, Dallas
Maroufi, Mohammad	University of Texas, Dallas
Moheimani, S.O. Reza	University of Texas, Dallas

15:00-15:20 FrB07.4

3D Hinf CONTROLLER DESIGN for an EXPERIMENTAL SCANNING TUNNELING MICROSCOPE DEVICE (I), pp. 6838-6843.

Popescu, Andrei	Grenoble Alps University
Voda, Alina	Grenoble University
Besancon, Gildas	GIPSA-Lab, Grenoble INP, CNRS
Wu, Yujin	GIPSA-Lab

15:20-15:40 FrB07.5

Output Feedback Synthesis for a Two-Agent Nonlinear Microrobotic System (I), pp. 6844-6850.

Sun, Yixin	Insa Cvl - University of Orléans
Fruhard, Matthieu	University of Orleans
Ferreira, Antoine	INSA Centre Val de Loire

15:40-16:00 FrB07.6

Inverse Hysteresis Control of Stick-Slip SEM Integrated Nano-Robotic Systems (I), pp. 6851-6856.

Al Janaideh, Mohammad	Memorial University
Boudaoud, Mokrane	Sorbonne Université
Al Saaideh, Mohammad I.	University of Jordan
Liang, Shuai	Université Pierre Et Marie Curie, ISIR
Régnier, Stéphane	ISIR

FrB08 Méditerranée 3
Structure Preserving Discretization of PDEs for Control and Applications (Invited Session)

Chair: Lefevre, Laurent	Grenoble Institute of Technology (Grenoble INP)
Co-Chair: Maignon, Denis	ISAE
Organizer: Lefevre, Laurent	Grenoble Institute of Technology (Grenoble INP)
Organizer: Maignon, Denis	ISAE

14:00-14:20 FrB08.1

Interconnection of the Kirchhoff Plate within the Port-Hamiltonian Framework (I), pp. 6857-6862.

Brugnoli, Andrea	ISAE-SUPAERO
Alazard, Daniel	ISAE
Pommier-Budinger, Valerie	Université de Bordeaux
Maignon, Denis	ISAE

14:20-14:40 FrB08.2

Structure-Preserving Discretization for Port-Hamiltonian Descriptor Systems (I), pp. 6863-6868.

Morandini, Riccardo	Technische Universität Berlin
Mehrmann, Volker	Technische Universität Berlin

14:40-15:00 FrB08.3

Lumped Port-Hamiltonian Burning Plasma Control Model (I), pp. 6869-6874.

Vincent, Benjamin	Université Catholique de Louvain
Nouailletas, Rémy	CEA - IRFM
Artaud, Jean-François	CEA
Hudon, Nicolas	Queen's University
Lefevre, Laurent	Grenoble Institute of Technology (Grenoble INP)
Dochain, Denis	Université Catholique de Louvain

15:00-15:20 FrB08.4

Finite-Dimensional Observers for Port-Hamiltonian Systems of Conservation Laws (I), pp. 6875-6880.

Kotyczka, Paul	Technical University of Munich
Joos, Henning	Technical University of Munich

Wu, Yongxin	FEMTO-ST/ENSMM
Le Gorrec, Yann	Ensmm, Femto-St / As2m
15:20-15:40	FrB08.5
<i>Port-Hamiltonian Modeling, Discretization and Feedback Control of a Circular Water Tank (I)</i> , pp. 6881-6886.	
Cardoso-Ribeiro, Flávio Luiz	Instituto Tecnológico de Aeronáutica
Brugnoli, Andrea	ISAE-SUPAERO
Matignon, Denis	ISAE
Lefevre, Laurent	Grenoble Institute of Technology (Grenoble INP)

15:40-16:00	FrB08.6
<i>Active Control of the Axisymmetric Vibration Modes of a Tom-Tom Drum (I)</i> , pp. 6887-6892.	
Wijnand, Marc Gerard Albert	Sorbonne Université
D'Andrea-Novell, Brigitte	Mines ParisTech
Fabre, Benoit	Sorbonne Université, LAM Institut D'Alembert
Helie, Thomas	CNRS UMR 9912, Ircam - Centre Georges Pompidou
Rosier, Lionel	Paris MinesTech
Roze, David	Team Sound Signals and Systems: Audio/Acoustics, instruMents

FrB09	Méditerranée B12
Game Theory VI (Regular Session)	
Chair: Srivastava, Vaibhav	Michigan State University
Co-Chair: Eksin, Ceyhun	Texas A&M University

14:00-14:20	FrB09.1
<i>Control of Stochastic Disease Network Games Via Influential Individuals</i> , pp. 6893-6898.	
Eksin, Ceyhun	Texas A&M University

14:20-14:40	FrB09.2
<i>Local Nash Equilibria Are Isolated, Strict Local Nash Equilibria in 'Almost All' Zero-Sum Continuous Games</i> , pp. 6899-6904.	
Mazumdar, Eric	University of California, Berkeley
Ratliff, Lillian J.	University of Washington

14:40-15:00	FrB09.3
<i>Adaptive Learning in Two-Player Stackelberg Games with Continuous Action Sets</i> , pp. 6905-6911.	
Yang, Guosong	University of California, Santa Barbara
Poovendran, Radha	University of Washington
Hespanha, Joao P.	University of California, Santa Barbara

15:00-15:20	FrB09.4
<i>Heterogeneous Mixed Populations of Best-Responders and Imitators: Equilibrium Convergence</i> , pp. 6912-6917.	
Le, Hien	University of Alberta
Ramazi, Pouria	University of Alberta

15:20-15:40	FrB09.5
<i>Learning in Repeated Stochastic Network Aggregative Games</i> , pp. 6918-6923.	
Meigs, Emily	Massachusetts Institute of Technology

Parise, Francesca	Massachusetts Institute of Technology
Ozdoglar, Asu	Massachusetts Institute of Technology

15:40-16:00	FrB09.6
<i>Achieving Efficient Collaboration in Decentralized Heterogeneous Teams Using Common-Pool Resource Games</i> , pp. 6924-6929.	
Gupta, Piyush	Michigan State University
Bopardikar, Shaunak D.	Michigan State University
Srivastava, Vaibhav	Michigan State University

FrB10	Méditerranée C12
Sliding-Mode Control II (Regular Session)	

Chair: Seeber, Richard	Graz University of Technology
Co-Chair: Koch, Stefan	Graz University of Technology

14:00-14:20	FrB10.1
<i>A Generalization of Ackermann's Formula for the Design of Continuous and Discontinuous Observers</i> , pp. 6930-6935.	
Niederwieser, Helmut	Graz University of Technology, BIOENERGY 2020+ GmbH
Koch, Stefan	Graz University of Technology
Reichhartinger, Markus	Graz University of Technology

14:20-14:40	FrB10.2
<i>Adaptive Robust Control of Floating Offshore Wind Turbine Based on Sliding Mode</i> , pp. 6936-6941.	
Zhang, Cheng	CNRS-SCTD-UMR6004-CD0962
Tahoumi, Elias	Ecole Centrale de Nantes-CNRS
Gutierrez, Susana	FIME-UANL
Plestan, Franck	Ecole Centrale de Nantes-LS2N
De Leon Morales, Jesus	Universidad Autonoma de Nuevo Leon

14:40-15:00	FrB10.3
<i>Finite-Time Stabilization of High-Order Sliding Mode Dynamics with Lower-Triangular Structure</i> , pp. 6942-6946.	
Liu, Lu	Jiangsu University
Zheng, Wei Xing	Western Sydney University
Ding, Shihong	Jiangsu University

15:00-15:20	FrB10.4
<i>An Anti-Windup Scheme for the Super-Twisting Algorithm</i> , pp. 6947-6952.	
Golkani, Mohammad Ali	Graz University of Technology
Koch, Stefan	Graz University of Technology
Seeber, Richard	Graz University of Technology
Reichhartinger, Markus	Graz University of Technology
Horn, Martin	Graz University of Technology

15:20-15:40	FrB10.5
<i>Sliding Motions on SO(3), Sliding Subgroups</i> , pp. 6953-6958.	
Gomez-Cortes, Gian C.	CINVESTAV-IPN
Castañón, Fernando	CINVESTAV
Davila, Jorge	Instituto Politecnico Nacional

15:40-16:00	FrB10.6
<i>Sliding Mode Control of Discrete-Time 2-D Roesser Systems Via Event-Based Scheme</i> , pp. 6959-6964.	
Yang, Rongni	Shandong University
Zheng, Wei Xing	Western Sydney University

FrB11		Galliéni 1
Estimation V (Regular Session)		
Chair: Wahlberg, Bo	KTH Royal Institute of Technology	
Co-Chair: Regruto, Diego	Politecnico di Torino	
14:00-14:20	FrB11.1	
<i>An Unknown Input Switched Functional Interval Observer for Vehicle Lateral Velocity Estimation</i> , pp. 6965-6970.		
Ifqir, Sara	IBISC, Paris-Saclay University	
Ichalal, Dalil	Université d'Evry, IBISC	
Ait Oufroukh, Naima	Université d'Evry, IBISC	
Mammar, Said	Université d'Evry, IBISC	
14:20-14:40	FrB11.2	
<i>Sparse Linear Regression with Compressed and Low-Precision Data Via Concave Quadratic Programming</i> , pp. 6971-6976.		
Cerone, Vito	Politecnico di Torino	
Fosson, Sophie	Politecnico di Torino	
Regruto, Diego	Politecnico di Torino	
14:40-15:00	FrB11.3	
<i>Topology Selection Using Monte Carlo Expectation and Maximization Algorithm with L_1-Type Regularization for Count Data</i> , pp. 6977-6982.		
Sathish, Vurukonda	Indian Institute of Technology, Bombay	
Chakraborty, Debraj	Indian Institute of Technology, Bombay	
Mukhopadhyay, Siuli	Indian Institute of Technology, Bombay	
15:00-15:20	FrB11.4	
<i>Efficient Computation of the Continuous-Discrete Extended Kalman Filter Sensitivities Applied to Maximum Likelihood Estimation</i> , pp. 6983-6988.		
Boiroux, Dimitri	Technical University of Denmark	
Ritschel, Tobias Kasper	2-Control ApS	
Skovborg		
Poulsen, Niels Kjølstad	Technical University of Denmark	
Madsen, Henrik	Technical University of Denmark	
Jorgensen, John Bagterp	Technical University of Denmark	
15:20-15:40	FrB11.5	
<i>Estimating Private Beliefs of Bayesian Agents Based on Observed Decisions</i> , pp. 6989-6994.		
Mattila, Robert	KTH Royal Institute of Technology	
Lourenço, Inês	KTH Royal Institute of Technology	
Rojas, Cristian R.	KTH Royal Institute of Technology	
Krishnamurthy, Vikram	Cornell University	
Wahlberg, Bo	KTH Royal Institute of Technology	
15:40-16:00	FrB11.6	
<i>Iterative Approximate Nonlinear Inference Via Gaussian Message Passing on Factor Graphs</i> , pp. 6995-7000.		
Herzog, né Hoffmann, Christian	University of Lübeck	
Petersen, Eike	University of Lübeck	
Rostalski, Philipp	University of Lübeck	

FrB12		Galliéni 2
Advances in Constructive Techniques and Use of Lyapunov Functions (Invited Session)		
Chair: Ito, Hiroshi	Kyushu Institute of Technology	
Co-Chair: Pepe, Pierdomenico	University of L'Aquila	
Organizer: Ito, Hiroshi	Kyushu Institute of Technology	
Organizer: Pepe, Pierdomenico	University of L'Aquila	
14:00-14:20	FrB12.1	
<i>On Robust Stability of Sine-Gordon Equation (I)</i> , pp. 7001-7006.		
Efimov, Denis	INRIA	
Fridman, Emilia	Tel-Aviv University	
Richard, Jean-Pierre	Ecole Centrale de Lille	
14:20-14:40	FrB12.2	
<i>A Fusion of Max and Sum-Separable Lyapunov Functions Capable of Addressing iISS in Networks (I)</i> , pp. 7007-7012.		
Ito, Hiroshi	Kyushu Institute of Technology	
14:40-15:00	FrB12.3	
<i>Stabilization and Robustness Analysis for a Chain of Saturating Integrators Arising in the Visual Landing of Aircraft (I)</i> , pp. 7013-7018.		
Burlion, Laurent	Rutgers, the State University of New Jersey	
Malisoff, Michael	Louisiana State University	
Mazenc, Frederic	INRIA Saclay	
15:00-15:20	FrB12.4	
<i>Adaptive Tracking Control Via Immersion and Invariance: An (i)ISS Perspective (I)</i> , pp. 7019-7024.		
Wang, Lei	University of Newcastle	
Kellett, Christopher M.	University of Newcastle	
15:20-15:40	FrB12.5	
<i>Discrete Finite-Time Stable Position Tracking Control of Unmanned Vehicles</i> , pp. 7025-7030.		
Hamrah, Reza	Syracuse University	
Sanyal, Amit	Syracuse University	
Viswanathan, Sasi Prabhakaran	Akrobotix LLC	
15:40-16:00	FrB12.6	
<i>Weighted Polar Finite Time Control Barrier Functions with Applications to Multi-Robot Systems</i> , pp. 7031-7036.		
Srinivasan, Mohit	Georgia Institute of Technology	
Hyun, Nak-seung Patrick	Harvard University	
Coogan, Samuel	Georgia Institute of Technology	
FrB13		Galliéni 4
Uncertain Systems II (Regular Session)		
Chair: Bakker, Craig	Pacific Northwest National Laboratory	
Co-Chair: Efimov, Denis	INRIA	
14:00-14:20	FrB13.1	
<i>Asymptotic Stability of Uncertain Lagrangian Systems with Prescribed Transient Response</i> , pp. 7037-7042.		
Verginis, Christos	KTH Royal Institute of Technology	
Dimarogonas, Dimos V.	KTH Royal Institute of Technology	

14:20-14:40	FrB13.2
<i>Switching between Sensor Configurations for Uncertain Systems; Application to Control of Anesthesia</i> , pp. 7043-7048.	
van Heusden, Klaske	University of British Columbia
Dumont, Guy A.	University of British Columbia
14:40-15:00	FrB13.3
<i>Interval Prediction for Continuous-Time Systems with Parametric Uncertainties</i> , pp. 7049-7054.	
Leurent, Edouard	INRIA
Efimov, Denis	INRIA
Raïssi, Tarek	Conservatoire National Des Arts Et Métiers
Perruquetti, Wilfrid	Ecole Centrale de Lille
15:00-15:20	FrB13.4
<i>Robustness Analysis of Initial Excitation Based Adaptive Control</i> , pp. 7055-7062.	
Basu Roy, Sayan	Indraprastha Institute of Information Technology Delhi
Bhasin, Shubhendu	Indian Institute of Technology, Delhi
15:20-15:40	FrB13.5
<i>Learning and Information Manipulation: Repeated Hypergames for Cyber-Physical Security</i> , pp. 7063-7068.	
Bakker, Craig	Pacific Northwest National Laboratory
Bhattacharya, Arnab	Pacific Northwest National Laboratory
Chatterjee, Samrat	Pacific Northwest National Laboratory
Vrabie, Draguna	Pacific Northwest National Laboratory
15:40-16:00	FrB13.6
<i>Improved Discretization Method for Uncertain Linear Systems: A Descriptor System Based Approach</i> , pp. 7069-7074.	
Braga, Marcio F.	Federal University of Ouro Preto (UFOP)
Campos, Victor	Universidade Federal de Minas Gerais
Frezzatto, Luciano	Universidade Federal de Minas Gerais
FrB14	Galliéni 7
Stability of Nonlinear Systems II (Regular Session)	
Chair: Polyakov, Andrey	INRIA Lille Nord-Europe
Co-Chair: Chitour, Yacine	Universit'e Paris-Sud, CNRS, Supelec
14:00-14:20	FrB14.1
<i>Scattering Transformation for Planar Conic Systems with Nonlinear Sector Boundaries</i> , pp. 7075-7080.	
Polushin, Ilia G.	Western University
Dashkovskiy, Sergey N.	University of Wuerzburg
14:20-14:40	FrB14.2
<i>Optimal Feedback Stabilization of Systems on Manifolds</i> , pp. 7081-7086.	
Kim, Minwoo	Korea Advanced Institute of Science & Technology (KAIST)
Phogat, Karmvir Singh	IIT Bombay

Chang, Dong Eui	Korea Advanced Institute of Science and Technology
14:40-15:00	FrB14.3
<i>Generalized Lyapunov Exponents of Homogeneous Systems</i> , pp. 7087-7092.	
Polyakov, Andrey	INRIA Lille Nord-Europe
Zhuk, Sergiy	IBM
15:00-15:20	FrB14.4
<i>Saturated Control without Velocity Measurements for Planar Robots with Flexible Joints</i> , pp. 7093-7098.	
Wesselink, Thomas	University of Groningen
Borja, Pablo	University of Groningen
Scherpen, Jacquélien M.A.	University of Groningen
15:20-15:40	FrB14.5
<i>On Condition for Output Finite-Time Stability and Adaptive Finite-Time Control Scheme</i> , pp. 7099-7103.	
Zimenko, Konstantin	ITMO University
Efimov, Denis	INRIA
Polyakov, Andrey	INRIA Lille Nord-Europe
15:40-16:00	FrB14.6
<i>Stabilization of a Perturbed Chain of Integrators in Prescribed Time</i> , pp. 7104-7109.	
Chitour, Yacine	Universit'e Paris-Sud, CNRS, Supelec
Ushirobira, Rosane	INRIA
FrB15	Rhodes GH
Optimal Control V (Regular Session)	
Chair: De Marchi, Alberto	Bundeswehr University Munich
Co-Chair: Streif, Stefan	Technische Universität Chemnitz
14:00-14:20	FrB15.1
<i>Model Predictive Control with Stage Cost Shaping Inspired by Reinforcement Learning</i> , pp. 7110-7115.	
Beckenbach, Lukas	Chemnitz University of Technology
Osinenko, Pavel	Technische Universitaet Chemnitz
Streif, Stefan	Technische Universität Chemnitz
14:20-14:40	FrB15.2
<i>Optimal Control of Thermostatic Loads for Planning Aggregate Consumption: Characterization of Solution and Explicit Strategies</i> , pp. 7116-7121.	
Fontes, Fernando A. C. C.	UniversidadedoPorto
Halder, Abhishek	University of California, Santa Cruz
Becerril, Jorge	UniversidadedoPorto
Kumar, P. R.	Texas A&M University
14:40-15:00	FrB15.3
<i>On the Mixed-Integer Linear-Quadratic Optimal Control with Switching Cost</i> , pp. 7122-7127.	
De Marchi, Alberto	Bundeswehr University Munich
15:00-15:20	FrB15.4
<i>Time-Dependent Surveillance-Evasion Games</i> , pp. 7128-7133.	
Cartee, Elliot	Cornell University
Lai, Lexiao	University of Hong Kong
Song, Qianli	University of Hong Kong
Vladimirsky, Alexander	Cornell University

15:20-15:40	FrB15.5
<i>A Switching Cost Aware Rounding Method for Relaxations of Mixed-Integer Optimal Control Problems</i> , pp. 7134-7139.	
Bestehorn, Felix	Technical University of Braunschweig
Hansknecht, Christoph	TU Braunschweig
Kirches, Christian	Technical University of Braunschweig
Manns, Paul	Technische Universität Braunschweig

15:40-16:00	FrB15.6
<i>Actuator Placement for Optimizing Network Performance under Controllability Constraints</i> , pp. 7140-7147.	
Guo, Baiwei	ETH Zurich
Karaca, Orcun	ETH Zurich
Summers, Tyler H.	University of Texas, Dallas
Kamgarpour, Maryam	ETH Zurich

FrB16	Rhodes AB
Low-Rank Approximation (Invited Session)	
Chair: Markovsky, Ivan	Vrije Universiteit Brussel
Co-Chair: Rantzer, Anders	Lund University
Organizer: Markovsky, Ivan	Vrije Universiteit Brussel
Organizer: Usevich, Konstantin	CNRS, Université de Lorraine

14:00-14:20	FrB16.1
<i>Extended Kalman Filtering with Low-Rank Tensor Networks for MIMO Volterra System Identification (I)</i> , pp. 7148-7153.	
Batselier, Kim	Delft University of Technology
Ko, Ching-Yun	University of Hong Kong
Wong, Ngai	University of Hong Kong

14:20-14:40	FrB16.2
<i>A Convex Approach to Frisch-Kalman Problem (I)</i> , pp. 7154-7158.	
Zhao, Di	Hong Kong University of Sci. and Tech
Rantzer, Anders	Lund University
Qiu, Li	Hong Kong University of Sci. & Tech

14:40-15:00	FrB16.3
<i>Low-Rank Approximations of Hyperbolic Embeddings (I)</i> , pp. 7159-7164.	
Jawanpuria, Pratik	Microsoft
Meghwanshi, Mayank	Microsoft
Mishra, Bamdev	Microsoft

15:00-15:20	FrB16.4
<i>Software Package for Mosaic-Hankel Structured Low-Rank Approximation</i> , pp. 7165-7170.	
Usevich, Konstantin	Vrije Universiteit Brussel
Markovsky, Ivan	Vrije Universiteit Brussel

15:20-15:40	FrB16.5
<i>A Convex Relaxation for Model Predictive Control of a Class of Hammerstein Systems</i> , pp. 7171-7176.	
Vincent, Tyrone L.	Colorado School of Mines
Tang, Gongguo	Colorado School of Mines
Weddle, Peter	Colorado School of Mines

15:40-16:00	FrB16.6
<i>Robust Maximization of Correlated Submodular Functions</i> , pp. 7177-7183.	
Hou, Qiqiang	Worcester Polytechnic Institute
Clark, Andrew	Worcester Polytechnic Institute

FrB17	Rhodes CD
Encrypted Control and Optimization (Invited Session)	
Chair: Schulze Darup, Moritz	University of Paderborn
Co-Chair: Alexandru, Andreea B.	University of Pennsylvania
Organizer: Schulze Darup, Moritz	University of Paderborn
Organizer: Alexandru, Andreea B.	University of Pennsylvania

14:00-14:20	FrB17.1
<i>Stability Analysis and Dynamic Quantizer for Controller Encryption (I)</i> , pp. 7184-7189.	
Teranishi, Kaoru	University of Electro-Communications
Shimada, Naoki	National Institute of Technology, Ishikawa College
Kogiso, Kiminao	University of Electro-Communications

14:20-14:40	FrB17.2
<i>Encrypted State Estimation in Networked Control Systems (I)</i> , pp. 7190-7195.	
Kim, Junsoo	Seoul National University
Shim, Hyungbo	Seoul National University

14:40-15:00	FrB17.3
<i>Encrypted Cooperative Control Revisited (I)</i> , pp. 7196-7202.	
Alexandru, Andreea B.	University of Pennsylvania
Schulze Darup, Moritz	University of Paderborn
Pappas, George J.	University of Pennsylvania

15:00-15:20	FrB17.4
<i>Privacy Preservation in Distributed Optimization Via Dual Decomposition and ADMM (I)</i> , pp. 7203-7208.	
Tjell, Katrine	Aalborg University
Wisniewski, Rafal	Aalborg University

15:20-15:40	FrB17.5
<i>Symmetries and Privacy in Control Over the Cloud: Uncertainty Sets and Side Knowledge (I)</i> , pp. 7209-7214.	
Sultangazin, Alimzhan	University of California, Los Angeles
Tabuada, Paulo	University of California, Los Angeles

15:40-16:00	FrB17.6
<i>Encrypted Cloud-Based Control Using Secret Sharing with One-Time Pads (I)</i> , pp. 7215-7221.	
Schulze Darup, Moritz	University of Paderborn
Jager, Tibor	Paderborn University

FrB18	Rhodes EF
Hybrid Systems II (Regular Session)	
Chair: Teel, Andrew R.	University of California, Santa Barbara

Co-Chair: Saccon, Alessandro	Eindhoven University of Technology
14:00-14:20	FrB18.1
<i>A New Hybrid Control Strategy for the Global Attitude Tracking Problem</i> , pp. 7222-7227.	
Wang, Miaomiao	Western University
Tayebi, Abdelhamid	Lakehead University
14:20-14:40	FrB18.2
<i>Monotonicity of Functions Along Flows of Hybrid Inclusions</i> , pp. 7228-7233.	
Maghenem, Mohamed Adlene	University of California Santa Cruz
Melis, Alessandro	University of Bologna
Sanfelice, Ricardo G.	University of California, Santa Cruz
14:40-15:00	FrB18.3
<i>Global Optimization on the Sphere with Half-Space Constraints: A Stochastic Hybrid Systems Approach</i> , pp. 7234-7239.	
Baradaran Hosseini, Matina	University of California, Santa Barbara
Teel, Andrew R.	University of California, Santa Barbara
15:00-15:20	FrB18.4
<i>Lattice Piecewise Affine Representations on Convex Projection Regions</i> , pp. 7240-7245.	
Xu, Jun	Harbin Institute of Technology, Shenzhen
Wang, Shuning	Tsinghua University
15:20-15:40	FrB18.5
<i>On Linear Quadratic Optimal Control for Time-Varying Multimodal Linear Systems with Time-Triggered Jumps</i> , pp. 7246-7251.	
de Carolis, Giovanni	University of Roma Tor Vergata
Saccon, Alessandro	Eindhoven University of Technology
15:40-16:00	FrB18.6
<i>A Graph-Based Optimization Framework for the Energy Management of District Systems</i> , pp. 7252-7257.	
Manganini, Giorgio	United Technologies Research Centre
Riverso, Stefano	United Technologies Research Centre Ireland Ltd
Kouramas, Konstantinos	United Technologies Research Center
FrB19	Galliéni 5
Stochastic Optimal Control II (Regular Session)	
Chair: Mahajan, Aditya	McGill University
Co-Chair: Chakravorty, Suman	Texas A&M University
14:00-14:20	FrB19.1
<i>Distributed Control of Thermostatically Controlled Loads: Kullback-Leibler Optimal Control in Continuous Time</i> , pp. 7258-7265.	
Busic, Ana	INRIA
Meyn, Sean P.	University of Florida
14:20-14:40	FrB19.2
<i>The Maximal Hitting-Time Stochastic Reachability Problem</i> , pp. 7266-7272.	

Gleason, Joseph	University of New Mexico
P. Vinod, Abraham	University of Texas, Austin
Oishi, Meeko	University of New Mexico
14:40-15:00	FrB19.3
<i>Affine Controller Synthesis for Stochastic Reachability Via Difference of Convex Programming</i> , pp. 7273-7280.	
P. Vinod, Abraham	University of Texas, Austin
Oishi, Meeko	University of New Mexico
15:00-15:20	FrB19.4
<i>A Decoupled Data Based Control (D2C) Approach to Generalized Motion Planning Problems</i> , pp. 7281-7286.	
Yu, Dan	Nanjing University of Aeronautics and Astronautics
Chakravorty, Suman	Texas A&M University
15:20-15:40	FrB19.5
<i>Stochastic Subgradient Methods for Dynamic Programming in Continuous State and Action Spaces</i> , pp. 7287-7293.	
Jang, Sunho	Seoul National University
Yang, Insoon	Seoul National University
15:40-16:00	FrB19.6
<i>Restless Bandits with Controlled Restarts: Indexability and Computation of Whittle Index</i> , pp. 7294-7300.	
Akbarzadeh, Nima	Student
Mahajan, Aditya	McGill University
FrB20	Rhodes 10
Cooperative Control I (Regular Session)	
Chair: Cai, Kai	Osaka City University
Co-Chair: Qu, Zhihua	University of Central Florida
14:00-14:20	FrB20.1
<i>Robust Output Regulation of Networked Heterogeneous Linear Agents by Distributed Internal Model Principle</i> , pp. 7301-7306.	
Kawamura, Satoshi	Osaka City University
Cai, Kai	Osaka City University
Kishida, Masako	National Institute of Informatics
14:20-14:40	FrB20.2
<i>Global and Semi-Global Regulated State Synchronization for Homogeneous Networks of Non-Introspective Agents in Presence of Input Saturation</i> , pp. 7307-7312.	
Liu, Zhenwei	Northeastern University
Saberi, Ali	Washington State Univ
Stoorvogel, Anton A.	University of Twente
Nojavanzadeh, Donya	Washington State University
14:40-15:00	FrB20.3
<i>Cooperative Design of Systems of Systems against Attack on One Subsystem</i> , pp. 7313-7318.	
Talebi, Shahriar	University of Washington
Simaan, Marwan A.	University of Central Florida
Qu, Zhihua	University of Central Florida
15:00-15:20	FrB20.4
<i>Strategies for Defending a Coastline against Multiple Attackers</i> , pp. 7319-7324.	
Garcia, Eloy	Air Force Research Laboratory
Von Moll, Alexander	Air Force Research Laboratory
Casbeer, David W.	Air Force Research Laboratory

Pachter, Meir	AFIT/ENG
15:20-15:40	FrB20.5
<i>Team Composition for Perimeter Defense with Patrollers and Defenders</i> , pp. 7325-7332.	
Shishika, Daigo	University of Pennsylvania
Paulos, James	University of Pennsylvania
Dorothy, Michael	Combat Capabilities Development Command Army Research Laboratory
Hsieh, M. Ani	University of Pennsylvania
Kumar, Vijay	University of Pennsylvania
15:40-16:00	FrB20.6
<i>On the Observability of Relative Positions in Left-Invariant Multi-Agent Control Systems and Its Application to Formation Control</i> , pp. 7333-7338.	
Colombo, Leonardo Jesus	Consejo Superior de Investigaciones Científicas (CSIC)
Garcia de Marina, Hector	University of Southern Denmark
Barbero-Linan, Maria	Technical University of Madrid
Martin de Diego, David	High Council for Scientific Research
FrB21	Risso 6
Networked Control Systems V (Regular Session)	
Chair: Tanaka, Takashi	University of Texas, Austin
Co-Chair: Lucia, Walter	Concordia University
14:00-14:20	FrB21.1
<i>Differential Privacy-Preserving Distributed Machine Learning</i> , pp. 7339-7344.	
Wang, Xin	Zhejiang University
Ishii, Hideaki	Tokyo Institute of Technology
Du, Linkang	Zhejiang University
Cheng, Peng	Zhejiang University
Chen, Jiming	Zhejiang University
14:20-14:40	FrB21.2
<i>Sparse LQR Synthesis Via Information Regularization</i> , pp. 7345-7351.	
Stefan, Jeb	University of Texas, Austin
Tanaka, Takashi	University of Texas, Austin
14:40-15:00	FrB21.3
<i>Global Synchronization of Clocks in Directed Rooted Acyclic Graphs: A Hybrid Systems Approach</i> , pp. 7352-7357.	
Javed, Muhammad Umar	University of Colorado, Boulder
Poveda, Jorge I.	University of Colorado, Boulder
Chen, Xudong	University of Colorado, Boulder
15:00-15:20	FrB21.4
<i>Network Feedback Passivation of Passivity-Short Multi-Agent Systems</i> , pp. 7358-7363.	
Sharf, Miel	Israel Institute of Technology
Zelazo, Daniel	Technion - Israel Institute of Technology
15:20-15:40	FrB21.5
<i>Effects of Jamming Attacks on a Control System with Energy Harvesting</i> , pp. 7364-7369.	
Knorn, Steffi	Otto-Von-Guericke University Magdeburg

Teixeira, André M. H.	Uppsala University
15:40-16:00	FrB21.6
<i>Resilient Control for Cyber-Physical Systems Subject to Replay Attacks</i> , pp. 7370-7375.	
Franze', Giuseppe	University of Calabria
Tedesco, Francesco	University of Calabria
Lucia, Walter	Concordia University
FrB22	Risso 7
Nonlinear Systems Identification II (Regular Session)	
Chair: Garulli, Andrea	University of Siena
Co-Chair: Jungers, Raphaël M.	University of Louvain
14:00-14:20	FrB22.1
<i>A Bilevel Programming Framework for Piecewise Affine System Identification</i> , pp. 7376-7381.	
Paoletti, Simone	University of Siena
Savelli, Iacopo	University of Siena
Garulli, Andrea	University of Siena
Vicino, Antonio	University of Siena
14:20-14:40	FrB22.2
<i>Bayesian Identification of State-Space Models Via Adaptive Thermostats</i> , pp. 7382-7388.	
Umenberger, Jack	Uppsala University
Schön, Thomas (Bo)	Uppsala University
Lindsten, Fredrik	Uppsala University
14:40-15:00	FrB22.3
<i>Learning Discrepancy Models from Experimental Data</i> , pp. 7389-7396.	
Kaheman, Kadierdan	University of Washington
Kaiser, Eurika	University of Washington
Strom, Benjamin	University of Washington
Kutz, J. Nathan	University of Washington
Brunton, Steven L.	University of Washington
15:00-15:20	FrB22.4
<i>Decoupling Multivariate Polynomials for Nonlinear State-Space Models</i> , pp. 7397-7402.	
Decuyper, Jan	Vrije Universiteit Brussel
Dreesen, Philippe	Vrije Universiteit Brussel
Schoukens, Johan	Vrije Universiteit Brussel
Runacres, Mark C	Vrije Universiteit Brussel
Tiels, Koen	Uppsala University
15:20-15:40	FrB22.5
<i>Nonlinear Input Design As Optimal Control of a Hamiltonian System</i> , pp. 7403-7408.	
Umenberger, Jack	Uppsala University
Schön, Thomas (Bo)	Uppsala University
15:40-16:00	FrB22.6
<i>Formal Methods for Computing Hyperbolic Invariant Sets for Nonlinear Systems</i> , pp. 7409-7414.	
Berger, Guillaume O.	University of Louvain
Jungers, Raphaël M.	University of Louvain

FrB23	Risso 8
Large-Scale Distributed Optimization and Decentralized Control I (Invited Session)	
Chair: Nedich, Angelia	Arizona State University
Co-Chair: Uribe, Cesar	Massachusetts Institute of Technology
Organizer: Uribe, Cesar	Massachusetts Institute of Technology
Organizer: Nedich, Angelia	Arizona State University
Organizer: Olshevsky, Alexander	Boston University
14:00-14:20	FrB23.1
<i>Convergence and Iteration Complexity of Policy Gradient Method for Infinite-Horizon Reinforcement Learning (I)</i> , pp. 7415-7422.	
Zhang, Kaiqing	University of Illinois, Urbana Champaign
Koppel, Alec	U.S. Army Research Laboratory
Zhu, Hao	University of Texas, Austin
Basar, Tamer	University of Illinois, Urbana Champaign
14:20-14:40	FrB23.2
<i>Totally Asynchronous Distributed Quadratic Programming with Independent Stepsizes and Regularizations (I)</i> , pp. 7423-7428.	
Ubl, Matthew	University of Florida
Hale, Matthew	University of Florida
14:40-15:00	FrB23.3
<i>Lower Bound Performances for Average Consensus in Open Multi-Agent Systems (I)</i> , pp. 7429-7434.	
Monnoyer de Galland de Carnières, Charles	Université Catholique de Louvain
Hendrickx, Julien M.	Université Catholique de Louvain
15:00-15:20	FrB23.4
<i>On Primal and Dual Approaches for Distributed Stochastic Convex Optimization Over Networks (I)</i> , pp. 7435-7440.	
Dvinskikh, Darina	Weierstrass Institute for Applied Analysis and Stochastics
Gorbunov, Eduard	Moscow Institute of Physics and Technology
Gasnikov, Alexander	Moscow Institute of Physics and Technology
Dvurechensky, Pavel	Weierstrass Institute for Applied Analysis and Stochastics
Uribe, Cesar	Massachusetts Institute of Technology
15:20-15:40	FrB23.5
<i>Graph Topology and Subsystem Centrality in Approximately Dissipative System Interconnections</i> , pp. 7441-7447.	
Köhler, Philipp N.	University of Stuttgart
Muller, Matthias A.	Leibniz University Hannover
Allgöwer, Frank	University of Stuttgart
15:40-16:00	FrB23.6
<i>Convergence Rate Analysis of a Subgradient Averaging Algorithm for Distributed Optimisation with Different Constraint Sets</i> , pp. 7448-7453.	
Romao, Licio	University of Oxford
Margellos, Kostas	University of Oxford
Notarstefano, Giuseppe	University of Bologna

Papachristodoulou, Antonis

University of Oxford

FrB24	Hermès
Iterative Learning Control II (Regular Session)	
Chair: Zare, Armin	University of Southern California
Co-Chair: Tan, Ying	University of Melbourne
14:00-14:20	FrB24.1
<i>Policy Improvement Directions for Reinforcement Learning in Reproducing Kernel Hilbert Spaces</i> , pp. 7454-7461.	
Paternain, Santiago	University of Pennsylvania
Bazerque, Juan	Universidad de La Republica
Small, Austin	University of Pennsylvania
Ribeiro, Alejandro	University of Pennsylvania
14:20-14:40	FrB24.2
<i>Iterative Deconvolution for Calibrating Quantum Control Pulses</i> , pp. 7462-7467.	
cao, xi	Tsinghua University
Chu, Bing	University of Southampton
Ding, Hai-Jin	Tsinghua University
Wu, Re-Bing	Tsinghua University
14:40-15:00	FrB24.3
<i>Analysis and Experimental Verification of a Current-Cycle Iterative Learning Control for Robotic Manipulators with Output Constraints</i> , pp. 7468-7473.	
Sebastian, Gijo	University of Melbourne
Li, Zeyu	University of Melbourne
Tan, Ying	University of Melbourne
Oetomo, Denny Nurjanto	University of Melbourne
15:00-15:20	FrB24.4
<i>Global Exponential Convergence of Gradient Methods Over the Nonconvex Landscape of the Linear Quadratic Regulator</i> , pp. 7474-7479.	
Mohammadi, Hesameddin	University of Southern California
Zare, Armin	University of Texas, Dallas
Soltanolkotabi, Mahdi	University of Southern California
Jovanovic, Mihailo R.	University of Southern California
15:20-15:40	FrB24.5
<i>A New Result on Robust Adaptive Dynamic Programming for Uncertain Partially Linear Systems</i> , pp. 7480-7485.	
Adib Yaghmaie, Farnaz	Linköping University
Gunnarsson, Svante	Linköping University
15:40-16:00	FrB24.6
<i>Adaptive Optimal Decision in Multi-Agent Random Switching Systems</i> , pp. 7486-7491.	
Liu, Mushuang	University of Texas, Arlington
Wan, Yan	University of Texas, Arlington
Lewis, Frank L.	University of Texas, Arlington
FrB25	Athéna
Power Systems II (Regular Session)	
Chair: Kazempour, Jalal	Technical University of Denmark
Co-Chair: Karimi, Alireza	EPFL
14:00-14:20	FrB25.1
<i>Quadratic Performance Analysis of Secondary Frequency Controllers</i> , pp. 7492-7497.	

Poola, Bala Kameshwar	ETH Zürich
Simpson-Porco, John W.	University of Waterloo
Monshizadeh, Nima	University of Groningen
Dörfler, Florian	Swiss Federal Institute of Technology (ETH) Zurich
14:20-14:40	FrB25.2
<i>Exploring Market Properties of Policy-Based Reserve Procurement for Power Systems</i> , pp. 7498-7505.	
Ratha, Anubhav	Technical University of Denmark (DTU)
Kazempour, Jalal	Technical University of Denmark
Virag, Ana	Flemish Institute for Technological Research (VITO)
Pinson, Pierre	Dtu Electrical Engineering
14:40-15:00	FrB25.3
<i>Exponentially Fast Estimation of Power System Oscillation Modes Using Distributed Phasor Data</i> , pp. 7506-7511.	
Liu, Ji	Stony Brook University
Chakraborty, Aranya	North Carolina State University
Basar, Tamer	University of Illinois, Urbana Champaign
15:00-15:20	FrB25.4
<i>Data-Driven Distributed Reactive Power Sharing in Microgrids</i> , pp. 7512-7517.	
Madani, Seyed	EPFL
Karimi, Alireza	EPFL
15:20-15:40	FrB25.5
<i>Toward Distributed Stability Analytics for Power Systems with Heterogeneous Bus Dynamics</i> , pp. 7518-7523.	
Yang, Peng	Tsinghua University
Liu, Feng	Tsinghua University
Wang, Zhaojian	Tsinghua University
Shen, Chen	Tsinghua University
Yi, Jun	China Electric Power Research Institute
Lin, Weifang	China Electric Power Research Institute
15:40-16:00	FrB25.6
<i>Worst-Case Probabilistic Network Outage Identification under Physical Disturbances</i> , pp. 7524-7529.	
Nguyen, Hieu	University of Utah
Parvania, Masood	University of Utah
Khargonekar, Pramod	University of California, Irvine
FrC01	Méditerranée 1
Biological Systems II (Regular Session)	
Chair: Fromion, Vincent	INRA
Co-Chair: Colaneri, Patrizio	Politecnico di Milano
16:30-16:50	FrC01.1
<i>Controlled and Uncontrolled Stochastic Norton-Simon-Massagu'e Tumor Growth Models</i> , pp. 7530-7535.	
Belkhatir, Zehor	Memorial Sloan Kettering Cancer Center (MSKCC)
Pavon, Michele	University of Padova
Mathews, James	Memorial Sloan Kettering
Pouryahya, Maryam	Memorial Sloan Kettering
Deasy, Joseph	Memorial Sloan Kettering

Norton, Larry	Memorial Sloan Kettering
Tannenbaum, Allen	Stony Brook University
16:50-17:10	FrC01.2
<i>A RBA Model for the Chemostat Modelling</i> , pp. 7536-7541.	
Dinh, Marc	INRA
Fromion, Vincent	INRA
17:10-17:30	FrC01.3
<i>Time Delays in a Genetic Positive-Feedback Circuit</i> , pp. 7542-7547.	
Borri, Alessandro	IASI-CNR
Palumbo, Pasquale	IASI-CNR
Singh, Abhyudai	University of Delaware
17:30-17:50	FrC01.4
<i>Checking Structural Stability of BDC-Decomposable Systems Via Convex Optimisation</i> , pp. 7548-7553.	
Blanchini, Franco	University of Udine
Chesi, Graziano	University of Hong Kong
Colaneri, Patrizio	Politecnico di Milano
Giordano, Giulia	Delft University of Technology
17:50-18:10	FrC01.5
<i>Linear System Identification from Ensemble Snapshot Observations</i> , pp. 7554-7559.	
Aalto, Atte	University of Luxembourg
Goncalves, Jorge	University of Luxembourg
18:10-18:30	FrC01.6
<i>Control of Enzymatic Reactions Via Quadratic Immersion</i> , pp. 7560-7565.	
Carravetta, Francesco	IASI-CNR
Palumbo, Pasquale	IASI-CNR
FrC02	Méditerranée 2
Linear Systems III (Regular Session)	
Chair: Poussot-Vassal, Charles	ONERA
Co-Chair: Jiang, Lin	University of Liverpool
16:30-16:50	FrC02.1
<i>On Solvability of CGCARE for LQR Problems with Zero Input-Cost</i> , pp. 7566-7571.	
Bhawal, Chayan	Max Planck Institute for Dynamics of Complex Technical System
Pal, Debasattam	Indian Institute of Technology, Bombay
16:50-17:10	FrC02.2
<i>Stability Analysis for Systems with a Time-Varying Delay Via a Free-Matrix-Based Lyapunov-Krasovskii Functional</i> , pp. 7572-7577.	
Long, Fei	China University of Geosciences
Zhang, Chuan-Ke	China University of Geosciences
He, Yong	China University of Geosciences
Jiang, Lin	University of Liverpool
Wu, Min	China University of Geosciences
17:10-17:30	FrC02.3
<i>Convex Synthesis of Strictly Negative Imaginary Feedback Controllers</i> , pp. 7578-7583.	
Caverly, Ryan James	University of Minnesota
Chakraborty, Manash	University of Minnesota

17:30-17:50	FrC02.4
<i>An Observer-Based Output Feedback Controller for the Finite-Time Stabilization of Markov Jump Linear Systems</i> , pp. 7584-7589.	
Tartaglione, Gaetano	Univeristy of Napoli Parthenope
Ariola, Marco	Univeristy of Napoli Parthenope
Amato, Francesco	Univeristy of Napoli Federico II
17:50-18:10	FrC02.5
<i>From Reference Model Selection to Controller Validation: Application to Loewner Data-Driven Control</i> , pp. 7590-7595.	
Kergus, Pauline	ONERA
Olivi, Martine	INRIA
Poussot-Vassal, Charles	ONERA
Demourant, Fabrice	Onera
FrC03	Méditerranée 5
Automotive Control II (Regular Session)	
Chair: Yu, Min	Imperial College London
Co-Chair: Cannon, Mark	University of Oxford
16:30-16:50	FrC03.1
<i>GPU Based Parameterized NMPC Scheme for Control of Half Car Vehicle with Semi-Active Suspension System</i> , pp. 7596-7601.	
Murali Madhavan Rathai, KARTHIK	CNRS, GIPSA Lab, Grenoble
Sename, Olivier	Grenoble INP / GIPSA-Lab
Alamir, Mazen	CNRS / University of Grenoble
16:50-17:10	FrC03.2
<i>Design of a New Gain-Scheduled LPV/H-Infinity Controller for Vehicle's Global Chassis Control</i> , pp. 7602-7608.	
Chokor, Abbas	Université de Technologie de Compiègne
Doumiati, Moustapha	Université de Technologie de Compiègne
Talj, Reine	Heudiasyc, UTC
Charara, Ali	Umr Cnrs 6599
17:10-17:30	FrC03.3
<i>Distributed Nested PI Slip Control for Longitudinal and Lateral Motion in Four In-Wheel Motor Drive Electric Vehicle</i> , pp. 7609-7614.	
Amato, Gerardo	University of Rome Tor Vergata
Marino, Riccardo	University of Roma Tor Vergata
17:30-17:50	FrC03.4
<i>Robust Control for a Full-Car Prototype of Series Active Variable Geometry Suspension</i> , pp. 7615-7622.	
Yu, Min	Imperial College London
Cheng, Cheng	Huazhong University of Science and Technology
Evangelou, Simos Andreas	Imperial College
Dini, Daniele	Imperial College London
17:50-18:10	FrC03.5
<i>Safety-Critical Control for Non-Affine Nonlinear Systems with Application on Autonomous Vehicle</i> , pp. 7623-7628.	
Son, Tong	Siemens PLM Software
Nguyen, Quan	Mass Institute of Technology(MIT)
18:10-18:30	FrC03.6

<i>Fast Optimal Energy Management with Engine On/Off Decisions for Plug-In Hybrid Electric Vehicles</i> , pp. 7629-7634.	
East, Sebastian	University of Oxford
Cannon, Mark	University of Oxford

FrC04	Méditerranée A2
Cyber-Security of Discrete-Event Systems (Invited Session)	
Chair: Su, Rong	Nanyang Technological University
Co-Chair: Yin, Xiang	Shanghai Jiao Tong University
Organizer: Yin, Xiang	Shanghai Jiao Tong University
Organizer: Cai, Kai	Osaka City University
Organizer: Su, Rong	Nanyang Technological University
Organizer: Tong, Yin	Southwest Jiaotong University
16:30-16:50	FrC04.1
<i>Secret Securing with Multiple Protections and Minimum Costs (I)</i> , pp. 7635-7640.	
Matsui, Shoma	Osaka City University
Cai, Kai	Osaka City University
16:50-17:10	FrC04.2
<i>Opacity of Networked Supervisory Control Systems Over Insecure Multiple Channel Networks (I)</i> , pp. 7641-7646.	
Yin, Xiang	Shanghai Jiao Tong University
Li, Shaoyuan	Shanghai Jiao Tong University
17:10-17:30	FrC04.3
<i>K-Delayed Strong Detectability of Discrete-Event Systems (I)</i> , pp. 7647-7652.	
Zhang, Kuize	KTH Royal Institute of Technology
Giua, Alessandro	University of Cagliari
17:30-17:50	FrC04.4
<i>Abstraction-Based Synthesis of Opacity-Enforcing Controllers Using Alternating Simulation Relations (I)</i> , pp. 7653-7658.	
Hou, Junyao	ShanghaiJiaoTong University
Yin, Xiang	Shanghai Jiao Tong University
Li, Shaoyuan	Shanghai Jiao Tong University
Zamani, Majid	University of Colorado Boulder
17:50-18:10	FrC04.5
<i>Towards Bounded Synthesis of Resilient Supervisors (I)</i> , pp. 7659-7664.	
Lin, Liyong	Nanyang Technological University
Zhu, Yuting	Nanyang Technological University
Su, Rong	Nanyang Technological University
18:10-18:30	FrC04.6
<i>Current-State Opacity Verification in Modular Discrete Event Systems (I)</i> , pp. 7665-7670.	
Tong, Yin	Southwest Jiaotong University
Lan, Hao	Southwest Jiaotong University
FrC05	Méditerranée C4
Robust Control III (Regular Session)	
Chair: Lessard, Laurent	University of Wisconsin-Madison
Co-Chair: Van Scoy, Bryan	University of Wisconsin--Madison
16:30-16:50	FrC05.1
<i>Learning-Based Predictive Control for MIMO Systems</i> , pp. 7671-7676.	
Salvador, José R.	Universidad de Sevilla

Terzi, Enrico	Politecnico di Milano
Farina, Marcello	Politecnico di Milano
Ramirez, Daniel R.	Universidad de Sevilla
Fagiano, Lorenzo	Politecnico di Milano
Muñoz de la Peña, David	Universidad de Sevilla
Scattolini, Riccardo	Politecnico di Milano

16:50-17:10 FrC05.2

Integral Quadratic Constraints: Exact Convergence Rates and Worst-Case Trajectories, pp. 7677-7682.

Van Scoy, Bryan	University of Wisconsin--Madison
Lessard, Laurent	University of Wisconsin-Madison

17:10-17:30 FrC05.3

Robust Stabilization of Resource Limited Networked Control Systems under Denial-Of-Service Attack, pp. 7683-7689.

Tripathy, Niladri Sekhar	Singapore University of Technology and Design
Chamanbaz, Mohammadreza	Singapore University of Technology and Design
Bouffanais, Roland	Singapore University of Technology and Design

17:30-17:50 FrC05.4

Unified Necessary and Sufficient Conditions for the Robust Stability of Interconnected Sector-Bounded Systems, pp. 7690-7695.

Cyrus, Saman	University of Wisconsin-Madison
Lessard, Laurent	University of Wisconsin-Madison

17:50-18:10 FrC05.5

Parallel Explicit Tube Model Predictive Control, pp. 7696-7701.

Wang, Kai	ShanghaiTech University,
Jiang, Yuning	ShanghaiTech University
Oravec, Juraj	Slovak University of Technology in Bratislava
Villanueva, Mario E.	ShanghaiTech University
Houska, Boris	ShanghaiTech University

18:10-18:30 FrC05.6

Direct H-Infinity Synthesis of Reduced Order Controllers for a Class of Single-Input Plants, pp. 7702-7707.

Ghosh, Arun	Indian Institute of Technology
Chattopadhyay, Susobhan	Indian Institute of Technology, Kharagpur
Meena, Jairam	Intel Corporation

FrC06 Méditerranée A3
Computational Methods (Regular Session)

Chair: Donkers, M.C.F.	Eindhoven University of Technology
Co-Chair: Ozer, Ahmet Ozkan	Western Kentucky University

16:30-16:50 FrC06.1

Uniform Boundary Observability of Semi-Discrete Finite Difference Approximations of a Rayleigh Beam Equation with Only One Boundary Observation, pp. 7708-7713.

Ozer, Ahmet Ozkan	Western Kentucky University
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16:50-17:10 FrC06.2

The Divergence of All Sampling-Based Methods for Calculating the Spectral Factorization, pp. 7714-7720.

Boche, Holger	Technische Universität München
Pohl, Volker	Technische Universität München

17:10-17:30 FrC06.3

Computing Common Factors of Matrix Polynomials with Applications in System and Control Theory, pp. 7721-7726.

Fazzi, Antonio	Gran Sasso Science Institute
Guglielmi, Nicola	University of L'Aquila
Markovsky, Ivan	Vrije Universiteit Brussel

17:30-17:50 FrC06.4

Reachability Estimation of Stochastic Dynamical Systems by Semi-Definite Programming, pp. 7727-7732.

Liu, Kairong	Beihang University
Li, Meilun	Beihang University
She, Zhikun	Beihang University

17:50-18:10 FrC06.5

Learning Koopman Operators for Systems with Isolated Critical Points, pp. 7733-7739.

Bakker, Craig	Pacific Northwest National Laboratory
Nowak, Kathleen	Pacific Northwest National Laboratory
Rosenthal, Steven	Pacific Northwest National Laboratory

18:10-18:30 FrC06.6

On Trade-Offs between Computational Complexity and Accuracy of Electrochemistry-Based Battery Models, pp. 7740-7745.

Khalik, Zuan	Eindhoven University of Technology
Bergveld, Hendrik Johannes	Eindhoven University of Technology
Donkers, M.C.F.	Eindhoven University of Technology

FrC07 Méditerranée A1
Mechatronics (Regular Session)

Chair: Castañós, Fernando	CINVESTAV
Co-Chair: Reger, Johann	TU Ilmenau

16:30-16:50 FrC07.1

Real-Time Predictive Control for Precision Machining, pp. 7746-7751.

Liniger, Alexander	ETH Zurich
Varano, Luca	ETH Zurich
Rupenyan, Alisa	ETH Zurich
Lygeros, John	ETH Zurich

16:50-17:10 FrC07.2

Stability Analysis for Active Control with a Sky-Hook and Ground-Hook Inerter-Damper Configuration, pp. 7752-7757.

Hu, Yinlong	Hohai University
Chen, Michael Z. Q.	Nanjing University of Science and Technology

17:10-17:30 FrC07.3

CPG Assistive Motion Control for Variable Stiffness Actuators, pp. 7758-7763.

Misgeld, Berno Johannes	MedIT, RWTH Aachen University
Engelbert	
Efken, Marc	RWTH Aachen University
Liu, Lin	RWTH Aachen University
Iwasaki, Tetsuya	University of California, Los Angeles

	Angeles	
Leonhardt, Steffen	RWTH Aachen University	
17:30-17:50	FrC07.4	
<i>Predictive Control of Nano-Positioning Stage Using Recurrent-Neural-Network-Based Inversion Model</i> , pp. 7764-7769.		
Xie, Shengwen	Iowa State University	
Ren, Juan	Iowa State University	
17:50-18:10	FrC07.5	
<i>Implicit IDA-PBC for Underactuated Mechanical Systems: An LMI-Based Approach</i> , pp. 7770-7775.		
Cieza, Oscar	TU Ilmenau	
Castaños, Fernando	CINVESTAV	
Reger, Johann	TU Ilmenau	
18:10-18:30	FrC07.6	
<i>Trajectory Optimization for a Wheel-Legged System for Dynamic Maneuvers That Allow for Wheel Slip</i> , pp. 7776-7781.		
Bellegarda, Guillaume	University of California, Santa Barbara	
Byl, Katie	University of California, Santa Barbara	
FrC08	Méditerranée 3	
Model Reduction (Regular Session)		
Chair: Van De Wouw, Nathan	Eindhoven University of Technology	
Co-Chair: Scherpen, Jacquélien M.A.	University of Groningen	
16:30-16:50	FrC08.1	
<i>An Extended Model Order Reduction Technique for Linear Delay Systems</i> , pp. 7782-7787.		
Naderi Lordejani, Sajad	Eindhoven University of Technology	
Besselink, Bart	University of Groningen	
Van De Wouw, Nathan	Eindhoven University of Technology	
16:50-17:10	FrC08.2	
<i>An Interconnection-Based Interpretation of the Loewner Matrices</i> , pp. 7788-7793.		
Simard, Joel David	Imperial College London	
Astolfi, Alessandro	Imperial College & University of Rome	
17:10-17:30	FrC08.3	
<i>Synchronization Preserving Model Reduction of Multi-Agent Network Systems by Eigenvalue Assignments</i> , pp. 7794-7799.		
Yu, Lanlin	University of Science and Technology of China	
Cheng, Xiaodong	Eindhoven University of Technology	
Scherpen, Jacquélien M.A.	University of Groningen	
Xiong, Junlin	University of Science and Technology of China	
17:30-17:50	FrC08.4	
<i>Model Reduction for Linear Parameter-Varying Systems through Parameter Projection</i> , pp. 7800-7805.		
Schouten, Sil	Eindhoven University of Technology	
Lou, Daming	Eindhoven University of	

	Technology	
Weiland, Siep	Eindhoven University of Technology	
17:50-18:10	FrC08.5	
<i>Balanced Truncation for a Special Class of Bilinear Descriptor Systems</i> , pp. 7806-7811.		
Pontes Duff Pereira, Igor	Max Planck Institute for Dynamics of Complex Technical Systems	
Goyal, Pawan	Max Planck Institute	
Benner, Peter	Max Planck Institute for Dynamics of Complex Technical Systems	
18:10-18:30	FrC08.6	
<i>A Two-Sided Iterative Framework for Model Reduction of Linear Systems with Quadratic Output</i> , pp. 7812-7817.		
Gosea, Ion Victor	Max Planck Institute for Dynamics of Complex Technical Systems	
Antoulas, Athanasios C.	Rice Univ	
FrC09	Méditerranée B12	
Sensor Networks (Regular Session)		
Chair: Sundaram, Shreyas	Purdue University	
Co-Chair: Tron, Roberto	Boston University	
16:30-16:50	FrC09.1	
<i>Distributed State Estimation under Denial of Service</i> , pp. 7818-7823.		
Battistelli, Giorgio	University of Firenze	
Chisci, Luigi	University of Firenze	
Selvi, Daniela	University of Firenze	
Tesi, Pietro	University of Firenze	
16:50-17:10	FrC09.2	
<i>A Computational Theory of Robust Localization Verifiability in the Presence of Pure Outlier Measurements</i> , pp. 7824-7831.		
Bahreinian, Mahroo	Boston University	
Tron, Roberto	Boston University	
17:10-17:30	FrC09.3	
<i>Optimal Kalman Consensus Filter for Weighted Directed Graphs</i> , pp. 7832-7837.		
Khan, Shiraz	Purdue University	
Deshmukh, Raj	Purdue University	
Hwang, Inseok	Purdue University	
17:30-17:50	FrC09.4	
<i>Coverage Control and Distributed Consensus-Based Estimation for Mobile Sensing Networks in Complex Environments</i> , pp. 7838-7843.		
Boldrer, Manuel	University of Trento	
Fontanelli, Daniele	University of Trento	
Palopoli, Luigi	University of Trento	
17:50-18:10	FrC09.5	
<i>Sensor Selection for Hypothesis Testing: Complexity and Greedy Algorithms</i> , pp. 7844-7849.		
Ye, Lintao	Purdue University	
Sundaram, Shreyas	Purdue University	
18:10-18:30	FrC09.6	
<i>Hypothesis Assignment and Partial Likelihood Averaging for Cooperative Estimation</i> , pp. 7850-7856.		

Paritosh, Parth UNIVERSITY OF CALIFORNIA, San Diego
 Atanasov, Nikolay University of California
 Martinez, Sonia University of California, San Diego

FrC10	Méditerranée C12
Sliding-Mode Control III (Regular Session)	
Chair: Ferrara, Antonella	University of Pavia
Co-Chair: Hsu, Liu	COPPE/UFRJ
16:30-16:50	FrC10.1
<i>On the Fragility of Multivariable Super-Twisting Algorithm for Non-Symmetric Uncertain Input Matrix</i> , pp. 7857-7862.	
Keijock, Timon	COPPE/UFRJ
Nunes, Eduardo Vieira Leao	COPPE - Federal University of Rio de Janeiro
Hsu, Liu	COPPE/UFRJ
16:50-17:10	FrC10.2
<i>Integral Second-Order Sliding Modes for Robust Prescribed-Time Leader-Follower Consensus Control with Partial Information</i> , pp. 7863-7868.	
Ferrara, Antonella	University of Pavia
Zambelli, Massimo	University of Pavia
17:10-17:30	FrC10.3
<i>A Barrier Function Based-Adaptive Super-Twisting Controller for Wind Energy Conversion System</i> , pp. 7869-7874.	
Obeid, Hussein	Université de Technologie de Belfort-Montbéliard (UTBM)
Laghrouche, Salah	Université de Technologie de Belfort-Montbéliard (UTBM)
Fridman, Leonid	Universidad Nacional Autonoma de Mexico
17:30-17:50	FrC10.4
<i>Smooth Robust Control Applied to Quadrotor Landing</i> , pp. 7875-7880.	
Peixoto, Alessandro Jacoud	Federal University of Rio de Janeiro (UFRJ)
Pereira-Dias, Diego	Federal University of Rio de Janeiro
Andrade, Ricardo	Federal University of Rio de Janeiro
17:50-18:10	FrC10.5
<i>Spatially Distributed Networked Sliding Mode Control</i> , pp. 7881-7886.	
Ludwiger, Jakob	Graz University of Technology
Steinberger, Martin	Graz University of Technology
Horn, Martin	Graz University of Technology
18:10-18:30	FrC10.6
<i>Sliding Mode Control Techniques and Artificial Potential Field for Dynamic Collision Avoidance in Rendezvous Maneuvers</i> , pp. 7887-7892.	
Mancini, Mauro	Politecnico di Torino
Bloise, Nicoletta	Politecnico di Torino
Capello, Elisa	Politecnico di Torino, CNR-IEIIT
Punta, Elisabetta	CNR-IEIIT

FrC11	Galliéni 1
Multi-Sensor Fusion Techniques for State Estimation in Navigation (Invited Session)	
Chair: Barrau, Axel	Safran
Co-Chair: Dai, Ran	The Ohio State University
Organizer: Fourati, Hassen	CNRS GIPSA-LAB
Organizer: Barrau, Axel	Safran
Organizer: Farrell, Jay A.	University of California Riverside
Organizer: Liu, Ming	Hong Kong University of Science and Technology
Organizer: Zhou, Zebo	University of Electronic Science and Technology of China
16:30-16:50	FrC11.1
<i>Vision-Aided Spacecraft Relative Pose Estimation Via Dual Quaternion (I)</i> , pp. 7893-7898.	
Zivan, Yigal	Rafael Advanced Defense Systems Ltd
Choukroun, Daniel	Ben-Gurion University of the Negev
16:50-17:10	FrC11.2
<i>Angle Fixability and Angle-Based Sensor Network Localization (I)</i> , pp. 7899-7904.	
Jing, Gangshan	Xidian University
Wan, Changhuang	The Ohio State University
Dai, Ran	The Ohio State University
17:10-17:30	FrC11.3
<i>An Invariant Extended Hinf Filter (I)</i> , pp. 7905-7910.	
Lavoie, Marc-Antoine	McGill University
Arsenault, Jonathan	McGill University
Forbes, James Richard	McGill University
17:30-17:50	FrC11.4
<i>A Finite-Time Stable Observer for Relative Attitude Estimation (I)</i> , pp. 7911-7916.	
Wang, Ningshan	Syracuse University
Hamrah, Reza	Syracuse University
Sanyal, Amit	Syracuse University
17:50-18:10	FrC11.5
<i>Outlier Accommodation in Sensor Rich Environments: Moving Horizon Risk-Averse Performance-Specified State Estimation (I)</i> , pp. 7917-7922.	
Aghapour, Elahe	University of California, Riverside
Farrell, Jay A.	University of California Riverside
18:10-18:30	FrC11.6
<i>Magneto-Visual-Inertial Dead-Reckoning : Improving Estimation Consistency by Invariance (I)</i> , pp. 7923-7930.	
Caruso, David	Synnav
Eudes, Alexandre	ONERA, Université Paris-Saclay
Sanfourche, Martial	ONERA
Vissière, David	SYSNAV
Le Besnerais, Guy	ONERA, Université Paris-Saclay
FrC12	Galliéni 2
Analysis and Control of Systems with Hysteresis (Invited Session)	
Chair: Jayawardhana, Bayu	University of Groningen
Co-Chair: HosseinNia, S. Hassan	Delft University of Technology

Organizer: Jayawardhana, Bayu	University of Groningen
Organizer: Tarbouriech, Sophie	LAAS-CNRS
16:30-16:50	FrC12.1
<i>Stability Analysis of Systems with Nested Saturation and Backlash in the Loop Via Nonstandard Anti-Windup Compensation (I)</i> , pp. 7931-7936.	
Tarbouriech, Sophie	LAAS-CNRS
Queinnec, Isabelle	LAAS-CNRS
Prieur, Christophe	CNRS
16:50-17:10	FrC12.2
<i>Hysteresis Modeling in Thermal Shape Memory Alloy Wire Actuators: An Irreversible Port-Hamiltonian Approach (I)</i> , pp. 7937-7943.	
Rizzello, Gianluca	Saarland University
Naso, David	Politecnico di Bari
Seelecke, Stefan	Saarland University
17:10-17:30	FrC12.3
<i>Asymptotic Stability Analysis of Lur'e Systems with Butterfly Hysteresis Nonlinearities</i> , pp. 7944-7949.	
Vasquez Beltran, Marco Augusto	University of Groningen
Jayawardhana, Bayu	University of Groningen
Peletier, Reynier	University of Groningen
17:30-17:50	FrC12.4
<i>Reducing Quantization Effects in Motion Control Via Dual-Stage Actuators and Induced Oscillations</i> , pp. 7950-7955.	
Salton, Aurelio Tergolina	Universidade FederaldoRio GrandedoSul
Flores, Jeferson Vieira	UFRGS
Zheng, Jinchuan	Swinburne University of Technology
Fu, Minyue	University of Newcastle
17:50-18:10	FrC12.5
<i>Complex Order Control for Improved Loop-Shaping in Precision Positioning</i> , pp. 7956-7962.	
Saikumar, Niranjana	Delft University of Technology
Valério, Duarte Pedro Mata de Oliveira	Technical University of Lisbon, Instituto Superior Técnico
HosseinNia, S. Hassan	Delft University of Technology
18:10-18:30	FrC12.6
<i>A Minimum-Time Zero Vibration S-Curve Command for an Overhead Crane with Actuator Limits</i> , pp. 7963-7969.	
Ho, Duc Tho	Toyohashi University of Technology
Uchiyama, Naoki	Toyohashi University of Technology
Terashima, Kazuhiko	Toyohashi University of Technology
FrC13	Galliéni 4
Uncertain Systems III (Regular Session)	
Chair: Yong, Sze Zheng	Arizona State University
Co-Chair: Farhood, Mazen	Virginia Tech
16:30-16:50	FrC13.1
<i>Robustness to Incorrect Models in Average-Cost Optimal</i>	

Stochastic Control, pp. 7970-7975.

Kara, Ali Devran	Queen's University
Raginsky, Maxim	University of Illinois, Urbana Champaign
Yuksel, Serdar	Queen's University
16:50-17:10	FrC13.2
<i>Optimization-Based Approaches for Affine Abstraction and Model Discrimination of Uncertain Nonlinear Systems</i> , pp. 7976-7981.	
Jin, Zeyuan	Arizona State University
Shen, Qiang	Arizona State University
Yong, Sze Zheng	Arizona State University
17:10-17:30	FrC13.3
<i>Robust Hybrid Output Regulation for Linear Systems with Periodic Jumps: The Non-Semiclassical Case</i> , pp. 7982-7987.	
de Carolis, Giovanni	University of Rome, Tor Vergata
Galeani, Sergio	University of Rome, Tor Vergata
Sassano, Mario	University of Rome, Tor Vergata
17:30-17:50	FrC13.4
<i>On the Analytic Center Cutting Plane Method for the Discrete-Time Integral Quadratic Constraint Problem</i> , pp. 7988-7993.	
Abou Jaoude, Dany	American University of Beirut
Palframan, Mark	Virginia Tech
Farhood, Mazen	Virginia Tech
18:10-18:30	FrC13.6
<i>Active Perception and Control from Temporal Logic Specifications</i> , pp. 7994-7999.	
Rodrigues da Silva, Rafael	University of Notre Dame
Kurtz, Vincent	University of Notre Dame
Lin, Hai	University of Notre Dame
FrC14	Galliéni 7
Stability of Nonlinear Systems III (Regular Session)	
Chair: Fromion, Vincent	INRA
Co-Chair: Reverdy, Paul	University of Arizona
16:30-16:50	FrC14.1
<i>Numerical Computation of Critical System Recovery Parameter Values by Trajectory Sensitivity Maximization</i> , pp. 8000-8006.	
Fisher, Michael W	University of Michigan
Hiskens, Ian	University of Michigan
16:50-17:10	FrC14.2
<i>A Data Driven Vector Field Oscillator with Arbitrary Limit Cycle Shape</i> , pp. 8007-8012.	
Pasandi, Venus	Isfahan University of Technology
Dinale, Aiko	Istituto Italiano Di Tecnologia
Keshmiri, Mahdi	Isfahan University of Technology
Pucci, Daniele	Istituto Italiano Di Tecnologia
17:10-17:30	FrC14.3
<i>A Sufficient Condition for the Almost Global Stability of Nonlinear Switched Systems with Average Dwell Time</i> , pp. 8013-8017.	
İlhan, Ferruh	Istanbul Technical University
Karabacak, Özkan	Aalborg University
Wisniewski, Rafal	Aalborg University

17:30-17:50	FrC14.4
<i>On L2, the Set of Lipschitz Continuous Operators Is a Set of First Category in the Set of Uniformly Continuous Operators</i> , pp. 8018-8023.	
Fromion, Vincent	INRA
Scorletti, Gerard	Ecole Centrale de Lyon

17:50-18:10	FrC14.5
<i>Universal Formula for Robust Stabilization of Affine Nonlinear Multistable Systems</i> , pp. 8024-8029.	
de Figueiredo Barroso, Nelson	INRIA Lille/University of Lille
Ushirobira, Rosane	INRIA
Efimov, Denis	INRIA

18:10-18:30	FrC14.6
<i>Two Paths to Finding the Pitchfork Bifurcation in Motivation Dynamics</i> , pp. 8030-8035.	
Reverdy, Paul	University of Arizona

FrC15	Rhodes GH
Geometric Methods (Regular Session)	
Chair: Maschke, Bernhard	University Claude Bernard of Lyon
Co-Chair: Gray, W. Steven	Old Dominion University

16:30-16:50	FrC15.1
<i>Flat Outputs in Terms of SISO Operator Compositions</i> , pp. 8036-8041.	
Gray, W. Steven	Old Dominion University

16:50-17:10	FrC15.2
<i>B-Spline Generalized Hold for Nonlinear Sampled-Data Systems</i> , pp. 8042-8047.	
Sanchez, Claudia	Universidad Tecnica Federico Santa Maria
Yuz, Juan I.	Universidad Tecnica Federico Santa Maria

17:10-17:30	FrC15.3
<i>Realization Theory of Recurrent Neural Networks and Rational Systems</i> , pp. 8048-8053.	
Defourneau, Thibault	Université de Lille
Petreczky, Mihaly	UMR CNRS 9189, Ecole Centrale de Lille

17:30-17:50	FrC15.4
<i>On the Generation of Virtual Holonomic Constraints for Mechanical Systems with Underactuation Degree One</i> , pp. 8054-8060.	
Otsason, Rein Dylan	University of Toronto
Maggiore, Manfredi	University of Toronto

17:50-18:10	FrC15.5
<i>Necessary and Sufficient LMI Conditions for Constraints Satisfaction within a B-Spline Framework</i> , pp. 8061-8066.	
Prodan, Ionela	Grenoble Institute of Technology (Grenoble INP) - Esisar
Stoican, Florin	UPB (Politehnica University of Bucharest)
Louembet, Christophe	LAAS-CNRS

18:10-18:30	FrC15.6
<i>Port-Thermodynamic Systems and the Assignment of Their Structure by Feedback</i> , pp. 8067-8072.	
Maschke, Bernhard	University Claude Bernard of Lyon
van der Schaft, Arjan	University of Groningen

FrC16	Rhodes AB
Numerical Algorithms (Regular Session)	
Chair: Arcak, Murat	University of California, Berkeley
Co-Chair: Tsachouridis, Vassilios A.	United Technologies Research Centre Ireland, Ltd

16:30-16:50	FrC16.1
<i>Computer-Aided Verification of Matrix Riccati Algorithms</i> , pp. 8073-8078.	
Tsachouridis, Vassilios A.	United Technologies Research Centre Ireland, Ltd
Giantamidis, Georgios	United Technologies Research Centre Ireland, Ltd

16:50-17:10	FrC16.2
<i>Energy-Preserving, Adaptive Time-Step Lie Group Variational Integrators for Rigid Body Motion in SE(3)</i> , pp. 8079-8084.	
Sharma, Harsh	Virginia Polytechnic Institute and State University
Patil, Mayuresh J.	Virginia Tech
Woolsey, Craig	Virginia Tech

17:10-17:30	FrC16.3
<i>Contraction Estimates for Abstract Real-Time Algorithms for NMPC</i> , pp. 8085-8092.	
Zanelli, Andrea	University of Freiburg
Tran-Dinh, Quoc	University of North Carolina, Chapel Hill
Diehl, Moritz	University of Freiburg

17:30-17:50	FrC16.4
<i>Continuous Abstraction of Nonlinear Systems Using Sum-Of-Squares Programming</i> , pp. 8093-8098.	
Smith, Stanley W.	University of California, Berkeley
Yin, He	University of California, Berkeley
Arcak, Murat	University of California, Berkeley

17:50-18:10	FrC16.5
<i>Asymptotic Optimality of a Time Optimal Path Parametrization Algorithm</i> , pp. 8099-8105.	
Spasojevic, Igor	MIT
Murali, Varun	MIT
Karaman, Sertac	Massachusetts Institute of Technology

18:10-18:30	FrC16.6
<i>Koopman Operators for Generalized Persistence of Excitation Conditions for Nonlinear Systems</i> , pp. 8106-8111.	
Boddupalli, Nibodh	University of California Santa Barbara
Hasnain, Aqib	UCSB
Yeung, Enoch	University of California Santa Barbara
Nandanoori, Sai Pushpak	Iowa State University

FrC17	Rhodes CD
Power Electronics (Regular Session)	
Chair: Dörfler, Florian	Swiss Federal Institute of Technology (ETH) Zurich
Co-Chair: Oliveira, Vilma A.	Universidade de Sao Paulo

16:30-16:50	FrC17.1
<i>Stabilizing Set and Phase Margin Computation for Resonant</i>	

Controllers, pp. 8112-8117.
 Magossi, Rafael University of São Paulo
 Oliveira, Vilma A. Universidade de Sao Paulo
 Machado, Ricardo Quadros University of São Paulo
 Bhattacharyya, Shankar P. Texas a & M Univ

16:50-17:10 FrC17.2

Current Sensorless Control of Bidirectional Converters under Mixed Conduction Mode, pp. 8118-8123.

Lin, Jun Tel Aviv University
 Weiss, George Tel Aviv University

17:10-17:30 FrC17.3

Robust Relay Control for Buck Converters: Experimental Application, pp. 8124-8129.

Ndoye, Aboubacar INSA LYON
 Delpoux, Romain INSA Lyon
 Hetel, Laurentiu CNRS
 Kruszewski, Alexandre Ecole Centrale de Lille
 Tregouet, Jean-Francois Ampère Laboratory / INSA-Lyon
 Lin Shi, Xuefang INSA Lyon

17:30-17:50 FrC17.4

Data-Enabled Predictive Control for Grid-Connected Power Converters, pp. 8130-8135.

Huang, Linbin Zhejiang University
 Coulson, Jeremy ETH Zürich
 Lygeros, John ETH Zurich
 Dörfler, Florian ETH Zürich

17:50-18:10 FrC17.5

Stability Analysis of a Parallel-Converter System with Master/Slave Configuration, pp. 8136-8141.

Yan, Jiaqi Nanyang Technological University, Singapore
 Qi, Yang Nanyang Technological University, Singapore

18:10-18:30 FrC17.6

Distributed Adaptive HVAC Control for Multi-Zone Buildings, pp. 8142-8147.

Lymperopoulos, Georgios University of Southern California
 Ioannou, Petros A. University of Southern California

FrC18 Rhodes EF
Stability of Hybrid and Nonlinear Systems (Regular Session)

Chair: Phillips, Sean Air Force Research Laboratory
 Co-Chair: Braun, Philipp University of Newcastle

16:30-16:50 FrC18.1

Almost Everywhere Conditions for Hybrid Lipschitz Lyapunov Functions, pp. 8148-8153.

Della Rossa, Matteo LAAS CNRS
 Goebel, Rafal Loyola University Chicago
 Tanwani, Aneel Laas -- Cnrs
 Zaccarian, Luca LAAS-CNRS and University of Trento

16:50-17:10 FrC18.2

Uniting Control Laws: On Obstacle Avoidance and Global Stabilization of Underactuated Linear Systems, pp. 8154-8159.

Braun, Philipp University of Newcastle
 Kellett, Christopher M. University of Newcastle

Zaccarian, Luca LAAS-CNRS and University of Trento

17:10-17:30 FrC18.3

Observer-Based Synchronization of Multi-Agent Systems Using Intermittent Output Measurements, pp. 8160-8165.

Phillips, Sean Air Force Research Laboratory
 Sanfelice, Ricardo G. University of California, Santa Cruz

17:30-17:50 FrC18.4

Linear Complementarity Systems and Cone-Copositive Lyapunov Stability, pp. 8166-8171.

Iannelli, Luigi University of Sannio
 Iervolino, Raffaele Univeristy of Napoli Federico II
 Vasca, Francesco University of Sannio

17:50-18:10 FrC18.5

Stability Analysis of Piecewise Affine Discrete-Time Systems, pp. 8172-8177.

Broering Groff, Leonardo Universidade Federal do Rio Grande do Sul (UFRGS)
 Valmorbidia, Giorgio L2S, CentraleSupélec
 Gomes da Silva Jr, Joao Universidade Federal do Rio Grande do Sul (UFRGS)
 Manoel

18:10-18:30 FrC18.6

Length and Mean Value Theorem in Norm Are the Flip Sides of the Same Coin, pp. 8178-8183.

Fromion, Vincent INRA
 Scorletti, Gerard Ecole Centrale De Lyon

FrC19 Galliéni 5
Stochastic Optimal Control III (Regular Session)

Chair: Charalambous, University of Cyprus
 Charalambos D.
 Co-Chair: Pavon, Michele University of Padova

16:30-16:50 FrC19.1

Series Solution of Stochastic HJB Equations, pp. 8184-8189.

Krener, Arthur J Naval Postgraduate School

16:50-17:10 FrC19.2

Generalizations of Nonanticipative Rate Distortion Function to Multivariate Nonstationary Gaussian Autoregressive Processes, pp. 8190-8195.

Charalambous, Charalambos University of Cyprus
 D.
 Kourtellis, Christos University of Cyprus
 Charalambous, Themistoklis Aalto University
 van Schuppen, Jan H. Van Schuppen Control Research

17:10-17:30 FrC19.3

Convex Optimization-Based Controller Design for Stochastic Nonlinear Systems Using Contraction Analysis, pp. 8196-8203.

Tsukamoto, Hiroyasu California Institute of Technology
 Chung, Soon-Jo California Institute of Technology

17:30-17:50 FrC19.4

Covariance Steering in Zero-Sum Linear-Quadratic Two-Player Differential Games, pp. 8204-8209.

Chen, Yongxin Georgia Institute of Technology
 Georgiou, Tryphon T. University of California, Irvine
 Pavon, Michele University of Padova

17:50-18:10	FrC19.5
<i>Linear Quadratic Mean Field Social Optimization: Asymptotic Solvability</i> , pp. 8210-8215.	
Huang, Minyi	Carleton University
Yang, Xuwei	Carleton University

18:10-18:30	FrC19.6
<i>A Convex Duality Approach to Optimal Control of Killed Markov Processes</i> , pp. 8216-8223.	
Pakniyat, Ali	Georgia Institute of Technology
Vasudevan, Ramanarayan	University of Michigan

FrC20	Rhodes 10
Cooperative Control II (Regular Session)	
Chair: Hoagg, Jesse B.	University of Kentucky
Co-Chair: Mojica-Nava, Eduardo	National University of Colombia

16:30-16:50	FrC20.1
<i>Robotic Coverage for Continuous Mapping Ahead of a Moving Vehicle</i> , pp. 8224-8229.	
Gilhuly, Barry James	University of Waterloo
Smith, Stephen L.	University of Waterloo

16:50-17:10	FrC20.2
<i>Formation Control in a Leader-Fixed Frame for Agents with Extended Unicycle Dynamics That Include Orientation Kinematics on $SO(m)$</i> , pp. 8230-8235.	
Heintz, Christopher	University of Kentucky
Hoagg, Jesse B.	University of Kentucky

17:10-17:30	FrC20.3
<i>Leader-Following Formation Control in a Rotating Frame for Agents with Double Integrator Dynamics: Generalized Stability Results and Experiments</i> , pp. 8236-8241.	
Lippay, Zachary	University of Kentucky
Hoagg, Jesse B.	University of Kentucky

17:30-17:50	FrC20.4
<i>An Adaptive Optimal Control Modification with Input Uncertainty for Unknown Heterogeneous Agents Synchronization</i> , pp. 8242-8247.	
Arevalo-Castiblanco, Miguel Felipe	Universidad Nacional de Colombia
Tellez-Castro, Duvan Andres	Universidad Nacional de Colombia
Cardona, Gustavo Andres	Universidad Nacional de Colombia
Mojica-Nava, Eduardo	National University of Colombia

17:50-18:10	FrC20.5
<i>Necessary Conditions and Sufficient Conditions for Finding a Common Fixed Point of a Family of Maps Using a Distributed Algorithm</i> , pp. 8248-8253.	
Fullmer, Daniel	Yale University
Liu, Ji	Stony Brook University
Morse, A. Stephen	Yale Univ

18:10-18:30	FrC20.6
<i>Explicit Agent-Level Optimal Cooperative Controllers for Dynamically Decoupled Systems with Output Feedback</i> , pp. 8254-8259.	
Kashyap, Mruganka	University of Wisconsin-Madison
Lessard, Laurent	University of Wisconsin-Madison

FrC21	Risso 6
Networked Control Systems VI (Regular Session)	
Chair: Diaz-Mercado, Yancy	University of Maryland
Co-Chair: Schenato, Luca	University of Padova

16:30-16:50	FrC21.1
<i>Adaptive Consensus of Nonlinearly Parameterized Multi-Agent Systems</i> , pp. 8260-8265.	
Imran, Imil Hamda	University of Newcastle
Chen, Zhiyong	University of Newcastle
Yan, Yamin	University of Newcastle
Fu, Minyue	University of Newcastle

16:50-17:10	FrC21.2
<i>MinMax Mean-Field Team Approach for a Leader-Follower Network: A Saddle-Point Strategy</i> , pp. 8266-8271.	
Baharloo, Mohammad Mahdi	Concordia University
Arabneydi, Jalal	McGill University
Aghdam, Amir G.	Concordia University

17:10-17:30	FrC21.3
<i>Sparse Packetized Predictive Control Over Communication Networks with Packet Dropouts and Time Delays</i> , pp. 8272-8277.	
Barforooshan, Mohsen	Aalborg University
Nagahara, Masaaki	University of Kitakyushu
Ostergaard, Jan	Aalborg University

17:30-17:50	FrC21.4
<i>Sparsity Structure and Optimality of Multi-Robot Coverage Control</i> , pp. 8278-8283.	
Davydov, Alexander	University of Maryland, College Park
Diaz-Mercado, Yancy	University of Maryland

17:50-18:10	FrC21.5
<i>Stabilization of Non-Linear Networked Control Systems Closed Over a Lossy WirelessHART Network</i> , pp. 8284-8289.	
Maass, Alejandro I.	University of Melbourne
Nesic, Dragan	University of Melbourne

18:10-18:30	FrC21.6
<i>Reference Governor for Constrained Control Over Lossy Channels</i> , pp. 8290-8295.	
Pezutto, Matthias	University of Padova
Schenato, Luca	University of Padova
Garone, Emanuele	Université Libre de Bruxelles

FrC22	Risso 7
Maritime Control and Autonomous Vehicles (Regular Session)	
Chair: Enqvist, Martin	Linköping University
Co-Chair: Daher, Naseem	American University of Beirut

16:30-16:50	FrC22.1
<i>Suppression of Wave Disturbances and Tracking Control for Marine Systems</i> , pp. 8296-8302.	
Kennedy, Justin Matthew	Queensland University of Technology (QUT)
Donaire, Alejandro	University of Newcastle
Ford, Jason	Queensland University of Technology
Valentinis, Francis	Defence Science and Technology Group

16:50-17:10	FrC22.2
<i>Streamline-Based Control of Underwater Gliders in 3D Environments</i> , pp. 8303-8310.	
To, Kwun Yiu Cadmus	University of Technology Sydney
Lee, James Ju Heon	University of Technology Sydney
Yoo, Chanyeol	University of Technology Sydney
Anstee, Stuart	Defence Science and Technology Group
Fitch, Robert Charles	University of Technology Sydney

17:10-17:30	FrC22.3
<i>Robust Trajectory Tracking Control for Underactuated Autonomous Underwater Vehicles</i> , pp. 8311-8316.	
Heshmati-alamdari, Shahab	KTH Royal Institute of Technology
Nikou, Alexandros	KTH Royal Institute of Technology
Dimarogonas, Dimos V.	KTH Royal Institute of Technology

17:30-17:50	FrC22.4
<i>Obtaining Consistent Parameter Estimators for Second-Order Modulus Models</i> , pp. 8317-8322.	
Ljungberg, Fredrik	Linköping University
Enqvist, Martin	Linköping University

17:50-18:10	FrC22.5
<i>An Energy Optimal Path-Planning Scheme for Quadcopters in Forests</i> , pp. 8323-8328.	
Aoun, Christoph	American University of Beirut
Daher, Naseem	American University of Beirut
Shammas, Elie	American University of Beirut

18:10-18:30	FrC22.6
<i>Economic Model Predictive Control for Snake Robot Locomotion</i> , pp. 8329-8334.	
Nonhoff, Marko	Leibniz University Hannover
Köhler, Philipp N.	University of Stuttgart
Kohl, Anna	NTNU
Pettersen, Kristin Y.	Norwegian University of Science and Technology (NTNU)
Allgöwer, Frank	University of Stuttgart

FrC23	Risso 8
Large-Scale Distributed Optimization and Decentralized Control II (Invited Session)	
Chair: Uribe, Cesar	Massachusetts Institute of Technology
Co-Chair: Nedich, Angelia	Arizona State University
Organizer: Uribe, Cesar	Massachusetts Institute of Technology
Organizer: Nedich, Angelia	Arizona State University
Organizer: Olshevsky, Alexander	Boston University

16:30-16:50	FrC23.1
<i>Multi-Layer Disease Spread Model with a Water Distribution Network</i> , pp. 8335-8340.	
Pare, Philip E.	KTH Royal Institute of Technology
Liu, Ji	Stony Brook University
Sandberg, Henrik	KTH Royal Institute of Technology
Johansson, Karl H.	KTH Royal Institute of Technology

16:50-17:10	FrC23.2
<i>Resilient Distributed Optimization Algorithms for Resource</i>	

<i>Allocation (I)</i> , pp. 8341-8346.	
Uribe, Cesar	Massachusetts Institute of Technology
Wai, Hoi-To	The Chinese University of Hong Kong
Alizadeh, Mahnoosh	University of California Santa Barbara

17:10-17:30	FrC23.3
<i>A Communication-Efficient Algorithm for Exponentially Fast Non-Bayesian Learning in Networks (I)</i> , pp. 8347-8352.	
Mitra, Aritra	Purdue University
Richards, John A.	Sandia National Laboratories
Sundaram, Shreyas	Purdue University

17:30-17:50	FrC23.4
<i>Distributed Stochastic Optimization with Gradient Tracking Over Strongly-Connected Networks (I)</i> , pp. 8353-8358.	
Xin, Ran	Carnegie Mellon University
Sahu, Anit Kumar	Bosch Center for Artificial Intelligence
Khan, Usman A.	Tufts University
Kar, Soummya	Carnegie Mellon University

17:50-18:10	FrC23.5
<i>Optimal and Approximate Solutions to Linear Quadratic Regulation of a Class of Graphon Dynamical Systems</i> , pp. 8359-8365.	
Gao, Shuang	McGill University
Caines, Peter E.	McGill University

18:10-18:30	FrC23.6
<i>A Communication-Based Distributed Model Predictive Control Approach for Large-Scale Systems</i> , pp. 8366-8371.	
Segovia, Pau	Universitat Politècnica de Catalunya (UPC)
Lala, Rajaoarisoa	Mines Douai
Nejjari, Fatiha	Universitat Politècnica de Catalunya
Duviella, Eric	IMT Lille Douai
Puig, Vicenc	Universitat Politècnica de Catalunya

FrC24	Hermès
PID Control (Regular Session)	
Chair: Bazanella, Alexandre S.	Univ. Federal do Rio Grande do Sul
Co-Chair: Rodrigues, Luis	Concordia University

16:30-16:50	FrC24.1
<i>PID Control of Biochemical Reaction Networks</i> , pp. 8372-8379.	
Whitby, Max Alexander Norman	Oxford University
Cardelli, Luca	Microsoft Research
Laurenti, Luca	University of Oxford
Tribastone, Mirco	IMT Institute for Advanced Studies
Tschaikowski, Max	TU Wien
Kwiatkowska, Marta	University of Oxford

16:50-17:10	FrC24.2
<i>Robust IMC-PIDA Controller Design for Load Frequency Control of a Time Delayed Power System</i> , pp. 8380-8385.	
Kumar, Mahendra	Indian Institute of Technology,

	Hote, Yogesh Vijay	Roorkee Indian Institute of Technology, Roorkee
17:10-17:30		FrC24.3
	<i>Extension of the Correlation-Based Tuning Method for Load Disturbance Rejection</i> , pp. 8386-8391.	
	da Silva, Roger Willian P.	Universidade Federal do Rio Grande do Sul
	Eckhard, Diego	Universidade Federal do Rio Grande do Sul
17:30-17:50		FrC24.4
	<i>Extraction of Informative Subsets from Routine Operating Data for Use in Data-Driven Control</i> , pp. 8392-8397.	
	Garcia, Cristiane	Universidade Federal do Rio Grande do Sul
	Bazanella, Alexandre S.	Universidade Federal do Rio Grande do Sul
17:50-18:10		FrC24.5
	<i>Multivariable PID Synthesis Via a Static Output Feedback LMI</i> , pp. 8398-8403.	
	Carvalho, Bruno	Concordia University
	Rodrigues, Luis	Concordia University
18:10-18:30		FrC24.6
	<i>Theory and Design of PID Controller for Nonlinear Uncertain Systems</i> , pp. 8404-8409.	
	Zhang, Jinke	Academy of Mathematics and Systems Science Chinese Academy of Sciences
	Guo, Lei	Academy of Mathematics and Systems Science, Chinese Academy of Sciences

FrC25	Athéna	
Power Systems III (Regular Session)		
	Chair: Cucuzzella, Michele	University of Groningen
	Co-Chair: Espinosa-Perez, Gerardo	Universidad Nacional Autonoma de Mexico
16:30-16:50		FrC25.1
	<i>Decentralized Load Frequency Control with Prescribed Performance for Interconnected Power Systems</i> , pp. 8410-8415.	
	Bechlioulis, Charalampos P.	National Tech. Univ. of Athens
	Dritsas, Leonidas	ASPETE
	Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens
16:50-17:10		FrC25.2
	<i>The Role of Strategic Load Participants in Two-Stage Settlement Electricity Markets</i> , pp. 8416-8422.	
	You, Pengcheng	Johns Hopkins University
	Gayme, Dennice	Johns Hopkins University
	Mallada, Enrique	Johns Hopkins University
17:10-17:30		FrC25.3
	<i>On the Dynamic Solution of Power Flow Equations for Microgrids Control</i> , pp. 8423-8428.	
	Avila-Becerril, Sofia	Universidad Nacional Autonoma de Mexico
	Espinosa-Perez, Gerardo	Universidad Nacional Autonoma de Mexico
	Machado Martínez, Juan	Université Paris-Sud

	Eduardo	
17:30-17:50		FrC25.4
	<i>A Market for Retail Electric Provider Based Demand Response</i> , pp. 8429-8434.	
	Xia, Bainan	Texas A&M University
	Lee, Ki-Yeob	Texas A&M University
	Shakkottai, Srinivas	Texas A&M University
	Kalathil, Dileep	Texas A&M University
17:50-18:10		FrC25.5
	<i>Robust Passivity-Based Control of Boost Converters in DC Microgrids</i> , pp. 8435-8440.	
	Cucuzzella, Michele	University of Groningen
	Lazzari, Riccardo	Department of Power Generation Technologies and Materials, RSE
	Kawano, Yu	Hiroshima University
	Kosaraju, Krishna Chaitanya	University of Groningen
	Scherpen, Jacqueliën M.A.	University of Groningen
18:10-18:30		FrC25.6
	<i>Real-Time Identifiability of Power Distribution Network Topologies with Limited Monitoring</i> , pp. 8441-8446.	
	Cavraro, Guido	National Renewable Energy Laboratory
	Bernstein, Andrey	National Renewable Energy Laboratory
	Kekatos, Vassilis	Virginia Tech
	Zhang, Yingchen	National Renewable Energy Laboratory

AUTHOR INDEX

CDC 2019 Author Index

&		
Ilhan, Ferruh	FrC14.3	8013
A		
A, Mona Subramaniam	ThA05.3	2964
Aalto, Atte	FrC01.5	7554
Aamo, Ole Morten	ThC08.4	4984
Abad, Alexandra	ThB05.4	3910
Abadi, Amine	WeB07.2	1152
ABADIE, Joël	WeB18.5	1595
Abate, Alessandro	ThC17.6	5338
Abate, Matthew	WeC04.2	1997
Abbas, Hossam	WeC23.3	2708
Abbas, Waseem	ThC09.1	5002
.....	ThC20.5	5444
.....	ThC21.3	5468
Abdallah, Mustafa	ThC18.6	5374
Abdalmoaty, Mohamed	ThA11.2	3184
Abedi, Ehsan	WeA19.3	666
Abidi, Khalid	WeB02.3	976
Abou Jaoude, Dany	FrC13.4	7988
Abu-Khalaf, Murad	ThB23.2	4569
Acikmese, Behcet	WeB11.2	1301
.....	WeC13.6	2362
.....	ThA18.3	3447
.....	ThC23.4	5550
Adamy, Jürgen	FrA16.5	6234
Adib Yaghmaie, Farnaz	FrA24.1	6510
.....	FrB24.5	7480
Adibi, Sierra A.	FrA14.1	6130
Agha-mohammadi, Ali-akbar	FrA17.6	6282
Aghapour, Elahe	FrC11.5	7917
Aghdam, Amir G.	FrC21.2	8266
Agrawal, Deepak Kumar	ThA01.3	2820
Ahlen, Anders	ThB21.1	4489
Ahmadi, Mohamadreza	ThC03.4	4797
.....	FrA09.3	5955
Ahmadi, Salman	ThA22.2	3587
Ahmed-Ali, Tarek	WeA18.1	617
.....	ThA08.1	3066
Ahn, Kyuree	WeA04.5	132
Ahn, Sejoon	ThC07.3	4940
Airimitoiaie, Tudor-Bogdan	WeA03.2	78
Ait Oufroukh, Naima	FrB11.1	6965
Ajorlou, Amir	ThC09.3	5014
Ajwad, Syed Ali	ThB20.6	4483
Akbarzadeh, Nima	FrB19.6	7294
Akian, Marianne	ThA15.3	3334
.....	FrA09.4	5963
Akopian, David	ThA11.4	3196
Akyol, Emrah	ThA21.4	3563
.....	ThC25.1	5605
Al Janaideh, Mohammad	FrB07	O
.....	FrB07.1	6821
.....	FrB07.6	6851
Al Makdah, Abed AlRahman	WeB24.6	1828
Al Saaideh, Mohammad I.	FrB07.6	6851
AL-KHARAZ, Mohammed	ThC02.2	4741
Alamir, Mazen	FrC03.1	7596
Alamo, Teodoro	WeA05.2	151
.....	ThB06.2	3936
.....	ThB11.4	4133
Alanwar, Amr	FrB08.1	6857
Alazard, Daniel	WeC17.3	2491
Albea Sanchez, Carolina	ThC16.6	5298
Albrecht, Sebastian	FrA14.6	6164
Aleksandrov, Alexander	ThC23.3	5544
Alemzadeh, Siavash	WeC06.3	2078
Alessandri, Angelo	WeC08.5	2163

Alexandru, Andreea B.	FrB17	CC
.....	FrB17	O
.....	FrB17.3	7196
Alghunaim, Sulaiman A.	ThC06.2	4898
Ali Al-Radhawi, Muhammad	ThA01.3	2820
.....	ThC12.4	5132
alimo, shahrouz	ThB24	CC
.....	ThB24.6	4636
Alizadeh, Mahnoosh	ThB18.6	4409
.....	FrA09.6	5977
.....	FrC23.2	8341
Aljaberi, Saeed	FrB01.5	6628
Aljanaideh, Khaled	WeC22	C
.....	WeC22.6	2690
Allen, Brendon C.	WeA02.5	60
Allen, Joey	WeA16.5	567
.....	ThB09.3	4053
Allgöwer, Frank	WeA20.4	710
.....	WeB13	C
.....	WeB13.1	1377
.....	WeB13.2	1383
.....	WeB20.6	1680
.....	WeB23.4	1778
.....	ThA22.5	3605
.....	FrB23.5	7441
.....	FrC22.6	8329
Allik, Bethany	FrA11.5	6044
Almassalkhi, Mads	ThC05	CC
.....	ThC05.2	4858
Alpago, Daniele	WeC19.1	2556
Altafani, Claudio	ThB21	C
.....	ThB21.3	4501
.....	ThC10.2	5044
Althoff, Matthias	WeA13.2	438
Althoff, Matthias	ThB11.4	4133
Altin, Berk	WeC13.5	2356
Altschuler, Jason	ThB19.5	4439
Alvarez, Jesus	ThB08.4	4023
Alwi, Halim	ThC07.6	4958
Amato, Francesco	FrC02.4	7584
Amato, Gerardo	FrC03.3	7609
Amelina, Natalia	FrA11.6	6050
Ames, Aaron D.	WeB14.6	1448
.....	WeC05.4	2046
.....	ThA07.4	3046
.....	ThC03.4	4797
.....	FrA18.2	6295
Amice, Alexandre	ThA16.6	3391
Amin, Saurabh	ThB18.1	4379
Amini, Mohammad Reza	FrB03.5	6694
Amini, Nina H.	WeC12.3	2304
Aminzare, Zahra	ThC01.4	4717
Ammeh, Leila	WeA18.1	617
Amokrane, Fawzia	WeB18.5	1595
Anand, Mahathi	ThB17.6	4373
Ananou, Bouchra	ThC02.2	4741
Anastasopoulos, Achilleas	FrA09.5	5971
Andersen, Tom Stian	ThA03.3	2892
Anderson, Brian D.O.	WeA11.2	367
.....	ThB11.3	4127
Anderson, James	ThC15	C
.....	ThC15.6	5258
Anderson, Sean	FrA16.6	6242
Andersson, Carl	ThA24.4	3670
Andersson, Sean B.	ThB15.3	4280
.....	FrA22	CC
.....	FrA22.6	6467
Andina, Elisa	WeB13.2	1383
Andrade, Ricardo	FrC10.4	7875
Andrien, Alex Rudolf Petrus	FrA11.4	6038

Andrieu, Vincent	ThA18.1	3435	Azhmyakov, Vadim	ThA15.4	3340
Anevlavis, Tzanis	FrA17.1	6249	Azizan Ruhi, Navid	ThB06.6	3960
Angeli, David	ThA20.1	3509	Azuma, Shun-ichi	WeA25.2	885
Angelico, Bruno	WeB07.5	1171		FrB02	C
	ThC07.1	4928		FrB02.2	6646
anglade, andre	FrA07.3	5880	Azzollini, Ilario Antonio	WeB03.6	1031
Anh, Pham Ky	WeA17.5	605			
Anjum, Md Fahim	ThB11.3	4127	B		
Annaswamy, Anuradha M.	WeC10.5	2239	Baar, Wouter	WeA09.5	311
	ThA13.3	3260	Babazadeh, Reza	ThB03.6	3847
	ThA23	O	Bach, Francis	ThSP1.1	*
	ThB23	C	Back, Juhoon	WeC21.4	2640
	ThB23	O		ThA18.6	3465
	ThB23.1	4563	Badiei Khuzani, Masoud	WeB11.1	1293
	ThB23.4	4583	Badings, Thom S.	ThA05.5	2976
Anstee, Stuart	FrC22.2	8303	Bae, Sangjae	WeB10.5	1279
Anthonissen, Martijn	ThA12.2	3220	Bagagiolo, Fabio	WeB09.6	1249
Antoulas, Athanasios C.	FrC08.6	7812	Bagchi, Saurabh	ThC18.6	5374
Antunes, Duarte	WeA20.3	704	Baggio, Giacomo	WeA12.4	413
	WeC21	C		WeC06	C
	WeC21.1	2622		WeC06.2	2072
	FrA11	C		ThC01.1	4697
	FrA11.4	6038		FrA02.2	5686
Aoun, Christoph	FrC22.5	8323	Bagnerini, Patrizia	WeC08.5	2163
Arabneydi, Jalal	FrC21.2	8266	Baharloo, Mohammad Mahdi	FrC21.2	8266
Arantes Gilz, Paulo Ricardo	ThC07.2	4934	Bahreinian, Mahroo	FrC09.2	7824
Arapostathis, Ari	WeA19.6	684	Bai, Er-Wei	FrA22.2	6443
Arcak, Murat	FrC16	C	Bai, He	ThA03	C
	FrC16.4	8093		ThA03.1	2880
Arevalo-Castiblanco, Miguel Felipe	FrC20.4	8242		ThC23.2	5538
Arian, Ebrahim	ThB24.5	4630	Bai, Miaoshun	ThA14.4	3303
Ariba, Yassine	WeB14.1	1416	Bai, Yunjun	FrA17.3	6261
Ariola, Marco	FrC02.4	7584	Baidoo-Williams, Henry Ernest	ThB11.3	4127
Arioui, Hichem	WeB18.2	1577	Baillieul, John	ThB03	C
	ThB07	C		ThB03.2	3819
	ThB07.5	3991	Bajaj, Shivam	ThC03.5	4804
Arnström, Daniel	ThB16.3	4317	Bajcsy, Andrea	WeB23.1	1758
Aronna, María Soledad	WeB15.4	1474	Bakir, Toufik	WeA15.1	505
Arsenault, Jonathan	FrC11.3	7905	Bakker, Craig	FrB13	C
Arslan, Gurdal	ThC23.5	5556		FrB13.5	7063
Artaud, Jean-François	FrB08.3	6869		FrC06.5	7733
Arthur, Khalid M.	FrA05.1	5793	Bako, Laurent	WeB22.3	1734
Asama, Hajime	FrB06.4	6799		WeC22.1	2660
Aschemann, Harald	ThC24.6	5599	Bakolas, Efstathios	WeB18.4	1589
Astolfi, Alessandro	WeB03.4	1019	Balaghi I., M. Hadi	WeA20.3	704
	WeC03.3	1965		WeC21.1	2622
	ThSP2.1	*	Balakashnan, Hamsa	ThC02.6	4769
	ThA15.2	3328	Balas, Mark	ThA08.2	3072
	ThB15.4	4286	Baldi, Simone	WeA03	C
	ThC15.3	5238		WeA03.1	72
	FrC08.2	7788		WeA10.3	335
Astolfi, Daniele	WeC06	CC		WeB03	C
	WeC06.3	2078	Baldivieso Monasterios, Pablo Rodolfo	WeB03.6	1031
Aswani, Anil	WeC25.6	2802		WeB05.3	1089
Atanasov, Nikolay	FrC09.6	7850		ThB25.5	4668
Athanasopoulos, Nikolaos	ThA17.1	3399	Baniamerian, Amir	ThB21.4	4507
Atta, Khalid	WeB16.1	1494	Banjac, Goran	WeA23.3	816
	FrA13.3	6106	Bansal, Somil	WeA23.5	828
Auber, Romain	WeA22.5	791		WeB23.1	1758
Augier, Nicolas	WeC12.1	2292		ThC03.6	4810
Auriol, Jean	ThC08	C	Bar-Shalom, Eyal	WeA01.5	25
	ThC08.1	4964	Barabino, Nicolas	FrA01.5	5668
Autrique, Laurent	ThA08.3	3080	Baradaran Hosseini, Matina	FrB18.3	7234
Avila-Becerril, Sofia	FrC25.3	8423	Baranwal, Mayank	ThB06.4	3948
Awan, Asad Ullah	ThB07.6	3997	Baras, John S.	WeA07.3	232
Awasthi, Chaitanya	WeC03.1	1951		ThB12.5	4178
Axehill, Daniel	ThB16.3	4317		ThB24.3	4615
AYALA-CUEVAS, Jorge	ThC14.2	5193		FrA21.2	6404
Aydin Gol, Ebru	ThB23.5	4589	Barbero-Linan, Maria	FrB20.6	7333
Aydinoglu, Alp	WeC24.1	2732	Barboni, Angelo	ThC25.4	5623
			Barbot, Jean Pierre	WeB18.1	1571

Bardakci, Ibrahim Ekrem.....	WeB16.6	1526	.....	WeC05.5	2054
Barforooshan, Mohsen.....	FrC21.3	8272	.....	ThB17.4	4361
Barmish, B. Ross.....	WeC19.5	2580	.....	ThC17.2	5312
Barooh, Prabir.....	ThA05.2	2958	Bemporad, Alberto.....	WeB17.1	1532
.....	ThB13.4	4208	.....	WeC23.4	2714
Barrau, Axel.....	FrC11	C	Benabdelhadi, Abdeljalil.....	ThA08.1	3066
.....	FrC11	O	Benchimol, Pascal.....	WeA25.3	890
Barreiro-Gomez, Julian.....	WeA09.2	293	Benenati, Emilio.....	ThB13.1	4189
.....	WeC09.6	2208	Benne, Michel.....	ThA13.4	3266
Bartocci, Ezio.....	ThB17.4	4361	Benner, Peter.....	FrC08.5	7806
Barton, Kira.....	ThC24	O	Benosman, Mouhacine.....	WeC08.4	2157
.....	ThC24.3	5580	.....	ThA02.4	2862
Basar, Tamer.....	WeA09.6	317	.....	ThA06.1	2988
.....	WeC09.3	2188	Bentsman, Joseph.....	ThB08.6	4035
.....	ThA23.5	3641	BENYOUCEF, Rayane.....	ThB07.5	3991
.....	ThC23	C	BENZAOUIA, Soufyane.....	ThC05.6	4885
.....	ThC23	O	Berahas, Albert S.....	WeB16.5	1519
.....	ThC23.6	5562	Berberich, Julian.....	WeB23.4	1778
.....	FrA19	C	Bergeling, Carolina.....	FrA12.3	6068
.....	FrA19.5	6350	Berger, Guillaume O.....	FrB22.6	7409
.....	FrA23	O	Bergveld, Hendrik Johannes.....	FrC06.6	7740
.....	FrB23.1	7415	Berman, Spring.....	WeA16.2	547
.....	FrB25.3	7506	Bernardes Ferreira Filho, Edson.....	FrA03.2	5723
Bascetta, Luca.....	ThB07.3	3978	Berneburg, James.....	WeC20.2	2598
Basile, Francesco.....	WeC04.6	2021	Bernstein, Andrey.....	ThC15.4	5244
Bassett, Danielle.....	ThC01.1	4697	.....	FrA16.1	6207
Basten, Twan.....	ThB07.6	3997	.....	FrA16.3	6221
Basu Roy, Sayan.....	ThA03.6	2910	.....	FrC25.6	8441
.....	FrB13.4	7055	Berntorp, Karl.....	WeA23.2	809
Bates, Declan G.....	FrB01.1	6602	.....	FrB03.3	6681
.....	FrB01.6	6634	Besancon, Gildas.....	ThA04	CC
Batselier, Kim.....	FrB16.1	7148	.....	ThA04.6	2946
Battilotti, Stefano.....	WeA19.4	672	.....	FrB07.4	6838
Battistelli, Giorgio.....	FrC09.1	7818	Besselink, Bart.....	FrC08.1	7782
Baumann, Dominik.....	WeC20.5	2616	Bestehorn, Felix.....	FrB15.5	7134
Baumgärtner, Katrin.....	ThB11.5	4140	Beuchert, Jonas.....	WeB23.6	1791
Bauso, Dario.....	WeA09.5	311	Bewley, Thomas.....	ThB24.6	4636
Bayen, Alexandre.....	WeC10.1	2214	Beyhaghi, Pooriya.....	ThB24.6	4636
.....	ThB08.2	4011	Beylin, Alexandr.....	ThC05.5	4877
.....	ThB10.4	4097	Bharadwaj, Sudarshanan.....	WeC11.3	2265
Bayen, T�rence.....	WeB15.5	1480	.....	FrA17.5	6275
.....	ThA01.2	2814	Bhasin, Shubhendu.....	WeA13.4	451
.....	ThC02.1	4735	.....	ThA03.6	2910
Bazanella, Alexandre S.....	ThC22.2	5500	.....	FrB13.4	7055
.....	FrC24	C	Bhatnagar, Shalabh.....	WeC24.6	2764
.....	FrC24.4	8392	.....	FrA11.2	6025
Bazerque, Juan.....	FrB24.1	7454	Bhatt, Sujay.....	ThC23.1	5531
Beal, Jacob.....	WeB25.6	1868	Bhattacharya, Arnab.....	FrB13.5	7063
Beaman, Joseph J.....	WeB08.3	1195	Bhattacharyya, Shankar P.....	FrC17.1	8112
Beauchard, Karine.....	WeB12.4	1357	Bhawal, Chayan.....	FrC02.1	7566
Beaude, Olivier.....	WeA25.3	890	Bhowmick, Chandreyee.....	WeA04.6	139
Beaver, Logan.....	WeA25.1	879	Bhowmick, Parijat.....	FrB05.3	6754
Becerril, Jorge.....	WeC15.2	2410	Bianchi, Federico.....	FrA22.5	6461
.....	FrB15.2	7116	Bianchin, Gianluca.....	ThB18.4	4397
Bechlioulis, Charalampos P.....	ThC20.1	5420	Bianchini, Gianni.....	ThC07.4	4946
.....	FrC25.1	8410	Bikas, Lampros N.....	FrA14.4	6152
Beckenbach, Lukas.....	FrB15.1	7110	Bin, Michelangelo.....	ThA06.2	2994
Becker, Cassiano.....	WeC24.1	2732	Binder, Matthias.....	WeA24.1	841
Beckers, Thomas.....	WeA23.5	828	Bischoff, Esther.....	ThA09.5	3128
Bedi, Amrit S.....	WeC24.3	2745	Biswal, Shiba.....	WeA16.2	547
Bedouhene, Fazia.....	ThB02.2	3788	Bitmead, Robert R.....	WeC19	CC
Beji, Lotfi.....	WeB02.6	995	.....	WeC19.2	2562
Bekiaris-Liberis, Nikolaos.....	ThB10	O	.....	FrP1	C
Beko, Marko.....	ThB20.3	4465	BIYIK, Erdem.....	WeA10.5	347
Belgioioso, Giuseppe.....	FrA09.2	5948	Blanchini, Franco.....	WeB06.4	1126
.....	FrB03.2	6675	.....	FrC01.4	7548
Belkhatir, Zehor.....	FrC01.1	7530	Bloch, Anthony M.....	WeC07.3	2114
Bell, Zachary I.....	WeB18.6	1601	Bloemers, Tom.....	FrA02.1	5680
Bellegarda, Guillaume.....	FrC07.6	7776	Bloise, Nicoletta.....	FrC10.6	7887
Belta, Calin.....	WeA14.2	474	Boardman, Nicki.....	ThA08.6	3098

Bobtsov, Alexey.....	WeA18.6	648	Bronnenmeyer, Thilo.....	ThC05.3	4865
Boche, Holger.....	FrC06.2	7714	Bronstein, Eli.....	WeB23.1	1758
Boddupalli, Nibodh.....	WeA01.4	19	Brown, Lindsey S.....	WeC01.2	1881
.....	FrC16.6	8106	Brown, Philip N.....	WeC09	CC
Boem, Francesca.....	ThC25.4	5623	.....	WeC09.1	2175
Boiroux, Dimitri.....	ThB01.3	3762	.....	ThC09.2	5008
.....	FrB11.4	6983	Brüggemann, Sven.....	WeC19.2	2562
Boldrer, Manuel.....	FrC09.4	7838	Brugnoli, Andrea.....	FrB08.1	6857
Bolender, Michael.....	ThB23.1	4563	.....	FrB08.5	6881
Bombois, Xavier.....	WeB22.3	1734	Brugnolli, Mateus Mussi.....	WeB07.5	1171
Bonargent, Tristan.....	WeA18.3	629	Bruhns Bastos, Matheus.....	FrA07.4	5888
.....	WeA22.5	791	Brunton, Steven L.....	FrB22.3	7389
Bonilla, Moises E.....	ThB12.3	4166	Budgett, David M.....	FrA01.2	5647
Bonilla Licea, Daniel.....	ThB12.3	4166	Bugliari Armenio, Luca.....	WeC23.5	2720
Bonnard, Bernard.....	WeA15.1	505	Bujorianu, Luminita Manuela.....	ThB19.4	4433
Bonnet, Catherine.....	WeB02	C	Burdick, Joel W.....	ThC03.4	4797
.....	WeB02.2	971	Burk, Daniel.....	ThC16.3	5279
Boots, Byron.....	WeB07.1	1144	Burke, Declan.....	WeA21.3	740
Bopardikar, Shaunak D.....	ThC03	CC	Burlion, Laurent.....	WeA05.3	157
.....	ThC03.5	4804	.....	FrB12.3	7013
.....	FrA03.3	5729	Burnwal, Shantanu Prasad.....	FrA23.3	6487
.....	FrB09.6	6924	Bushnell, Linda.....	WeA16.5	567
Borggaard, Jeff.....	WeC08.4	2157	.....	WeB25.2	1842
Borisov, Andrey.....	WeA21.1	728	.....	ThB09.3	4053
.....	WeC19.6	2586	Busic, Ana.....	ThB13.2	4195
Borja, Pablo.....	FrB14.4	7093	.....	ThB13.4	4208
Borkar, Vivek S.....	ThB15.6	4298	.....	FrB19.1	7258
Borrelli, Francesco.....	WeB10.5	1279	Busoniu, Lucian.....	WeA14.4	487
.....	WeC10.6	2245	.....	ThA17.2	3405
.....	WeC23.2	2702	Byl, Katie.....	FrC07.6	7776
Borri, Alessandro.....	FrC01.3	7542			
Bortoff, Scott A.....	ThA05.1	2952	C		
Boscain, Ugo V.....	WeC12.1	2292	Cabannes, Theophile.....	WeC10.1	2214
Bosche, Jerome.....	WeA17.6	611	Cacace, Filippo.....	WeA19.4	672
Bosov, Alexey.....	WeA21.1	728	.....	FrA12.4	6074
.....	WeC19.6	2586	Cahyono, Rully.....	WeB04.5	1062
Bosso, Alessandro.....	WeB03.6	1031	Cai, Kai.....	FrB20	C
.....	WeC05.3	2039	.....	FrB20.1	7301
Bottegal, Giulio.....	ThC22.1	5494	.....	FrC04	O
Bou Saba, David.....	ThC08.6	4996	.....	FrC04.1	7635
Boudaoud, Mokrane.....	FrB07	CC	Cai, Karena.....	WeC25.4	2788
.....	FrB07	O	CAI, MINGYU.....	ThC21.1	5456
.....	FrB07.6	6851	Caillau, Jean-Baptiste.....	WeA01.6	31
Bouffanais, Roland.....	FrC05.3	7683	.....	WeA15.3	517
Boukili, Bensalem.....	ThC25.5	5629	.....	WeC15.1	2405
Boukouvalas, Alexis.....	WeC24.2	2738	Caines, Peter E.....	WeA09.1	286
boumhidi, Ismail.....	ThC25.5	5629	.....	WeA09.3	299
Bourdais, Romain.....	FrA20.6	6392	.....	WeB19.2	1615
Boussaada, Islam.....	WeB02.2	971	.....	ThC10.6	5068
Boussaïd, Nabile.....	WeC12.5	2316	.....	FrC23.5	8359
.....	ThC08.2	4971	Calafiore, Giuseppe C.....	WeA16.1	541
Braberman, Victor.....	WeB04.6	1068	Calderbank, A.R.....	WeC16.3	2455
Bradford, Eric.....	ThC02.3	4747	Calderone, Dan.....	WeB11.2	1301
Bradley, Justin.....	WeA06	CC	.....	ThC12.5	5138
.....	WeA06.3	193	Califano, Federico.....	FrB06.4	6799
Braga, Marcio F.....	FrB13.6	7069	Callaway, Duncan S.....	ThA13.2	3253
Brahma, Sarnaduti.....	ThB19.6	4446	Calliess, Jan-Peter.....	FrA22.3	6449
Braksmayer, Maor.....	FrA21.4	6418	Calvo-Fullana, Miguel.....	FrA23.4	6491
Branford, Edward.....	WeC22.2	2666	Camacho, Eduardo F.....	WeB05	O
Braun, Daniel.....	ThA24.5	3677	.....	WeB05.4	1096
Braun, Philipp.....	FrC18	CC	Camacho-Solorio, Leobardo.....	ThA08.4	3086
.....	FrC18.2	8154	Camisa, Andrea.....	FrA20.3	6374
Bregman, Sander Christian.....	WeA20.2	698	Camlibel, M. Kanat.....	ThC22.4	5513
Breschi, Valentina.....	WeB17.1	1532	.....	FrA02.5	5704
Bribiesca Argomedo, Federico.....	ThC08.1	4964	CAMMARDELLA, NEIL.....	ThB13.2	4195
.....	ThC08.6	4996	Campi, M. C.....	WeB23.3	1772
Brivadis, Lucas.....	ThA18.1	3435	.....	FrA13	CC
Bro, Viktor.....	FrA01.1	5641	.....	FrA13.6	6124
Broering Groff, Leonardo.....	WeA05.5	169	Campos, Victor.....	ThC04	C
.....	FrC18.5	8172	.....	ThC04.3	4829
			.....	FrB13.6	7069

Camps, Octavia I.....	ThA17.6	3429	Cesnik, Carlos.....	WeA13.1	431
Cannon, Mark.....	ThB25	CC	Chaabane, Mohamed.....	WeA17.6	611
.....	ThB25.5	4668	Chadli, Mohammed.....	ThC04	CC
.....	FrC03	CC	.....	ThC04.5	4841
.....	FrC03.6	7629	Chai, Tianyou.....	ThB05.4	3910
Cantoni, Michael.....	ThA16.4	3377	CHAIB DRAA, Khadidja.....	WeA11.5	385
.....	ThC08.4	4984	.....	ThB02.2	3788
.....	FrA11	CC	Chaillet, Antoine.....	WeA02.2	43
.....	FrA11.3	6032	.....	ThC01	O
Cantou, Thibault.....	ThC11.5	5101	Chakrabarty, Ankush.....	ThA02.4	2862
Canudas de Wit, Carlos.....	ThB10	CC	Chakraborty, Aranya.....	ThB23.4	4583
.....	ThB10	O	.....	FrB25.3	7506
.....	ThB10.2	4085	Chakraborty, Debraj.....	ThA15.5	3346
.....	ThC10.1	5038	.....	ThC21.2	5462
.....	ThC10.3	5050	.....	FrB11.3	6977
.....	ThC10.4	5056	Chakraborty, Manash.....	FrC02.3	7578
Cao, Guizhou.....	ThC19.1	5380	Chakravorty, Suman.....	FrB19	CC
Cao, Ming.....	WeA07.6	250	.....	FrB19.4	7281
.....	ThA09.6	3134	Chamanbaz, Mohammadreza.....	FrC05.3	7683
.....	ThC06.3	4904	Chambon, Lucie.....	ThA01.6	2838
cao, xi.....	FrB24.2	7462	Chambrion, Thomas.....	WeC12	C
Capello, Elisa.....	FrC10.6	7887	.....	WeC12	O
Caponigro, Marco.....	WeC12.5	2316	.....	WeC12.5	2316
.....	ThC08.2	4971	.....	ThC08.2	4971
Cappelletti, Daniele.....	WeB01.4	945	Chan, Kevin.....	WeB18.4	1589
Cappello, Domenico.....	ThB20.5	4477	Chancelier, jean-philippe.....	ThA15.3	3334
Cardelli, Luca.....	FrC24.1	8372	Chandan, Rahul.....	ThB09.1	4041
Cardona, Gustavo Andres.....	FrC20.4	8242	.....	FrA09.6	5977
Cardoso-Ribeiro, Flávio Luiz.....	FrB08.5	6881	Chanekar, Prasad Vilas.....	WeB21.1	1686
Cardozo, Carmen.....	FrA25.5	6572	Chanfreut, Paula.....	WeB05.4	1096
Carè, Algo.....	WeC11	CC	Chang, Chen-Hao.....	WeB14.4	1436
.....	WeC11.2	2259	CHANG, CHIN-YAO.....	WeA16.6	575
Carli, Raffaele.....	FrA06.6	5862	Chang, Dong Eui.....	WeA03.4	90
Carli, Ruggero.....	WeC06.4	2084	.....	FrB14.2	7081
Carmeli, Claudio.....	WeC08.5	2163	Chaoui, F.Z.....	ThA08.1	3066
Carnevale, Daniele.....	ThA12	O	Chapman, Airlie.....	WeA21	CC
Carravetta, Francesco.....	FrC01.6	7560	.....	WeA21.3	740
Carroll, Johnson.....	WeA19.6	684	.....	WeA21.4	746
Cartee, Elliot.....	FrB15.4	7128	Charalambous, Charalambos D.....	WeB05.5	1102
Caruso, David.....	FrC11.6	7923	.....	FrB05.4	6760
Carvalho, Bruno.....	FrC24.5	8398	.....	FrC19	C
Casadei, Giacomo.....	WeC06.3	2078	.....	FrC19.2	8190
Casagrande, Daniele.....	WeB06.4	1126	Charalambous, Themistoklis.....	FrC19.2	8190
Casavola, Alessandro.....	ThA20	CC	Charara, Ali.....	FrC03.2	7602
.....	ThA20.4	3527	Chatterjee, Debasish.....	WeA15.5	529
Casbeer, David W.....	FrB20.4	7319	.....	WeC13.1	2330
Casini, Marco.....	ThB13.6	4222	.....	ThC14.6	5217
Cason, Timothy.....	ThC18.6	5374	Chatterjee, Samrat.....	FrB13.5	7063
Cassandras, Christos G.....	WeA10.2	329	Chatterjee, Sarthak.....	ThC01.2	4705
.....	WeC10	C	Chattopadhyay, Susobhan.....	FrC05.6	7702
.....	WeC10	O	Chaudhari, Aditya.....	ThA15.5	3346
.....	WeC10.2	2220	Chaves, Madalena.....	ThA01	CC
.....	ThA10.4	3158	.....	ThA01	O
.....	ThB15.3	4280	.....	ThA01.4	2826
Castañõs, Fernando.....	FrB10.5	6953	Chen, Anthony Siming.....	WeB03.2	1007
.....	FrC07	C	Chen, Bin.....	ThC24.2	5574
.....	FrC07.5	7770	Chen, Fei.....	ThC03.2	4785
Castelan, Eugenio B.....	ThB02.1	3782	Chen, Gang.....	FrA17.4	6269
Castellano, Ezequiel.....	WeB04.6	1068	Chen, Guanjun.....	FrA07.2	5874
Castiglia, Timothy.....	ThA06.4	3006	Chen, Jianqi.....	WeA02.4	54
Castillo-Toledo, Bernardino.....	FrA18.5	6313	Chen, Jiayin.....	WeA12.2	401
Cavenago, Francesco.....	WeC18.3	2528	Chen, Jie.....	WeA02.4	54
Caverly, Ryan James.....	FrC02.3	7578	Chen, Jiming.....	FrB21.1	7339
Cavrarõ, Guido.....	FrC25.6	8441	Chen, Kaiwen.....	WeC03	C
Cebulla, Dominik H.....	ThC02.4	4755	.....	WeC03.3	1965
Celemin, Carlos.....	WeA23.1	803	Chen, Michael Z. Q.....	FrC07.2	7752
Cenedese, Angelo.....	WeC07.6	2132	Chen, Qixing.....	WeB10.1	1255
Cenedese, Carlo.....	ThA09.6	3134	Chen, Rui.....	WeC10.2	2220
.....	ThC06.3	4904	Chen, Ruidi.....	ThA24.1	3655
Cerone, Vito.....	FrB11.2	6971	Chen, Sen.....	ThC03.3	4791

Chen, Shaoru	.....WeB07.3	1159	Clark, Andrew	.....WeA16.5	567
Chen, Tongwen	.....ThB05.1	3892	.....WeB25.2	1842	
Chen, Wei	.....ThB12	CC	.....ThA16	C	
.....ThB12.2	4161		.....ThA16.5	3383	
.....FrA12	CC		.....ThB03.5	3839	
.....FrA12	O		.....FrB16.6	7177	
.....FrA12.2	6062		Clark, William	.....WeC07.3	2114
Chen, Weidong	.....WeA14.6	499	Cobb, Mitchell	.....ThC24.3	5580
Chen, Weizhe	.....FrA03.1	5716	Coffman, Austin	.....ThA05.2	2958
Chen, Xiang	.....FrA05.5	5819	.....ThB13.4	4208	
Chen, Ximing	.....WeB07.3	1159	Coirault, Patrick	.....ThB20.6	4483
Chen, Xudong	.....FrB21.3	7352	Colaneri, Patrizio	.....FrC01	CC
Chen, Yongxin	.....WeB11.6	1331	.....FrC01.4	7548	
.....WeC19.1	2556		Colangelo, Luigi	.....WeC21.2	2628
.....FrC19.4	8204		Colbert, Brendon	.....ThB24.4	4622
Chen, Yu	.....WeA12.3	407	Colin, Kévin	.....WeB22.3	1734
Chen, Yue	.....ThC15.4	5244	Colombino, Marcello	.....WeA16.6	575
Chen, Yue	.....FrA16.4	6227	.....ThB13.1	4189	
Chen, Yuxiao	.....ThC15.6	5258	.....ThC15.4	5244	
chen, zhe	.....ThB20.1	4453	.....FrA16	C	
Chen, Zhelin	.....ThB08.6	4035	.....FrA16	O	
Chen, Zheng	.....WeC07	CC	.....FrA16.1	6207	
.....WeC07.4	2120		Colombo, Leonardo Jesus	.....FrB20.6	7333
Chen, Zhiyong	.....FrC21.1	8260	COMBAL, MICHEL	.....ThC02.2	4741
Chen, Zhuoming	.....ThB21.2	4495	Combes, Pascal	.....WeA18.5	642
Cheng, Changming	.....FrA22.2	6443	Como, Giacomo	.....WeA10	C
Cheng, Cheng	.....FrC03.4	7615	.....WeA10.6	355	
Cheng, Ching-An	.....WeB07.1	1144	CONDOMINES, Jean-Philippe	.....WeA05.3	157
Cheng, Peng	.....FrB21.1	7339	Conficoni, Christian	.....WeC05.3	2039
Cheng, Xiaodong	.....ThC10.1	5038	Cong, Xuya	.....WeC04.3	2003
.....ThC10.5	5062		Constantinides, George A.	.....ThB16.5	4331
.....ThC22.3	5507		Conte, Giuseppe	.....FrA18.1	6288
.....FrC08.3	7794		Coogan, Samuel	.....WeC04	C
Cheng, Yuhua	.....ThC04.4	4835	.....WeC04.2	1997	
Cherukuri, Ashish	.....ThA10.5	3164	.....ThB10.5	4103	
Chesi, Graziano	.....FrA12.1	6056	.....FrB12.6	7031	
.....FrC01.4	7548		Cornelusse, Bertrand	.....ThA05.6	2982
Chi, Haozhen	.....FrA24.3	6524	Cortes, Jorge	.....WeA16.6	575
Chinchilla, Raphael	.....FrA19.6	6356	.....WeB21.1	1686	
Chipade, Vishnu S.	.....ThA25.1	3685	.....WeB22.5	1746	
Chirikjian, Gregory	.....ThA07.1	3026	.....WeC14.2	2373	
Chisci, Luigi	.....FrC09.1	7818	Cortés, Juan	.....WeC06.4	2084
Chitour, Yacine	.....WeA17.2	587	Costantini, Giuliano	.....ThC25.6	5635
.....FrB14	CC		Coulson, Jeremy	.....WeC23.1	2696
.....FrB14.6	7104		.....FrC17.4	8130	
Chittaro, Francesca	.....WeB15	CC	Courcoubetis, Costas	.....WeC09.5	2201
.....WeB15	O		Cousin, Christian	.....WeA02.5	60
.....WeC15	CC		Coutinho, Daniel F.	.....WeA18.2	623
.....WeC15	O		Cristofalo, Eric	.....WeC21.5	2646
Chiuso, Alessandro	.....WeA23.4	822	Cristofaro, Andrea	.....FrA18.3	6301
Choi, Yongkeun	.....WeB10.5	1279	Csáji, Balázs	.....WeC11.2	2259
Chokor, Abbas	.....FrC03.2	7602	.....ThB19.3	4427	
Chong, Michelle S.	.....ThA20	C	Cuba Samaniego, Christian	.....WeB01.6	958
.....ThA20.2	3515		.....WeB24.1	1797	
Choukroun, Daniel	.....FrC11.1	7893	.....WeC01.3	1887	
Chowdhary, Girish	.....ThB24.1	4601	Cubuktepe, Murat	.....WeC11.3	2265
Chu, Bing	.....ThC24	O	.....WeC17.6	2509	
.....ThC24.2	5574		Cucuzzella, Michele	.....ThC06	C
.....FrB24.2	7462		.....ThC06.3	4904	
Chu, Tianshu	.....ThB10.1	4079	.....FrA16.2	6215	
Chung, Soon-Jo	.....ThB03	CC	.....FrC25	C	
.....ThB03.1	3811		.....FrC25.5	8435	
.....FrC19.3	8196		Cui, Yufang	.....WeA22.1	764
Cianfanelli, Leonardo	.....WeA10.6	355	Cullen, Andrew	.....WeB10.3	1267
Cichella, Venanzio	.....ThB15.5	4292	Cunis, Torbjørn	.....WeA05.3	157
Cicic, Mladen	.....ThA10.2	3146	Curi, Sebastian Martin	.....ThB11.1	4115
Cieza, Oscar	.....FrC07.5	7770	Curioni, Gabriele	.....WeC02	CC
Ciolek, Marcin	.....WeA22.3	777	.....WeC02.4	1931	
Cisneros, Rafael	.....ThA18.4	3453	Cyrus, Saman	.....FrC05.4	7690
.....ThC05.1	4852				

D		
D'Achiardi, David	ThA13.3	3260
d'Andrea-Novell, Brigitte	FrB08.6	6887
D'Angelo, Massimiliano	WeA19.4	672
D'Innocenzo, Alessandro	WeA02.1	37
	FrA04.3	5766
D'Ippolito, Nicolás	WeB04.6	1068
da Silva, Roger Willian P.	FrC24.3	8386
Daafouz, Jamal	WeA14.4	487
	WeB06.3	1120
	ThA17	CC
	ThA17.2	3405
Dabbene, Fabrizio	ThA02.5	2868
Dadras, Sara	ThC04.4	4835
Dadras, Soodeh	ThC04.4	4835
Dahan, Mathieu	ThB18.1	4379
Daher, Naseem	FrC22	CC
	FrC22.5	8323
DAHIA, Karim	ThC11.5	5101
Dahleh, Munther A.	ThA23.2	3623
Dahlin, Nathan	ThC13.1	5150
Dai, Ran	FrC11	CC
	FrC11.2	7899
Dai, Tianyu	ThA17.4	3417
DAI, XIANG	FrA20.6	6392
Daiha, Helder R.	WeA17.1	581
Dall'Anese, Emiliano	WeA16	CC
	WeA16.6	575
	ThB13.1	4189
	ThC15.4	5244
	FrA16.3	6221
Damm, Gilney	ThC13	C
	ThC13.4	5168
Damour, Cédric	ThA13.4	3266
Dani, Ashwin P.	FrB06.6	6815
Danielson, Claus	ThA05.1	2952
Daniilidis, Kostas	WeB25.1	1834
Dankers, Arne	ThC22.1	5494
	ThC22.5	5519
Darivianakis, Georgios	WeA24	C
	WeA24.1	841
Darlington, Alexander	FrB01.1	6602
Das, Amritam	WeA08.2	262
	WeA08.5	280
das Neves, Gabriel	WeB07.5	1171
Dasgupta, Soura	WeB25.6	1868
	ThB11.3	4127
Dashkovskiy, Sergey N.	FrB14.1	7075
Davila, Jorge	FrB10.5	6953
Davoudi, Ramtin	WeC17.5	2503
Davydov, Alexander	FrC21.4	8278
de Albuquerque Gleizer, Gabriel	WeB20.2	1656
de Andrade, Gustavo Artur	WeB08.1	1183
de Callafon, Raymond A.	WeB22.6	1752
	ThA09.2	3110
	FrA25.6	6578
de Carolis, Giovanni	FrB18.5	7246
	FrC13.3	7982
de Figueiredo Barroso, Nelson	FrC14.5	8024
de Freitas Virgilio Pereira, Mateus	WeA13.1	431
De Iuliis, Vittorio	WeA02	CC
	WeA02.1	37
de Jager, Bram	WeB13	CC
	WeB13.6	1410
De Lellis, Marcelo	FrA07.4	5888
De Lellis, Pietro	WeC06.5	2090
De Leon Morales, Jesus	FrB10.2	6936
De Marchi, Alberto	FrB15	C
	FrB15.3	7122
de Melo Schons, Silvana C.	WeA18.2	623

De Moor, Bart L.R.	FrB02.1	6640
De Nicolao, Giuseppe	WeB24.4	1816
de Oliveira Chamon, Luiz Fernando	ThA16.6	3391
	FrA23.4	6491
De Persis, Claudio	WeA24.6	873
de Pinho, Maria do Rosario	WeC15.2	2410
De Schutter, Jochem	ThC05.3	4865
de Souza, Carla	ThB02.1	3782
de Souza, Carlos E.	WeA18.2	623
Deaecto, Grace S.	WeA17.1	581
	ThA17.3	3411
Deasy, Joseph	FrC01.1	7530
Decuyper, Jan	FrB22.4	7397
Defoort, Michael	ThB20.6	4483
Defourneau, Thibault	FrC15.3	8048
Degel, Wolfgang	FrB03.1	6669
Dehnert, Robert	ThC14.3	5199
Deka, Deepjyoti	ThB13	CC
	ThB13	O
del Rio Chanona, Antonio	ThC02.3	4747
Del Vecchio, Carmen	WeA04.3	120
Del Vecchio, Domitilla	WeSP1.1	*
	FrB01.3	6616
DeLateur, Nicholas	WeB01.6	958
Della Rossa, Matteo	FrC18.1	8148
Delle Monache, Maria Laura	WeA10	CC
	WeA10	O
	WeA10.3	335
	ThA10	CC
	ThA10	O
	ThB10	C
	ThB10	O
	ThB10.2	4085
	ThB26	C
	ThB26	O
	ThB26.1	4680
	ThB26.4	*
Delpoux, Romain	FrC17.3	8124
Demetriou, Michael A.	WeA08	CC
	WeA08	O
	WeA08.4	274
	WeB08	C
	WeB08	O
	WeB08.6	1213
	WeC08	C
	WeC08	O
	WeC08.2	2144
	ThA08	CC
	ThA08	O
	ThB08	C
	ThB08	O
Demourant, Fabrice	FrC02.5	7590
Deng, Haoyang	ThB16.1	4304
Deng, Weilin	FrB04.6	6736
Denis-Vidal, Lilianne	ThB11.6	4147
Deplano, Diego	ThC10	C
	ThC10	O
	ThC10.4	5056
Deptula, Patryk	WeC03.2	1959
	FrA21.3	6412
Deschaux, Flavien	WeB14.1	1416
Deshmukh, Raj	FrC09.3	7832
Devia, Carlos Andres	FrA01.6	5674
Dey, Supravat	ThA01.5	2832
Dhar, Abhishek	WeA13.4	451
Di, Bolei	ThB09.6	4073
di Bernardo, Diego	WeA26	O
	WeA26.3	*
	WeA26.6	*
	WeB01	C

	.....WeB01	O	Dolk, Victor Sebastiaan	WeB13.6	1410
	.....WeB01.2	933	.....WeC20.3	2604	
di Bernardo, Mario	WeA26	CC	Dominguez, Salvador	FrA03.4	5735
	.....WeA26	O	Dominguez-Garcia, Alejandro D.....	WeA25.5	903
	.....WeA26.4	*	Donaire, Alejandro.....	WeC14.3	2379
	.....WeB01	O	.....FrC22.1	8296	
	.....WeB01.1	927	Dong, Daoyi	WeA12	C
	.....WeB01.2	933	.....WeA12	O	
	.....WeC06.5	2090	.....WeA12.1	396	
Di Cairano, Stefano	WeA23.2	809	.....ThA14.3	3297	
	.....ThA05.1	2952	Dong, Roy	WeC09	C
Di Gennaro, Stefano	FrA18.5	6313	.....WeC09.3	2188	
Di Giamberardino, Paolo.....	ThB01.4	3770	Donkers, M.C.F.....	WeA06.5	207
Di Loreto, Michael.....	ThC08.6	4996	.....FrB03	CC	
Di Marco, Mauro	ThA17.5	3423	.....FrB03.2	6675	
Di Meglio, Anna	WeC06.5	2090	.....FrC06	C	
Di Meglio, Florent.....	ThA08.4	3086	.....FrC06.6	7740	
Díaz Sanahuja, Carlos.....	WeC02.6	1945	Dörfler, Florian	WeC23.1	2696
Diaz-Mercado, Yancy.....	FrC21	C	.....FrA13.2	6100	
	.....FrC21.4	8278	.....FrB25.1	7492	
Dibaji, Seyed Mehran.....	ThA23	CC	.....FrC17	C	
	.....ThA23	O	.....FrC17.4	8130	
	.....ThB23	O	Dorobantu, Victor	WeB14.6	1448
	.....ThB23.4	4583	Dorothy, Michael	FrB20.5	7325
Diddigi, Raghuram Bharadwaj	WeC24.6	2764	dos Reis de Souza, Alex	WeA01.3	13
Diduch, C.P.	WeC02.1	1913	dos Santos, Dayana Cristine	ThB19.2	4421
Diehl, Moritz.....	ThB06.3	3942	dos Santos, Felipe Otávio	ThB19.1	4415
	.....ThB11.5	4140	Dotoli, Mariagrazia	FrA06.6	5862
	.....ThC05	C	Doucet, Arnaud	WeA22.6	797
	.....ThC05.3	4865	.....WeB19.6	1644	
	.....ThC15.1	5223	Doumiati, Moustapha	FrC03.2	7602
	.....ThC16.6	5298	Dowling, Chase	ThB13.3	4202
	.....FrC16.3	8085	Doyle, John C.....	ThB23.3	4577
Dilip, Sanand	FrA02	CC	Doyle III, Francis J.....	WeC01.2	1881
	.....FrA02.4	5698	Dreef, H.J.....	WeA06.5	207
	.....FrB02.3	6651	Dreesen, Philippe	FrB22.4	7397
Dimarogonas, Dimos V.....	WeA05.6	175	Driggs, Derek	ThA06.5	3012
	.....WeB20.4	1668	Drion, Guillaume	ThC01.5	4723
	.....WeC20.4	2610	Dritsas, Leonidas.....	ThB20.4	4471
	.....ThA25	CC	.....FrC25.1	8410	
	.....ThA25.3	3698	Drouot, Adrien.....	WeB18.5	1595
	.....ThB03.4	3833	Drummond, Ross	WeA05.4	163
	.....ThB17.1	4343	Du, Linkang.....	FrB21.1	7339
	.....ThB17.2	4349	Du, Xu	WeC02.2	1919
	.....ThB23.6	4595	Duenas, Victor H.....	WeB14.4	1436
	.....ThC03.2	4785	Duffaut Espinosa, Luis Augusto.....	WeB03	CC
	.....FrB13.1	7037	.....WeB03.3	1013	
	.....FrC22.3	8311	Dufour, Pascal.....	ThA18.2	3441
Dimitrakakis, Christos	ThC13.3	5162	Dugard, Luc.....	WeA03	CC
Dinale, Aiko	FrC14.2	8007	.....WeA03.2	78	
Ding, Dongsheng.....	WeB24.5	1822	.....ThA18.5	3459	
Ding, Hai-Jin	FrB24.2	7462	Dumont, Guy A.....	FrB13.2	7043
Ding, Shihong	FrB10.3	6942	Duncan, Stephen.....	ThB16.2	4311
Dinh, Marc	FrC01.2	7536	Duncan, Tyrone E.....	WeA09.2	293
Dini, Daniele	FrC03.4	7615	Duso, Lorenzo	FrB01.2	6610
Dirr, Gunther.....	WeC12.6	2322	Duviella, Eric	FrC23.6	8366
Divekar, Nikhil.....	ThA07.3	3039	Dvinskikh, Darina	FrB23.4	7435
Diversi, Roberto.....	WeC22.6	2690	Dvorkin, Yury.....	ThB13	C
Dixit, Rishabh	WeC24.3	2745	.....ThB13	O	
Dixon, Warren E.	WeA02.5	60	Dvurechensky, Pavel.....	FrB23.4	7435
	.....WeB18.6	1601	Dwarakanath, Kshama.....	WeC10.1	2214
	.....WeC03.2	1959			
	.....FrA21.3	6412	E		
Djamari, Djati Wibowo.....	ThA25.6	3718	East, Sebastian	FrC03.6	7629
Djehiche, Boualem.....	WeA09.2	293	Ebenbauer, Christian.....	ThA11	CC
Djouadi, Seddik	WeC08.1	2138	.....ThA11.6	3208	
Dobbe, Roel.....	FrA16.6	6242	EBERARD, Damien.....	ThC08.6	4996
Dochain, Denis	FrB08.3	6869	Ebrahimi, Keivan	WeC16.6	2473
Dokoupil, Jakub	WeB24.3	1809	Eckhard, Diego.....	FrC24.3	8386
	.....ThC11.4	5094	Edwards, Christopher.....	WeB18.3	1583
			.....ThC07.6	4958	

Efimov, Denis	.....WeA01.3	13	Fang, Wenxin	.....ThA21.3	3557
.....	.....ThA14.6	3316	Fanti, Maria Pia	.....WeC04.3	2003
.....	.....FrA14	CC	Faragasso, Angela	.....FrB06.4	6799
.....	.....FrA14.6	6164	Faraut, Gregory	.....WeC04.6	2021
.....	.....FrB12.1	7001	Farhood, Mazen	.....FrC13	CC
.....	.....FrB13	CC	.....	.....FrC13.4	7988
.....	.....FrB13.3	7049	Farias, Diego Marcon	.....WeA09.4	305
.....	.....FrB14.5	7099	Farina, Francesco	.....ThB11	C
.....	.....FrC14.5	8024	.....	.....ThB11.2	4121
Efken, Marc	.....FrC07.3	7758	.....	.....FrA20.1	6362
Egerstedt, Magnus	.....WeB07.1	1144	.....	.....FrA20.3	6374
.....	.....ThA07.6	3060	Farina, Marcello	.....WeC23.5	2720
.....	.....ThA15.4	3340	.....	.....FrC05.1	7671
.....	.....ThB07.4	3984	Farokhi, Farhad	.....ThA07.6	3060
Egidio, Lucas N.	.....ThA17.3	3411	.....	.....FrA13.5	6118
Ehlers, Ruediger	.....FrA17	O	Farrell, Jay A.	.....FrC11	O
Eichler, Annika	.....WeA24.1	841	.....	.....FrC11.5	7917
Eising, Jaap	.....FrA02.5	5704	Fatimah, Al Saleh	.....WeA09.4	305
Eksin, Ceyhun	.....FrB09	CC	Fattahi, Salar	.....WeC22.5	2682
.....	.....FrB09.1	6893	Faulwasser, Timm	.....WeC02.2	1919
EL AMRAOUI, ADNEN	.....WeB07.2	1152	.....	.....ThC16.1	5264
El Chamie, Mahmoud	.....ThB13.5	4216	Fawzi, Hamza	.....ThA06	CC
El Fadil, Hassan	.....WeA18.1	617	.....	.....ThA06.5	3012
.....	.....ThA08.1	3066	Fay, Dominik	.....ThC13.3	5162
El Hajjaji, Ahmed	.....WeA17.6	611	Fazlyab, Mahyar	.....WeC23.6	2726
.....	.....ThC25.5	5629	.....	.....FrA06.4	5850
El-Amrani, Abderrahim	.....ThC25.5	5629	Fazzi, Antonio	.....FrC06.3	7721
El-Farra, Nael H.	.....WeB08.5	1207	Feketa, Petro	.....ThC11.1	5076
Elamvazhuthi, Karthik	.....WeA16.2	547	Fekih, Afef	.....FrA25.3	6560
Elia, Nicola	.....WeC16.6	2473	Fekom, Mathilde	.....FrA19.3	6338
.....	.....ThC20.6	5450	Fele, Filiberto	.....ThC09.5	5026
Ellman, Douglas	.....ThC13.5	5174	Feng, Yu	.....ThB21.2	4495
Emam, Yousef	.....ThB07.4	3984	Fergani, Soheib	.....WeA11.4	379
Emelianova, Julia	.....FrA24.4	6530	Ferguson, Bryce L.	.....ThC09.2	5008
Engelmann, Alexander	.....WeC02.2	1919	Ferguson, Joel	.....WeC14.3	2379
Engsig-Karup, Allan Peter	.....ThB15.1	4267	Ferizbegovic, Mina	.....WeA23.6	835
Enqvist, Martin	.....FrC22	C	Feron, Eric	.....WeC04.2	1997
.....	.....FrC22.4	8317	.....	.....WeC05.4	2046
Erofeeva, Victoria	.....FrA11.6	6050	Ferragut, Andres	.....WeB06.2	1114
Escareño, Juan	.....WeB18.5	1595	Ferrante, Augusto	.....ThC11.3	5088
Esen, Hasan	.....FrB03.4	6687	Ferrante, Francesco	.....ThA02.5	2868
Espinosa-Perez, Gerardo	.....FrC25	CC	.....	.....FrA04.2	5760
.....	.....FrC25.3	8423	Ferrara, Antonella	.....WeB18	C
Espitia, Nicolas	.....ThB08.5	4029	.....	.....WeB18.3	1583
Etienne, Lucien	.....WeA06.1	181	.....	.....ThA10.1	3140
Eudes, Alexandre	.....FrC11.6	7923	.....	.....FrA10.5	6007
Eun, Yongsoon	.....WeA03.4	90	.....	.....FrC10	C
Evangelou, Simos Andreas	.....FrC03.4	7615	.....	.....FrC10.2	7863
Exarchos, Ioannis	.....FrB06.5	6807	Ferrara, Luigi	.....WeC04.6	2021
F					
Fabiani, Filippo	.....WeB06.4	1126	Ferrari, Riccardo M.G.	.....FrA03	CC
.....	.....ThC06.3	4904	.....	.....FrA03.5	5742
FABRE, Benoit	.....FrB08.6	6887	Ferrari-Trecate, Giancarlo	.....FrA25	C
Faedo, Nicolás	.....ThB15.4	4286	.....	.....FrA25.4	6566
Fagiano, Lorenzo	.....FrC05.1	7671	Ferraro, Pietro	.....WeB10.3	1267
Fahroo, Fariba	.....WeA08	C	Ferraz, Henrique	.....ThA20.5	3533
.....	.....WeA08	O	Ferreira, Antoine	.....FrB07.5	6844
.....	.....WeB08	CC	Ferreira de Loza, Alejandra	.....WeA03.5	96
.....	.....WeB08	O	Ferretti, Gianni	.....ThB07.3	3978
.....	.....WeC08	CC	Festa, Adriano	.....WeA10.1	323
.....	.....WeC08	O	Fey, Rob H.B.	.....FrA08.4	5924
.....	.....ThA08	C	Fidan, Baris	.....WeC14.4	2385
.....	.....ThA08	O	Fielsch, Sven	.....ThC14.3	5199
.....	.....ThB08	CC	Filasova, Anna	.....ThA02.1	2844
.....	.....ThB08	O	Filo, Maurice	.....WeB01.5	951
Falsone, Alessandro	.....FrA22.5	6461	Findeisen, Rolf	.....WeB20.5	1674
Fält, Mattias	.....ThC06.1	4891	.....	.....ThC19	C
Fan, Shicai	.....ThA04.1	2916	.....	.....ThC19.5	5406
Fang, Haitao	.....WeC11.5	2278	Fiore, Davide	.....WeB01.1	927
Fang, Huazhen	.....ThB05.3	3904	.....	.....WeB01.2	933
Fang, Minghong	.....FrA06.1	5832	Firippi, Eleni	.....ThA01.4	2826

.....	ThB23.1	4563	Glotfelter, Paul	ThB07.4	3984
Gayme, Dennice	FrC25.2	8416	Goatin, Paola	WeA10.1	323
Gehan, Olivier	WeA18	CC	.....	ThB10.4	4097
.....	WeA18.3	629	Goebel, Rafal	FrC18.1	8148
.....	WeA22.5	791	Göhr, Thomas	FrA15.4	6189
Geiselhart, Roman	WeB20.5	1674	Goldenshluger, Alexander	WeC21.3	2634
George, Jemin	ThC23.2	5538	Goldsztajn, Diego	WeB06.2	1114
Georges, Didier	FrA08	C	Golkani, Mohammad Ali	FrB10.4	6947
.....	FrA08.2	5912	Gomes, Diogo	WeA09	CC
Georgiou, Tryphon T.	WeA19.2	660	.....	WeA09	O
.....	WeC19	C	.....	WeA09.4	305
.....	WeC19.1	2556	Gomes, Izabella O.	ThC04.2	4823
.....	FrC19.4	8204	Gomes da Silva Jr, Joao Manoel	WeA05	CC
Gerencsér, Balázs	WeC11.2	2259	.....	WeA05	O
.....	WeC14.4	2385	.....	WeA05.5	169
Gerencsér, László	WeC11.2	2259	.....	FrC18.5	8172
Germani, Alfredo	WeA02.1	37	Gomez-Cortes, Gian C.	FrB10.5	6953
.....	WeA19.4	672	Goncalves, Jorge	ThB22.3	4539
.....	FrA12.4	6074	.....	FrC01.5	7554
Geroliminis, Nikolas	WeA10.4	341	Gonzales, David	WeB01.3	939
Geromel, Jose C.	ThA17.3	3411	González, Alejandro H.	ThC07.2	4934
Gevers, Michel	ThC22.2	5500	González de Cossío, Francisco	ThA18.2	3441
Geyer, Tobias	ThC15.1	5223	González-Sierra, Jaime	FrA05.2	5799
Gharbi, Meriem	ThA11.6	3208	Gopalakrishnan, Karthik	ThC02.6	4769
Ghasemi, Kasra	WeC05.5	2054	Gorbunov, Eduard	FrB23.4	7435
Ghasemi, Mahsa	FrA15.1	6169	Görges, Daniel	WeA13	C
GhoddousiBoroujeni, Mahrokh	ThC13.3	5162	.....	WeA13.5	457
Ghogho, Mounir	ThB12.3	4166	.....	WeA13.6	463
Ghorbel, Fathi H.	WeC07	C	.....	ThC25	C
.....	WeC07.4	2120	.....	ThC25.6	5635
Ghosh, Arun	FrC05.6	7702	Gort, Emma	ThC10.5	5062
Ghosh, Bijoy	ThB05	CC	Gosea, Ion Victor	FrC08.6	7812
.....	ThB05	O	Goswami, Dip	ThB07.6	3997
Ghosh, Shromona	ThC03.6	4810	Gottwald, Sebastian	ThA24.5	3677
Giacomoni, Marcio	ThC21.4	5474	Gouaisbaut, Frederic	WeB14.1	1416
Giammarino, Vittorio	WeA10.3	335	GOUDJIL, Abdelhak	WeA22.5	791
Giannitrapani, Antonio	ThA05.6	2982	Goulart, Paul J.	ThB16.2	4311
.....	ThB11.2	4121	Gouze, Jean-Luc	WeA01	C
.....	ThC07.4	4946	.....	WeA01.3	13
Giantamidis, Georgios	FrC16.1	8073	.....	WeA01.6	31
Gibson, Travis E.	ThA23	O	.....	ThA01.6	2838
.....	ThB23	CC	Govaert, Alain	ThA09.6	3134
.....	ThB23	O	Goyal, Mohak	ThC14.6	5217
.....	ThB23.1	4563	Goyal, Pawan	FrC08.5	7806
Gilhuly, Barry James	FrC20.1	8224	Grabber, Vincent	ThA12.5	3239
Giordano, Alessandro Massimo	WeC18.3	2528	Graichen, Knut	ThC16.3	5279
Giordano, Giulia	WeB01.6	958	Grammatico, Sergio	ThA09.6	3134
.....	WeB06.4	1126	.....	ThC06.3	4904
.....	WeC01	C	.....	FrA09	C
.....	WeC01	O	.....	FrA09.2	5948
.....	WeC01.3	1887	Granichin, Oleg	FrA11.6	6050
.....	FrA01.6	5674	Granzotto, Mathieu	WeA14.4	487
.....	FrC01.4	7548	.....	ThA17.2	3405
Giraldi, Laetitia	ThA01	C	Grasshoff, Jan	WeC23.3	2708
.....	ThA01	O	Gray, W. Steven	WeB03.3	1013
Girard, Anouck	WeC09.2	2181	.....	FrC15	CC
.....	ThC15.2	5231	.....	FrC15.1	8036
Girard, Antoine	WeC17.2	2485	Greene, Max L.	WeC03.2	1959
.....	ThB17.3	4355	Gregg, Robert D.	ThA07.3	3039
.....	FrA04	O	Griffioen, Paul	ThB04.5	3878
.....	FrA04.6	5787	Grondin, Dominique	ThA13.4	3266
.....	FrA17.2	6255	Gruber, Felix	WeA13.2	438
Giri, Fouad	WeA18.1	617	Gruene, Lars	WeC13.1	2330
.....	ThA08.1	3066	.....	WeC14.5	2391
Giselsson, Pontus	ThC06.1	4891	Grunberg, Theodore	FrB01.3	6616
Giua, Alessandro	FrB04.3	6718	Grunert, Tim	ThC14.3	5199
.....	FrC04.3	7647	Gu, Chao	FrB04.3	6718
Gleason, Joseph	FrB19.2	7266	Gu, mingqin	ThC04.1	4817
Glielmo, Luigi	WeA04	CC	Guan, Yue	WeC10.5	2239
.....	WeA04.3	120	Guanetti, Jacopo	WeB10.5	1279
Glista, Elizabeth	WeC10.1	2214			

.....	WeC10.6	2245	Hamrah, Reza.....	FrB12.5	7025
Guay, Martin.....	WeB16.1	1494	.....	FrC11.4	7911
.....	FrA13	C	Han, Min.....	ThC20.4	5438
.....	FrA13.3	6106	Han, Shuo.....	FrA06	CC
Gubner, John A.....	WeC19.5	2580	.....	FrA06.5	5856
Gueguen, Herve.....	FrA20.6	6392	Han, Songyang.....	WeC10.3	2226
Guerra, Thierry Marie.....	ThB02.4	3799	Han, Zhiji.....	ThA05.4	2970
.....	ThC04.3	4829	Hanebeck, Uwe D.....	ThB05.5	3916
Guerrero-Bonilla, Luis.....	ThB07.2	3972	.....	FrA21	C
GUGGILAM, SUBBARAO VENKATESH.....	WeB03.3	1013	.....	FrA21.5	6424
Guglielmi, Nicola.....	FrC06.3	7721	Hansknecht, Christoph.....	FrB15.5	7134
Gui, Xingtai.....	ThA04.1	2916	Hao, Fei.....	WeC21.6	2654
GUILLOT, PHILIPPE.....	WeC18.6	2550	.....	ThB05.1	3892
Gunnarsson, Svante.....	FrB24.5	7480	Hare, James.....	ThA23.4	3635
Guo, Baiwei.....	FrB15.6	7140	Harris, Christian.....	WeB18.6	1601
Guo, Bao-Zhu.....	ThB08.3	4017	Hartman, David.....	FrA21.2	6404
Guo, Lei.....	FrP1.1	*	Hasanbeig, Hosein.....	ThC17.6	5338
.....	FrC24.6	8404	Haseli, Masih.....	WeB22.5	1746
Guo, Linqi.....	ThB04.4	3871	Hashemi, Navid.....	ThC18.3	5356
Guo, Zhong.....	ThA05.2	2958	Hashimoto, Kazumune.....	WeC20.4	2610
Gupta, Ankit.....	WeB01.4	945	Haskell, William B.....	FrA19.4	6344
.....	ThA01.1	2808	Hasnain, Aqib.....	WeA01.4	19
Gupta, Piyush.....	FrB09.6	6924	.....	FrC16.6	8106
Gupta, Vijay.....	WeC11.1	2251	Hassibi, Babak.....	ThB06.6	3960
.....	ThA23.3	3629	Hatanaka, Takeshi.....	WeB13.3	1389
Gurram, Prudhvi.....	ThC23.2	5538	Hayakawa, Tomohisa.....	ThA09	C
Gurriet, Thomas.....	WeC05.4	2046	.....	ThA09.3	3116
Gustafsson, Fredrik.....	FrA24.1	6510	.....	ThA09.4	3122
Guthrie, James.....	WeB13.5	1403	Hazeleger, Leroy.....	WeA06.6	213
Gutierrez, Susana.....	FrB10.2	6936	He, Wei.....	WeA20.1	690
Gutman, Per-Olof.....	WeA15	CC	.....	ThA05.4	2970
.....	WeA15.4	523	.....	ThB04	CC
Güttel, Stefan.....	ThB16.6	4337	.....	ThB04.2	3860
Gwynn, Benjamin.....	FrA25.6	6578	He, Xingkang.....	WeC11	C
Gyorgy, Andras.....	FrB01	CC	.....	WeC11.5	2278
.....	FrB01.4	6622	.....	ThC18.1	5344
H			He, Xiuyu.....	ThA05.4	2970
H. Ribeiro, Antônio.....	ThA24.4	3670	.....	ThB04.2	3860
Ha, Jongsoo.....	ThC18.4	5362	He, Yong.....	ThA14.5	3309
Ha, Wonseok.....	ThA18.6	3465	.....	FrC02.2	7572
Haasler, Isabel.....	WeB11.6	1331	Heath, William Paul.....	ThB16.6	4337
Haddad, Wassim M.....	ThA19.4	3491	Hedayatpour, Mojtaba.....	ThB12.6	4183
.....	ThB21.6	4521	Heemels, W.P.M.H.....	WeA20	O
Hadj-Abdelkader, Hicham.....	ThB07.5	3991	.....	WeB13.6	1410
Hadjicostis, Christoforos N.....	WeA25.5	903	.....	WeB20	CC
.....	FrB04.2	6712	.....	WeB20	O
.....	FrB05.4	6760	.....	WeB20.1	1650
Haeri, Mohammad.....	ThB22.6	4557	.....	WeB20.3	1662
Haesaert, Sofie.....	FrA17.6	6282	.....	WeC20	C
Haghighi, Iman.....	ThB17.4	4361	.....	WeC20	O
Hagiwara, Tomomichi.....	WeA06.4	201	.....	WeC20.3	2604
Haidar, Ihab.....	WeA17.2	587	.....	WeC21.1	2622
.....	WeB18.1	1571	.....	ThC21.5	5480
Hajek, Bruce.....	WeB09	C	.....	FrA04.4	5773
.....	WeB09.1	1219	Heertjes, Marcel.....	FrA04.4	5773
Hajek, Manfred.....	FrA07.1	5868	Heijmans, Stefan H. J.....	ThC21.5	5480
Hajiesmaili, Mohammad.....	ThB24.5	4630	Heinke, Simon.....	ThB08.1	4005
Hajjishirzi, Hannaneh.....	WeB25.2	1842	Heintz, Christopher.....	FrC20.2	8230
Haksar, Ravi N.....	WeB11.3	1307	Helie, Thomas.....	FrB08.6	6887
.....	WeB11.4	1315	Hendrickx, Julien M.....	WeC14	CC
Halbe, Omkar.....	FrA07.1	5868	.....	WeC14.4	2385
Halder, Abhishek.....	WeA19.2	660	.....	ThB15	CC
.....	FrB15.2	7116	.....	ThB15.3	4280
Hale, Matthew.....	WeB21.2	1692	.....	ThC22.2	5500
.....	FrB23.2	7423	.....	FrB23.3	7429
Halikias, George.....	ThB20.4	4471	Henrion, Didier.....	WeB03.1	1001
Hamel, Tarek.....	WeC18.4	2536	.....	ThA16.1	3358
.....	WeC18.5	2543	.....	FrA25	CC
.....	FrA07	C	.....	FrA25.5	6572
.....	FrA07.3	5880	Henriquez-Auba, Rodrigo.....	ThA13.2	3253

Herbert, Sylvia	..ThC03.6	4810			..WeC13.4	2350
Hermans, Ben	..ThB16.4	4325			..FrC05.5	7696
Herrera, David	..WeC03.4	1971		Hovakimyan, Naira	..ThB03.3	3827
Herrmann, Guido	..WeB03.2	1007			..ThB15.5	4292
Hertneck, Michael	..WeB20.6	1680			..ThC11.6	5107
Herzog, né Hoffmann, Christian	..FrB11.6	6995			..ThC25.1	5605
Heshmati-alamdari, Shahab	..FrC22.3	8311		Hromcik, Martin	..WeB03.1	1001
Hespanha, Joao P.	..WeA11.1	361		Hsieh, Chung-Han	..WeC19.5	2580
	..WeC09.4	2194		Hsieh, M. Ani	..FrB20.5	7325
	..ThA17.3	3411		Hsu, Liu	..FrC10	CC
	..ThA20.5	3533			..FrC10.1	7857
	..FrA11.1	6019		Hu, Guoqiang	..ThC06	CC
	..FrA19.6	6356			..ThC06.4	4910
	..FrB09.3	6905		HU, WEIWEI	..WeC08.2	2144
Hespanhol, Pedro	..WeC25.6	2802			..ThA08.6	3098
Hetel, Laurentiu	..FrC17.3	8124		Hu, Xiaoming	..FrB02	CC
Hexner, Gyorgy	..FrA07.6	5900			..FrB02.5	6663
Heydaribeni, Nasimeh	..FrA09.5	5971		Hu, Yangsheng	..WeB22.6	1752
Hibbard, Michael	..WeC11.4	2271		Hu, Yinlong	..FrC07.2	7752
Hidalgo-Gonzalez, Patricia	..ThA13.2	3253		Hua, Chang-Chun	..WeB02.4	983
	..FrA16.6	6242		Huang, Deqing	..ThC24.1	5568
Hihn, Heinke	..ThA24.5	3677		Huang, Jie	..WeB17.4	1551
Hilaret, Mickael	..ThA13.4	3266		Huang, Linbin	..FrC17.4	8130
Hirche, Sandra	..WeA20	O		Huang, Lixing	..FrA03.6	5748
	..WeA23.5	828		Huang, Minyi	..WeA09.1	286
	..WeB20	O			..WeA19.5	678
	..WeB23.2	1766			..WeB09	CC
	..WeC20	O			..WeB09.4	1237
	..FrB03.4	6687			..FrC19.5	8210
Hiskens, Ian	..FrC14.1	8000		Huang, Qisheng	..WeC09.5	2201
Hjalmarsson, Hákan	..WeA23.6	835		Huang, Xuegang	..ThC04.4	4835
	..ThA11	C		Huang, Yi	..ThC03.3	4791
	..ThA11.2	3184		Hudoba de Bady, Mathias	..WeC06.6	2096
Hjuler Christiansen, Lasse	..ThB15.1	4267		Hudon, Nicolas	..FrB08.3	6869
Hmamed, Abdelaziz	..ThC25.5	5629		Huo, Wei	..FrA07.2	5874
Hmedi, Hassan	..WeA19.6	684		Husain, Iqbal	..ThC05.1	4852
Ho, Dimitar	..ThB23.3	4577		Hwang, Inseok	..WeC16.1	2442
Ho, Duc Tho	..FrC12.6	7963			..ThB04.1	3854
Hoagg, Jesse B.	..FrC20	C			..FrC09.3	7832
	..FrC20.2	8230		Hyun, Nak-seung Patrick	..FrB12.6	7031
	..FrC20.3	8236				
Hofmann, Felix	..ThA11.1	3176		Iacoviello, Daniela	..ThB01.4	3770
Hofmann, Steffen	..ThB04.6	3885		Iakovidou, Charikleia	..WeB16.5	1519
Höger, Matthias	..WeC14.5	2391		Iannelli, Luigi	..FrC18.4	8166
Hohmann, Soeren	..WeA22.4	784		Ichalal, Dalil	..WeB18.2	1577
	..ThA09	CC			..ThA02.6	2874
	..ThA09.5	3128			..ThB02.4	3799
	..ThA11.1	3176			..FrB11.1	6965
	..ThA11.3	3190		Iervolino, Raffaele	..FrC18.4	8166
	..ThB25.2	4648		Iffqir, Sara	..FrB11.1	6965
Holmes, Philip	..ThC01.4	4717		Ikeda, Takuya	..ThB20.2	4459
Hong, Yiguang	..ThC15.5	5252		Ikemoto, Junya	..FrB06.3	6793
	..FrA12.1	6056		Ilic, Marija	..WeC02	C
Hopka, Mike	..ThA10.3	3152			..WeC02.5	1937
Hori, Yutaka	..WeC01.1	1874		IM, PILJAE	..ThA05.2	2958
Horn, Martin	..ThA14.1	3285		Imran, Imil Hamda	..FrC21.1	8260
	..ThA14.2	3291		Imsland, Lars	..ThC02.3	4747
	..ThC14.4	5206		Imura, Jun-ichi	..WeA21.5	752
	..FrA10.2	5989			..WeC16.4	2461
	..FrA10.3	5995			..ThA20.6	3540
	..FrA10.5	6007		Incremona, Alessandro	..WeB24.4	1816
	..FrB10.4	6947		Inga, Jairo	..ThA09.5	3128
	..FrC10.5	7881		Innocenti, Giacomo	..ThA17.5	3423
Hosoe, Yohei	..ThC19.4	5400		Inoue, Masaki	..WeB13.3	1389
Hosseini, Hossein	..ThB09.3	4053		Invernizzi, Davide	..ThC07	C
Hosseini, S. Mohammad	..WeC17.5	2503			..ThC07.5	4952
HosseinNia, S. Hassan	..FrC12	CC		Ioan, Daniel	..WeC05.6	2060
	..FrC12.5	7956		Ioannou, Petros A.	..FrC17.6	8142
Hote, Yogesh Vijay	..FrA25.1	6548		Iori, Tomoyuki	..WeB05.1	1076
	..FrC24.2	8380		Ioslovich, Ilya	..WeA15.4	523
Hou, Junyao	..FrC04.4	7653		Ishii, Hideaki	..WeB25.4	1856
Hou, Qiqiang	..FrB16.6	7177			..FrB21.1	7339
Houska, Boris	..WeC02.2	1919				
	..WeC13	CC				

Ishizaki, Takayuki	WeA21.5	752	Jin, Li	ThA10.6	3170
	WeC16	CC		ThB10.6	4109
	WeC16.4	2461	Jin, Ming	ThA13.1	3245
	ThA20.6	3540	Jin, Xu	ThA19.4	3491
Ito, Hiroshi	FrB12	C		ThB21.6	4521
	FrB12	O	Jin, Yunyun	WeB17.6	1565
	FrB12.2	7007	Jin, Zeyuan	FrC13.2	7976
Ito, Yuji	ThA19.1	3471	Jing, Gangshan	FrC11.2	7899
Ivanova, Elena	FrA17.2	6255	Johansson, Karl H.	WeSP2	C
Ivanskiy, Yury	FrA11.6	6050		WeA04.1	108
Iwaki, Takuya	WeC20.1	2592		WeA16.3	555
Iwasaki, Tetsuya	FrC07.3	7758		WeA20	C
Izumi, Shinsaku	ThA07.5	3054		WeA20	O
J					
Jabari, Saif Eddin	ThA04.4	2934		WeB10.4	1273
Jabbari, Faryar	WeB06.1	1108		WeB20	O
Jackson, Roxanne R.	ThC19.5	5406		WeC11.5	2278
Jacquot, Paulin	WeA25.3	890		WeC20	CC
Jadbabaie, Ali	WeA21.2	734		WeC20	O
	WeB16.2	1501		WeC20.1	2592
	ThA23.4	3635		ThA10.2	3146
	ThC09.3	5014		ThA20.6	3540
Jafarian, Matin	ThC01	O		ThB12.5	4178
	ThC01.3	4711		ThB18	O
Jafarnejadsani, Hamidreza	ThC25.1	5605		ThC01.3	4711
Jafarzadeh, Hassan	WeC13.2	2336		ThC18	C
Jagannathan, Sarangapani	WeA04.6	139		ThC18	O
	WeC03.6	1985		ThC18.1	5344
Jagarapu, Aditya	FrA01.4	5662	Johnson, Taylor T.	FrA20.2	6368
Jager, Tibor	FrB17.6	7215		FrC23.1	8335
Jagtap, Pushpak	ThB17.6	4373	Jonckheere, Edmond	FrA22.4	6455
Jain, Rahul	ThC13.1	5150	Jones, Colin N.	WeB12.1	1339
	FrA19	CC		WeA24.4	860
	FrA19.4	6344		WeC13.4	2350
Jain, Shivam	FrA25.1	6548	Jones, Morgan	WeC14.6	2397
Jain, Tushar	ThA05	CC	Jongeneel, W.	FrB05.1	6742
	ThA05.3	2964	Joos, Henning	FrB08.4	6875
Jaleel, Hassan	ThC09.1	5002	Jorgensen, John Bagterp	ThB01.3	3762
James, Matthew R.	WeA12.6	425		ThB15	C
	WeB12.2	1345		ThB15.1	4267
Jang, Sunho	FrB19.5	7287		FrB11.4	6983
Jaramillo, Oscar David	FrA18.5	6313	Joseph, Ajin	FrA11.2	6025
Jauberthie, Carine	WeA11.4	379	Joshi, Girish	ThB24.1	4601
	ThB11	CC	Jovanovic, Mihailo R.	WeB24.5	1822
	ThB11.6	4147		FrA08.3	5918
Javed, Muhammad Umar	FrB21.3	7352		FrB24.4	7474
Jawanpuria, Pratik	FrB16.3	7159	Julius, Agung	WeC01.5	1899
Jayawardhana, Bayu	WeB04	C		ThC02	CC
	WeB04.5	1062		ThC02.5	4761
	FrC12	C	Jungers, Marc	FrA04.2	5760
	FrC12	O	Jungers, Raphaël M.	ThA17	C
	FrC12.3	7944		ThA17.1	3399
Jean, Frederic	WeA15.2	511		FrA04	CC
Jedra, Yassir	WeC22.4	2676		FrA04	O
Jerono, Pascal	ThC11.1	5076		FrB22	CC
Ji, Yiding	WeB04.2	1043		FrB22.6	7409
Ji, Yuting	ThB13.2	4195	K		
Jia, Fengjiao	ThC04.1	4817	K.J., Prabuchandran	WeC24.6	2764
Jian-Bo, Wang	ThB01.5	3776	K/BIDI, Fabrice	ThA13.4	3266
Jiang, Cheng	FrB04.6	6736	Kader, Zohra	WeC17	C
Jiang, Frank J.	WeB10.4	1273		WeC17.2	2485
Jiang, Lin	FrC02	CC	Kaheman, Kadierdan	FrB22.3	7389
	FrC02.2	7572	KAI, Jean-Marie	FrA07.3	5880
Jiang, Yuming	FrA11.6	6050	Kaiser, Eurika	FrB22.3	7389
Jiang, Yuning	WeC02.2	1919	Kalabic, Uros V.	ThB10.1	4079
	WeC13.4	2350	Kalaimani, Rachel Kalpana	WeC06.1	2066
	FrC05.5	7696		FrA21.1	6398
Jiang, Zhong-Ping	ThA15.1	3322	Kalathil, Dileep	WeC02.3	1925
	ThC15.5	5252		FrC25.4	8429
Jin, Lei	FrA11.1	6019	Kalogeratos, Argyris	FrA19.3	6338
			Kamalapurkar, Rushikesh	ThA03.1	2880
				FrA22.4	6455

.....FrB06.6	6815	Keroglou, Christoforos.....	FrB04.2	6712	
Kamanchi, Chandramouli.....	WeC24.6	2764	Kerrigan, Eric C.....	ThA15	CC
Kamath, Gopal Krishna.....	FrA21.1	6398	.....	ThA15.6	3352
Kamgarpour, Maryam.....	ThA09.1	3104	.....	ThB16	C
.....	ThC13.3	5162	.....	ThB16	O
.....	FrB02.4	6657	.....	ThB16.5	4331
.....	FrB15.6	7140	.....	ThC16	CC
Kaminer, Isaac.....	ThB15.5	4292	.....	ThC16	O
Kan, Zhen.....	ThC21	CC	.....	ThC16.5	5292
.....	ThC21.1	5456	Keshmiri, Mahdi.....	FrC14.2	8007
Kanellopoulos, Aris.....	WeA24.3	853	Keviczky, Tamas.....	WeA20.2	698
.....	ThA23.3	3629	Keyl, Michael.....	WeC12.2	2298
Kang, Rongrong.....	ThC25.2	5611	Khajenejad, Mohammad.....	WeB17.3	1544
Kang, Wen.....	WeA08.3	268	Khalehdyan, Milad.....	WeC16.5	2467
.....	WeB08.4	1201	Khalifa, Ahmed.....	FrA03.4	5735
Kantaros, Yiannis.....	ThC17.6	5338	Khalik, Zuan.....	FrC06.6	7740
Kapetina, Mirna N.....	WeB22.1	1722	Khammash, Mustafa H.....	WeSP1	C
Kaplan, Lance.....	ThA23.4	3635	.....	WeA26	C
Kar, Soummya.....	ThA06.6	3018	.....	WeA26	O
Kar, Soummya.....	FrC23.4	8353	.....	WeA26.1	916
Kara, Ali Devran.....	WeA19.1	654	.....	WeA26.2	*
.....	FrC13.1	7970	.....	WeB01	CC
Karabacak, Özkan.....	WeC14.1	2368	.....	WeB01	O
.....	FrC14.3	8013	.....	WeB01.4	945
Karabag, Mustafa O.....	WeB11.5	1323	.....	WeB01.5	951
Karaca, Orcun.....	FrB15.6	7140	.....	ThA01.1	2808
Karaman, Sertac.....	ThB23.2	4569	Khan, Shiraz.....	FrC09.3	7832
.....	FrC16.5	8099	Khan, Usman A.....	FrC23.4	8353
Karamchandani, Nikhil.....	ThC14.6	5217	Khargonekar, Pramod.....	FrB06	C
Karami, Sasan.....	ThA04.2	2922	.....	FrB06.2	6785
Karayiannidis, Yiannis.....	ThB14.5	4252	.....	FrB25.6	7524
Karimi, Alireza.....	FrB25	CC	Khodayi-mehr, Reza.....	WeC24.4	2752
.....	FrB25.4	7512	Khojasteh, Mohammad Javad.....	ThB12.6	4183
Karimi, Hamid Reza.....	ThB02.2	3788	Khong, Sei Zhen.....	FrA12.2	6062
Karimodini, Ali.....	WeC25	C	Kho, Mitchell.....	WeB25.3	1850
.....	WeC25.1	2770	Khorasani, Khashayar.....	ThB21.4	4507
.....	WeC25.2	2776	Khorrami, Farshad.....	ThB14	CC
Karlsson, Johan.....	WeB11	C	.....	ThB14.3	4240
.....	WeB11.6	1331	.....	ThC13	CC
.....	ThC11.3	5088	.....	ThC13.2	5156
Karlsson, Niklas.....	WeB16	CC	Khosravi, Mohammad.....	WeB22.4	1740
.....	WeB16.4	1513	Kibangou, Alain.....	ThA21	C
Karpas, Erez.....	WeA15.4	523	.....	ThA21.2	3552
Kartik, Dhruva.....	ThB09.4	4061	.....	ThC10.4	5056
Karuvade, Salini.....	WeC12.4	2310	Kieffer, Michel.....	ThB11.6	4147
Kashima, Kenji.....	ThB20.2	4459	Kim, Eugene.....	ThC05.4	4871
Kashyap, Mruganka.....	FrC20.6	8254	Kim, Hunmin.....	ThC11.6	5107
Kasis, Andreas.....	ThA13.6	3279	Kim, Jeong Woo.....	WeA24.2	847
Kask, Nathalie.....	FrA01.2	5647	Kim, Jin Won.....	WeB19.1	1607
Katewa, Vaibhav.....	WeB24.6	1828	Kim, Jongmin.....	FrB01.6	6634
.....	WeC06.2	2072	Kim, Jung Hoon.....	WeA06.4	201
Katiyar, Atul.....	ThA03.6	2910	Kim, Junsoo.....	FrB17.2	7190
Kato, Yuzuru.....	WeB12.3	1351	Kim, Minwoo.....	FrB14.2	7081
Katriniok, Alexander.....	ThC16.2	5272	Kim, Yeojun.....	WeB10.5	1279
Katz, Rami.....	WeC08.3	2151	.....	WeC10.6	2245
Kawamura, Satoshi.....	FrB20.1	7301	King, Christopher.....	WeB10.3	1267
Kawano, Yu.....	FrC25.5	8435	Kinnaert, Michel.....	WeA18.2	623
Kazempour, Jalal.....	FrB25	C	Kirches, Christian.....	WeB17.2	1538
.....	FrB25.2	7498	.....	ThC02.4	4755
Keijock, Timon.....	FrC10.1	7857	.....	FrB15.5	7134
Keijzer, Twan.....	FrA03.5	5742	Kishida, Masako.....	WeA15.5	529
Keimer, Alexander.....	ThB08.2	4011	.....	WeC20.4	2610
.....	ThB10.4	4097	.....	FrB20.1	7301
Kekatos, Vassilis.....	FrC25.6	8441	Kitano, Hiroaki.....	FrB03.3	6681
Kellett, Christopher M.....	FrB12.4	7019	Kiumarsi, Bahare.....	ThA23.1	3617
.....	FrC18.2	8154	.....	ThA23.5	3641
Kempf, Idris.....	ThB16.2	4311	Kivilcim, Aysegul.....	WeC14.1	2368
Kennedy, Justin Matthew.....	FrC22.1	8296	Kivits, E.M.M. (Lizan).....	ThB22.2	4533
Kergus, Pauline.....	FrC02.5	7590	Klerman, Elizabeth B.....	WeC01.2	1881
Kermorgant, Olivier.....	FrA03.4	5735	Klimkowicz, Kamil.....	ThC24.5	5593
.....	.....	.....	.....	FrA24.2	6518

Le Coent, Adrien.....	WeA17.4	599			FrA23.2	6479	
Le Gall, Françoise.....	WeA11.4	379			Li, Nan.....	WeC09.2	2181
Le Gorrec, Yann.....	WeA08	O			Li, Pengyuan.....	WeB06.1	1108
.....	WeB08	O			Li, Sarah H.Q.....	WeB11.2	1301
.....	WeC08	O			Li, Shaoyuan.....	FrB04.1	6706
.....	ThA08	O			.....	FrC04.2	7641
.....	ThB08	O			.....	FrC04.4	7653
.....	FrB08.4	6875			Li, Shuai.....	WeB25.5	1862
Lederer, Armin.....	WeB23.2	1766			Li, Shuang.....	ThC20.4	5438
Lee, Donggun.....	WeB15.6	1486			Li, Sisi.....	WeC09.2	2181
Lee, Insup.....	ThC17.6	5338			LI, TONGXIN.....	FrA25.2	6554
Lee, James Ju Heon.....	FrC22.2	8303			Li, Wenqing.....	ThA04.4	2934
Lee, Jin Gyu.....	ThA21.5	3569			Li, Wenxin.....	ThC13.6	5180
.....	ThB14.1	4228			Li, Xiang.....	ThB01.5	3776
Lee, Junhwan.....	ThA11.4	3196			.....	ThC25.2	5611
Lee, Keuntaek.....	FrB06.5	6807			Li, Xindi.....	ThC05.5	4877
Lee, Ki-Yeob.....	FrC25.4	8429			Li, Xiuxian.....	WeA16.3	555
Lee, Seungjoon.....	FrA06.3	5844			Li, Xuefang.....	FrA24.3	6524
Lee, Soomin.....	ThC21.6	5486			Li, Yanan.....	ThC24	CC
Lee, Ti-Chung.....	WeA17.3	593			.....	ThC24.1	5568
.....	WeB17.4	1551			Li, Yanhua.....	ThB24.2	4609
Lee, Wenke.....	WeA16.5	567			Li, Yibei.....	FrB02.5	6663
.....	ThB09.3	4053			Li, Yunchuan.....	FrA19.2	6332
LEE, YUNHA.....	ThC07.3	4940			Li, Yuzhe.....	ThB05.2	3898
Lefevre, Laurent.....	FrB08	C			Li, Zeyu.....	FrB24.3	7468
.....	FrB08	O			Li, Zhiwu.....	WeC04.1	1991
.....	FrB08.3	6869			.....	WeC04.3	2003
.....	FrB08.5	6881			.....	FrB04.3	6718
Lehtimäki, Mikko.....	WeA01.1	1			Li, Zhongkui.....	WeB05.2	1083
Leifeld, Thomas.....	WeA04.2	114			Li, Zhouchi.....	ThB03.5	3839
Leite, Valter J. S.....	ThB02	CC			Li, Zishuo.....	WeC21.6	2654
.....	ThB02.1	3782			Lian, Bosen.....	ThB05.4	3910
Lengani, Davide.....	WeC08.5	2163			Lian, Yingzhao.....	WeA24.4	860
Leomanni, Mirko.....	ThC07.4	4946			Lian, Zhi.....	ThA14.5	3309
Leonard, Naomi Ehrich.....	WeB21.4	1704			Liang, Chen.....	ThB04.4	3871
Leonardos, Spyridon.....	WeB25.1	1834			Liang, Shuai.....	FrB07.6	6851
Leonhardt, Steffen.....	FrC07.3	7758			Liang, Weichao.....	WeC12.3	2304
Lesage, Jean-jacques.....	WeC04.6	2021			Liang, Wenyu.....	FrA24.3	6524
Lessard, Laurent.....	FrC05	C			Liao-McPherson, Dominic.....	WeA05.3	157
.....	FrC05.2	7677			.....	ThA16.3	3370
.....	FrC05.4	7690			Liberati, Francesco.....	WeC05.2	2033
.....	FrC20.6	8254			Liberzon, Daniel.....	WeA14.1	468
Lestas, Ioannis.....	ThA13	CC			.....	FrA04.1	5754
.....	ThA13.6	3279			.....	FrA14.3	6146
Leurent, Edouard.....	FrB13.3	7049			Lima, Marcelo.....	ThB01.2	3756
Leuthold, Rachel.....	ThC05.3	4865			Limon, Daniel.....	WeA05.2	151
Levant, Arie.....	FrA10	CC			.....	ThA05.1	2952
.....	FrA10.6	6013			.....	ThB06.2	3936
Leve, Frederick.....	ThC15	CC			.....	ThB14.4	4246
.....	ThC15.2	5231			.....	FrA22.3	6449
Levy, Kfir. Y.....	ThB11.1	4115			Lin, Bohuan.....	WeA07.6	250
Lewien, Patrick.....	WeA21.4	746			Lin, Chenhui.....	FrB03.6	6700
Lewis, Frank L.....	ThA23.1	3617			Lin, Feng.....	WeC04.4	2009
.....	ThB05.4	3910			.....	FrB04.4	6724
.....	FrA23.1	6473			Lin, Hai.....	WeB04.4	1056
.....	FrB24.6	7486			.....	WeC07.1	2102
Ley-Rosas, Juan José.....	ThA18.4	3453			.....	FrC13.6	7994
Lhachemi, Hugo.....	WeC07.2	2108			Lin, Jianping.....	ThA07.3	3039
.....	ThA08.5	3092			Lin, Jun.....	FrC17.2	8118
Li, Anqi.....	WeB07.1	1144			Lin, Liyong.....	FrB04.5	6730
Li, Boyuan.....	FrB03.6	6700			Lin, Liyong.....	FrC04.5	7659
Li, Cong.....	ThB01.5	3776			Lin, Wei.....	ThA07.5	3054
.....	ThC25.2	5611			Lin, Weifang.....	FrB25.5	7518
Li, Haifang.....	ThC14.5	5212			Lin, Yankai.....	FrA20.4	6380
Li, Huiping.....	WeA20.5	716			Lin, Ye.....	FrA22.6	6467
Li, Jinglun.....	WeB04.1	1037			Lin, Yixuan.....	ThC23.6	5562
Li, Jr-Shin.....	WeA12	O			Lin, Zongli.....	WeA05.1	145
.....	WeA12.5	419			.....	FrA24	CC
li, Iening.....	ThC17.5	5330			.....	FrA24.5	6536
Li, Max.....	ThC02.6	4769			Lin Shi, Xuefang.....	FrC17.3	8124
Li, Meilun.....	FrC06.4	7727			Lindemann, Lars.....	ThA25.3	3698
Li, Mengmou.....	FrA12.1	6056			Lindquist, Anders.....	WeA22	C
Li, Na.....	ThA06	C			.....	WeA22.1	764
.....	ThA06.3	3000			Lindsten, Fredrik.....	FrB22.2	7382

.....	WeB13.5	1403	Maschke, Bernhard	FrC15	C
.....	FrC25.2	8416	.....	FrC15.6	8067
Mallik, Kaushik	FrA17.3	6261	Maslovskaya, Sofya	WeA15.2	511
Malyuta, Danylo	WeC13.6	2362	.....	WeA15.3	517
Mameche, Hamza	ThA12	O	Mason, Paolo	WeA17.2	587
.....	ThA12.3	3227	.....	WeC12.3	2304
Mammar, Said	WeB18.2	1577	.....	FrA04	C
.....	ThA02.6	2874	.....	FrA04.6	5787
.....	FrB11.1	6965	Massari, Mauro	WeC18.3	2528
Manamanni, Nouredine	ThC20.2	5426	Massaroli, Stefano	FrB06.4	6799
Manchester, Ian R.	FrB05	C	Masuda, Shiro	ThA03.4	2898
.....	FrB05.5	6766	Matei, Ion	ThB24.3	4615
Mancini, Mauro	FrC10.6	7887	Mathews, James	FrC01.1	7530
Mandra, Slawomir	ThC24.6	5599	Mathias, Joel	FrA15.3	6181
Manes, Costanzo	WeA02.1	37	Matignon, Denis	FrB08	CC
.....	FrA12.4	6074	.....	FrB08	O
Manganini, Giorgio	FrB18.6	7252	.....	FrB08.1	6857
Mangini, Agostino Marcello	WeC04.3	2003	.....	FrB08.5	6881
Maniarski, Robert	ThC24.5	5593	Matni, Nikolai	WeC22.5	2682
.....	FrA24.2	6518	.....	ThA26	C
Manikantan Shila, Devu	ThB13.5	4216	.....	ThA26	O
Manjunath, D	ThC14.6	5217	.....	ThA26.2	3724
Manngård, Mikael	WeB22.2	1728	.....	ThA26.5	3741
Mannion, Andrew	WeC07.2	2108	Matsui, Shoma	FrC04.1	7635
Manns, Paul	FrB15.5	7134	Matsuki, Hiroto	ThC04.6	4847
Mansoori, Fatemeh	FrA20.5	6386	Mattila, Robert	FrB11.5	6989
Manton, Jonathan H.	ThA16.2	3364	Mattioni, Mattia	WeB14.3	1430
Manzano, Jose Maria	ThB14.4	4246	.....	ThB14.2	4234
.....	FrA22.3	6449	.....	FrA18.4	6307
Manzie, Chris	WeB25.3	1850	Matveev, Alexey S.	WeA07	CC
Manzoor, Talha	WeB21.2	1692	.....	WeA07.1	220
Mao, Yanbing	ThA21.4	3563	Mavridis, Christos	WeA07.3	232
.....	ThC25.1	5605	.....	ThB24.3	4615
Mao, Yanwen	ThC18.5	5368	Mazenc, Frederic	FrB12.3	7013
Marchand, Herve	ThC12.6	5144	Mazo Jr., Manuel	WeB20.2	1656
Marchini, Elsa Maria	WeC15.3	2416	Mazumdar, Eric	FrB09.2	6899
Marconi, Lorenzo	ThA06.2	2994	Mazumder, Sudip	ThA13.3	3260
Marden, Jason R.	ThB09.1	4041	Mazzola, Marco	WeC15.3	2416
.....	ThB18.6	4409	McDonald, Curtis, James	WeB19.3	1623
.....	ThC09	C	McInerney, Ian	ThB16	O
.....	ThC09.2	5008	.....	ThB16.5	4331
.....	FrA09.6	5977	.....	ThC16	C
Mareels, Iven	WeA17.3	593	.....	ThC16	O
.....	ThA15	C	McMahon, Jay	FrA19.1	6325
.....	ThA15.1	3322	Mechbal, Nazih	FrA01.5	5668
Margaliot, Michael	WeA01	CC	Medvedev, Alexander V.	WeC01.4	1893
.....	WeA01.5	25	.....	FrA01	C
.....	ThC12.4	5132	.....	FrA01	O
Margellos, Kostas	ThC09	CC	.....	FrA01.1	5641
.....	ThC09.5	5026	Meena, Jairam	FrC05.6	7702
.....	FrB23.6	7448	Meggendorfer, Tobias	WeC11.6	2284
Marino, Riccardo	FrC03.3	7609	Meghwanshi, Mayank	FrB16.3	7159
Markovsky, Ivan	WeC22.3	2672	Mehdipour, Noushin	ThB17.4	4361
.....	FrB16	C	.....	ThC17.2	5312
.....	FrB16	O	Mehrmann, Volker	FrB08.2	6863
.....	FrB16.4	7165	Mehta, Prashant G.	WeA19	C
.....	FrC06.3	7721	.....	WeA19	O
Maroufi, Mohammad	FrB07.3	6832	.....	WeB19	CC
Marshal, Ryan	ThA01.3	2820	.....	WeB19	O
Martin, Philippe	WeA18.5	642	.....	WeB19.1	1607
Martin, Tim	ThA22.5	3605	.....	WeC24	CC
Martin de Diego, David	FrB20.6	7333	.....	WeC24.5	2758
Martinet, Philippe	FrA03.4	5735	.....	ThC15.4	5244
Martinez, Sonia	FrC09.6	7850	Meigs, Emily	FrB09.5	6918
Martínez, Contreras, Edgar Alejandro	FrA05.2	5799	Meijer, Tomas Jesse	WeB13.6	1410
Martins, Nuno C.	FrA26	CC	Meira-Goes, Romulo	ThC12.6	5144
.....	FrA26	O	Mejari, Manas	ThB02.5	3805
.....	FrA26.3	*	mekki, hassen	WeB07.2	1152
.....	FrA26.4	6584	Melendez, Raul	WeA03.2	78
Mascheroni, Jose Maria	WeB08.1	1183	Melis, Alessandro	FrB18.2	7228
.....	.....	.....	Mellone, Alberto	ThA19.6	3503

Menara, Tommaso.....	ThC01.1	4697	Modares, Hamidreza.....	WeA20.1	690
Menard, Tomas.....	WeA18.3	629	.....	ThA23.1	3617
.....	WeA22.5	791	Modi, Saurabh.....	ThA01.5	2832
.....	ThB20.6	4483	Moghadam, Rohollah.....	WeC03.6	1985
Menner, Marcel.....	WeA23.2	809	Mohajerin Esfahani, Peyman.....	WeA20	CC
Menolascina, Filippo.....	WeA26.5	*	.....	WeA20.2	698
Menon, Prathyush P.....	WeB18.3	1583	.....	FrA14.5	6158
Mensch, Thomas.....	WeA15.3	517	.....	FrB05	CC
Mera, Manuel.....	FrA05.2	5799	.....	FrB05.1	6742
Mercado Uribe, José Angel.....	ThA14.6	3316	Mohamed, Sajid.....	ThB07.6	3997
Merlinge, Nicolas.....	ThC11.5	5101	Mohammadi, Hesameddin.....	FrB24.4	7474
Mesbahi, Mehran.....	WeC06.6	2096	Mohammadi Ghazi, Reza.....	ThA13.1	3245
.....	ThB22.6	4557	Moheimani, S.O. Reza.....	FrB07.3	6832
.....	ThC23.3	5544	Mohseni, Kamran.....	WeB07	C
Meskin, Nader.....	ThB21.4	4507	.....	WeB07.6	1177
Meslem, Nacim.....	ThA11.3	3190	Mojica-Nava, Eduardo.....	FrC20	CC
Messai, Nadhir.....	ThC20.2	5426	.....	FrC20.4	8242
Messerer, Florian.....	ThB06.3	3942	Molin, Adam.....	FrB03.4	6687
Meurer, Thomas.....	WeA16.4	561	Molinari, Fabio.....	ThB12.4	4172
.....	ThB08.4	4023	Molloy, Timothy L.....	ThA09.5	3128
.....	ThC11	C	Molnar, Tamas Gabor.....	ThA10.3	3152
.....	ThC11.1	5076	Molybog, Igor.....	ThA13.1	3245
Meyer, Andreas.....	WeB17.2	1538	Monaco, Salvatore.....	WeB14.3	1430
Meyn, Sean P.....	WeB19.1	1607	.....	ThB14.2	4234
.....	ThB13.2	4195	.....	FrA18.4	6307
.....	ThC15.4	5244	Monnoyer de Galland de Carnières, Charles.....	FrB23.3	7429
.....	FrA15.3	6181	.....	WeB21	C
.....	FrB19.1	7258	Monshizadeh, Nima.....	WeB21.5	1710
Mi, La.....	WeA06.2	187	.....	FrB25.1	7492
Miao, Chengshi.....	FrB04.4	6724	Monteiro, Eric.....	FrA01.5	5668
Miao, Fei.....	WeC10.3	2226	Montijano, Eduardo.....	WeC21.5	2646
Miao, Huimin.....	WeB19.5	1637	Moog, Claude H.....	FrA18.1	6288
Miao, Xia.....	WeC02.5	1937	Moon, Jun.....	FrA19.5	6350
Miao, Zibo.....	WeA12.3	407	Moorman, Andrew.....	WeB24.1	1797
Michailidis, George.....	WeC03	CC	Moothedath, Shana.....	WeA16.5	567
.....	WeC03.5	1977	.....	ThB09.3	4053
Michieletto, Giulia.....	WeC07.6	2132	Morais, Cecilia F.....	FrB05.6	6772
Michiels, Wim.....	WeA02.3	49	Morandin, Riccardo.....	FrB08.2	6863
Middleton, Richard.....	WeC14.3	2379	Morarescu, Irinel-Constantin.....	WeB06.3	1120
Miehling, Erik.....	WeC09.3	2188	.....	ThA21.1	3546
Miguel-Escrig, Oscar.....	WeA20.6	722	Morari, Manfred.....	WeC23.6	2726
Miller, Daniel E.....	WeA03.3	84	.....	ThC16.4	5285
Miller, Gregory.....	WeA21.1	728	Moravej Khorasani, Masoud.....	ThA22.1	3581
.....	WeC19.6	2586	.....	ThA22.4	3599
Miller, Jared.....	ThC06.5	4916	Moreau, Clément.....	WeB07	CC
Millerioux, Gilles.....	WeC18	CC	.....	WeB07.4	1165
.....	WeC18.6	2550	Moreau, Philippe.....	ThA12.1	3214
Milosevic, Jezdimir.....	ThB18.1	4379	Morelli, Federico.....	WeB22.3	1734
Min, Hancheng.....	WeA21.6	758	Moreno, Jaime A.....	ThA14.6	3316
Mirkin, Leonid.....	WeA06.2	187	.....	FrA10.3	5995
.....	WeC21	CC	Moreschini, Alessio.....	WeB14.3	1430
.....	WeC21.3	2634	.....	ThB14.2	4234
.....	FrA07.6	5900	Morgansen, Kristi A.....	FrA14	C
.....	FrA21.4	6418	.....	FrA14.1	6130
Mironchenko, Andrii.....	ThC25	CC	Morgenstern, Dimitri.....	WeA13.6	463
.....	ThC25.3	5617	Morse, A. Stephen.....	WeA11.2	367
Misgeld, Berno Johannes Engelbert.....	FrC07.3	7758	.....	ThB25.3	4656
Mishra, Bamdev.....	FrB16.3	7159	.....	FrC20.5	8248
Mishra, Rohit.....	ThA08.6	3098	Morshed, Mohammad Javad.....	FrA25.3	6560
Misra, Shruti.....	ThB09.3	4053	Motchon, Koffi M. Djidula.....	WeA06.1	181
Mitikiri, Yujendra.....	WeB07.6	1177	Mote, Mark.....	WeC05.4	2046
Mitra, Aritra.....	ThC18.5	5368	Motta, Monica.....	WeB15.4	1474
.....	FrC23.3	8347	Moulay, Emmanuel.....	ThB20.6	4483
Miyazako, Hiroki.....	WeC01.1	1874	Moulinier, Timothée.....	WeA15.3	517
Mlayeh, Rhouma.....	WeB02.6	995	Mounthanyvong, Julien.....	ThA21.1	3546
Mo, Yilin.....	WeC21.6	2654	Moura, Jose' M. F.....	ThA06.6	3018
.....	ThB18	O	Moura, Scott.....	WeB10.5	1279
.....	ThC18	CC	mourad, Kchaou.....	WeA17.6	611
.....	ThC18	O	Mousavi, Seyed Hossein.....	WeB20.5	1674
Mo, Yuanqiu.....	WeB25.6	1868	Mousavi, Shima Sadat.....	ThB22.6	4557
.....			Moye, Robert.....	FrA15.3	6181

Mücke, Nikolaj Takata.....	ThB15.1	4267	.....	ThC21.5	5480
Mudumbai, Raghuraman	ThB11.3	4127	.....	FrA20.4	6380
Muhammad, Abubakr.....	WeB21.2	1692	.....	FrC21.5	8284
Mukaidani, Hiroaki.....	FrA05.6	5826	Nettekoven, Alexander.....	ThC02.5	4761
Mukhopadhyay, Siuli.....	FrB11.3	6977	Ng, Yonhon.....	WeC18.4	2536
Muller, Matthias A.....	WeA20.4	710	Nguyen, Anh-Tu.....	ThC04.3	4829
.....	WeA23	O	Nguyen, Dinh Hoa.....	ThC20	C
.....	WeB13.1	1377	.....	ThC20.2	5426
.....	WeB13.2	1383	Nguyen, Hieu.....	FrB25.6	7524
.....	WeB23	CC	Nguyen, Le Ha Vy.....	WeB02.2	971
.....	WeB23	O	Nguyen, Quan.....	FrC03.5	7623
.....	WeC23	O	Niazi, Muhammad Umar B.....	ThC10	CC
.....	FrB23.5	7441	.....	ThC10	O
Munk, Jeffrey.....	ThA05.2	2958	.....	ThC10.1	5038
Münker, Tobias.....	FrA22.1	6437	.....	ThC10.4	5056
Muñoz de la Peña, David.....	ThB14.4	4246	Niculescu, Silviu-Iulian.....	WeC05.6	2060
.....	FrA22.3	6449	Nie, Yuanbo.....	ThA15.6	3352
.....	FrC05.1	7671	.....	ThB16	CC
Murali, Varun.....	FrC16.5	8099	.....	ThB16	O
Murali, Vishal.....	WeC18.2	2522	.....	ThC16	O
.....	FrA18.2	6295	.....	ThC16.5	5292
MURALI MADHAVAN RATHAI, KARTHIK.....	FrC03.1	7596	Niederwieser, Helmut.....	FrB10.1	6930
Muros, Francisco Javier.....	WeB05.4	1096	Niedzwiecki, Maciej.....	WeA22.3	777
Murray, Richard M.....	WeC25.4	2788	Nielsen, Poul M F.....	FrA01.2	5647
.....	FrA17.6	6282	Niemann, Henrik.....	FrA02	C
Murray, Ryan.....	WeC15.6	2436	.....	FrA02.3	5692
Muthirayan, Deepan.....	FrB06.2	6785	Nijmeijer, Hendrik.....	FrA08.4	5924
Mylvaganam, Thulasi.....	ThB20	CC	Nikitin, Denis.....	ThC10.3	5050
.....	ThB20.5	4477	Nikolaev, Maksim S.....	WeA07.1	220
N			Nikooienejad, Nastaran.....	FrB07.3	6832
nadales, Juan.....	ThB14.4	4246	Nikou, Alexandros.....	FrC22.3	8311
Naderi Lordejani, Sajad.....	FrC08.1	7782	Nilsson, Petter.....	FrA17.6	6282
Nadri, Madiha.....	ThA18.2	3441	Nivison, Scott.....	WeC03.2	1959
Nagahara, Masaaki.....	WeA15.5	529	Noack, Benjamin.....	ThB05.5	3916
.....	WeA25	C	Noireaux, Vincent.....	ThA01.3	2820
.....	WeA25.2	885	Nojavanzadeh, Donya.....	FrB20.2	7307
.....	FrC21.3	8272	Nonhoff, Marko.....	FrC22.6	8329
Naghizadeh, Parinaz.....	ThC18.6	5374	Normand-Cyrot, Dorothée.....	WeB14	C
Naghnaeian, Mohammad.....	ThC20.6	5450	.....	WeB14.3	1430
Nagi, Rakesh.....	ThB24.5	4630	.....	ThB14.2	4234
Nahata, Pulkit.....	FrA25.4	6566	.....	FrA18	C
Nair, Girish N.....	ThA22.2	3587	.....	FrA18.4	6307
Nakao, Hiroya.....	WeB12.3	1351	Noroozi, Navid.....	WeB20	C
Nakka, Yashwanth Kumar.....	ThB03.1	3811	.....	WeB20.5	1674
Namvar, Mehrzad.....	ThA04.2	2922	.....	ThC19.5	5406
Nandanoori, Sai Pushpak.....	FrC16.6	8106	Norton, Larry.....	FrC01.1	7530
Nanos, Kostas.....	WeC07.5	2126	Notarnicola, Ivano.....	ThA06.2	2994
Napolitano, Sara.....	WeB01.2	933	.....	FrA20.3	6374
Narayanan, Vignesh.....	WeA12.5	419	Notarstefano, Giuseppe.....	ThA06.2	2994
Nardon, Eric.....	ThA12.1	3214	.....	FrA20	CC
Nasir, Hasan.....	ThA16.4	3377	.....	FrA20.1	6362
Naso, David.....	FrC12.2	7937	.....	FrA20.3	6374
Natarajan, Vivek.....	FrA08.1	5906	.....	FrB23.6	7448
Nayyar, Ashutosh.....	ThB09.4	4061	Nouailletas, Rémy.....	ThA12	CC
Nazir, Nawaf.....	ThC05.2	4858	.....	ThA12	O
Ndoye, Aboubacar.....	FrC17.3	8124	.....	ThA12.1	3214
Necoara, Ion.....	WeB16.3	1507	.....	FrB08.3	6869
Nedich, Angelia.....	WeB16	C	Novara, Carlo.....	WeA16.1	541
.....	WeB16.3	1507	.....	WeC21.2	2628
.....	FrA09.2	5948	Nowak, Kathleen.....	FrC06.5	7733
.....	FrB23	C	Nowzari, Cameron.....	WeC20.2	2598
.....	FrB23	O	Nozari, Erfan.....	WeB21.1	1686
.....	FrC23	CC	Nugroho, Sebastian Adi.....	ThB22.5	4551
.....	FrC23	O	Nunes, Eduardo Vieira Leao.....	FrC10.1	7857
Nehaoua, lamri.....	WeB18.2	1577	Nurdin, Hendra I.....	WeA12	CC
.....	ThB07.5	3991	Nurkanović, Armin.....	ThC16.6	5298
Nejjari, Fatiha.....	FrC23.6	8366			
Nelles, Oliver.....	FrA22.1	6437			
Nesic, Dragan.....	WeA06.6	213			
.....	WeA14.4	487			
.....	WeB20.1	1650			
.....	ThA17.2	3405			
			O		
			O'Leary, Timothy.....	FrB01.5	6628
			OBEID, Hussein.....	FrC10.3	7869

Ochoa, Daniel E.....	ThB06.5	3954	Ozer, Ahmet Ozkan.....	FrC06	CC
Odenthal, Dirk.....	FrB03.1	6669	.....	FrC06.1	7708
Oetomo, Denny Nurjanto.....	FrB24.3	7468	Özparpucu, Mehmet Can.....	WeC15.5	2428
Oguri, Kenshiro.....	FrA19.1	6325	P		
Ohki, Makoto.....	ThC04.6	4847	P. Vinod, Abraham.....	WeC16.1	2442
Ohtsuka, Toshiyuki.....	WeB05.1	1076	.....	FrB19.2	7266
.....	ThB16.1	4304	.....	FrB19.3	7273
Oishi, Meeko.....	WeC16.1	2442	Paarporn, Keith.....	ThB18.6	4409
.....	WeC16.5	2467	.....	FrA09.6	5977
.....	FrB19.2	7266	Paccagnan, Dario.....	ThB09.1	4041
.....	FrB19.3	7273	.....	FrA13.6	6124
Ojaghi, Pegah.....	WeC13.5	2356	Pachter, Meir.....	ThA25.4	3704
Okada, Shogo.....	ThA03.4	2898	.....	FrB20.4	7319
Okamoto, Kazuhide.....	ThA19.3	3484	Padhi, Radhakant.....	ThA03	CC
.....	ThA19.5	3497	.....	ThA03.2	2886
Olaru, Sorin.....	WeC05.6	2060	Padilla Cazar, G. P.....	FrB03.2	6675
.....	ThA04.5	2940	Padoan, Alberto.....	FrB05.2	6748
Oliveira, Ricardo C. L. F.....	ThC04.2	4823	Paelinck, Reinhart.....	ThC05.3	4865
.....	FrB05.6	6772	Paganini, Fernando.....	WeB06	C
Oliveira, Vilma A.....	FrC17	CC	.....	WeB06.2	1114
.....	FrC17.1	8112	Pagano, Daniel Juan.....	WeB08.1	1183
Olivi, Martine.....	FrC02.5	7590	Pait, Felipe.....	ThB01.2	3756
Olshesky, Alexander.....	FrB23	O	Pajares, Andres.....	ThA12	O
.....	FrC23	O	.....	ThA12.4	3233
Ong, Chong-Jin.....	ThA25.6	3718	Pajic, Miroslav.....	WeC04.5	2015
Ong, Pio.....	WeC14.2	2373	.....	ThC18.2	5350
Ono, Masahiro.....	FrA19.1	6325	Pakniyat, Ali.....	FrC19.6	8216
Oomen, Tom.....	ThC24	O	Pakshin, Pavel.....	FrA24.4	6530
.....	FrA02.1	5680	Pal, Debasattam.....	ThC21.2	5462
.....	FrA24.6	6542	.....	FrC02.1	7566
Oosterwegel, Gerard.....	ThA12.2	3220	Palframan, Mark.....	FrC13.4	7988
Oravec, Juraj.....	FrC05.5	7696	Palladino, Michele.....	WeA15.6	535
Ordóñez-Hurtado, Rodrigo H.....	WeB10.6	1286	.....	WeC15.6	2436
Orieux, Michaël.....	WeC15.1	2405	Palopoli, Luigi.....	FrC09.4	7838
Orlov, Yury.....	ThA08.3	3080	Palumbo, Pasquale.....	FrC01.3	7542
.....	FrA08.5	5930	.....	FrC01.6	7560
.....	FrA10	C	Pan, Yuchen.....	ThA21.3	3557
.....	FrA10.1	5983	Panagou, Dimitra.....	WeB14.2	1422
Orlowski, Jakub.....	WeA02.2	43	.....	ThA25.1	3685
Ornik, Melkior.....	WeB11	CC	.....	ThC20	CC
.....	WeB11.5	1323	.....	ThC20.3	5432
.....	WeC11.1	2251	.....	FrA03.6	5748
Orosz, Gabor.....	ThA10.3	3152	Panayiotou, Christos.....	WeA25	CC
Ortega, Romeo.....	WeA18.6	648	.....	WeA25.6	909
.....	WeC05.1	2027	Panciatici, Patrick.....	FrA25.5	6572
.....	ThC05.1	4852	Pang, Bo.....	ThA15.1	3322
Ortmaier, Tobias.....	ThB05.6	3922	Pang, Yipeng.....	ThC06.4	4910
Osinenko, Pavel.....	FrA15.4	6189	Paoletti, Simone.....	ThA05.6	2982
.....	FrB15.1	7110	.....	FrB22.1	7376
Ossareh, Hamid.....	ThB19	CC	Papachristodoulou, Antonis.....	ThC06.5	4916
.....	ThB19.6	4446	.....	FrB02.4	6657
Ossmann, Daniel.....	FrA05	C	.....	FrB23.6	7448
.....	FrA05.3	5805	Papadopoulos, Evangelos.....	WeC07.5	2126
Ostergaard, Jan.....	FrC21.3	8272	Papageorgiou, Markos.....	ThA10.1	3140
Otsason, Rein Dylan.....	FrC15.4	8054	Papaioannou, Savvas.....	WeA25.6	909
Oudjane, Nadia.....	WeA25.3	890	Papamichail, Ioannis.....	ThA10.1	3140
ouladsine, mustapha.....	ThC02.2	4741	Pappas, George J.....	WeC23.6	2726
Oustry, Antoine.....	ThA16.1	3358	.....	ThA23.6	3648
.....	FrA25.5	6572	.....	ThC17	C
Ovalle, Luis.....	FrA10.4	6001	.....	ThC17.6	5338
Overko, Roman.....	WeB10.6	1286	.....	FrA06.4	5850
Övseevich, Alexander.....	WeA01.5	25	.....	FrB17.3	7196
Oza, Harshal B.....	FrA10.1	5983	Parasnis, Rohit Yashodhar.....	FrA21.6	6431
Ozay, Necmiye.....	WeB17	CC	Pardo Álvarez, José María.....	WeC21.2	2628
.....	WeB17.5	1557	Pare, Philip E.....	FrC23.1	8335
.....	ThC17	CC	Parise, Francesca.....	FrB09.5	6918
.....	ThC17.3	5318	Parisini, Thomas.....	ThB04.3	3865
.....	FrA04.5	5779	.....	ThC25.4	5623
Ozbay, Bengisu.....	ThA17.6	3429	.....	FrA13.4	6112
Ozdaglar, Asu.....	FrB09.5	6918	Paritosh, Parth.....	FrC09.6	7850

Park, Chaneun.....	ThA02.3	2858	Peletier, Reynier.....	FrC12.3	7944
Park, In Seok.....	ThA02.3	2858	Pena, Ismael da Silva.....	WeC13.3	2344
Park, Jinkyoo.....	WeA04.5	132	Peña, Jonatán.....	ThC18.3	5356
.....	FrB06.4	6799	Peñarrocha, Ignacio.....	WeC02.6	1945
Park, PooGyeon.....	ThA02.3	2858	Peng, Fachun.....	ThA23.1	3617
Park, Shinkyu.....	FrA26	C	Peni, Tamas.....	ThB02.3	3793
.....	FrA26	O	Pepe, Pierdomenico.....	WeA02	C
.....	FrA26.4	6584	.....	WeA02.2	43
Parrilo, Pablo A.....	ThB19.5	4439	.....	FrB12	CC
Parro, Vanderlei.....	ThB01.2	3756	.....	FrB12	O
Parrovi, Alireza.....	WeB04.4	1056	Pequito, Sergio.....	ThC01	CC
Parvania, Masood.....	FrB25.6	7524	.....	ThC01.2	4705
Pasandi, Venus.....	FrC14.2	8007	Perdon, Anna Maria.....	FrA18.1	6288
Paschalidis, Ioannis Ch.....	ThA24	CC	Pereira, Marcus.....	FrB06.5	6807
.....	ThA24.1	3655	Pereira, Mario.....	WeA05.2	151
.....	ThA24.3	3664	Pereira da Silva, Paulo Sergio.....	WeB12.4	1357
.....	ThC12	C	Pereira-Dias, Diego.....	FrC10.4	7875
.....	ThC12.1	5113	Peres, Pedro L. D.....	ThC04.2	4823
Pascoal, Antonio Manuel.....	ThB15.5	4292	.....	FrB05.6	6772
Pasha, Syed Ahmed.....	ThA03.5	2904	Perez, Filipe.....	ThC13.4	5168
Pasik-Duncan, Bozena.....	WeA09.2	293	PEREZ, Laetitia.....	ThA08.3	3080
Pasquale, Cecilia.....	WeA10	O	Perez Montenegro, Carlos Norberto.....	WeC21.2	2628
Pasqualetti, Fabio.....	WeB24	CC	Perrino, Giansimone.....	WeB01.2	933
.....	WeB24.6	1828	Perruquetti, Wilfrid.....	FrB13.3	7049
.....	WeC06.2	2072	Peschke, Tobias.....	WeA13.5	457
.....	ThB18.4	4397	Pesenti, Raffaele.....	WeB06.4	1126
.....	ThC01.1	4697	.....	WeB09.6	1249
Pasumarthy, Ramkrishna.....	WeC06.1	2066	Petersen, Christopher.....	ThC15.2	5231
Paszke, Wojciech.....	FrA24.2	6518	Petersen, Eike.....	FrB11.6	6995
Patan, Krzysztof.....	ThC24.5	5593	Petersen, Ian R.....	WeA12.6	425
Patan, Maciej.....	WeB08.2	1189	.....	ThA14	C
.....	ThC24.5	5593	.....	ThA14.3	3297
Paternain, Santiago.....	ThC03.1	4777	Petreczky, Mihaly.....	ThB02	C
.....	ThC16.4	5285	.....	ThB02.5	3805
.....	ThC21.6	5486	.....	FrC15.3	8048
.....	FrA23.4	6491	Pettersen, Kristin Y.....	FrC22.6	8329
.....	FrB24.1	7454	Pezutto, Matthias.....	FrC21.6	8290
Pates, Richard.....	ThA04.3	2928	Pfeifer, Martin.....	ThA11.1	3176
.....	FrA12.3	6068	Pfeiffer, Laurent.....	WeB15.5	1480
Patil, Mayuresh J.....	FrC16.2	8079	Pfifer, Harald.....	FrA05.3	5805
Patrinos, Panagiotis.....	ThB16.4	4325	PHAM, Thanh-Phong.....	ThA18.5	3459
.....	ThC16.2	5272	Pham, Van Thiem.....	ThC20.2	5426
.....	FrA23	C	Phan, Tung, M.....	WeC25.4	2788
.....	FrA23.5	6498	Phillips, Sean.....	FrC18	C
Patterson, Andrew.....	ThB03.3	3827	.....	FrC18.3	8160
Patterson, Stacy.....	ThA06.4	3006	Phogat, Karmvir Singh.....	FrB14.2	7081
Pauli, Patricia.....	ThB23.4	4583	Piacentini, Giulia.....	ThA10.1	3140
Paulino, Nuno.....	FrB01.6	6634	PIAT, Emmanuel.....	WeB18.5	1595
Paulos, James.....	FrB20.5	7325	Picallo, Miguel.....	FrA13.2	6100
Paunonen, Lassi.....	WeA01.1	1	Piga, Dario.....	WeB17.1	1532
Pavel, Lacra.....	ThC09.4	5020	.....	WeC23.4	2714
.....	ThC09.6	5032	Pigeon, Eric.....	WeA18.3	629
.....	FrA09	CC	.....	WeA22.5	791
.....	FrA09.1	5942	Pighin, Dario.....	WeC15.4	2422
Pavon, Michele.....	WeC19.1	2556	Pillonetto, Gianluigi.....	WeA23.4	822
Pavon, Michele.....	FrC01.1	7530	Pilloni, Alessandro.....	FrA08.5	5930
Pavon, Michele.....	FrC19	CC	Pilo de la Fuente, Eduardo.....	ThA13.3	3260
.....	FrC19.4	8204	Pimenta, Luciano.....	FrA03.2	5723
Peaucelle, Dimitri.....	ThC19	CC	Pin, Gilberto.....	FrA13.4	6112
.....	ThC19.4	5400	PINATON, Jacques.....	ThC02.2	4741
Pedarsani, Ramtin.....	WeA10.5	347	Ping, Xubin.....	WeC17.1	2479
.....	ThB10.5	4103	.....	WeC17.4	2497
Pedram, Ali Reza.....	WeB09.5	1243	Pinson, Pierre.....	FrB25.2	7498
Peet, Matthew M.....	WeA08.2	262	Pinto, Samuel C.....	ThB15.3	4280
.....	WeA08.5	280	Piovosso, Michael J.....	FrA01.4	5662
.....	WeB02.4	983	Pirani, Mohammad.....	ThB18.3	4391
.....	WeC14.6	2397	.....	FrA20.2	6368
.....	ThB24	C	Piroddi, Luigi.....	FrA22.5	6461
.....	ThB24.4	4622	Pisano, Alessandro.....	WeB22.1	1722
Peixoto, Alessandro Jacoud.....	FrC10.4	7875	.....	FrA08.5	5930

Plestan, Franck.....	FrB10.2	6936	.....	ThA08.5	3092
Poggiolini, Laura.....	WeB15	O	.....	ThA12.3	3227
.....	WeB15.2	1462	.....	FrC12.1	7931
.....	WeC15	C	Prodan, Ionela.....	WeC05.6	2060
.....	WeC15	O	.....	FrC15.5	8061
Pohl, Volker.....	FrC06.2	7714	Proskurnikov, Anton V.....	WeA14.5	493
Polcz, Péter.....	ThB02.3	3793	.....	WeC01.4	1893
Poli, Michael.....	FrB06.4	6799	.....	FrA14.5	6158
Polushin, Ilia G.....	FrB14.1	7075	Proutiere, Alexandre.....	WeC22.4	2676
Polyakov, Andrey.....	WeA01.3	13	.....	ThA26.2	3724
.....	ThA14.6	3316	.....	ThA26.3	*
.....	ThB08.5	4029	Pruekprasert, Sasinee.....	WeB04.3	1050
.....	ThC08	CC	Pucci, Daniele.....	FrA07	CC
.....	ThC08.5	4990	.....	FrA07.5	5894
.....	FrB14	C	.....	FrC14.2	8007
.....	FrB14.3	7087	Puig, Vicenc.....	FrC23.6	8366
.....	FrB14.5	7099	Punta, Elisabetta.....	FrC10.6	7887
Polycarpou, Marios M.....	WeA25.6	909	Puthuvana Vinod, Abraham.....	WeC16.5	2467
Pomet, Jean-Baptiste.....	WeA15	C	Pylorof, Dimitrios.....	WeB18.4	1589
.....	WeA15	O	Pyrkin, Anton.....	WeA18.6	648
.....	WeA15.3	517			
Pommier-Budinger, Valerie.....	FrB08.1	6857	Q		
Pontes Duff Pereira, Igor.....	FrC08.5	7806	Qi, Jie.....	WeC08.6	2169
Poolla, Bala Kameshwar.....	FrB25.1	7492	Qi, Yang.....	FrC17.5	8136
Poonawala, Hasan A.....	WeB14	CC	Qin, Zhengyan.....	ThC15.5	5252
.....	WeB14.5	1442	Qiu, Daowen.....	FrB04.6	6736
Poor, H. Vincent.....	ThA06.6	3018	Qiu, Li.....	ThB12.2	4161
Poovendran, Radha.....	WeA16	C	.....	FrA12	C
.....	WeA16.5	567	.....	FrA12	O
.....	WeB25	CC	.....	FrA12.2	6062
.....	WeB25.2	1842	.....	FrB16.2	7154
.....	ThB09.3	4053	Qu, Guannan.....	FrA23.2	6479
.....	FrB09.3	6905	Qu, Zheng.....	FrA09.4	5963
Popescu, Andrei.....	FrB07.4	6838	Qu, Zhihua.....	FrB20	CC
Possieri, Corrado.....	WeA11.6	390	.....	FrB20.3	7313
.....	WeA16.1	541	Quartullo, Renato.....	ThC07.4	4946
.....	ThB01.1	3750	Queinnec, Isabelle.....	FrC12.1	7931
.....	FrA18.3	6301	Quevedo, Daniel E.....	ThC19.5	5406
Postlethwaite, Ian.....	WeB02.3	976	Quijano, Nicanor.....	ThB06	CC
Postoyan, Romain.....	WeA14	CC	.....	ThB06.5	3954
.....	WeA14.4	487			
.....	WeB20.1	1650	R		
.....	WeB20.3	1662	Ra, Won-Sang.....	ThC07.3	4940
.....	WeC20.3	2604	rabhi, abdelhamid.....	ThC05.6	4885
.....	ThA17.2	3405	Raginsky, Maxim.....	WeA09.6	317
.....	ThC21.5	5480	.....	ThC19.2	5386
Potschka, Andreas.....	ThC02.4	4755	.....	FrC13.1	7970
Poulakakis, Ioannis.....	ThB07.1	3966	Raisch, Joerg.....	WeB23.6	1791
Pouliquen, Mathieu.....	WeA22.5	791	.....	ThB04.6	3885
Poulsen, Niels Kjølstad.....	FrB11.4	6983	.....	ThB12.4	4172
Poupard, Eduardo.....	ThB16.6	4337	Raïssi, Tarek.....	WeC17	CC
Pouryahya, Maryam.....	FrC01.1	7530	.....	WeC17.1	2479
Poussot-Vassal, Charles.....	FrC02	C	.....	WeC17.4	2497
.....	FrC02.5	7590	.....	ThA11.5	3202
Poveda, Jorge I.....	ThA06.1	2988	Rajamani, Rajesh.....	FrB13.3	7049
.....	ThA06.3	3000	.....	WeA11.5	385
.....	ThB06	C	.....	ThA02.4	2862
.....	ThB06.5	3954	.....	ThA18	CC
.....	FrA06	C	.....	ThA18	O
.....	FrA06.2	5838	.....	ThB02.2	3788
.....	FrB21.3	7352	Rajawat, Ketan.....	WeC24.3	2745
Pradelski, Bary S. R.....	ThA19.2	3478	Rajpurohit, Tanmay.....	ThB21.6	4521
Prandini, Maria.....	ThB07	CC	Rakhlin, Alexander.....	ThA23.2	3623
.....	ThB07.3	3978	Rakotondrabe, Micky.....	FrB07	C
.....	FrA22	C	.....	FrB07	O
.....	FrA22.5	6461	.....	FrB07.1	6821
Preciado, Victor M.....	WeB07.3	1159	Ramasamy, Saravanakumar.....	FrA05.6	5826
.....	WeC24	C	Ramasubramanian, Bhaskar.....	WeB25.2	1842
.....	WeC24.1	2732	Ramaswamy, Karthik R.....	ThC22.1	5494
.....	FrA06.4	5850	.....	ThC22.5	5519
Prieur, Christophe.....	ThSP2	C	Ramazi, Pouria.....	WeC25.5	2796
			.....	FrB09.4	6912

Ramdani, Nacim	.....WeB07.2	1152	.....ThC03.1	4777	
.....	.....WeC16.4	2461	.....ThC16.4	5285	
Ramezani, Amin	.....WeC17.5	2503	.....ThC21.6	5486	
Ramirez, Daniel R.	.....FrC05.1	7671	.....FrA23.4	6491	
Rampazzo, Franco	.....WeA15.6	535	.....FrB24.1	7454	
.....	.....WeB15.4	1474	Ribeiro, Paulo Fernando	.....ThC13.4	5168
Ran, Wei	.....FrA08.3	5918	Richard, Jean-Pierre	.....FrB12.1	7001
Ranjan, Shashank	.....ThA24.2	3661	Richards, John A.	.....WeC16.5	2467
Rantzer, Anders	.....WeB05.2	1083	.....	.....FrC23.3	8347
.....	.....ThA26	CC	Ridderhof, Jack	.....ThA19.3	3484
.....	.....ThA26	O	Rikos, Apostolos I.	.....WeA25.5	903
.....	.....ThA26.1	*	Rinaldi, Gianmario	.....WeB18.3	1583
.....	.....ThA26.2	3724	Ringh, Axel	.....WeB11.6	1331
.....	.....ThA26.4	*	Ringwood, John V.	.....ThB15.4	4286
.....	.....FrA12.3	6068	Ríos, Héctor	.....WeA03.5	96
.....	.....FrB16	CC	.....	.....FrA05.2	5799
.....	.....FrB16.2	7154	.....	.....FrA10.4	6001
Rao, Xu	.....WeC10.1	2214	Ritschel, Tobias Kasper Skovborg	.....ThB01.3	3762
Rapaic, Milan R.	.....WeB22.1	1722	.....	.....FrB11.4	6983
Rapaport, Alain	.....WeA01.2	7	Riverso, Stefano	.....FrB18.6	7252
.....	.....WeB18	CC	Rizvi, Syed Ali Asad	.....WeA05.1	145
.....	.....WeB18.1	1571	.....	.....FrA24.5	6536
.....	.....ThA01.2	2814	Rizzello, Gianluca	.....FrC12.2	7937
.....	.....ThC02	C	Rizzo, Alessandro	.....WeC21.2	2628
.....	.....ThC02.1	4735	.....	.....ThB01	C
Rapisarda, Paolo	.....WeC22.2	2666	.....	.....ThB01.1	3750
Rasonyi, Miklos	.....WeC11.2	2259	Robertsson, Anders	.....WeB05.2	1083
Ratha, Anubhav	.....FrB25.2	7498	Rodrigues, Diogo	.....ThA11.2	3184
Ratliff, Lillian J.	.....WeB11.2	1301	Rodrigues, Luis	.....FrC24	CC
.....	.....WeC11.1	2251	.....	.....FrC24.5	8398
.....	.....ThC12.5	5138	Rodrigues da Silva, Rafael	.....FrC13.6	7994
.....	.....ThC23.3	5544	Rodrigues Marcal de Almeida, Diogo	.....ThB14.5	4252
.....	.....FrB09.2	6899	Rodriguez y Baena, Ferdinando	.....WeB03.4	1019
Rauh, Andreas	.....ThC24.6	5599	Roduner, Christian Andreas	.....WeA16.4	561
Ravazzi, Chiara	.....ThA02	C	Rogers, Eric	.....ThC24.5	5593
.....	.....ThA02.5	2868	.....	.....FrA24	C
Ravier, Robert	.....WeC16.2	2449	.....	.....FrA24.2	6518
.....	.....WeC16.3	2455	.....	.....FrA24.4	6530
Rebillat, Marc	.....FrA01.5	5668	Roig-Solvas, Biel	.....ThC06.5	4916
Reenberg, Asbjørn	.....ThB01.3	3762	Rojas, Cristian R.	.....FrB11.5	6989
Regaieg, Mohamed Amin	.....WeA17.6	611	Rokade, Kiran	.....FrA21.1	6398
Reger, Johann	.....WeA14	C	Romagnoli, Raffaele	.....ThB04.5	3878
.....	.....WeA14.3	480	Roman, Monica	.....ThA04.5	2940
.....	.....FrA02.6	5710	Romano, Rodrigo Alvite	.....ThB01.2	3756
.....	.....FrC07	CC	Romao, Licio	.....FrB23.6	7448
.....	.....FrC07.5	7770	Romer, Anne	.....WeB23.4	1778
Régnier, Stéphane	.....FrB07.6	6851	Romero, Jose Guadalupe	.....ThA18.4	3453
Regruto, Diego	.....FrB11	CC	Romero, Julio Ariel	.....WeA20.6	722
.....	.....FrB11.2	6971	Romero, Orlando	.....ThC01.2	4705
Reichensdörfer, Elias	.....FrB03.1	6669	Rosa, Paulo	.....WeA11.1	361
Reichhartinger, Markus	.....FrA10.2	5989	Rosenfeld, Joel A.	.....FrA22.4	6455
.....	.....FrA10.3	5995	Rosenthal, Florian	.....FrA21.5	6424
.....	.....FrB10.1	6930	Rosenthal, Steven	.....FrC06.5	7733
.....	.....FrB10.4	6947	Rosier, Lionel	.....FrB08.6	6887
Reissig, Gunther	.....FrA17	C	Rosolia, Ugo	.....WeC23.2	2702
.....	.....FrA17	O	Rossi, Enrica	.....WeC06.4	2084
Ren, Hongyi	.....WeB11.1	1293	Rostalski, Philipp	.....WeC23.3	2708
Ren, Juan	.....FrC07.4	7764	.....	.....FrB11.6	6995
Ren, Lingyu	.....ThB13.5	4216	Rostami, Ramin	.....ThC25.6	5635
Ren, Qinyuan	.....FrA24.3	6524	Rostampour, Vahab	.....ThA05	C
Ren, Wei	.....ThB17.1	4343	.....	.....ThA05.5	2976
Ren, Xiaoqiang	.....ThB18	C	Rotithor, Ghananeel	.....FrB06.6	6815
.....	.....ThB18	O	Rouchon, Pierre	.....WeA18.5	642
.....	.....ThC18	O	.....	.....WeB12	CC
.....	.....ThC18.1	5344	.....	.....WeB12.4	1357
Reux, Cédric	.....ThA12.1	3214	.....	.....WeB12.5	1362
Reverdy, Paul	.....WeA07.5	244	Rouot, Jérémy	.....WeA15.1	505
.....	.....FrC14	CC	Rouse, Courtney	.....WeA02.5	60
.....	.....FrC14.6	8030	Rovithakis, George A.	.....FrA14.4	6152
Rezaee, Hamed	.....ThB04.3	3865	Roy, Sandip	.....FrA12.5	6080
Ribeiro, Alejandro	.....ThA16.6	3391			

ROY, SPANDAN.....	WeA03.1	72			FrC11.4	7911
Roze, David.....	FrB08.6	6887		Saoud, Adnane.....	WeC20.4	2610
Rudkevich, Alexandr.....	ThC05.5	4877			FrA17.2	6255
Ruf, Sebastian F.....	WeB21.2	1692		Saraiva da Silva, Ramiro.....	FrA07.4	5888
Runacres, Mark C.....	FrB22.4	7397		sardoueinassab, zahra.....	FrA25.3	6560
Rupenyan, Alisa.....	FrC07.1	7746		Sarkar, Tuhin.....	ThA23.2	3623
Rus, Daniela.....	ThB23.2	4569		Sarlette, Alain.....	WeB12	C
Russo, Benjamin.....	FrA22.4	6455			WeB12.5	1362
Russo, Giovanni.....	WeC07.2	2108			WeB12.6	1369
	ThC14.1	5187		Sasahara, Hampei.....	ThA20.6	3540
Russo, Raffaele.....	ThA20.4	3527		Sassano, Mario.....	WeA11	CC
Ruths, Justin.....	ThC18.3	5356			WeA11.6	390
Rutquist, Per.....	ThC15.1	5223			ThA15.2	3328
Ryu, Kunhee.....	WeC21.4	2640			FrA18.3	6301
					FrC13.3	7982
S				Sastry, Shankar.....	ThA07.4	3046
Sa-e, Sakariya.....	ThC24.4	5587		Satchidanandan, Bharadwaj.....	ThB18.5	4403
Saadi, Omar.....	FrA09.4	5963		Satheeskumar Varma, Vineeth.....	WeB06.3	1120
Sabatier, Jocelyn.....	WeB02.1	965			ThA21.1	3546
Saberi, Ali.....	FrB20.2	7307		Sathish, Vurukonda.....	FrB11.3	6977
Saccon, Alessandro.....	FrB18	CC		Sato, Hiroyuki.....	ThA22.3	3593
	FrB18.5	7246		Sato, Kazuhiro.....	ThA22	C
Sachan, Kapil.....	ThA03.2	2886			ThA22.3	3593
Sadeghi, Mahdiar.....	ThC12.4	5132			ThA22.6	3611
Sadeghi Yengejeh, Armin.....	ThC12.2	5119		Savas, Yagiz.....	WeC11.1	2251
Sadigh, Dorsa.....	WeA10.5	347			WeC11.4	2271
Sadraddini, Sadra.....	WeC05.5	2054			FrA09.3	5955
	ThB17	CC		Savelli, Iacopo.....	ThA05.6	2982
	ThB17.5	4367			FrB22.1	7376
Saeedmanesh, Mohammadreza.....	WeA10.4	341		Savla, Ketan.....	ThB10.3	4091
Saggin, Fabricio.....	ThC14.2	5193		Sawant, Vishal.....	ThC21.2	5462
Saglam, Irmak.....	ThB23.5	4589		Sayed, Ali H.....	ThC06.2	4898
Sahabandu, Dinuka.....	WeA16.5	567		Scabin Vicinansa, Guilherme.....	FrA04.1	5754
Sahu, Anit Kumar.....	FrC23.4	8353		Scampicchio, Anna.....	WeA23.4	822
Said, Hazem.....	ThB11.4	4133		Scarciotti, Giordano.....	ThA19	CC
Saikumar, Niranjana.....	FrC12.5	7956			ThA19.6	3503
Sakamoto, Noboru.....	WeC15.4	2422			ThB15.4	4286
Sakcak, Basak.....	ThB07.3	3978		Scardovi, Luca.....	ThA01.4	2826
Sakurama, Kazunori.....	WeC25	CC		Scattolini, Riccardo.....	WeC23.5	2720
	WeC25.3	2782			FrC05.1	7671
Salapaka, Murti V.....	ThB22.4	4545		Schaum, Alexander.....	ThB08.4	4023
Salapaka, Srinivasa M.....	ThB06.4	3948			ThC11.1	5076
Saldi, Naci.....	WeA09.6	317		Scheffler, Mattias.....	FrA01.5	5668
	WeA19.1	654		Schenato, Luca.....	WeC06.4	2084
Salehghaffari, Hossein.....	ThC13.2	5156			FrC21	CC
Sælid, Steinar.....	FrA01.3	5654			FrC21.6	8290
Salton, Aurelio Tergolina.....	FrC12.4	7950		Scherer, Carsten W.....	FrA02.2	5686
Salvador, José R.....	FrC05.1	7671		Scherpen, Jacquelin M.A.....	ThA05.5	2976
Salzano, Davide.....	WeB01.1	927			ThC06.3	4904
Sampathirao, Ajay Kumar.....	ThB04.6	3885			ThC10.1	5038
Samson, Claude.....	FrA07.3	5880			ThC10.5	5062
Sanai Dashti, Zohreh AL Zahra.....	ThA25.2	3691			FrA16	CC
Sanchez, Claudia.....	FrC15.2	8042			FrA16.2	6215
Sandberg, Henrik.....	ThA20.2	3515			FrB14.4	7093
	ThA20.6	3540			FrC08	CC
	ThB18.1	4379			FrC08.3	7794
	ThC18.1	5344			FrC25.5	8435
	FrA20	C		Scherrer, Bruno.....	WeA14.4	487
	FrA20.2	6368		Schirmer, Sophie.....	WeB12.1	1339
	FrC23.1	8335		Schlöder, Matthias.....	WeB17.2	1538
Sandhu, Romeil.....	ThC23.6	5562		Schmitt, Eva Julia.....	ThB05.5	3916
Sanfelice, Ricardo G.....	WeB20.3	1662		Schmuck, Anne-Kathrin.....	FrA17.3	6261
	WeC13.5	2356		Schoellig, Angela P.....	WeA23	C
	FrA18	CC			WeA23	O
	FrA18.6	6319			WeB23	O
	FrB18.2	7228			WeB23.5	1784
	FrC18.3	8160			WeC23	O
Sanfourche, Martial.....	FrC11.6	7923		Scholten, Jan Jelmer.....	WeA23.1	803
Sanjari, Seyed Sina.....	ThB25.4	4662		Schön, Thomas (Bo).....	WeA23.6	835
Santilli, Matteo.....	ThA25.5	3710			ThA24.4	3670
Sanyal, Amit.....	FrB12.5	7025				

.....	FrB22.2	7382	.....	FrA20.4	6380
.....	FrB22.5	7403	Shangah, Laya.....	WeC25.1	2770
Schoof, Eric.....	WeA21.3	740	.....	WeC25.2	2776
Schoukens, Johan.....	FrB22.4	7397	Shamma, Jeff S.....	ThC09.1	5002
Schouten, Sil.....	FrC08.4	7800	.....	FrA26	O
Schug, Ann-Kathrin.....	ThB08.1	4005	.....	FrA26.1	*
Schulte-Herbrueggen, Thomas.....	WeC12.6	2322	.....	FrA26.2	*
Schulze Darup, Moritz.....	FrB17	C	.....	FrA26.4	6584
.....	FrB17	O	Shammas, Elie.....	FrC22.5	8323
.....	FrB17.3	7196	Sharf, Miel.....	FrB21.4	7358
.....	FrB17.6	7215	Sharif, Bardia.....	FrA04.4	5773
Schüssler, Max.....	FrA22.1	6437	Sharifi Kolarijani, Arman.....	WeA20.2	698
Schuster, Eugenio.....	ThA12.4	3233	Sharifi Kolarijani, Mohamad Amin.....	FrA14.5	6158
.....	ThA12.5	3239	Sharma, Harsh.....	FrC16.2	8079
Schuurmans, Mathijs.....	ThC16.2	5272	Sharma, Hiteshi.....	FrA19.4	6344
.....	FrA23.5	6498	She, Baike.....	ThC21.1	5456
Schwager, Mac.....	WeB11.3	1307	She, Zhikun.....	FrC06.4	7727
.....	WeB11.4	1315	Shea, John M.....	FrA21.3	6412
.....	WeC21.5	2646	Shen, Chen.....	FrB25.5	7518
Scorletti, Gerard.....	ThC14	CC	Shen, Qiang.....	FrC13.2	7976
.....	ThC14.2	5193	Shen, Yi.....	ThA11.5	3202
.....	FrC14.4	8018	Shi, Ling.....	ThB05.2	3898
.....	FrC18.6	8178	Shi, Peng.....	ThA14.5	3309
Scruggs, Jeff.....	ThC19.6	5412	Shi, Shengling.....	ThC22.3	5507
Seatzu, Carla.....	ThA25.2	3691	Shi, Wei.....	ThC23	O
Sebastian, Gijo.....	ThC24	O	.....	FrA23	O
.....	FrB24.3	7468	Shi, Yang.....	WeA20.5	716
Seeber, Richard.....	ThA14	CC	Shi, Zongying.....	ThB09.5	4067
.....	ThA14.1	3285	Shim, Hyungbo.....	WeA24	CC
.....	ThA14.2	3291	.....	WeA24.2	847
.....	ThC14.4	5206	.....	ThA21.5	3569
.....	FrB10	C	.....	ThC18.4	5362
.....	FrB10.4	6947	.....	FrA06.3	5844
Seel, Thomas.....	WeB23.6	1791	.....	FrB17.2	7190
Seelecke, Stefan.....	FrC12.2	7937	Shimada, Naoki.....	FrB17.1	7184
Seethaler, Rudolf.....	FrB07.2	6827	Shin, Kang G.....	ThC05.4	4871
Segovia, Pau.....	FrC23.6	8366	Shin, Sungho.....	ThC16.1	5264
Seidman, Jacob H.....	FrA06.4	5850	Shirani Faradonbeh, Mohamad Kazem.....	WeC03.5	1977
Seifullaev, Ruslan.....	ThB21.1	4489	Shishika, Daigo.....	FrB20.5	7325
Sela, Lina.....	ThC21.4	5474	Shivakumar, Sachin.....	WeA08.2	262
Self, Ryan.....	ThA03.1	2880	.....	WeA08.5	280
Selivanov, Anton.....	WeC08.3	2151	Shivam, Shashwat.....	WeA24.3	853
Selmic, Rastko.....	ThB03.6	3847	Shorten, Robert.....	WeB10.3	1267
Selvaratnam, Daniel.....	ThA16.2	3364	.....	WeB10.6	1286
Selvi, Daniela.....	FrC09.1	7818	.....	WeC07.2	2108
Semakov, Ivan.....	WeC19.3	2568	.....	ThA08.5	3092
Semakov, Sergei.....	WeC19.3	2568	Shroff, Ness B.....	ThC13.6	5180
Sename, Olivier.....	ThA18.5	3459	Shu, Shaolong.....	FrB04.1	6706
.....	FrC03.1	7596	.....	FrB04.4	6724
Sepulchre, Rodolphe.....	ThSP1	C	Shvartsman, Ilya.....	ThB15.6	4298
.....	ThC01.5	4723	Siami, Milad.....	WeA21	C
.....	FrB05.2	6748	.....	WeA21.2	734
Serieye, Mathias.....	WeC17.3	2491	Siampis, Efsthathios.....	FrB03.6	6700
Serrani, Andrea.....	WeC05	CC	Sigalotti, Mario.....	WeA17.2	587
.....	WeC05.3	2039	.....	WeC12.1	2292
.....	FrA13.4	6112	Silva, Alonso.....	WeA24.5	867
Serres, Ulysse.....	ThA18.1	3435	Silva, Geraldo Nunes.....	WeC13.3	2344
Setter, Tina.....	ThB05.4	3910	Silvestre, Carlos.....	WeA11	C
Seuret, Alexandre.....	WeC17.3	2491	.....	WeA11.1	361
Sevuktekin, Noyan.....	ThC19.2	5386	Silvestre, Daniel.....	WeA11.1	361
Shabbir, Mudassir.....	ThC20.5	5444	Simaan, Marwan A.....	FrB20.3	7313
.....	ThC21.3	5468	Simard, Joel David.....	FrC08.2	7788
Shaffer, Joshua.....	FrB06.1	6778	Simonetto, Andrea.....	FrA16.3	6221
Shahab, Mohamad T.....	WeA03.3	84	Simoni, Daniele.....	WeC08.5	2163
Shakkottai, Srinivas.....	FrC25.4	8429	Simpson-Porco, John W.....	FrA16.1	6207
Shames, Iman.....	WeB20.1	1650	.....	FrB25.1	7492
.....	WeB25.3	1850	Sinetova, Madina.....	WeA18.6	648
.....	ThA16	CC	Singer, Andrew.....	ThC19.2	5386
.....	ThA16.2	3364	Singh, Abhyudai.....	WeC01	CC
.....	ThA16.4	3377	.....	WeC01	O

.....	.ThA01.5	2832	Staal, Odd Martin	FrA01.3	5654
.....	.ThC01	C	Stamouli, Charalampia	ThC20.1	5420
.....	.ThC01	O	Stankovic, Milos S.	ThB20.3	4465
.....	.ThC01.6	4729	Stankovic, Srdjan S.	ThB20.3	4465
.....	.FrC01.3	7542	Stark, Oliver	WeA22.4	784
Singletary, Andrew .....	.WeC05.4	2046	Stavdahl, Øyvind	FrA01.3	5654
.....	.ThC03.4	4797	Stefan, Jeb	FrB21.2	7345
Sinha, Prasun .....	.ThC13.6	5180	Stefani, Gianna	WeB15.2	1462
Sinopoli, Bruno .....	.WeA19.4	672	Stefanovich, Alexei	WeA21.1	728
.....	.ThB04.5	3878	Steinberger, Martin	ThC14.4	5206
.....	.ThB18	CC	.....	FrA10.5	6007
.....	.ThB18	O	.....	FrC10.5	7881
.....	.ThB18.3	4391	Stephens, Trevor	WeC03.1	1951
.....	.ThC18	O	Stern, Raphael	ThA10	C
Sinyakov, Vladimir .....	.ThB17.3	4355	.....	ThA10	O
Siri, Silvia .....	.WeA10	O	Stickan, Benjamin	ThC15.1	5223
Sivaramkrishnan, Vignesh .....	.WeC16.1	2442	Stoican, Florin	WeC05.6	2060
Skupin, Piotr .....	.WeA01.2	7	.....	FrC15.5	8061
Small, Austin .....	.FrB24.1	7454	Stoorvogel, Anton A.	FrB20.2	7307
Smirnova, Vera .....	.WeA14.5	493	Strecker, Timm	ThC08.4	4984
Smith, Roy S. ....	.WeB22	CC	Strehle, Felix	ThB25.2	4648
.....	.WeB22.4	1740	Streif, Stefan	FrA15.4	6189
Smith, Stanley W. ....	.FrC16.4	8093	.....	FrB15	CC
Smith, Stephen L. ....	.ThC12	CC	.....	FrB15.1	7110
.....	.ThC12.2	5119	Strijbosch, Nard	FrA24.6	6542
.....	.FrC20.1	8224	Strom, Benjamin	FrB22.3	7389
Sofrony, Jorge Ivan .....	.WeC03.4	1971	Su, Rong	WeB10	CC
Sojoudi, Somayah .....	.WeC22	CC	.....	WeB10	O
.....	.WeC22.5	2682	.....	WeB10.1	1255
Soleymani, Touraj .....	.ThB12.5	4178	.....	WeC10	CC
Solo, Victor .....	.ThA03.5	2904	.....	WeC10	O
.....	.ThA07	C	.....	FrB04	C
.....	.ThA07.1	3026	.....	FrB04	O
.....	.ThA07.2	3033	.....	FrB04.5	6730
.....	.ThB22.1	4527	.....	FrC04	C
Soloperto, Raffaele .....	.WeB13.1	1377	.....	FrC04	O
.....	.WeB13.2	1383	.....	FrC04.5	7659
Solowjow, Friedrich .....	.WeB11.4	1315	Subramanian, Jayakumar	WeB19.4	1629
.....	.WeB23.6	1791	Subramanian, Venkat Ram	ThB22.4	4545
Soltanolkotabi, Mahdi .....	.FrB24.4	7474	Sultangazin, Alimzhan	FrB17.5	7209
Son, Tong .....	.FrC03.5	7623	Summers, Tyler H.	FrB05.1	6742
Song, Jeyoung .....	.WeA03.4	90	.....	FrB15.6	7140
Song, Kang .....	.ThC03.3	4791	Sun, Chuangchuang	ThC12.1	5113
Song, Qianli .....	.FrB15.4	7128	Sun, Chunyang	WeB10.1	1255
Song, Yang .....	.WeB17.6	1565	Sun, Dawei	ThB04.1	3854
Song, Yuhua .....	.ThA05.4	2970	Sun, Jinan	WeB25.5	1862
Sontag, Eduardo .....	.ThA01.3	2820	Sun, Jing	FrB03.5	6694
.....	.ThC12.4	5132	Sun, Runhan	WeB18.6	1601
Soo, Hang Jian .....	.WeB02.3	976	Sun, Shiqing	ThC06.6	4922
Sopasakis, Pantelis .....	.ThC16.2	5272	Sun, Xi-Ming	WeB06.1	1108
.....	.FrA23.5	6498	.....	ThC20.4	5438
Soravia, Pierpaolo .....	.WeB15.3	1468	Sun, Yixin	FrB07.5	6844
Sorrentino, Francesco .....	.WeB21.6	1716	Sun, Zhiyong	WeB05	C
Souaiby, Marianne .....	.WeB02.2	971	.....	WeB05.2	1083
Spagolla, Amanda .....	.FrB05.6	6772	.....	ThA20.3	3521
Spall, James C. ....	.ThC06.6	4922	Sundar, Kaarthik	ThC05.5	4877
Spasojevic, Igor .....	.FrC16.5	8099	Sundaram, Shreyas	ThC18.5	5368
Sprinkle, Jonathan .....	.ThB26	CC	.....	ThC18.6	5374
.....	.ThB26	O	.....	FrC09	C
.....	.ThB26.1	4680	.....	FrC09.5	7844
.....	.ThB26.3	*	.....	FrC23.3	8347
Sra, Suvrit .....	.WeB16.2	1501	Surace, Simone Carlo	WeA19.3	666
Srazhidinov, Radik .....	.ThB12.2	4161	Surroop, Dilshad	WeA18.5	642
Srighakollapu, Manikya Valli .....	.WeC06.1	2066	Sutherland, Richard	ThC15.2	5231
Srinivasan, Mohit .....	.FrB12.6	7031	Suttner, Raik	ThA20.3	3521
Srivastava, Amber .....	.ThB06.4	3948	Suzuki, Atsushi	WeB25.4	1856
Srivastava, Vaibhav .....	.ThB01	CC	Sweeney, Shaun	WeC07.2	2108
.....	.ThC01.4	4717	Swenson, Brian	ThA06.6	3018
.....	.FrA03.3	5729	Swikir, Abdalla	ThC12.3	5126
.....	.FrB09	C	Sylvestre, Mathieu	ThC09.6	5032
.....	.FrB09.6	6924			

Szederkényi, Gábor	ThB02.3	3793		Tartaglione, Gaetano	FrC02.4	7584
Sznaier, Mario	WeB17		C	Tatarenko, Tatiana	ThA09.1	3104
	ThA17.4	3417			FrA16.5	6234
	ThA17.6	3429		Tayebi, Abdelhamid	WeC18.1	2516
	ThC06.5	4916			FrB18.1	7222
Szymanek, Aleksandra	WeB20.2	1656		Taylor, Andrew	WeB14.6	1448
T				Taylor, Joshua A.	ThB18.3	4391
T. Khalil, Nathalie	FrA15.2	6175		Tedesco, Francesco	ThA20.4	3527
Tabuada, Paulo	WeB21.5	1710			FrB21.6	7370
	WeB24		C	Tedrake, Russ	ThB17.5	4367
	WeB24.2	1803		Teel, Andrew R.	FrA06.2	5838
	ThC18.5	5368			FrB18	C
	FrA17.1	6249			FrB18.3	7234
	FrB17.5	7209		Tei, Kenji	WeB04.6	1068
Tacchi, Matteo	ThA16.1	3358		Teixeira, André M. H.	ThB18.2	4385
Tadewos, Tadewos Getahun	WeC25.1	2770			FrB21.5	7364
	WeC25.2	2776		Tellez-Castro, Duvan Andres	FrC20.4	8242
Tadic, Vladislav	WeA22.6	797		Tembine, Hamidou	WeA09	C
	WeB19.6	1644			WeA09	O
Tadokoro, Yukihiko	ThA19.1	3471			WeA09.2	293
Taghvaei, Amirhossein	WeC24.5	2758			WeC09.6	2208
Taha, Ahmad	ThA11.4	3196		Teranishi, Kaoru	FrB17.1	7184
	ThB22.5	4551		Terashima, Kazuhiko	FrC12.6	7963
	ThC21		C	Terushkin, Maria	WeA08.1	256
	ThC21.4	5474		Terzi, Enrico	WeC23.5	2720
Tahir, Adam	ThA18.3	3447			FrC05.1	7671
TAHIROVIC, Adnan	ThC15.3	5238		Tesi, Alberto	ThA17.5	3423
Tahmasbi-Sarvestani, Amin	WeC10.2	2220		Tesi, Alessandro	ThA20.1	3509
Tahoumi, Elias	FrB10.2	6936		Tesi, Pietro	WeA24.6	873
Taitler, Ayal	WeA15.4	523			ThC22.4	5513
Takai, Shigemasa	WeB04		CC		FrC09.1	7818
	WeB04.1	1037		Tewari, Ambuj	WeC03.5	1977
Takeda, Akiko	WeC22.3	2672		Thakker, Rohan A	FrA17.6	6282
	ThA22.6	3611		Thanomvajamun, Nutthanun	ThA09.4	3122
Talebi, Shahriar	ThC23.3	5544		Thapa, Sandesh	ThA03.1	2880
	FrB20.3	7313		Thapliyal, Omanshu	WeC16.1	2442
Talj, Reine	FrC03.2	7602		Themelis, Andreas	ThB16.4	4325
Tallapragada, Pavankumar	WeC16		C	Theocharides, Theocharis	WeA25.6	909
Tamás, Ambrus	ThB19.3	4427		Theodorou, Evangelos A.	FrB06.5	6807
Tan, Junbo	ThA04.5	2940		Theodosios, Dionysios	WeB20.4	1668
Tan, Li	WeB22.6	1752		Thomas, Brian G.	ThB08.6	4035
Tan, Ying	WeA17.3	593		Thompson, Craig	WeA07.5	244
	ThC24		C	Thuan, Do Duc	WeA17.5	605
	ThC24		O	Thunberg, Johan	ThB22.3	4539
Tan, Ying	FrA05.5	5819		Tibken, Bernd	ThC14.3	5199
Tan, Ying	FrB24		CC	Ticozzi, Francesco	WeA12	O
	FrB24.3	7468			WeA12.4	413
Tanaka, Takashi	WeB09.5	1243			WeC12	CC
	WeC11.4	2271			WeC12.4	2310
	FrA09.3	5955		Tiels, Koen	ThA24.4	3670
	FrB21		C		FrB22.4	7397
	FrB21.2	7345		Tilli, Andrea	WeC05.3	2039
Tanemura, Masaya	FrB02.2	6646		Tjell, Katrine	FrB17.4	7203
Tang, Gongguo	FrB16.5	7171		To, Kwun Yiu Cadmus	FrC22.2	8303
Tang, Shuxia	ThB08.2	4011		Todorov, Marcos	ThB19.1	4415
	ThB10.4	4097			ThB19.2	4421
Tang, T-Y Dora	WeB01.3	939		Tognetti, Eduardo Stockler	ThC04.2	4823
Tang, Yang	WeB06.5	1132		Tognon, Marco	WeC06.4	2084
Tang, Yujie	ThB06.1	3928		Toivonen, Hannu T.	WeB22.2	1728
Tani, Fatima Zahra	ThA01.2	2814		Tolani, Varun	WeB23.1	1758
	ThC02.1	4735		Tomaszek, Lukas	ThC04.5	4841
Tannenbaum, Allen	FrC01.1	7530		Tomlin, Claire J.	WeA23.5	828
Tanwani, Aneel	WeC13.1	2330			WeB13.4	1395
	FrC18.1	8148			WeB15.6	1486
Tao, Qian	ThA04.1	2916			WeB23.1	1758
Tarbouriech, Sophie	WeA05		O		ThA13.2	3253
	FrC12		O		ThC03.6	4810
	FrC12.1	7931			FrA16.6	6242
Tarokh, Vahid	WeC16.2	2449		Tong, Yin	FrC04	O
	WeC16.3	2455			FrC04.6	7665

Topcu, Ufuk	.....WeB11.5	1323	Ucinski, Dariusz	.....WeB08.2	1189
.....	.....WeC11.1	2251	Ugrinovskii, Valery	.....WeB12.2	1345
.....	.....WeC11.3	2265	Umenberger, Jack	.....WeA23.6	835
.....	.....WeC11.4	2271	.....	.....FrB22.2	7382
.....	.....WeC17.6	2509	.....	.....FrB22.5	7403
.....	.....ThC02.5	4761	Umsonst, David	.....ThA20.2	3515
.....	.....FrA09.3	5955	Unger, Benjamin	.....WeB02.5	989
.....	.....FrA15.1	6169	upadhyay, devesh	.....ThA10.3	3152
.....	.....FrA17.5	6275	Urata, Kengo	.....WeA21.5	752
Toriumi, Fabio	.....ThC07.1	4928	Uribe, Cesar	.....ThA23.4	3635
Torres, Lizeth	.....ThA04	C	.....	.....ThB06.5	3954
Torres Ortiz, Flor Lizeth	.....ThA04.6	2946	.....	.....FrB23	CC
Tóth, Roland	.....FrA02.1	5680	.....	.....FrB23	O
TOUMI, Samir	.....WeB02.6	995	.....	.....FrB23.4	7435
Touri, Behrouz	.....FrA21	CC	.....	.....FrC23	C
Touri, Behrouz	.....FrA21.6	6431	.....	.....FrC23	O
Trachte, Adrian	.....ThB15.2	4273	.....	.....FrC23.2	8341
Tran, Benoît	.....ThA15.3	3334	Ursino, Bruno	.....WeB06.6	1138
Tran-Dinh, Quoc	.....FrC16.3	8085	Usai, Elio	.....WeB22	C
Tranninger, Markus	.....ThC14.4	5206	.....	.....WeB22.1	1722
Tregouet, Jean-Francois	.....FrC17.3	8124	.....	.....FrA08.5	5930
Trenn, Stephan	.....WeA17	C	Usevich, Konstantin	.....FrB16	O
.....	.....WeA17.5	605	.....	.....FrB16.4	7165
.....	.....WeB02	CC	Usevitch, James	.....ThC20.3	5432
.....	.....WeB02.5	989	Ushio, Toshimitsu	.....WeB04.3	1050
.....	.....ThB14.1	4228	.....	.....WeC20.4	2610
Tribastone, Mirco	.....FrC24.1	8372	.....	.....FrB06	CC
Trimpe, Sebastian	.....WeA23	CC	.....	.....FrB06.3	6793
.....	.....WeA23	O	Ushirobira, Rosane	.....FrB14.6	7104
.....	.....WeB11.4	1315	.....	.....FrC14.5	8024
.....	.....WeB23	O	V		
.....	.....WeB23.6	1791	Vaclavek, Pavel	.....WeB24.3	1809
.....	.....WeC20.5	2616	.....	.....ThC11.4	5094
.....	.....WeC23	C	Vahdat, Zahra	.....ThC01.6	4729
.....	.....WeC23	O	Vahidi, Ardalan	.....WeB10	O
Tripathy, Niladri Sekhar	.....FrC05.3	7683	Vaidya, Umesh	.....WeC16.6	2473
Triska, Lukas	.....WeA14.3	480	Vakili, Sattar	.....WeC24.2	2738
Trodden, Paul Anthony	.....WeB05.3	1089	Valcher, Maria Elena	.....WeA04	C
.....	.....ThB25.5	4668	.....	.....WeA04.4	126
Trofino, Alexandre	.....FrA07.4	5888	Valentinis, Francis	.....FrC22.1	8296
Trombetta, Daniel	.....FrB06.6	6815	Valério, Duarte Pedro Mata de Oliveira	.....FrC12.5	7956
Tron, Roberto	.....WeB25	C	Valibeygi, Amir	.....ThA09.2	3110
.....	.....WeB25.1	1834	Valmorbida, Giorgio	.....WeA05.5	169
.....	.....FrA14.2	6138	.....	.....FrC18.5	8172
.....	.....FrC09	CC	Vamvoudakis, Kyriakos G.	.....WeA20.1	690
.....	.....FrC09.2	7824	.....	.....WeA24.3	853
Trumpf, Jochen	.....WeA18	C	.....	.....ThA06.1	2988
.....	.....WeA18.4	635	.....	.....ThA23.3	3629
.....	.....WeC18.5	2543	.....	.....FrA23.1	6473
Truong, Tran-Phuc-Hai	.....ThA12.1	3214	van Berkel, Matthijs	.....ThA12	O
Tsachouridis, Vassilios A.	.....FrC16	CC	.....	.....ThA12.2	3220
.....	.....FrC16.1	8073	van de Wal, Marc	.....FrA08.4	5924
Tsai, Yen Hsi Richard	.....FrA17.5	6275	Van De Wouw, Nathan	.....WeA06.6	213
Tschaikowski, Max	.....FrC24.1	8372	.....	.....FrC08	C
tseng, eric	.....WeC10.5	2239	.....	.....FrC08.1	7782
Tsiamis, Anastasios	.....ThA23.6	3648	van den Boom, Joris	.....FrA08.4	5924
Tsiotras, Panagiotis	.....ThA19	C	Van den Hof, Paul M.J.	.....ThB22	C
.....	.....ThA19.3	3484	.....	.....ThB22	O
.....	.....ThA19.5	3497	.....	.....ThB22.2	4533
Tsukamoto, Hiroyasu	.....FrC19.3	8196	.....	.....ThC22	CC
Tu, Stephen	.....ThA26.2	3724	.....	.....ThC22	O
.....	.....ThA26.5	3741	.....	.....ThC22.1	5494
Tumash, Liudmila	.....ThB10.2	4085	.....	.....ThC22.3	5507
Turner, Matthew C.	.....WeA05	C	.....	.....ThC22.5	5519
.....	.....WeA05.4	163	van der Schaft, Arjan	.....FrC15.6	8067
Tzortzis, Ioannis	.....FrB05.4	6760	van Goor, Pieter	.....WeC18.4	2536
U			.....	.....WeC18.5	2543
Ubl, Matthew	.....FrB23.2	7423	VAN GORP, Jeremy	.....WeC17.1	2479
Uchitel, Sebastián	.....WeB04.6	1068	.....	.....WeC17.4	2497
Uchiyama, Naoki	.....FrC12.6	7963	van Heusden, Klaske	.....FrB13.2	7043
.....	.....	.....	van Keulen, Thijs	.....FrA15	C

.....FrA15.6	6201	Voulgaris, Petros G.....	ThC11.6	5107	
van Nieuwstadt, Michiel J.....	ThA10.3	3152	Vrabie, Draguna.....	FrB13.5	7063
van Schuppen, Jan H.....	WeB05.5	1102	Vreman, Nils.....	ThA04.3	2928
.....WeC04	CC		Vrohidis, Constantinos.....	WeA07.3	232
.....WeC04.4	2009		Vu, Dong Quan.....	WeA24.5	867
.....FrC19.2	8190		VU, Ngoc Minh Trang.....	ThA12	C
Van Scoy, Bryan.....	FrC05	CC	.....	ThA12	O
.....FrC05.2	7677		W		
van Waarde, Henk J.....	ThC22.4	5513	Wagner, Daniel.....	WeB03.1	1001
Vandersteen, Gerd G.....	ThA12.2	3220	Wahlberg, Bo.....	FrB11	C
Vang, Bee.....	FrA14.2	6138	.....	FrB11.5	6989
Varagnolo, Damiano.....	FrA01.2	5647	Wahlström, Niklas.....	ThA24.4	3670
Varano, Luca.....	FrC07.1	7746	Wai, Hoi-To.....	FrC23.2	8341
Varnai, Peter.....	ThB23.6	4595	Walton, Claire.....	ThB15.5	4292
Vasal, Deepanshu.....	ThB12.1	4155	WAN, CHANGHUANG.....	FrC11.2	7899
Vasca, Francesco.....	FrC18.4	8166	Wan, Wenbin.....	ThC11.6	5107
Vasconcelos Filho, Enio.....	WeA22.2	771	Wan, Yan.....	ThB05.4	3910
Vasile, Cristian Ioan.....	ThC17.2	5312	.....	FrA23.1	6473
Vasquez Beltran, Marco Augusto.....	FrC12.3	7944	.....	FrB24.6	7486
Vasudevan, Ramanarayan.....	ThB26	O	Wang, Bohui.....	ThA14.4	3303
.....ThB26.1	4680		Wang, Chen.....	WeB25.5	1862
.....ThB26.2	*		Wang, Dan.....	FrA12.2	6062
.....FrC19.6	8216		Wang, Hanlei.....	WeB21	CC
Vasudevan, Varun.....	WeB11.1	1293	.....	WeB21.3	1698
Vau, Bernard.....	WeA03.6	102	Wang, Hongyuan.....	ThA14.4	3303
Vayatis, Nicolas.....	FrA19.3	6338	Wang, Jingcheng.....	ThA14.4	3303
Vazquez, Rafael.....	WeB08.1	1183	Wang, Kai.....	FrC05.5	7696
.....WeC08.6	2169		Wang, Lei.....	FrB12.4	7019
Vediakova, Anastasiia.....	WeA18.6	648	Wang, Lili.....	WeA11.2	367
Vedyakov, Alexey.....	WeA18.6	648	Wang, Miaomiao.....	WeC18.1	2516
Veer, Sushant.....	ThB07.1	3966	.....	FrB18.1	7222
Veeravalli, Tanya.....	WeC10.1	2214	Wang, Min.....	ThC19.1	5380
VEETASEVEERA, Jomphop.....	WeB06.3	1120	Wang, Ningshan.....	FrC11.4	7911
Veldman, Daniël.....	FrA08.4	5924	Wang, Ruigang.....	FrB05.5	6766
Velenis, Efsthios.....	FrB03.6	6700	Wang, Shen.....	ThC21.4	5474
Velmurugan, Naveen.....	ThA08.4	3086	Wang, Shuning.....	FrB18.4	7240
Verbeke, Dieter.....	ThA22.4	3599	Wang, Shuo.....	FrA08.6	5936
Verdugo, Eduardo.....	ThC18.3	5356	WANG, TAIYAO.....	ThA24.3	3664
Verginis, Christos.....	WeA05.6	175	Wang, Tixian.....	WeC24.5	2758
.....ThB03.4	3833		Wang, Wei.....	WeB20.1	1650
.....FrB13.1	7037		Wang, Xin.....	WeC01.6	1907
Vermeersch, Christof.....	FrB02.1	6640	.....	ThC14.5	5212
Vermillion, Christopher.....	ThC24.3	5580	Wang, Xin.....	FrB21.1	7339
Verriest, Erik I.....	WeC18	C	Wang, Yan.....	WeB17.6	1565
.....WeC18.2	2522		Wang, Yan.....	ThB02.2	3788
.....ThA15.4	3340		Wang, Yang.....	FrA13.4	6112
.....FrA18.2	6295		Wang, Yu.....	WeC04.5	2015
Vicino, Antonio.....	ThA05.6	2982	.....	ThC18.2	5350
.....ThB13.6	4222		Wang, Yuanlong.....	WeA12.1	396
.....FrB22.1	7376		Wang, Yue.....	ThA04.4	2934
Vidal-Albalate, Ricardo.....	WeC02.6	1945	Wang, Zhaojian.....	FrB25.5	7518
Vidyasagar, Mathukumalli.....	ThA24	C	Wang, Zhaoran.....	ThC23.6	5562
.....ThA24.2	3661		Wang, Zheming.....	FrA04	O
.....FrA23.3	6487		Wang, Zhenhua.....	ThA11.5	3202
Vile, Liam.....	ThC07.6	4958	Wang, Zhichao.....	ThA07.2	3033
Villanueva, Mario E.....	FrC05.5	7696	Wang, Ziyi.....	FrB06.5	6807
Vincent, Benjamin.....	FrB08.3	6869	Wardi, Yorai.....	WeA24.3	853
Vincent, Tyrone L.....	FrB16.5	7171	Ware, Simon.....	FrB04.5	6730
Viola, Lorenza.....	WeA12.4	413	Warnick, Sean.....	ThB22	CC
.....WeC12.4	2310		.....	ThB22	O
Virag, Ana.....	FrB25.2	7498	.....	ThC22	C
Vissière, David.....	FrC11.6	7923	.....	ThC22	O
Viswanathan, Sasi Prabhakaran.....	FrB12.5	7025	Warrington, Joseph.....	FrA15.3	6181
Vladimirov, Igor G.....	WeA12.6	425	Wasz, Patrick.....	ThA25.4	3704
Vladimirsky, Alexander.....	FrB15.4	7128	Weddle, Peter.....	FrB16.5	7171
Vlahakis, Eleftherios.....	ThB20.4	4471	Wei, Ermin.....	WeB16.5	1519
Voda, Alina.....	FrB07.4	6838	.....	FrA20.5	6386
Völz, Andreas.....	ThC16.3	5279	Wei, Tianhao.....	WeA07.4	238
vom Ende, Frederik.....	WeC12.6	2322	Wei, Xiaohan.....	WeB24.5	1822
Von Moll, Alexander.....	FrB20.4	7319	Wei, Yusheng.....	FrA24.5	6536

Yang, Liren	ThC17.3	5318	Yuksel, Serdar	WeA19	CC
	FrA04.5	5779		WeA19	O
Yang, Nachuan	WeA25.4	897		WeA19.1	654
Yang, Peng	FrB25.5	7518		WeB19	C
Yang, Rongni	FrB10.6	6959		WeB19	O
Yang, Taicheng	WeB17.6	1565		WeB19.3	1623
Yang, Tao	ThB05	C		ThB25.4	4662
	ThB05	O		ThC23.5	5556
	ThC23.2	5538		FrC13.1	7970
Yang, Xuwei	FrC19.5	8210	Yuz, Juan I.	FrC15.2	8042
Yang, Yongliang	WeA20.1	690			
Yang, Zhuoran	ThC23.6	5562		Z	
Yao, Ningshi	WeC10.4	2233	Zaccarian, Luca	WeC06.3	2078
	FrA23.6	6504		ThC07.5	4952
Yao, Weijia	WeA07.6	250		FrC18.1	8148
yazdkhasti, pegah	WeC02.1	1913	Zacchia Lun, Yuriy	FrC18.2	8154
Yazicioglu, Yasin	ThC20.5	5444	Zamani, Majid	FrA04.3	5766
	ThC21.3	5468		WeC19.4	2574
Ye, Lintao	FrC09.5	7844		ThB17	C
Ye, Maojiao	ThB09	CC		ThB17.6	4373
	ThB09.2	4047		ThC12.3	5126
Yekkekhhany, Ali	ThB24.5	4630	Zamani, Mohammad	FrC04.4	7653
Yerudkar, Amol	WeA04.3	120		WeA18.4	635
Yeung, Enoch	WeA01.4	19	Zambelli, Massimo	FrC10.2	7863
	FrC16.6	8106	Zammali, Chaima	WeC17.1	2479
Yi, Bowen	WeC05.1	2027		WeC17.4	2497
Yi, Jun	FrB25.5	7518	Zampieri, Sandro	FrA02.2	5686
Yi, Xinlei	WeA16.3	555	Zanelli, Andrea	ThB11.5	4140
Yi, Xiongfeng	WeC07.4	2120		ThC16.6	5298
Yin, Chun	ThC04.4	4835		FrC16.3	8085
Yin, He	FrC16.4	8093	Zanon, Mario	ThC16.1	5264
Yin, Jiawei	WeC01.5	1899	Zanvettor, Giovanni Gino	ThB13.6	4222
Yin, Xiang	WeB04.2	1043	Zare, Armin	FrA08	CC
	FrB04	CC		FrA08.3	5918
	FrB04	O		FrB24	C
	FrB04.1	6706		FrB24.4	7474
	FrC04	CC	Zarif Mansour, Sepehr	FrB07.2	6827
	FrC04	O	Zattoni, Elena	FrA18.1	6288
	FrC04.2	7641	Zavala, Victor M.	ThC16.1	5264
	FrC04.4	7653	Zavlanos, Michael M.	WeC16.2	2449
Yin, Yi-Xin	WeA20.1	690		WeC24.4	2752
Yin, Yonghua	WeA25.4	897		ThB25.6	4674
Ying, Bicheng	ThC06.2	4898		ThC17.1	5306
Yokoyama, Tsukasa	ThA03.4	2898		ThC21.6	5486
Yonezawa, Hidehiro	WeA12.1	396	Zechner, Christoph	WeB01.3	939
	ThA14.3	3297		FrB01	C
Yong, Sze Zheng	WeB17.3	1544		FrB01.2	6610
	FrC13	C	Zedan, Amr	WeB08.5	1207
	FrC13.2	7976	Zegers, Federico	FrA21.3	6412
Yongacoglu, Bora	ThC23.5	5556	Zeilinger, Melanie N.	WeA23	O
Yoo, Chanyeol	FrC22.2	8303		WeA23.2	809
Yoo, Shinjae	FrA13.1	6092		WeB23	C
Yoon, Se Young (Pablo)	FrA05.1	5793		WeB23	O
Yoshida, Keisuke	WeB13.3	1389		WeC23	CC
You, Pengcheng	FrC25.2	8416		WeC23	O
Young, Carol	FrA23.6	6504	Zelazo, Daniel	ThB20	C
Yu, Dan	FrB19.4	7281		ThB20.2	4459
Yu, Hao	ThB05.1	3892		FrB21.4	7358
Yu, Lanlin	ThC10.5	5062	Zelinka, Ivan	ThC04.5	4841
	FrC08.3	7794	Zemouche, Ali	WeA11.5	385
Yu, Min	FrC03	C		ThA02.4	2862
	FrC03.4	7615		ThA18	C
Yu, Pian	ThB17.2	4349		ThA18	O
Yu, Xiao	WeA14.6	499		ThB02.2	3788
Yu, Yue	ThC23.4	5550	Zhang, Baosen	ThB13.3	4202
Yuan, Haidong	WeA12.3	407	Zhang, Cheng	FrB10.2	6936
Yuan, Kun	ThC06.2	4898	Zhang, Chuan-Ke	ThA14.5	3309
Yue, Xinling	ThB04.2	3860		FrC02.2	7572
Yue, Yisong	WeB14.6	1448	Zhang, Fengdi	ThA11.5	3202
Yue, Zuogong	ThB22.3	4539	Zhang, Fumin	WeC10.4	2233
				FrA23.6	6504
				FrB02.5	6663

ZHANG, JIAFENG	.....WeC04.1	1991	Zhu, Minghui	.....WeA07.2	226
Zhang, Jian	.....ThA04.1	2916	Zhu, Yang	.....ThB25.1	4642
Zhang, Jin	.....WeA02.6	66	Zhu, Yixian	.....ThB10.3	4091
Zhang, Jing	.....WeC08.6	2169	Zhu, Yuting	.....FrB04.5	6730
Zhang, Jing	.....ThC12.1	5113		.....FrC04.5	7659
Zhang, Jingzhao	.....WeB16.2	1501	Zhuang, Weihua	.....FrA05.6	5826
Zhang, Jinke	.....FrC24.6	8404	Zhuk, Sergiy	.....WeB08.4	1201
Zhang, Jiyang	.....ThA04.1	2916		.....WeB10.6	1286
Zhang, Kaiqing	.....ThC23	O		.....ThC14.4	5206
	.....ThC23.6	5562		.....FrB14.3	7087
	.....FrA23	CC	Zhusubaliyev, Zhanybai	.....WeC01.4	1893
	.....FrA23	O	Zimenko, Konstantin	.....FrB14.5	7099
	.....FrB23.1	7415	Zimmerling, Marco	.....WeC20.5	2616
Zhang, Kuize	.....WeA04.1	108	Zimmermann, Jan	.....FrA16.5	6234
	.....FrC04.3	7647	Zips, Patrik	.....ThB15.2	4273
Zhang, Ping	.....WeA04.2	114	Zivan, Yigal	.....FrC11.1	7893
Zhang, Qian	.....ThC04.1	4817	Zlotnik, Anatoly	.....ThC05.5	4877
Zhang, Wei	.....WeA12.5	419	Zocca, Alessandro	.....ThB04	C
Zhang, Weidong	.....WeC05.1	2027		.....ThB04.4	3871
Zhang, wenhan	.....ThA11.5	3202	Zoppello, Marta	.....FrA15.5	6195
Zhang, Xian	.....WeC01.6	1907	Zorzi, Mattia	.....ThC11	CC
Zhang, Xin	.....FrA06.1	5832		.....ThC11.3	5088
Zhang, Xinkai	.....WeA06.3	193	Zou, Jianxiao	.....ThA04.1	2916
Zhang, Xu	.....WeA14.6	499	Zou, Suli	.....ThB20.1	4453
Zhang, Ya	.....ThB05.4	3910	ZOUGGAR, Smail	.....ThC05.6	4885
Zhang, Yan	.....WeC16.2	2449	Zuazua, Enrique	.....WeC15.4	2422
	.....ThB25.6	4674	Zufferey, Damien	.....FrA17.3	6261
Zhang, Yi	.....WeB10.1	1255	zuo, wenyu	.....WeC07.4	2120
Zhang, Yicheng	.....WeB10.1	1255	Zurakowski, Ryan	.....FrA01.4	5662
Zhang, Yingchen	.....FrC25.6	8441	Zwart, Hans	.....ThA12.2	3220
Zhang, Yuan	.....ThB01.5	3776		.....FrA08.4	5924
Zhang, Yue	.....WeA10.2	329			
Zhang, Zhe	.....WeA02.3	49			
Zhang, Zhihua	.....WeA04.2	114			
Zhang, Ziang	.....ThA21.4	3563			
zhao, chunming	.....ThC04.1	4817			
Zhao, Di	.....FrB16.2	7154			
Zhao, Guoxiang	.....WeA07.2	226			
Zhao, Jiabao	.....ThA21.3	3557			
Zhao, Liuhui	.....WeB10.2	1261			
Zhao, Longtong	.....ThC03.3	4791			
Zhao, Muhan	.....ThB24.6	4636			
Zhao, Pan	.....ThC25.1	5605			
Zhao, Qing	.....WeC24.2	2738			
Zheng, Jinchuan	.....FrC12.4	7950			
Zheng, Jun	.....ThC08.3	4977			
Zheng, Wei	.....WeC07.1	2102			
Zheng, Wei Xing	.....FrB10.3	6942			
	.....FrB10.6	6959			
Zheng, Xiangtian	.....WeC02.3	1925			
Zheng, Yang	.....ThC06.5	4916			
	.....FrB02.4	6657			
Zhenirovskyy, Maksym	.....ThB24.3	4615			
Zhong, Yaofeng Desmond	.....WeB21.4	1704			
Zhong, Yisheng	.....ThB09.5	4067			
Zhou, Bin	.....WeA02.3	49			
Zhou, Fengyu	.....FrA16.4	6227			
Zhou, Hua-Cheng	.....ThB08.3	4017			
Zhou, Jing	.....WeB03.5	1025			
Zhou, Kemin	.....FrA05.5	5819			
Zhou, Mengjie	.....WeB09.4	1237			
Zhou, Siqi	.....WeB23.5	1784			
Zhou, Tong	.....ThA21	CC			
	.....ThA21.6	3575			
Zhou, Zebo	.....FrC11	O			
Zhou, Zejian	.....WeB09.2	1225			
	.....WeB09.3	1231			
Zhu, Bin	.....ThC11.3	5088			
Zhu, Guchuan	.....ThC08.3	4977			
Zhu, Hao	.....FrB23.1	7415			

KEYWORD INDEX

CDC 2019 Keyword Index

A	
Adaptive control	FrA19.3, FrA25.3, FrB06.6, FrB09.3, FrB12.4, FrB13.4, FrB14.5, FrB20.2, FrC10.3, FrC17.6, FrC20.4, FrC21.1, ThA03.1, ThA03.2, ThA03.3, ThA03.4, ThA06.1, ThA12.5, ThB14.1, ThB23.1, ThB23.2, ThB23.3, ThC23.1, WeA03.1, WeA03.2, WeA03.3, WeA03.4, WeA03.5, WeA03.6, WeA13.4, WeA20.1, WeB02.3, WeB02.6, WeB03.1, WeB03.2, WeB03.3, WeB03.4, WeB03.5, WeB03.6, WeB16.1, WeB18.6, WeB21.3, WeC03.1, WeC03.2, WeC03.3, WeC03.4, WeC03.5, WeC03.6, WeC05.3, WeC15.6 See also Adaptive Systems
Adaptive systems	FrB13.4, ThA03.5, ThA03.6, ThA08.2, ThA23.5, ThB23.1, ThC05.4, ThC06.2, WeB01.4, WeB10.6, WeB24.3 See also Adaptive Systems , Adaptive control , Direct adaptive control , Indirect adaptive control , Robust adaptive control
Aerospace	FrA07.1, FrA19.1, FrB18.1, FrB20.4, FrC10.6, FrC11.1, FrC11.3, FrC20.2, FrC20.3, ThA25.4, ThC04.4, ThC07.1, ThC07.2, ThC07.3, ThC07.4, ThC07.5, ThC07.6, ThC15.2, WeA13.1, WeB03.1, WeB14.1, WeC07.5, WeC07.6, WeC18.3, WeC19.3, WeC19.6 See also Control Applications
Agents-based systems	FrA09.1, FrA12.1, FrA21.3, FrA21.6, FrA26.4, FrB09.4, FrB12.6, FrB23.3, FrC09.3, FrC20.4, FrC20.5, FrC23.4, ThA06.4, ThA06.6, ThA09.3, ThA09.4, ThA09.6, ThA19.2, ThA20.1, ThA20.4, ThA21.3, ThA25.1, ThA25.2, ThA25.3, ThA25.4, ThA25.5, ThA25.6, ThB03.6, ThB05.3, ThB09.1, ThB09.6, ThB13.1, ThC03.5, ThC09.6, ThC12.2, ThC18.1, ThC20.4, ThC23.6, ThC25.1, ThC25.2, WeA02.4, WeA11.1, WeA24.5, WeA25.1, WeA25.2, WeA25.3, WeA25.4, WeA25.5, WeA25.6, WeB11.5, WeB11.6, WeB21.4, WeB25.1, WeB25.2, WeB25.3, WeB25.4, WeB25.5, WeB25.6, WeC14.4, WeC20.2, WeC20.3, WeC25.1, WeC25.2, WeC25.3, WeC25.4, WeC25.5, WeC25.6
Air traffic management	ThC02.6 See also Control Applications
Algebraic/geometric methods	FrA02.5, FrA12.6, FrA14.2, FrA18.1, FrA18.4, FrA25.5, FrB06.4, FrB10.5, FrB12.5, FrB14.3, FrB20.6, FrC01.6, FrC11.4, FrC15.1, FrC15.2, FrC15.3, FrC15.4, FrC15.5, FrC15.6, ThA18.1, ThA20.3, ThB14.2, ThC01.5, WeA09.4, WeA12.5, WeA14.3, WeA15.1, WeA15.2, WeB05.1, WeB07.3, WeB14.3, WeB15.2, WeB15.3, WeC15.4, WeC18.2, WeC18.5
Automata	FrB04.1, FrB04.2, FrB04.5, FrB04.6, FrC04.1, FrC04.2, FrC04.3, FrC04.4, FrC04.5, FrC04.6, ThC12.6, ThC17.6, ThC18.2, WeA04.1, WeA07.3, WeB04.3, WeB04.4, WeB04.6, WeC04.2, WeC04.4, WeC04.5 See also Discrete Event Systems
Automotive control	FrB03.1, FrB03.2, FrB03.3, FrB03.4, FrB03.5, FrB03.6, FrC03.1, FrC03.2, FrC03.3, FrC03.4, FrC03.5, FrC03.6, ThC16.2, WeA23.2, WeB10.5, WeC10.6 See also Control Applications
Automotive systems	FrB03.1, FrB03.3, FrB03.5, ThB05.6, ThB23.2, ThC11.3, WeC10.6 See also Control Applications
Autonomous robots	FrA03.2, FrA05.2, FrA17.6, FrC14.6, FrC20.2, FrC22.2, FrC22.3, ThB03.1, ThB03.2, ThB03.3, ThB09.5, ThB15.5, ThB17.1, ThC17.1, WeA07.1, WeA07.2, WeA07.3, WeA07.4, WeA07.5, WeA07.6, WeB07.1, WeC07.5
Autonomous systems	FrA03.1, FrA03.3, FrA03.6, FrA11.1, FrA17.5, FrB06.1, FrB09.4, FrB12.5, FrB12.6, FrB20.4, FrC13.6, FrC20.1, FrC20.3, ThA01.3, ThA16.5, ThA25.1, ThA25.2, ThA25.3, ThA25.5, ThB03.3, ThB03.4, ThB03.5, ThB07.4, ThB12.4, ThB15.5, ThB18.4, ThB23.6, ThC03.1, ThC03.2, ThC03.3, ThC03.4, ThC03.5, ThC03.6, ThC17.1, ThC20.3, WeA04.5, WeA05.6, WeA07.5, WeA23.1, WeA24.3, WeA25.5, WeA25.6, WeB15.6, WeB25.5, WeC06.4, WeC10.3, WeC11.1, WeC11.4, WeC14.3, WeC25.1, WeC25.2, WeC25.4, WeC25.5
Autonomous vehicles	FrA03.4, FrA03.5, FrA03.6, FrA07.3, FrB03.3, FrB03.6, FrB11.1, FrB13.3, FrC03.5, FrC09.4, FrC11.5, FrC22.5, ThA10.3, ThA10.6, ThB10.1, ThB10.5, ThB26.1, ThB26.2, ThB26.3, WeA03.4, WeA07.6, WeA10.2, WeA10.5, WeA23.2, WeB07.6, WeB10.2, WeB10.4, WeB10.5, WeB23.1, WeC07.6, WeC09.2, WeC10.2, WeC10.3, WeC13.2, WeC14.4, WeC18.1 See also Control Applications
B	
Behavioural systems	ThC09.2, WeC23.1 See also Linear Systems
Biological systems	FrA01.4, FrB01.4, FrC16.6,

	ThA01.2, ThA15.4, ThB01.1, ThB01.4, ThC01.1, ThC01.4, ThC01.5, ThC11.1, WeA01.1, WeA01.2, WeA01.3, WeA01.4, WeA01.5, WeA01.6, WeA26.1, WeA26.3, WeA26.4, WeA26.6, WeB01.2, WeB01.3, WeB01.6, WeC01.2, WeC01.4, WeC01.5 See also Biological Systems , Biomolecular systems , Biotechnology , Cellular dynamics , Genetic regulatory systems , Metabolic systems , Systems biology	Computer-aided control design Constrained control	ThC19.2, WeA06.5 See also Computational Methods FrA02.5, FrA15.4, FrA22.3, FrB10.4, FrB15.1, FrB19.3, FrB21.6, FrB24.3, FrC12.1, FrC12.3, FrC15.4, FrC18.2, FrC21.6, ThA03.2, ThA05.1, ThA14.1, ThA15.6, ThA19.5, ThA25.6, ThB02.1, ThB15.2, ThB16.2, ThB17.3, ThB17.4, ThB17.5, ThB19.6, ThB25.5, ThC15.6, WeA05.1, WeA05.4, WeA05.5, WeA06.6, WeA13.5, WeA13.6, WeA15.4, WeB06.1, WeB13.2, WeB14.2, WeB15.1, WeB15.2, WeB16.1, WeC05.1, WeC05.2, WeC05.3, WeC05.4, WeC05.5, WeC05.6, WeC07.4, WeC14.2, WeC14.6, WeC15.2, WeC15.3, WeC20.4
Biologically-inspired methods	FrA24.3, FrC07.3, ThC04.5 See also Intelligent Systems		
Biomedical	FrA01.5, FrA01.6, FrB07.5, FrC01.1, FrC07.3, ThA07.3, ThB01.3, ThC01.2, WeA15.1, WeB14.4, WeC03.1 See also Control Applications		
Biomolecular systems	FrA22.6, FrB01.1, FrB01.2, FrB01.3, FrB01.4, FrB01.6, FrC01.4, FrC01.6, FrC24.1, ThA01.1, ThA01.3, ThA01.5, ThC12.4, WeA26.2, WeA26.5, WeB01.4, WeB01.5, WeB01.6, WeB24.1, WeC01.1, WeC01.3 See also Biological Systems	Control applications	FrA01.5, FrA08.6, FrA24.4, FrA25.1, FrB01.6, FrB08.3, FrB08.5, FrB08.6, FrB18.6, FrC02.5, FrC03.1, FrC07.1, FrC10.4, FrC10.6, FrC12.6, FrC14.2, FrC22.1, ThA07.3, ThA11.4, ThA17.3, ThA17.5, ThA18.4, ThA18.5, ThC01.2, ThC04.5, ThC07.5, ThC13.6, ThC21.4, WeA03.2, WeA11.5, WeB02.6, WeB07.2, WeB07.3, WeB07.4, WeC02.6, WeC10.6 See also Control Applications , Aerospace , Air traffic management , Automotive control , Automotive systems , Autonomous vehicles , Biomedical , Building and facility automation , Data storage systems , Emerging control applications , Finance , Flight control , Fluid power control , Healthcare and medical systems , Human-in-the-loop control , Information technology systems , Information theory and control , Manufacturing systems and automation , Maritime control , Materials processing , MEMs and Nano systems , Quantum information and control , Sensor fusion , Smart cities/houses , Smart structures , Traffic control , Vision-based control
Biotechnology	FrA24.3, FrB01.1, WeB01.1 See also Biological Systems		
Boolean control networks and logic networks	WeA04.1, WeA04.2, WeA04.3, WeA04.4, WeA25.2		
Building and facility automation	FrC17.6, ThA05.1, ThA05.2, ThA05.3 See also Control Applications		
C			
Cellular dynamics	FrB01.4, FrB01.5, FrC01.2, ThA17.5, WeB01.2 See also Biological Systems		
Chaotic systems	FrA05.1		
Chemical process control	FrC01.6, ThB08.4, ThC02.3 See also Process Control		
Closed-loop identification	ThA03.4, ThB22.2, ThC22.1, ThC22.2, ThC22.3, ThC22.5, WeA23.5		
Communication networks	FrA16.5, FrB21.2, FrC23.3, ThB12.1, ThB12.3, ThB12.5, ThB21.1, WeC20.5		
Compartmental and Positive systems	FrA12.4, FrA12.5, FrA12.6, FrB05.6, ThA18.3, ThC10.3, WeA02.1, WeB13.5, WeC01.1 See also Linear Systems	Control education	WeB07.5 See also Control Education , Computer-aided learning , Control courses , Control laboratories
Computational methods	FrA05.4, FrA15.3, FrA17.1, FrA23.3, FrB08.1, FrB08.3, FrB08.4, FrB08.5, FrB08.6, FrB15.3, FrB16.1, FrB16.4, FrB25.3, FrC06.1, FrC06.2, FrC06.3, FrC06.4, FrC06.5, FrC06.6, FrC09.2, FrC16.1, FrC16.2, FrC16.5, FrC17.1, FrC19.1, ThA01.3, ThA01.4, ThA16.1, ThA24.2, ThC06.5, ThC19.6, ThC21.3, WeA05.3, WeA20.2, WeA22.1, WeA22.4, WeB14.5, WeB15.6, WeC05.4 See also Computational Methods , Computer-aided control design , Control software , LMIs , Numerical algorithms	Control of metal processing	ThB08.6 See also Process Control
		Control of networks	FrA12.5, FrA16.2, FrA20.2, ThA01.6, ThA20.6, ThA21.1, ThA21.4, ThA21.6, ThB05.3, ThB18.3, ThB18.6, ThB22.6, ThC10.3, ThC12.2, ThC20.3, ThC20.5, ThC21.1, ThC22.1, ThC22.5, ThC22.6, WeA04.2, WeA19.4, WeA21.2, WeA21.3, WeB06.1, WeB06.2, WeB06.3, WeB06.4, WeB06.5, WeB06.6, WeB12.1, WeB21.1, WeB21.6, WeC06.1, WeC06.2, WeC06.3,

FrA11.3, FrA11.4, FrA11.5, FrA11.6, FrA13.1, FrB07.5, FrB08.4, FrB11.1, FrB11.2, FrB11.3, FrB11.4, FrB11.5, FrB11.6, FrB12.4, FrB24.6, FrC06.4, FrC09.1, FrC09.2, FrC09.6, FrC11.2, FrC11.6, FrC13.2, FrC23.3, ThA03.5, ThA07.1, ThA07.2, ThA08.4, ThA11.1, ThA11.2, ThA11.3, ThA11.4, ThA11.5, ThA11.6, ThA13.1, ThA17.4, ThA21.5, ThA22.1, ThA22.4, ThA24.1, ThB02.2, ThB05.2, ThB05.4, ThB05.5, ThB05.6, ThB06.3, ThB06.6, ThB08.3, ThB11.1, ThB11.2, ThB11.3, ThB11.4, ThB11.5, ThB11.6, ThB21.1, ThB22.1, ThC01.2, ThC04.3, ThC07.3, ThC10.4, ThC11.1, ThC11.2, ThC11.3, ThC11.4, ThC11.5, ThC11.6, ThC18.3, ThC20.1, ThC21.4, ThC25.4, WeA04.6, WeA08.2, WeA11.2, WeA11.3, WeA11.4, WeA11.5, WeA18.5, WeA22.2, WeA22.3, WeB05.1, WeB07.2, WeB07.6, WeB08.2, WeB11.3, WeB17.3, WeB18.1, WeB23.4, WeB24.3, WeB24.6, WeC08.5, WeC09.4, WeC10.1, WeC17.1, WeC17.4, WeC18.1, WeC18.4, WeC19.2, WeC21.5

Evolutionary computing ThC04.4, ThC04.5
See also [Intelligent Systems](#)

F

Fault detection FrA03.5, FrA04.5, FrA13.1, FrB13.5, FrC11.5, ThA04.1, ThA04.2, ThA04.3, ThA04.5, ThA05.3, ThB18.4, ThC18.3, ThC18.5, ThC22.6, ThC25.4, WeC03.4

Fault diagnosis FrB04.2, ThA04.4, ThA04.5, ThA04.6, ThA05.3

Fault tolerant systems ThA04.3, ThB04.1, ThB04.2, ThB04.3, ThB04.4, ThB04.5, ThB04.6, ThC07.6, ThC18.5

Feedback linearization FrA25.3, FrB03.1, ThA19.6, ThC07.1, WeA01.2, WeB24.2

Filtering FrA10.6, ThB05.4, ThB05.5, ThB21.2, ThC11.5, ThC18.1, WeA18.2, WeA18.4, WeA19.1, WeA19.2, WeA19.3, WeA21.1, WeA22.6, WeB05.1, WeB06.5, WeB12.2, WeB19.1, WeB19.3, WeB19.5, WeB19.6, WeC19.6, WeC24.5
See also [Stochastic Systems](#)

Finance WeB16.6, WeC19.5
See also [Control Applications](#)

Flexible structures FrB08.1, FrC02.3, ThA05.4, ThB08.1, WeB03.4
See also [Distributed Parameter Systems](#)

Flight control FrA07.1, FrA07.2, FrA07.3, FrA07.4, FrA07.5, FrA07.6, FrB18.1, FrC20.1, ThA23.1, ThC07.3, WeA05.3, WeA11.3, WeC19.3
See also [Control Applications](#)

Fluid flow systems FrA08.3, ThA04.6, ThB08.5, WeA03.2, WeC08.1, WeC08.4, WeC08.5
See also [Distributed Parameter Systems](#)

Fluid power control ThB15.2
See also [Control Applications](#)

Formal Verification/Synthesis FrA04.5, FrA17.1, FrA17.2, FrA17.3, FrA17.4, FrA17.5, FrA17.6, FrB19.2, FrC16.1, FrC16.4, ThB17.1, ThB17.2, ThB17.3, ThB17.4, ThB17.5, ThB17.6, ThB19.4, ThB23.5, ThB23.6, ThC02.5, ThC17.1, ThC17.2, ThC17.3, ThC17.4, ThC17.5, ThC17.6, WeA17.4, WeB17.5, WeC04.2, WeC05.5
See also [Hybrid Systems](#)

Fuzzy systems ThA11.5, ThA14.5, ThC04.1, ThC04.2, ThC04.3, ThC04.6, ThC05.6
See also [Intelligent Systems](#)

G

Game theory FrA05.6, FrA09.1, FrA09.2, FrA09.3, FrA09.4, FrA09.5, FrA09.6, FrA13.6, FrA19.5, FrA23.1, FrA26.1, FrA26.2, FrA26.3, FrA26.4, FrB05.1, FrB06.5, FrB09.1, FrB09.2, FrB09.3, FrB09.4, FrB09.5, FrB09.6, FrB13.5, FrB15.4, FrB20.3, FrB25.2, FrC19.4, FrC25.4, ThA09.1, ThA09.2, ThA09.3, ThA09.4, ThA09.5, ThA09.6, ThA10.5, ThA15.5, ThA19.2, ThA21.1, ThB09.1, ThB09.2, ThB09.3, ThB09.4, ThB09.5, ThB09.6, ThB10.3, ThB10.5, ThB18.1, ThB18.3, ThB18.6, ThB20.5, ThC06.3, ThC09.1, ThC09.2, ThC09.3, ThC09.4, ThC09.5, ThC09.6, ThC12.5, ThC17.4, ThC18.6, ThC23.3, WeA09.4, WeA09.5, WeA09.6, WeA10.6, WeA16.5, WeA24.5, WeB04.2, WeB09.5, WeB19.2, WeC09.1, WeC09.2, WeC09.3, WeC09.4, WeC09.5, WeC09.6, WeC21.1, WeC21.6, WeC25.5, WeC25.6
See also [Stochastic Systems](#)

Genetic regulatory systems FrB01.1, FrC01.5, FrC24.1, ThA01.1, ThA01.4, ThA01.5, ThA01.6, WeA04.2, WeB01.1, WeB01.3, WeB01.6, WeC01.5, WeC01.6, WeSP1.1
See also [Biological Systems](#)

Grey-box modeling FrB22.5, FrC22.4, ThB01.2

H

Healthcare and medical systems FrB13.2, ThB01.3, WeA02.5
See also [Control Applications](#)

Hierarchical control FrB03.5, FrC16.4, ThA24.5, ThC07.5, WeA07.5
See also [Large-scale Systems](#)

Human-in-the-loop control FrA23.6, FrB09.6, ThB24.2, ThC18.6, WeA23.1, WeB10.4, WeC07.1, WeC07.2, WeC16.1
See also [Control Applications](#)

Hybrid systems FrA04.4, FrA04.5, FrA06.2, FrA17.2, FrA18.1, FrA18.2,

FrA18.3, FrA18.4, FrA18.5,
FrA18.6, FrB18.1, FrB18.2,
FrB18.3, FrB18.4, FrB18.5,
FrB18.6, FrB21.3, FrC13.3,
FrC18.3, ThA01.4, ThA06.3,
ThA07.4, ThA08.6, ThA13.2,
ThA13.6, ThB06.5, ThB15.3,
ThB17.1, ThC01.6, ThC17.3,
ThC20.2, WeA07.3, WeA15.4,
WeA19.5, WeB14.1, WeB15.5,
WeB17.5, WeB20.3, WeC01.4,
WeC07.3, WeC10.3, WeC13.5,
WeC13.6, WeC16.1
See also Hybrid Systems,
Embedded systems, Formal
Verification/Synthesis, Quantized
systems, Stability of hybrid
systems, Switched systems

I	
Identification	FrA01.1, FrA22.4, FrA25.2, FrA25.6, FrB02.1, FrB11.2, FrB11.3, FrB16.2, FrB16.4, FrB25.3, FrC01.5, FrC11.2, FrC16.6, FrC25.6, ThA11.2, ThA12.2, ThA17.6, ThA22.1, ThA22.2, ThA22.3, ThA22.4, ThA23.6, ThA24.3, ThB01.2, ThB02.5, ThB11.6, ThB22.1, ThB22.2, ThB22.3, ThB22.4, ThC02.1, ThC02.4, ThC11.4, ThC19.6, ThC22.1, ThC22.2, ThC22.3, ThC22.4, ThC22.5, WeA01.4, WeA22.1, WeA22.2, WeA22.3, WeA22.4, WeA22.5, WeA22.6, WeB17.1, WeB22.1, WeB22.2, WeB22.3, WeB22.4, WeB22.5, WeB22.6, WeB24.4, WeC11.2, WeC11.5, WeC22.1, WeC22.2, WeC22.3, WeC22.4, WeC22.5, WeC22.6
Identification for control	FrA17.4, FrC24.3, FrC24.4, ThA05.2, ThA22.5, ThA22.6, ThA26.5, ThB04.1, WeA03.3, WeA23.4, WeA23.6, WeB23.4, WeC03.1, WeC03.5, WeC23.4 ThC11.4
Indirect adaptive control	See also Adaptive Systems
Information technology systems	FrA13.5, WeC09.1
Information theory and control	See also Control Applications FrA04.1, FrA09.6, FrA13.5, FrB01.2, FrB17.3, FrB17.6, FrC19.2, ThA04.3, ThB12.6, ThC09.3, WeC15.6, WeC21.6
Intelligent systems	See also Control Applications FrC13.6, WeA10.4, WeC09.2, WeC10.1, WeC25.2 See also Intelligent Systems, Biologically-inspired methods, Evolutionary computing, Fuzzy systems, Neural networks
Iterative learning control	FrA19.3, FrA24.1, FrA24.2, FrA24.3, FrA24.4, FrA24.5, FrA24.6, FrB07.3, FrB24.1, FrB24.2, FrB24.3, FrB24.4, FrB24.5, FrB24.6, ThA03.4, ThA24.5, ThA26.2, ThB23.5, ThB24.5, ThC23.1, ThC24.2, ThC24.3, ThC24.4, ThC24.5, ThC24.6, WeA05.1, WeA23.3, WeA23.5, WeC03.5, WeC08.4,

WeC23.2, WeC23.4
See also Learning

K	
Kalman filtering	FrA01.3, FrA09.5, FrA11.4, FrB11.4, FrB11.6, FrB16.1, FrC06.2, FrC09.3, FrC11.1, FrC11.3, FrC11.6, FrC12.4, ThA02.1, ThA11.6, ThB05.1, ThB05.2, ThB05.4, ThB05.5, ThB05.6, ThB11.4, ThC11.6, WeA11.3, WeA11.4, WeA11.6, WeA19.4, WeA19.6, WeB18.5, WeB24.3, WeC21.4, WeC23.3
L	
Large-scale systems	FrA09.2, FrA12.3, FrA20.1, FrA20.3, FrA20.5, FrA23.2, FrB12.2, FrB15.6, FrB20.3, FrB21.1, FrB23.4, FrB23.6, FrC08.5, FrC19.5, FrC21.2, FrC23.5, FrC23.6, ThA10.3, ThA16.6, ThA20.6, ThA21.6, ThA23.3, ThB21.5, ThB25.1, ThB25.5, ThC10.1, ThC10.3, ThC10.4, ThC10.6, ThC12.3, ThC18.1, ThC25.1, ThC25.2, ThC25.3, ThC25.4, ThC25.5, WeA09.3, WeA12.5, WeA13.1, WeA21.4, WeA21.5, WeB05.3, WeB10.1, WeB11.4, WeB25.4, WeC06.1, WeC16.2, WeC19.4, WeC22.5 See also Large-scale Systems, Control system architecture, Decentralized control, Distributed control, Hierarchical control
Learning	FrA19.4, FrB06.4, FrB06.6, FrB09.3, FrB09.5, FrB21.1, FrB24.1, FrC05.1, ThA13.1, ThA13.2, ThA23.3, ThA23.5, ThA26.1, ThA26.2, ThA26.5, ThB11.1, ThB23.3, ThB24.5, ThC09.1, ThC09.6, ThC23.3, WeA20.1, WeA24.1, WeA24.2, WeA24.3, WeA24.4, WeA24.5, WeA24.6, WeB03.2, WeB11.1, WeB13.1, WeB19.4, WeB22.4, WeB24.2, WeC09.3, WeC16.3, WeC24.1, WeC24.2, WeC24.3, WeC24.5 See also Iterative learning control, Statistical learning, Machine learning, Pattern recognition and classification
Linear parameter-varying systems	FrA02.1, FrA18.5, FrB13.3, FrC08.4, ThA02.2, ThA04.5, ThA11.3, ThB02.1, ThB02.2, ThB02.3, ThB02.4, ThB02.5, ThB25.3, ThC19.4, WeA10.4, WeC17.1 See also Linear Systems
Linear systems	FrA02.2, FrA02.3, FrA02.4, FrA02.5, FrA02.6, FrA08.3, FrA12.3, FrA17.1, FrA18.3, FrA18.4, FrA24.1, FrA24.2, FrB02.1, FrB02.2, FrB02.3, FrB02.4, FrB02.5, FrB05.2, FrB05.3, FrB13.6, FrB17.6, FrB20.1, FrB24.5, FrC02.1, FrC02.5, FrC05.6, FrC06.3, FrC08.1, FrC08.6, FrC13.3,

FrC24.5, ThA02.6, ThA21.2, ThA22.3, ThA22.4, ThB11.1, ThB12.3, ThB18.5, ThC08.1, ThC14.1, ThC18.3, ThC18.5, ThSP2.1, WeA03.5, WeA05.2, WeA05.4, WeA11.1, WeA17.5, WeA21.5, WeA23.4, WeB02.1, WeB02.2, WeB02.4, WeB02.5, WeB21.5, WeB22.2, WeB22.3, WeB23.4, WeC05.6, WeC06.2, WeC19.1, WeC21.2, WeC22.2, WeC22.4

See also Linear Systems, Behavioural systems, Compartmental and Positive systems, Linear parameter-varying systems, Observers for Linear systems, PID control, Predictive control for linear systems, Sampled-data control, Stability of linear systems, Time-varying systems

LMIs
FrA05.3, FrA21.1, FrA24.2, FrB01.5, FrB05.6, FrB13.6, FrB22.6, FrC02.1, FrC02.3, FrC02.4, FrC15.5, FrC18.4, FrC18.5, FrC24.5, ThA02.1, ThA02.2, ThA02.3, ThA02.4, ThA02.5, ThA02.6, ThA06.5, ThA11.2, ThA11.5, ThA14.2, ThA17.3, ThB02.2, ThB02.3, ThB02.4, ThB06.3, ThB07.5, ThC04.2, ThC06.5, ThC14.3, ThC19.3, ThC19.4, ThC25.5, WeA05.5, WeA06.5, WeA08.2, WeA08.5, WeA17.1, WeA17.6, WeA18.2, WeA25.4, WeB02.4, WeB03.1, WeB18.2, WeC08.5, WeC17.5, WeC23.6

See also Computational Methods

Lyapunov methods
FrA04.6, FrA06.4, FrA07.2, FrA09.1, FrA14.3, FrA14.6, FrA18.6, FrA24.4, FrB01.3, FrB05.2, FrB12.1, FrB12.2, FrB12.3, FrB12.4, FrB12.5, FrB12.6, FrB14.3, FrB18.2, FrB20.2, FrC02.2, FrC07.5, FrC10.1, FrC11.4, FrC12.1, FrC14.3, FrC14.5, FrC18.1, FrC18.4, FrC18.5, FrC22.1, ThA03.3, ThA05.4, ThA08.1, ThA08.3, ThA12.3, ThA12.4, ThA12.5, ThA14.1, ThA14.3, ThA14.4, ThA14.5, ThA14.6, ThA17.1, ThA17.2, ThA18.2, ThA21.3, ThB02.3, ThB04.5, ThB08.6, ThB10.2, ThB14.5, ThB14.6, ThC04.3, ThC08.5, ThC14.4, ThC14.5, ThC19.5, ThC21.5, WeA02.2, WeA02.5, WeA05.5, WeA14.1, WeA14.2, WeA14.3, WeA14.4, WeA14.5, WeA14.6, WeA17.1, WeB03.5, WeB06.2, WeB07.1, WeB12.4, WeB14.1, WeB14.2, WeB14.3, WeB14.4, WeB14.5, WeB14.6, WeB15.3, WeB18.2, WeB18.4, WeB18.6, WeB20.1, WeB20.4, WeB20.5, WeB20.6, WeB23.2, WeC05.2, WeC14.1, WeC14.2,

WeC14.3, WeC14.4, WeC14.5, WeC14.6, WeC17.2, WeC17.3, WeC18.4

M

Machine learning
FrA06.1, FrA16.3, FrA17.4, FrA19.2, FrA22.1, FrA23.1, FrA23.3, FrA23.4, FrA23.6, FrB06.1, FrB06.3, FrB11.6, FrB16.3, FrB19.4, FrB24.1, FrC06.5, FrC15.3, FrC23.3, ThA06.6, ThA19.1, ThA23.1, ThA23.4, ThA24.1, ThA24.2, ThA24.3, ThA24.4, ThA24.5, ThB03.2, ThB06.6, ThB09.3, ThB10.1, ThB23.1, ThB23.2, ThB23.6, ThB24.1, ThB24.2, ThB24.3, ThB24.4, ThB24.5, ThB24.6, ThB25.6, ThC06.6, ThC15.4, ThC17.6, ThC23.2, ThC23.5, ThC23.6, ThSP1.1, WeA16.3, WeA23.1, WeA23.5, WeA23.6, WeB03.3, WeB14.6, WeB23.2, WeB23.5, WeB24.4, WeB24.5, WeB24.6, WeB25.2, WeC02.3, WeC24.6

See also Learning

Manufacturing systems and automation
FrC07.1, ThC02.2, ThC02.5, ThC24.1, WeA04.5, WeB08.3

See also Control Applications

Maritime control
FrA03.1, FrC22.1, FrC22.2, FrC22.3, FrC22.4, WeA15.3

See also Control Applications

Markov processes
FrA09.3, FrA09.4, FrA15.1, FrA17.6, FrA23.2, FrA23.6, FrB19.6, FrB23.1, FrC19.2, FrC19.4, FrC19.6, ThB09.4, ThB10.6, ThB13.1, ThB13.2, ThB19.1, ThB19.4, ThC03.4, ThC09.1, ThC13.3, ThC17.5, WeA12.4, WeA16.2, WeB11.1, WeB11.2, WeB11.3, WeB11.4, WeB11.5, WeB11.6, WeB19.3, WeB25.2, WeC11.1, WeC11.2, WeC11.3, WeC11.4, WeC11.5, WeC11.6, WeC12.4, WeC17.6

See also Stochastic Systems

WeB08.1

See also Control Applications

Materials processing
FrB19.1, WeA09.1, WeA09.2, WeA09.3, WeA09.4, WeA09.5, WeA09.6, WeB09.1, WeB09.2, WeB09.3, WeB09.4, WeB09.5, WeB09.6, WeB11.2, WeB19.2

See also Stochastic Systems

Mechatronics
FrB07.1, FrB07.3, FrB07.6, FrC03.4, FrC07.1, FrC07.2, FrC07.3, FrC07.4, FrC07.5, FrC12.2, FrC12.3, FrC12.4, FrC12.5, FrC12.6, ThA18.5, ThC24.6, WeB07.5

MEMs and Nano systems
FrB07.2, FrB07.3, FrB07.4, ThC14.2, WeB07.6

See also Control Applications

Metabolic systems
FrC01.2, ThB01.2

See also Biological Systems

Model Validation
FrA01.2, FrB22.3, FrC13.2, ThA22.1, ThB22.1

Model/Controller reduction
FrA22.2, FrB18.4, FrB22.4, FrC08.1, FrC08.2, FrC08.3, FrC08.4, FrC08.5, ThC10.1,

Modeling	ThC10.5, WeA22.1 FrA01.2, FrA01.4, FrA22.2, FrC06.6, FrC08.2, FrC12.2, ThA03.3, ThA04.6, ThA05.2, ThA10.2, ThA22.6, ThB01.1, ThB01.4, ThB08.1, ThB09.3, ThC01.1, ThC01.5, ThC02.4, ThC05.3, ThC10.5, ThC10.6, ThC11.3, ThC15.1, WeA01.6, WeA09.3, WeA10.1, WeA15.3, WeA16.5, WeA22.3, WeB02.1, WeB08.1, WeB10.3, WeB12.5, WeB22.3, WeC07.1, WeC22.3, WeC22.6	WeA21.2, WeA21.3, WeA21.4, WeB05.4, WeB05.5, WeB08.5, WeB11.2, WeB20.1, WeB20.2, WeB20.3, WeB20.5, WeB20.6, WeB21.2, WeB25.6, WeC01.1, WeC08.3, WeC20.3, WeC20.4, WeC20.5, WeC21.1, WeC21.2, WeC21.3
	N	
Network analysis and control	FrA12.3, FrA12.5, FrA16.4, FrA20.2, FrA21.6, FrB09.1, FrB09.5, FrB15.6, FrB16.6, FrB21.3, FrB21.4, FrC08.3, FrC23.1, FrC23.5, ThA06.4, ThA07.5, ThA20.3, ThA21.1, ThA21.2, ThB01.1, ThB01.5, ThB18.1, ThB18.6, ThB21.3, ThB21.5, ThB22.2, ThB22.4, ThB22.5, ThB22.6, ThB25.3, ThC01.1, ThC01.3, ThC02.6, ThC10.1, ThC10.2, ThC10.5, ThC10.6, ThC21.1, ThC21.3, ThC22.2, ThC22.4, ThC22.6, ThC23.3, ThC25.1, ThC25.2, WeA06.1, WeA21.1, WeA21.2, WeA21.3, WeA21.4, WeA21.5, WeA21.6, WeB05.2, WeB06.6, WeB09.6, WeB21.1, WeB21.2, WeB21.3, WeB21.4, WeB21.5, WeB21.6, WeC06.3, WeC06.6, WeC11.5	Neural networks FrA17.5, FrA22.1, FrB06.1, FrB06.2, FrB06.3, FrB06.4, FrB06.5, FrC07.4, ThA02.4, ThA24.4, ThB10.1, ThB23.4, ThB24.1, ThC01.3, WeA04.6, WeB09.2, WeB09.3, WeB23.5, WeC03.2, WeC03.6, WeC23.5, WeC23.6
Networked control systems	FrA02.4, FrA03.5, FrA06.6, FrA20.2, FrA20.4, FrA21.1, FrA21.2, FrA21.3, FrA21.4, FrA21.5, FrA21.6, FrA23.1, FrA24.6, FrB02.3, FrB04.4, FrB04.6, FrB06.3, FrB10.6, FrB17.1, FrB17.2, FrB17.3, FrB17.4, FrB17.5, FrB17.6, FrB20.6, FrB21.1, FrB21.2, FrB21.3, FrB21.4, FrB21.5, FrB21.6, FrB23.2, FrB23.3, FrB25.1, FrC05.3, FrC08.3, FrC09.1, FrC10.5, FrC18.3, FrC21.1, FrC21.2, FrC21.3, FrC21.4, FrC21.5, FrC21.6, FrC23.1, ThA06.1, ThA06.2, ThA20.4, ThA21.2, ThA21.3, ThA21.4, ThA21.5, ThA21.6, ThA23.1, ThA23.3, ThA25.2, ThA25.3, ThA25.5, ThA25.6, ThB01.5, ThB04.5, ThB07.2, ThB08.2, ThB12.1, ThB12.2, ThB12.6, ThB18.3, ThB18.4, ThB21.2, ThB21.3, ThB21.4, ThB21.5, ThB21.6, ThB22.3, ThB22.6, ThB23.4, ThB25.1, ThB25.4, ThC10.2, ThC18.4, ThC20.5, ThC20.6, ThC21.1, ThC21.2, ThC21.3, ThC21.5, ThC21.6, ThC22.3, ThC22.4, ThC25.6, WeA06.2, WeA10.6, WeA15.5, WeA19.6, WeA20.2, WeA20.3, WeA20.4, WeA20.5,	Nonholonomic systems See also Intelligent Systems FrC07.5, FrC07.6, ThA07.5, ThB07.3, WeC07.3
		Nonlinear output feedback FrB07.5, FrB12.3, FrB14.1, FrC12.5, ThA18.6, ThB08.4, ThB14.1, ThB14.2, ThB14.3, ThB14.4, ThC15.5, WeA01.2, WeA16.4, WeB12.4, WeC07.2, WeC19.2
		Nonlinear systems identification FrA01.1, FrA22.1, FrA22.2, FrA22.3, FrA22.4, FrA22.5, FrA22.6, FrB11.4, FrB16.1, FrB22.1, FrB22.2, FrB22.3, FrB22.4, FrB22.5, FrB22.6, FrC06.5, FrC16.6, FrC22.4, ThA22.5, ThA24.4, ThB14.4, WeA18.6, WeB22.5, WeB22.6, WeC18.2, WeC22.1
		Numerical algorithms FrA12.6, FrA22.4, FrB08.2, FrB15.4, FrB16.4, FrB22.6, FrC06.2, FrC06.3, FrC16.1, FrC16.2, FrC16.3, FrC16.4, FrC16.5, ThA16.3, ThB06.2, ThB06.4, ThB16.1, ThB16.4, ThC16.2, ThC16.5, ThC16.6, WeA19.3, WeB01.5, WeB16.2, WeB19.5, WeB22.5
		See also Computational Methods
	O	
	Observers for Linear systems FrA11.3, FrA12.4, FrB17.2, FrC17.2, ThA02.1, ThA02.4, ThA02.6, ThA03.6, ThC10.4, ThC14.4, WeA04.4, WeA11.1, WeA11.5, WeA11.6, WeB17.3, WeB21.6, WeC17.4	
	Observers for nonlinear systems FrC11.3, FrC11.4, ThA04.2, ThA08.1, ThA14.4, ThA18.1, ThA18.2, ThA18.3, ThA18.4, ThA18.5, ThA18.6, ThB02.4, ThB04.3, ThB08.3, ThB09.2, ThB11.5, ThB22.5, ThC04.1, ThC11.1, WeA01.4, WeA18.1, WeA18.2, WeA18.3, WeA18.4, WeA18.5, WeA18.6, WeB08.4, WeB18.1, WeB18.2, WeB18.3, WeB18.4, WeB18.5, WeB18.6, WeC18.1, WeC18.2, WeC18.3, WeC18.4, WeC18.5, WeC18.6	
	Optimal control FrA01.6, FrA02.1, FrA02.2, FrA05.5, FrA08.6, FrA11.4, FrA15.1, FrA15.2, FrA15.3, FrA15.4, FrA15.5, FrA15.6, FrA16.6, FrA18.3, FrB02.4,	

<p>FrB02.5, FrB03.2, FrB14.2, FrB15.1, FrB15.2, FrB15.3, FrB15.4, FrB15.5, FrB18.5, FrB21.5, FrB24.4, FrC02.1, FrC03.2, FrC03.5, FrC05.6, FrC16.5, FrC22.2, FrC22.5, FrC23.5, FrC24.3, FrC24.4, ThA07.4, ThA08.6, ThA09.5, ThA10.1, ThA10.4, ThA15.1, ThA15.2, ThA15.3, ThA15.4, ThA15.5, ThA15.6, ThA16.6, ThA17.2, ThA23.5, ThA26.2, ThA26.3, ThB01.4, ThB03.6, ThB09.6, ThB10.4, ThB13.5, ThB15.1, ThB15.2, ThB15.3, ThB15.4, ThB15.5, ThB15.6, ThB16.5, ThB18.2, ThB20.2, ThC02.1, ThC03.6, ThC05.3, ThC05.5, ThC05.6, ThC14.6, ThC15.1, ThC15.2, ThC15.3, ThC15.4, ThC15.5, ThC15.6, ThC16.1, ThC16.2, ThC16.4, ThC16.5, ThC17.2, ThC20.6, ThC21.2, ThC24.5, WeA01.6, WeA06.4, WeA09.5, WeA10.2, WeA11.6, WeA13.3, WeA13.6, WeA14.2, WeA14.4, WeA15.1, WeA15.2, WeA15.3, WeA15.4, WeA15.5, WeA15.6, WeA20.1, WeA23.3, WeB03.2, WeB09.6, WeB10.5, WeB13.4, WeB13.6, WeB15.1, WeB15.2, WeB15.3, WeB15.4, WeB15.5, WeB15.6, WeB17.2, WeB23.1, WeB25.3, WeC01.5, WeC03.2, WeC03.6, WeC05.2, WeC07.4, WeC08.1, WeC13.2, WeC13.3, WeC13.5, WeC14.5, WeC14.6, WeC15.1, WeC15.2, WeC15.3, WeC15.4, WeC15.5, WeC15.6, WeC25.6</p> <p>See also Optimization</p>	<p>WeA16.4, WeA16.5, WeA16.6, WeA20.5, WeA23.3, WeB01.5, WeB04.5, WeB06.2, WeB07.3, WeB12.6, WeB13.6, WeB14.2, WeB15.4, WeB16.1, WeB16.2, WeB16.3, WeB16.5, WeB16.6, WeB18.4, WeB22.4, WeB23.3, WeC04.3, WeC05.6, WeC06.1, WeC09.5, WeC10.4, WeC11.3, WeC13.6, WeC15.2, WeC16.1, WeC16.2, WeC16.3, WeC16.4, WeC16.5, WeC16.6, WeC17.6, WeC21.4</p> <p>See also Optimal control, Optimization algorithms, Variational methods</p>
<p>Optimization</p>	<p>Optimization algorithms</p> <p>FrA05.4, FrA06.1, FrA06.2, FrA06.3, FrA06.4, FrA06.5, FrA06.6, FrA12.1, FrA15.1, FrA15.4, FrA16.1, FrA16.2, FrA16.3, FrA19.2, FrA20.1, FrA20.3, FrA20.4, FrA20.5, FrA20.6, FrA21.2, FrA23.4, FrB02.2, FrB03.2, FrB15.2, FrB15.5, FrB15.6, FrB16.3, FrB16.6, FrB17.4, FrB19.5, FrB23.1, FrB23.2, FrB23.4, FrB23.6, FrB24.4, FrB25.6, FrC03.6, FrC05.5, FrC09.5, FrC13.4, FrC15.5, FrC16.3, FrC19.3, FrC19.6, FrC22.5, FrC23.2, FrC23.4, ThA06.1, ThA06.2, ThA06.3, ThA06.4, ThA06.5, ThA06.6, ThA09.2, ThA13.5, ThA16.2, ThA16.3, ThA16.4, ThA16.5, ThA16.6, ThA22.3, ThB06.1, ThB06.2, ThB06.3, ThB06.4, ThB06.5, ThB06.6, ThB11.5, ThB16.1, ThB16.3, ThB16.4, ThB16.5, ThB16.6, ThB20.1, ThB24.6, ThC06.1, ThC06.2, ThC06.3, ThC06.4, ThC06.5, ThC06.6, ThC12.1, ThC16.1, ThC16.3, ThC16.4, ThC21.6, ThC23.2, ThC23.4, WeA16.1, WeA24.1, WeA25.3, WeB04.5, WeB11.1, WeB13.3, WeB16.2, WeB16.3, WeB16.5, WeB24.5, WeC02.2, WeC06.5, WeC13.4, WeC16.5, WeC16.6, WeC24.3, WeC24.6</p> <p>See also Optimization</p>
<p>FrA02.2, FrA02.4, FrA03.3, FrA13.2, FrA13.3, FrA14.2, FrA16.1, FrA16.3, FrA16.4, FrA16.5, FrA18.2, FrA19.6, FrA23.4, FrA25.4, FrA25.5, FrB02.1, FrB02.3, FrB03.6, FrB11.2, FrB11.5, FrB16.2, FrB16.3, FrB16.5, FrB16.6, FrB17.4, FrB17.5, FrB18.3, FrB18.6, FrB19.2, FrB19.3, FrB19.5, FrB23.2, FrB23.6, FrB25.2, FrC07.6, FrC08.4, FrC09.5, FrC21.4, FrC23.2, ThA10.5, ThA14.2, ThA15.4, ThA15.5, ThA16.1, ThA16.2, ThA16.5, ThA17.4, ThA17.6, ThA18.3, ThA22.6, ThA24.1, ThA24.3, ThB06.2, ThB06.4, ThB11.3, ThB11.6, ThB12.5, ThB13.3, ThB13.5, ThB13.6, ThB16.2, ThB16.4, ThB17.5, ThB19.5, ThB22.5, ThB24.3, ThB24.4, ThB25.6, ThC03.5, ThC06.1, ThC09.3, ThC09.4, ThC12.1, ThC13.6, ThC15.4, ThC16.1, ThC16.6, ThC18.6, ThC19.3, ThC24.6, WeA06.6, WeA10.4, WeA11.4, WeA15.5, WeA16.1, WeA16.2, WeA16.3,</p>	<p>Output regulation</p> <p>FrA13.3, FrA13.4, FrB01.3, FrB14.5, FrC13.3, FrC24.6, ThA06.2, ThA18.4, ThB04.2, ThB14.6, WeA14.6, WeA24.3, WeC03.3</p>
P	
<p>Pattern recognition and classification</p>	<p>ThA04.1, ThB19.3, ThB24.4, ThC02.5, ThC02.6, ThC04.4, ThC23.2, WeB24.1, WeB24.6</p> <p>See also Learning</p>
<p>Petri nets</p>	<p>FrB04.3, WeC04.1, WeC04.3, WeC04.6</p> <p>See also Discrete Event Systems</p>
<p>Pharmaceutical processes</p>	<p>ThC02.4</p> <p>See also Process Control</p>
<p>PID control</p>	<p>FrA08.4, FrB01.6, FrC24.1, FrC24.2, FrC24.3, FrC24.4, FrC24.5, FrC24.6, WeA20.6,</p>

WeC02.1
 See also [Linear Systems](#)
 Power electronics [FrC17.1](#), [FrC17.2](#), [FrC17.3](#),
[FrC17.4](#), [FrC17.5](#), [FrC25.3](#),
[ThC15.1](#), [WeC17.3](#)
 Power generation [FrA07.4](#), [WeA16.4](#), [WeC02.6](#)
 Power systems [FrA16.4](#), [FrA16.6](#), [FrA25.2](#),
[FrA25.3](#), [FrA25.4](#), [FrA25.5](#),
[FrA25.6](#), [FrB25.1](#), [FrB25.2](#),
[FrB25.3](#), [FrB25.4](#), [FrB25.5](#),
[FrB25.6](#), [FrC17.2](#), [FrC17.4](#),
[FrC24.2](#), [FrC25.1](#), [FrC25.2](#),
[FrC25.3](#), [FrC25.4](#), [FrC25.5](#),
[FrC25.6](#), [ThA05.5](#), [ThA11.1](#),
[ThA13.5](#), [ThA13.6](#), [ThB13.3](#),
[ThB20.4](#), [ThC05.2](#), [ThC05.4](#),
[ThC13.1](#), [ThC13.2](#), [ThC13.4](#),
[WeA21.6](#), [WeB13.5](#), [WeB18.3](#),
[WeB24.4](#), [WeC02.2](#), [WeC02.3](#),
[WeC02.5](#), [WeC02.6](#), [WeC09.5](#),
[WeC16.4](#)
 Predictive control for linear systems [FrA15.6](#), [FrA20.6](#), [FrB03.4](#),
[FrB17.5](#), [FrB21.6](#), [FrC05.1](#),
[FrC05.5](#), [FrC07.4](#), [FrC17.4](#),
[FrC21.3](#), [FrC23.6](#), [ThA05.1](#),
[ThA11.6](#), [ThA20.5](#), [ThB01.3](#),
[ThB16.1](#), [ThB16.2](#), [ThB16.3](#),
[ThB16.5](#), [ThB16.6](#), [ThC07.2](#),
[ThC07.4](#), [ThC15.2](#), [ThC25.6](#),
[WeA05.2](#), [WeA13.1](#), [WeA13.2](#),
[WeA13.3](#), [WeA13.4](#), [WeA13.5](#),
[WeA13.6](#), [WeA20.2](#), [WeA24.1](#),
[WeB05.3](#), [WeB13.1](#), [WeB13.2](#),
[WeB13.3](#), [WeB13.4](#), [WeB13.5](#),
[WeB13.6](#), [WeC23.1](#), [WeC23.2](#),
[WeC23.3](#)
 See also [Linear Systems](#)
 Predictive control for nonlinear systems [FrA03.6](#), [FrA22.3](#), [FrB15.1](#),
[FrB16.5](#), [FrB23.5](#), [FrC03.1](#),
[FrC16.3](#), [FrC22.6](#), [ThA15.6](#),
[ThB14.4](#), [ThB16.6](#), [ThB17.4](#),
[ThC02.3](#), [ThC16.3](#), [ThC16.4](#),
[ThC16.5](#), [ThC16.6](#), [WeA05.3](#),
[WeA20.4](#), [WeC01.2](#), [WeC13.1](#),
[WeC13.2](#), [WeC13.3](#), [WeC13.4](#),
[WeC13.5](#), [WeC13.6](#), [WeC23.4](#),
[WeC23.5](#)
 Process Control [ThC02.1](#), [ThC02.2](#), [WeB08.5](#)
 See also [Chemical process control](#),
[Control of metal processing](#),
[Electrochemical processes](#), [Mineral
 process control](#), [Pharmaceutical
 processes](#)

Q

Quantized systems [FrA04.1](#), [FrA24.6](#), [FrB17.1](#),
[FrC12.4](#), [ThB21.1](#), [ThC12.3](#),
[WeA25.2](#), [WeB16.5](#), [WeC17.2](#)
 See also [Hybrid Systems](#)
 Quantum information and control [FrB24.2](#), [ThA14.3](#), [WeA12.1](#),
[WeA12.2](#), [WeA12.3](#), [WeA12.4](#),
[WeA12.5](#), [WeA12.6](#), [WeB12.1](#),
[WeB12.2](#), [WeB12.3](#), [WeB12.4](#),
[WeB12.5](#), [WeB12.6](#), [WeC12.1](#),
[WeC12.2](#), [WeC12.3](#), [WeC12.4](#),
[WeC12.5](#), [WeC12.6](#)
 See also [Control Applications](#)
 Queuing systems [FrA03.3](#), [FrB09.6](#)
 See also [Discrete Event Systems](#)

R

Randomized algorithms [FrA09.4](#), [FrA11.2](#), [FrA11.6](#),

[FrA22.5](#), [FrB22.2](#), [ThA09.1](#),
[ThA15.3](#), [ThA16.4](#), [ThB13.4](#),
[ThB19.3](#), [ThB19.5](#), [ThC09.5](#),
[ThC13.3](#), [WeB16.3](#), [WeB23.3](#)
 See also [Uncertain Systems](#)
 Reduced order modeling [FrC08.2](#), [FrC08.6](#), [FrC14.6](#),
[ThA12.4](#), [ThB15.1](#), [ThC25.5](#),
[WeA01.1](#), [WeB12.5](#), [WeB12.6](#),
[WeB22.2](#), [WeC08.1](#), [WeC08.4](#)
 Robotics [FrA03.4](#), [FrA07.3](#), [FrA14.1](#),
[FrA18.2](#), [FrB07.1](#), [FrB07.6](#),
[FrB14.4](#), [FrB24.3](#), [FrC07.6](#),
[FrC14.2](#), [FrC15.4](#), [FrC21.4](#),
[FrC22.3](#), [FrC22.6](#), [ThA03.1](#),
[ThA04.2](#), [ThA07.1](#), [ThA07.2](#),
[ThA07.3](#), [ThA07.4](#), [ThA07.5](#),
[ThA07.6](#), [ThB03.1](#), [ThB07.1](#),
[ThB07.2](#), [ThB07.3](#), [ThB07.4](#),
[ThB12.3](#), [ThB14.5](#), [ThB14.6](#),
[ThC03.1](#), [ThC24.1](#), [WeA07.1](#),
[WeA07.6](#), [WeB03.4](#), [WeB07.1](#),
[WeB07.2](#), [WeB13.4](#), [WeB17.2](#),
[WeB21.3](#), [WeB23.1](#), [WeB23.5](#),
[WeC07.4](#), [WeC07.5](#), [WeC07.6](#),
[WeC18.3](#), [WeSP2.1](#)
 Robust adaptive control [FrA13.3](#), [FrA17.3](#), [FrB13.1](#),
[FrB13.4](#), [ThA01.1](#), [ThB03.4](#),
[ThB14.3](#), [WeA03.1](#), [WeA05.6](#),
[WeB13.1](#), [WeB13.2](#), [WeB24.2](#)
 See also [Adaptive Systems](#)
 Robust control [FrA02.1](#), [FrA05.1](#), [FrA05.2](#),
[FrA05.3](#), [FrA05.4](#), [FrA05.5](#),
[FrA05.6](#), [FrA06.1](#), [FrA06.4](#),
[FrA07.6](#), [FrA10.1](#), [FrA10.2](#),
[FrA10.4](#), [FrA10.5](#), [FrA12.2](#),
[FrA13.6](#), [FrA16.1](#), [FrA18.5](#),
[FrA23.5](#), [FrA25.6](#), [FrB05.1](#),
[FrB05.2](#), [FrB05.3](#), [FrB05.4](#),
[FrB05.5](#), [FrB05.6](#), [FrB07.4](#),
[FrB10.1](#), [FrB10.2](#), [FrB13.5](#),
[FrB14.6](#), [FrB20.1](#), [FrC03.4](#),
[FrC05.1](#), [FrC05.2](#), [FrC05.3](#),
[FrC05.4](#), [FrC05.5](#), [FrC05.6](#),
[FrC13.1](#), [FrC13.4](#), [FrC14.5](#),
[FrC17.3](#), [ThA02.2](#), [ThA06.3](#),
[ThA08.3](#), [ThA12.1](#), [ThA12.4](#),
[ThA14.6](#), [ThB06.5](#), [ThB15.4](#),
[ThB17.2](#), [ThB18.2](#), [ThB19.2](#),
[ThC03.6](#), [ThC08.3](#), [ThC19.1](#),
[WeA01.3](#), [WeA02.4](#), [WeA05.4](#),
[WeA12.6](#), [WeA13.2](#), [WeA13.3](#),
[WeA13.5](#), [WeA23.6](#), [WeA24.2](#),
[WeB06.1](#), [WeB07.5](#), [WeB12.1](#),
[WeC02.4](#), [WeC12.1](#), [WeC14.3](#),
[WeC24.1](#)
 See also [Uncertain Systems](#)

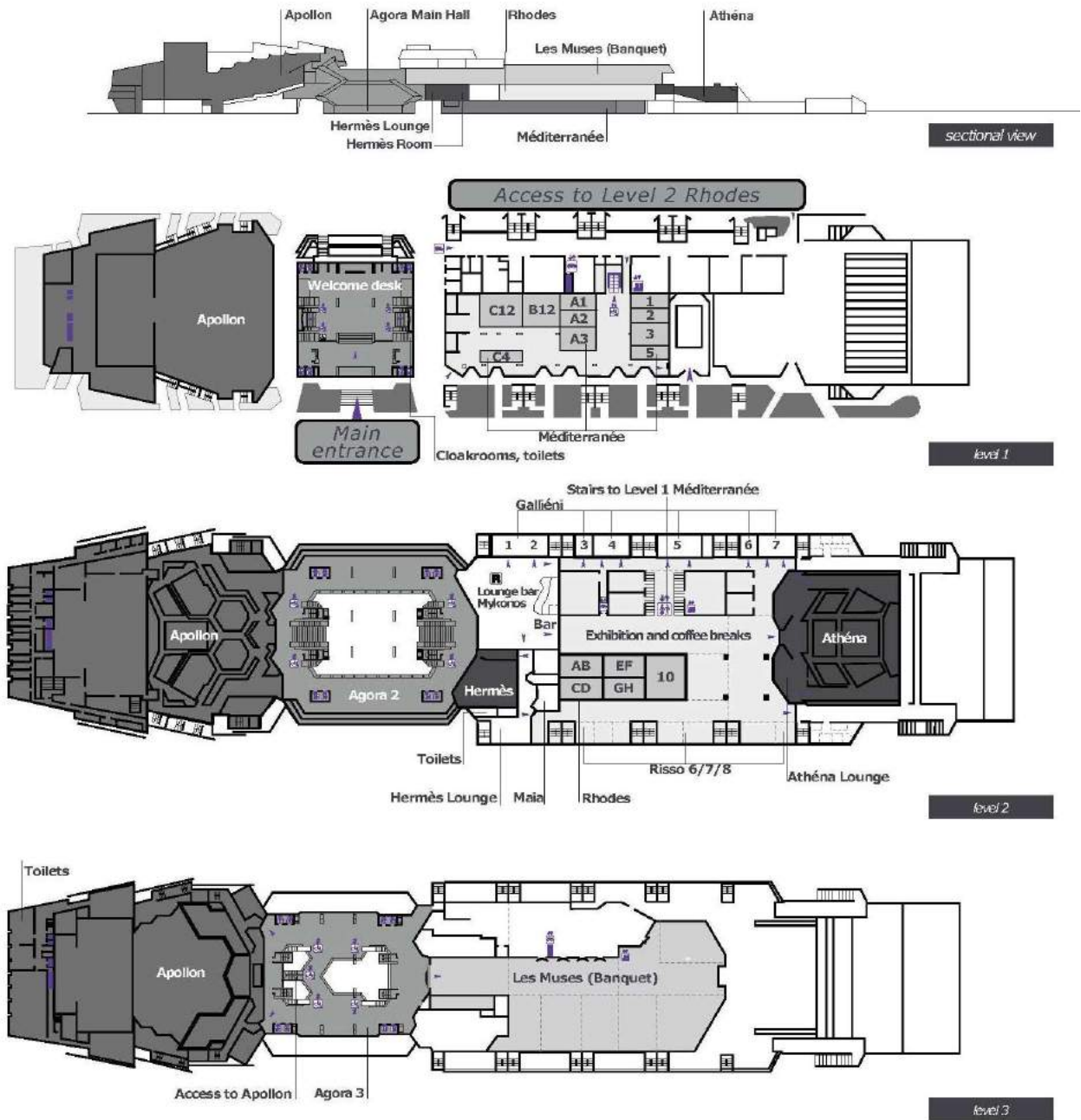
S

Sampled-data control [FrA21.4](#), [FrC15.2](#), [ThB05.1](#),
[ThB14.2](#), [ThB20.6](#), [ThC18.4](#),
[WeA02.6](#), [WeA06.1](#), [WeA06.2](#),
[WeA06.3](#), [WeA06.4](#), [WeA06.5](#),
[WeA06.6](#), [WeA08.1](#), [WeA13.2](#),
[WeA20.6](#), [WeB20.2](#), [WeB20.3](#),
[WeC13.1](#), [WeC20.1](#), [WeC21.1](#),
[WeC21.2](#), [WeC21.3](#), [WeC23.2](#)
 See also [Linear Systems](#)
 Sensor fusion [FrB02.2](#), [FrC09.6](#), [FrC11.5](#),
[FrC11.6](#), [ThB05.2](#), [WeA18.3](#),
[WeB11.6](#), [WeC09.4](#), [WeC21.4](#),
[WeC24.4](#)

Sensor networks	See also Control Applications FrA11.6, FrA21.2, FrB07.2, FrB17.2, FrB23.4, FrC09.1, FrC09.2, FrC09.3, FrC09.4, FrC09.5, FrC09.6, FrC11.2, ThA23.4, ThB11.2, ThB11.4, ThB18.1, ThC11.2, WeB08.2, WeB23.6, WeB25.1, WeC16.2, WeC21.5, WeC21.6	ThB10.3, ThB20.5, ThB21.3, ThB25.2, ThC03.3, ThC04.2, ThC05.1, ThC08.5, ThC13.4, ThC19.5, ThC25.3, WeA01.5, WeA02.2, WeA08.3, WeA12.4, WeA14.1, WeA14.4, WeA14.5, WeA14.6, WeA16.6, WeA17.2, WeB03.5, WeB08.3, WeB12.3, WeB20.4, WeB23.2, WeB25.6, WeC03.3, WeC05.1, WeC12.3, WeC12.4, WeC13.3, WeC14.2, WeC18.5, WeC23.5, WeC24.1
Simulation	FrA03.1, FrC07.2, FrC08.6, ThA12.1, ThB04.2, ThB10.4, ThB22.3, ThC13.2, ThC19.2, WeA10.1, WeC02.1, WeC02.4	FrA23.3, FrA23.5, ThA04.1, ThA04.4, ThA23.2, ThA23.4, ThA23.6, ThA24.2, ThA26.5, ThB03.3, ThB19.3, WeA23.2, WeB23.6, WeB24.5, WeC06.2, WeC22.4, WeC22.5, WeC23.3, WeC24.2, WeC24.3, WeC24.4, WeC24.6
Smart cities/houses	WeA08.4, WeB10.1, WeB10.6, WeC07.2, WeC10.4, WeC10.5	Statistical learning
Smart grid	See also Control Applications FrA13.2, FrA15.3, FrA16.2, FrA16.5, FrA16.6, FrA25.2, FrA25.4, FrB19.1, FrB25.4, FrB25.5, FrB25.6, FrC17.5, FrC25.2, FrC25.4, FrC25.6, ThA05.5, ThA05.6, ThA09.2, ThA13.1, ThA13.2, ThA13.3, ThA13.5, ThA13.6, ThA20.2, ThB04.4, ThB04.6, ThB13.1, ThB13.2, ThB13.4, ThB13.5, ThB13.6, ThC05.2, ThC06.3, ThC13.1, ThC13.2, ThC13.3, ThC13.4, ThC13.5, WeA25.3, WeC02.1, WeC02.2, WeC02.3, WeC02.5	Stochastic optimal control
Smart structures	FrC06.1, ThC13.6	See also Learning FrA19.1, FrA19.2, FrA19.3, FrA19.4, FrA19.5, FrA19.6, FrA21.5, FrA23.2, FrB05.4, FrB06.5, FrB11.5, FrB19.1, FrB19.2, FrB19.3, FrB19.4, FrB19.5, FrB19.6, FrB23.1, FrC13.1, FrC19.1, FrC19.2, FrC19.3, FrC19.4, FrC19.5, FrC19.6, ThA07.6, ThA19.3, ThA19.4, ThA26.4, ThB03.1, ThB03.5, ThB09.4, ThB12.5, ThB13.2, ThB25.4, ThC17.5, ThC23.1, ThC23.5, WeA09.6, WeA19.1, WeA19.3, WeA19.4, WeA19.5, WeA20.3, WeB09.4, WeB09.5, WeB10.4, WeB10.6, WeB19.1, WeB19.2, WeB19.4, WeC11.6, WeC13.1, WeC16.5, WeC17.5, WeC19.1, WeC19.2, WeC24.5
Stability of hybrid systems	See also Control Applications FrA04.3, FrA04.6, FrA06.2, FrC18.1, FrC18.2, FrC18.3, FrC18.4, ThA09.4, ThA13.4, ThA17.1, ThA18.2, ThB07.1, ThC01.3, ThC21.5, WeA06.3, WeA17.3, WeB17.6, WeB20.1, WeB20.5	Stochastic systems
Stability of linear systems	See also Hybrid Systems FrA07.6, FrA12.2, FrA12.4, FrB05.3, FrB17.1, FrC02.2, FrC02.3, FrC02.4, FrC02.5, FrC07.2, FrC12.3, FrC17.1, FrC17.5, FrC18.2, ThA02.3, ThA02.5, ThB12.2, ThC14.1, ThC25.6, WeA02.1, WeA02.3, WeA06.1, WeA17.3, WeA24.6, WeB02.2, WeB06.5, WeB13.3, WeB16.4, WeB17.4	See also Stochastic Systems FrA05.6, FrA09.5, FrA11.2, FrA19.4, FrA19.5, FrA21.5, FrA24.1, FrB01.2, FrB18.3, FrB19.6, FrB22.5, FrB23.3, FrC01.1, FrC02.4, FrC06.4, FrC13.1, FrC19.5, FrC21.2, ThA02.3, ThA03.5, ThA07.1, ThA07.2, ThA07.6, ThA10.6, ThA19.1, ThA19.2, ThA19.3, ThA19.4, ThA19.5, ThA19.6, ThA22.2, ThB02.5, ThB05.1, ThB17.6, ThB18.5, ThB19.1, ThB19.2, ThB19.4, ThB19.5, ThB19.6, ThB20.3, ThB21.6, ThB22.4, ThC01.4, ThC01.6, ThC02.3, ThC06.6, ThC11.5, ThC11.6, ThC13.1, ThC19.1, ThC19.2, ThC19.3, ThC19.4, ThC19.5, WeA02.6, WeA09.1, WeA12.6, WeA19.1, WeA19.2, WeA19.5, WeA19.6, WeA20.3, WeA21.1, WeA22.6, WeB01.3, WeB09.1, WeB10.3, WeB19.1, WeB19.3, WeB19.4, WeB19.5, WeB19.6, WeC11.2, WeC12.3, WeC19.3, WeC19.4, WeC19.5, WeC19.6, WeC23.1
Stability of nonlinear systems	See also Linear Systems FrA07.2, FrA07.5, FrA10.1, FrA10.6, FrA14.1, FrA14.2, FrA14.3, FrA14.4, FrA14.5, FrA14.6, FrA26.4, FrB05.5, FrB09.2, FrB10.3, FrB10.4, FrB10.5, FrB12.1, FrB12.2, FrB12.3, FrB13.1, FrB14.1, FrB14.2, FrB14.3, FrB14.4, FrB14.5, FrB14.6, FrC05.3, FrC05.4, FrC12.1, FrC14.1, FrC14.2, FrC14.3, FrC14.4, FrC14.5, FrC14.6, FrC15.2, FrC18.5, FrC18.6, FrC19.3, FrC21.5, FrC25.3, FrC25.5, ThA01.6, ThA09.3, ThA12.3, ThA14.5, ThA15.2, ThA16.1, ThA18.1, ThA18.6, ThA19.1, ThA19.6, ThA20.1, ThA22.5,	See also Stochastic Systems, WeC24.6

	Filtering, Game theory, Markov processes, Mean field games, Stochastic optimal control	FrA13.2, FrA13.4, FrA13.5, FrA13.6, FrA14.4, FrA17.3, FrA23.5, FrB01.5, FrB05.1, FrB05.4, FrB05.5, FrB06.2, FrB07.1, FrB10.1, FrB13.1, FrB13.2, FrB13.3, FrB13.6, FrB24.6, FrC01.4, FrC10.1, FrC10.4, FrC13.2, FrC13.4, FrC13.6, FrC24.6, FrP1.1, ThA03.6, ThA05.5, ThA11.1, ThA11.3, ThA12.5, ThA16.4, ThA19.3, ThA19.5, ThB04.3, ThB07.4, ThB14.1, ThB14.3, ThB15.3, ThB15.4, ThB17.3, ThB19.6, ThB21.2, ThB23.3, ThC03.3, ThC03.4, ThC14.2, ThC14.3, WeA03.6, WeA13.4, WeA14.5, WeA24.2, WeA24.6, WeB02.3, WeB03.6, WeB05.2, WeB14.6, WeB16.6, WeB23.3, WeC10.5, WeC11.6, WeC16.6, WeC19.5, WeC23.6
Subspace methods	ThA23.2, ThA23.6, ThB21.4, ThC19.6, WeA11.2, WeA22.2, WeA24.4, WeC22.3	
Supervisory control	FrB04.1, FrB04.3, FrB04.4, FrB04.5, FrC04.1, FrC04.2, FrC04.4, FrC04.5, ThC12.6, ThC18.2, WeB04.1, WeB04.2, WeB04.4, WeB04.6, WeB11.5, WeC04.1, WeC04.2, WeC04.4, WeC04.5	
Switched systems	See also Discrete Event Systems FrA04.1, FrA04.2, FrA04.3, FrA04.4, FrA04.6, FrA13.4, FrB11.1, FrB13.2, FrB15.3, FrB15.5, FrC12.5, FrC14.3, FrC17.3, ThA01.2, ThA14.3, ThA17.1, ThA17.2, ThA17.3, ThA17.4, ThA17.5, ThA17.6, ThA23.2, ThB04.1, ThB08.5, ThB17.6, ThB19.1, ThB19.2, ThC04.1, ThC12.3, ThC12.4, WeA03.1, WeA03.3, WeA04.3, WeA06.3, WeA17.1, WeA17.2, WeA17.3, WeA17.4, WeA17.5, WeA17.6, WeA22.5, WeB05.4, WeB14.4, WeB14.5, WeB17.1, WeB17.2, WeB17.3, WeB17.4, WeB17.5, WeB17.6, WeC14.1, WeC17.1, WeC17.2, WeC17.3, WeC17.4, WeC17.5, WeC17.6, WeC22.1	See also Uncertain Systems, Randomized algorithms, Robust control
Systems biology	See also Hybrid Systems FrA01.4, FrA15.5, FrC01.1, FrC01.2, FrC01.3, FrC01.4, FrC01.5, ThC01.6, WeA01.5, WeA04.3, WeB01.1, WeB24.1, WeC01.2, WeC01.3 See also Biological Systems	
T		
Time-varying systems	FrA02.6, FrA07.5, FrA19.1, FrA21.4, FrB02.5, FrB18.5, FrC02.2, ThA04.4, ThA15.1, ThB01.5, ThB06.1, ThC07.2, ThC14.1, ThC14.2, ThC14.3, ThC14.4, ThC14.5, WeA02.3, WeA06.4, WeB16.4, WeC03.4, WeC22.2	
Traffic control	See also Linear Systems ThA10.1, ThA10.2, ThA10.3, ThA10.4, ThA10.6, ThB08.2, ThB10.2, ThB10.3, ThB10.4, ThB10.6, ThB23.5, ThB26.1, ThB26.4, ThB26.5, ThC12.4, WeA04.5, WeA10.2, WeA10.3, WeA10.5, WeA14.2, WeB10.1, WeB10.2, WeC10.1, WeC10.2, WeC10.4, WeC10.5	
Transportation networks	See also Control Applications ThA10.5, ThA13.3, ThB10.2, ThB10.5, ThB10.6, ThB26.1, ThC09.2, ThC12.1, ThC12.2, ThC12.5, WeA10.1, WeA10.3, WeA10.5, WeA10.6	
U		
Uncertain systems	FrA01.3, FrA05.1, FrA05.3, FrA05.5, FrA10.2, FrA10.4, FrA11.3, FrA12.2, FrA13.1,	
Variable-structure/sliding-mode control	FrA05.2, FrA07.1, FrA08.5, FrA10.1, FrA10.2, FrA10.3, FrA10.4, FrA10.5, FrA10.6, FrB10.1, FrB10.2, FrB10.3, FrB10.4, FrB10.5, FrB10.6, FrB14.6, FrC10.1, FrC10.2, FrC10.3, FrC10.4, FrC10.5, FrC10.6, ThA14.1, ThA14.2, ThA14.6, ThC07.1, ThC07.6, WeA01.3, WeA03.5, WeA07.1, WeA07.4, WeB18.3, WeB22.1	
Variational methods	FrA04.4, FrA08.2, FrC16.2, ThA09.1, ThA16.3, ThC09.4, WeA15.6, WeA18.4, WeA19.2, WeB09.4, WeB11.3, WeB15.1, WeB15.4, WeB15.5	
Vision-based control	See also Optimization FrB06.6, ThB03.2, ThB07.5, ThB07.6, WeB25.1	
Visual servo control	See also Control Applications ThB07.5	

Maps



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