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Technical Program for Tuesday December 10, 2013

TuPL	Auditorium
Acrobatic Flight (Plenary Session)	
Chair: Tempo, Roberto	CNR-IEIIT, Pol. di Torino
Co-Chair: Parisini, Thomas	Imperial Coll. & Univ. of Trieste
08:30-09:30	TuPL.1
*Acrobatic Flight**.	
D'Andrea, Raffaello	ETH

TuA01	PA B.1
Topics in Nonlinear Systems I (Regular Session)	
Chair: Galeani, Sergio	Univ. Di Roma Tor Vergata
Co-Chair: Guay, Martin	Queen's Univ.
10:00-10:20	TuA01.1
On a Geometrical Approach to Quadratic Lyapunov Stability and Robustness, pp. 1-6.	
Bajcinca, Naim	Max-Planck Inst. for Dynamics of Complex Tech. Systems
Flockerzi, Dietrich	Max-Planck Inst. for Dynamics of Complex Tech. Systems
Kouhi Anbaran, Yashar	Max Planck Inst. for Dynamics of Complex Tech. Systems
10:20-10:40	TuA01.2
A New Algorithm to Compute Inverse Dynamic of a Class of Nonlinear Systems, pp. 7-12.	
Boutat, Driss	Ensi de Bourges
Barbot, Jean Pierre	ENSEA
Darouach, Mohamed	Univ. de Lorraine, CRAN-CNRS
10:40-11:00	TuA01.3
A Constant-Rank Theorem for Time-Varying Control Systems, pp. 13-18.	
Amiss, Scott	Queen's Univ.
Guay, Martin	Queen's Univ.
11:00-11:20	TuA01.4
Fault Tolerant Control of Nonlinear Systems Via a CA-Based Integral Sliding Mode Technique, pp. 19-24.	
Chen, Chih-Chiang	National Chiao Tung Univ.
Liang, Yew-Wen	National Chiao Tung Univ.
11:20-11:40	TuA01.5
The Observer Follower Filter for Stochastic Differential Systems with Sampled Measurements, pp. 25-30.	
Cacace, Filippo	Univ. Campus Biomedico di Roma
Cusimano, Valerio	Univ. Campus Biomedico di Roma
Germani, Alfredo	Univ. dell'Aquila
Palumbo, Pasquale	IASI-CNR
11:40-12:00	TuA01.6
Nonlinear Observer Design Techniques with Observability Functions, pp. 31-36.	
Carnevale, Daniele	Univ. of Rome, Tor Vergata
Galeani, Sergio	Univ. of Rome, Tor Vergata
Sassano, Mario	Univ. of Rome, Tor Vergata
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome

TuA02	PA G.1
Network Analysis I (Regular Session)	
Chair: Tang, Choon Yik	Univ. of Oklahoma
Co-Chair: Johansson, Mikael	Royal Inst. of Tech.
10:00-10:20	TuA02.1
Mass Chains with Passive Interconnection: Complex Iterative Maps and Scalability, pp. 37-42.	
Yamamoto, Kaoru	Univ. of Cambridge
Smith, Malcolm C.	Univ. of Cambridge
10:20-10:40	TuA02.2
Distributed Computation of Node and Edge Betweenness on Tree Graphs, pp. 43-48.	
Wang, Wei	Univ. of Oklahoma
Tang, Choon Yik	Univ. of Oklahoma
10:40-11:00	TuA02.3
Asymptotic and Exponential Stability of General Classes of Continuous-Time Power Control Laws in Wireless Networks, pp. 49-54.	
Feyzmahdavian, Hamid Reza	Royal Inst. of Tech. (KTH)
Charalambous, Themistoklis	Royal Inst. of Tech. (KTH)
Johansson, Mikael	Royal Inst. of Tech. (KTH)
11:00-11:20	TuA02.4
Stability of Dynamical Distribution Networks with Arbitrary Flow Constraints and Unknown In/outflows, pp. 55-60.	
Wei, Jieqiang	Univ. of Groningen
van der Schaft, Arjan J.	Univ. of Groningen
11:20-11:40	TuA02.5
Designing Purely Decentralized Controllers to Stabilize Non-Minimum-Phase Double Integrator Networks with General Sensing Topologies, pp. 61-66.	
Mendes Cook, Artur	Washington State Univ.
Roy, Sandip	Washington State Univ.
Wan, Yan	Univ. of North Texas
11:40-12:00	TuA02.6
Fundamental Limits on Robustness Measures in Networks of Interconnected Systems, pp. 67-72.	
Siami, Milad	Lehigh Univ.
Motee, Nader	Lehigh Univ.

TuA03	PA 1.1
Switched Systems I (Regular Session)	
Chair: Zhang, Lixian	Harbin Inst. of Tech.
Co-Chair: Vasca, Francesco	Univ. of Sannio
10:00-10:20	TuA03.1
Design of Reach Controllers on Simplices, pp. 73-78.	
Ashford, Graeme	Univ. of Toronto
Broucke, Mireille E.	Univ. of Toronto
10:20-10:40	TuA03.2
Operating Modes Distinguishability Condition in Switching Systems, pp. 79-84.	
Motchon, Koffi M. Djidula	Univ. Lille 1

Pekpe, Komi Midzodzi	Univ. Lille 1
Cassar, J.P.	Univ. Lille 1
De Bievre, Stephan	Univ. Lille 1
Cocquempot, Vincent	Univ. Lille 1
10:40-11:00	TuA03.3
Discrete-Time Switched Stochastic Control Systems with Randomly Observed Operation Mode, pp. 85-90.	
Cetinkaya, Ahmet	Tokyo Inst. of Tech.
Hayakawa, Tomohisa	Tokyo Inst. of Tech.
11:00-11:20	TuA03.4
On Switched MPC of a Class of Switched Linear Systems with Modal Dwell Time, pp. 91-96.	
Zhang, Lixian	Harbin Inst. of Tech.
Braatz, Richard D.	Massachusetts Inst. of Tech.
11:20-11:40	TuA03.5
On the Mean Stability of a Class of Switched Linear Systems, pp. 97-102.	
Ogura, Masaki	Texas Tech. Univ.
Martin, Clyde F.	Texas Tech. Univ.
11:40-12:00	TuA03.6
Hybrid Optimal Control with Singular Arcs for DC-DC Power Converters, pp. 103-108.	
Meghnous, Ahmed-Redha	INSA Lyon
Patino, Diego	Pontificia Univ. Javeriana
Pham, Minh Tu	INSA Lyon
Lin Shi, Xuefang	INSA Lyon

TuA04	PA 1.2
PK/PD Modeling for Decision Support in Healthcare (Invited Session)	
Chair: Mendonça, Teresa	Univ. of Oporto
Co-Chair: Medvedev, Alexander V.	Uppsala Univ.
Organizer: Mendonça, Teresa	Univ. of Oporto
Organizer: Medvedev, Alexander V.	Uppsala Univ.
10:00-10:20	TuA04.1
A Simple PK/PD Model Identification Procedure for Controller Design in Anesthesia (I), pp. 109-114.	
Nunes Nogueira, Filipa	Univ. of Oporto
Rocha, Paula	Univ. of Oporto
Mendonça, Teresa	Univ. of Oporto
10:20-10:40	TuA04.2
Bifurcation Analysis for PID-Controller Tuning Based on a Minimal Neuromuscular Blockade Model in Closed-Loop Anesthesia (I), pp. 115-120.	
Zhusubaliyev, Zhanybai	South West State Univ., Kursk
Medvedev, Alexander V.	Uppsala Univ.
Silva, Margarida M.	Uppsala Univ.
10:40-11:00	TuA04.3
A Predictive Model for the Anticoagulant Bivalirudin Administered to Cardiac Surgical Patients (I), pp. 121-126.	
Zhao, Qi	Boston Univ.
Edrich, Thomas	Brigham and Women's Hospital
Paschalidis, Ioannis	Boston Univ.
11:00-11:20	TuA04.4
The Impact of Insulin Pharmacokinetics and Pharmacodynamics on the Closed-Loop Artificial Pancreas (I), pp. 127-132.	
Lee, Justin	Univ. of California, Santa Barbara
Dassau, Eyal	Univ. of California, Santa Barbara
Zisser, Howard	Sansum Diabetes Res. Inst.
Tamborlane, William	School of Medicine, Yale Univ.
Weinzimer, Stuart	School of Medicine, Yale Univ.
Doyle, Francis	Univ. of California, Santa Barbara
11:20-11:40	TuA04.5
A Polynomial Design Approach to Robust Control of Neuromuscular Blockade of Patients Subject to General Anesthesia (I), pp. 133-138.	
Caiado, Daniela V.	INESC-ID
Lemos, Joao M.	INESC-ID
Costa, B.Andrade	INESC-ID
Paz, Luis Alberto	Univ. of Oporto
Mendonça, Teresa	Univ. of Oporto
11:40-12:00	TuA04.6
Tracking Control of a Human Limb During Asynchronous Neuromuscular Electrical Stimulation, pp. 139-144.	
Downey, Ryan J.	Univ. of Florida
Cheng, Teng-Hu	Univ. of Florida
Dixon, Warren E.	Univ. of Florida

TuA05	PA 1.3
Behavioral Systems (Regular Session)	
Chair: Rapisarda, Paolo	Univ. of Southampton
Co-Chair: Markovsky, Ivan	Vrije Univ. Brussel
10:00-10:20	TuA05.1
Identification and Data-Driven Reduced-Order Modeling for Linear Conservative Port and Self-Adjoint Hamiltonian Systems, pp. 145-150.	
Rapisarda, Paolo	Univ. of Southampton
van der Schaft, Arjan J.	Univ. of Groningen
10:20-10:40	TuA05.2
Exact System Identification with Missing Data, pp. 151-155.	
Markovsky, Ivan	Vrije Univ. Brussel
10:40-11:00	TuA05.3
Approximate System Identification with Missing Data, pp. 156-161.	
Markovsky, Ivan	Vrije Univ. Brussel
11:00-11:20	TuA05.4
On Positive-Realness and Stability of Switched Linear Differential Systems, pp. 162-167.	
Mayo-Maldonado, Jonathan Carlos	Univ. of Southampton
Rapisarda, Paolo	Univ. of Southampton
11:20-11:40	TuA05.5
Power and Energy As Systemic Properties -- Part I: Electrical Circuits, pp. 168-174.	
Willems, Jan C.	K.U. Leuven
11:40-12:00	TuA05.6
Power and Energy As Systemic Properties -- Part II: Mechanical Systems, pp. 175-181.	
Willems, Jan C.	K.U. Leuven

TuA06	PA 1.4
Systems and Control Methods for Cybersecurity (Invited Session)	
Chair: Paschalidis, Ioannis	Boston Univ.
Co-Chair: Cassandras, Christos G.	Boston Univ.
Organizer: Paschalidis, Ioannis	Boston Univ.
Organizer: Cassandras, Christos G.	Boston Univ.
10:00-10:20	TuA06.1
Network Anomaly Detection: A Survey and Comparative Analysis of Stochastic and Deterministic Methods (I), pp. 182-187.	
Wang, Jing	Boston Univ.
Rossell, Daniel	Boston Univ.
Cassandras, Christos G.	Boston Univ.
Paschalidis, Ioannis	Boston Univ.
10:20-10:40	TuA06.2
Hybrid Robust Controller Design: Cyber Attack Attenuation for Cyber-Physical Systems, pp. 188-193.	
Kwon, Cheolhyeon	Purdue Univ.
Hwang, Inseok	Purdue Univ.
10:40-11:00	TuA06.3
Fault Detection with Discrete-Time Measurements: An Application for the Cyber Security of Power Networks, pp. 194-199.	
Tiniou, Erasmia Evangelia	ETH Zurich
Mohajerin Esfahani, Peyman	ETH Zurich
Lygeros, John	ETH Zurich
11:00-11:20	TuA06.4
Fundamental Limits of Cyber-Physical Security in Smart Power Grids, pp. 200-205.	
Zhao, Yue	Princeton Univ.
Goldsmith, Andrea	Stanford Univ.
Poor, H. Vincent	Princeton Univ.
11:20-11:40	TuA06.5
Per-Se Privacy Preserving Solution Methods Based on Optimization (I), pp. 206-211.	
Weeraddana, Pradeep Chathuranga	Royal Inst. of Tech. (KTH)
Athanasiou, George	Royal Inst. of Tech. (KTH)
Fischione, Carlo	Royal Inst. of Tech. (KTH)
Baras, John S.	Univ. of Maryland
11:40-12:00	TuA06.6
Deployment and Exploitation of Deceptive Honeybots in Social Networks (I), pp. 212-219.	
Zhu, Quanyan	Univ. of Illinois, Urbana-Champaign
Clark, Andrew	Univ. of Washington
Poovendran, Radha	Univ. of Washington
Basar, Tamer	Univ. of Illinois, Urbana-Champaign

TuA07	PA 2.1
Nonlinear Control Applications I (Regular Session)	
Chair: Nielsen, Christopher	Univ. of Waterloo
Co-Chair: Vela, Patricio	Georgia Inst. of Tech.
10:00-10:20	TuA07.1
Robust Nonlinear Aircraft Tracking Control Using Synthetic Jet Actuators, pp. 220-225.	
MacKunis, William	Embry-Riddle Aeronautical Univ.
Subramanian, Sankrith	Univ. of Florida
Mehta, Siddhartha	Univ. of Florida
Ton, Chau	Embry-Riddle Aeronautical Univ.
Curtis, J. Willard	Air Force Res. Lab.
Reyhanoglu, Mahmut	Embry Riddle Aeronautical Univ.
10:20-10:40	TuA07.2
Circle Motion Control of Trirotor UAV Via Discrete Output Zeroing, pp. 226-231.	
Kataoka, Yasuyuki	Tokyo Inst. of Tech.
Sekiguchi, Kazuma	Tokyo City Univ.
Sampei, Mitsuji	Tokyo Inst. of Tech.
10:40-11:00	TuA07.3
Prescribed Adaptive Control of Nonlinear System with Unknown Bouc-Wen Model, pp. 232-237.	
Li, Zhi	Concordia Univ.
Su, Chun-Yi	Concordia Univ.
Chen, Xinkai	Shibaura Inst. of Tech.
Chai, Tianyou	Northeastern Univ.
11:00-11:20	TuA07.4
Sensorless Torque Control with a Nonlinear Observer for Permanent Magnet Synchronous Motors, pp. 238-243.	
Shin, Donghoon	Hanyang Univ.
Chang, Dong Eui	Univ. of Waterloo
Kim, Wonhee	Hanyang Univ.
Lee, Youngwoo	Hanyang Univ.
Chung, Chung Choo	Hanyang Univ.
11:20-11:40	TuA07.5
Control of Flexible Joint Manipulators Using Only Motor Position Feedback: A Separation Principle Approach, pp. 244-249.	
Boker, AlMuatazbellah M	Michigan State Univ.
Khalil, Hassan K.	Michigan State Univ.
11:40-12:00	TuA07.6
A New Perspective on Gossip Iterations: From Symmetrization to Quantum Consensus, pp. 250-255.	
Mazzarella, Luca	Univ. of Padova
Sarlette, Alain	Ghent Univ.
Ticozzi, Francesco	Univ. of Padova

TuA08	PA 2.2
Queuing and Transportation Networks (Regular Session)	
Chair: Devasia, Santosh	Univ. of Washington
Co-Chair: Bayen, Alexandre M.	Univ. of California at Berkeley
10:00-10:20	TuA08.1
Event Triggered Signalling Codecs for Molecular Estimation, pp. 256-261.	
Parag, Kris Varun	Univ. of Cambridge
Vinnicombe, Glenn	Univ. of Cambridge
10:20-10:40	TuA08.2
On Optimal Routing in Overloaded Parallel Queues, pp. 262-267.	
Li, Bin	The Ohio State Univ.
Eryilmaz, Atilla	The Ohio State Univ.
Srikant, R.	Univ. of Illinois, Urbana-Champaign
Tassiulas, Leandros	Univ. of Thessaly
10:40-11:00	TuA08.3
Stackelberg Thresholds on Parallel Networks with Horizontal Queues, pp. 268-274.	
Jebbari, Yasser	Ec. Pol.
Krichene, Walid	Univ. of California, Berkeley
Reilly, Jack	Univ. of California, Berkeley
Bayen, Alexandre M.	Univ. of California, Berkeley
11:00-11:20	TuA08.4
Decoupled Conflict Resolution Procedures for Non-Perpendicular Air Traffic Intersections with Different Speeds, pp. 275-280.	
Yoo, Jeff	Univ. of Washington
Devasia, Santosh	Univ. of Washington
11:20-11:40	TuA08.5
Towards a Robust Multi-Level Control Approach for Baggage Handling Systems, pp. 281-287.	
Zeinaly, Yashar	Delft Univ. of Tech.
De Schutter, Bart	Delft Univ. of Tech.
Hellendoorn, Hans	Delft Univ. of Tech.
11:40-12:00	TuA08.6
Perimeter and Boundary Flow Control for Heterogeneous Transportation Networks, pp. 288-293.	
Aboudolas, Konstantinos	École Pol. Fédérale de Lausanne (EPFL)
Geroliminis, Nikolas	École Pol. Fédérale de Lausanne (EPFL)

TuA09	PA 2.3
Delay Systems I (Regular Session)	
Chair: Mirkin, Leonid	Technion
Co-Chair: Pasillas-Lepine, William	CNRS, SUPELEC
10:00-10:20	TuA09.1
Toward a More Efficient Implementation of Distributed-Delay Elements, pp. 294-299.	
Troeng, Olof	Lund Univ.
Mirkin, Leonid	Technion
10:20-10:40	TuA09.2
Control of Thermodynamical System with Input-Dependent State Delays, pp. 300-305.	
Bendtsen, Jan Dimon	Aalborg Univ.
Krstic, Miroslav	Univ. of California, San Diego
10:40-11:00	TuA09.3
Control of Production-Inventory Systems with Deteriorating Stock and Unreliable Delayed Supply Channel, pp. 306-311.	
Ignaciuk, Przemyslaw	Lodz Univ. of Tech.
11:00-11:20	TuA09.4
An LMI Approach to the Control of Exponentially Unstable Systems with Input Time Delay, pp. 312-317.	
Yoon, Se Young (Pablo)	Univ. of Virginia
Anantachaisilp, Parinya	Univ. of Virginia
Lin, Zongli	Univ. of Virginia
11:20-11:40	TuA09.5
Systems with Gamma-Distributed Delays: A Lyapunov-Based Analysis, pp. 318-323.	
Solomon, Oren	Tel Aviv Univ.
Fridman, Emilia	Tel Aviv Univ.
11:40-12:00	TuA09.6
Preliminary Results on Output Tracking Control for Restricted-Feedback Linearizable Systems with Input Delay, pp. 324-329.	
Pasillas-Lepine, William	CNRS, SUPELEC
Loria, Antonio	CNRS
Hoang, Trong Bien	Univ. Paris Sud

TuA10	PA 2.4
Advanced Control Applications (Regular Session)	
Chair: Basso, Michele	Univ. di Firenze
Co-Chair: Carrillo, Francisco	Ec. Nationale d'Ingénieurs de Tarbes (ENIT)
10:00-10:20	TuA10.1
Simulink Meets Lego: Rapid Controller Prototyping of a Stabilized Bicycle Model, pp. 330-335.	
Basso, Michele	Univ. di Firenze
Innocenti, Giacomo	Univ. di Firenze
Rosa, Alberto	Univ. di Firenze
10:20-10:40	TuA10.2
Fuzzy Control of a Conjugated Polymer Actuator, pp. 336-341.	
Sabetghadam, Mohammadreza	Karadeniz Tech. Univ.
Itik, Mehmet	Karadeniz Tech. Univ.
Alici, Gursel	Univ. of Wollongong
10:40-11:00	TuA10.3
Model-Free Control of a 3-DOF Piezoelectric Nanopositioning Platform, pp. 342-347.	
Rodriguez-Fortun, Jose M.	Inst. Tecnologico de Aragon
Rotella, Frédéric	ENIT
Alfonso, Jesus	Inst. Tecnologico de Aragon
Carrillo, Francisco	ENIT
Orus, Javier	Inst. Tecnologico de Aragon
11:00-11:20	TuA10.4
Sinusoidal Trajectory for Atomic Force Microscopy Precision Local Scanning with Auxiliary Optical Microscopy, pp. 348-353.	
Chen, Chih Lieh	National Taiwan Univ.
Wu, Jim-Wei	National Taiwan Univ.
Lin, Yi-Ting	National Taiwan Univ.
Lo, Yu Ting	National Taiwan Univ.
Fu, Li-Chen	National Taiwan Univ.

11:20-11:40	TuA10.5
Spiral Scanning of Atomic Force Microscope for Faster Imaging, pp. 354-359.	
Rana, Md. Sohel	The Univ. of New South Wales
Pota, Hemanshu R.	The Univ. of New South Wales
Petersen, Ian R.	The Univ. of New South Wales
Habibullah,	The Univ. of New South Wales

11:40-12:00	TuA10.6
Analysis of Oscillating Microcantilever Dynamics: A Floquet Perspective, pp. 360-365.	
Paoletti, Paolo	Univ. of Liverpool
Basso, Michele	Univ. di Firenze

TuA11	PA 2.5
Energy Systems I (Regular Session)	
Chair: Diehl, Moritz	Katholieke Univ. Leuven
Co-Chair: Hoagg, Jesse B.	Univ. of Kentucky
10:00-10:20	TuA11.1
Shape Control with the XSC During Plasma Current Ramp-Up and Ramp-Down at the JET Tokamak (I), pp. 366-371.	
De Tommasi, Gianmaria	Univ. degli Studi di Napoli Federico II
Ambrosino, Giuseppe	Univ. degli Studi di Napoli
Ariola, Marco	Univ. degli Studi di Napoli Parthenope
Calabro, Giuseppe	ENEA Fusion Association
Galeani, Sergio	Univ. Di Roma Tor Vergata
Maviglia, Francesco	ENEA/CREATE Fusion Association
Pironti, Alfredo	Univ. degli Studi di Napoli Federico II
Rimini, Fernanda	EURATOM-CCFE Fusion Association, Culham Science Centre
A.C.C., George	European Commission, B-1049 Brussels
Varano, Gianluca	Univ. di Roma Tor Vergata
Vitelli, Riccardo	Univ. of Rome, Tor Vergata
Zaccarian, Luca	LAAS-CNRS
10:20-10:40	TuA11.2
Effects of Loss Models on Locational Reserve Policies in Uncertain Power Systems, pp. 372-378.	
Vorac, Premysl	Univ. of West Bohemia
Georgiev, Daniel	Univ. of West Bohemia
10:40-11:00	TuA11.3
Planning and Control of Electric Vehicles Using Dynamic Energy Capacity Models, pp. 379-384.	
Liu, Jianzhe	The Ohio State Univ.
Li, Sen	The Ohio State Univ.
Zhang, Wei	The Ohio State Univ.
Mathieu, Johanna L.	ETH Zurich
Rizzoni, Giorgio	The Ohio State Univ.
11:00-11:20	TuA11.4
On Real-Time Optimization of Airborne Wind Energy Generators, pp. 385-390.	
Zgraggen, Aldo Urban	ETH Zurich
Fagiano, Lorenzo	ETH Zurich
Morari, Manfred	ETH Zurich
11:20-11:40	TuA11.5
Robust Fault Tolerant Pitch Control of Wind Turbines (I), pp. 391-396.	
Rezaei, Vahid	Colorado School of Mines
Johnson, Kathryn	Colorado School of Mines
11:40-12:00	TuA11.6
Wind Turbine Torque Control for Unsteady Wind Speeds Using Approximate-Angular-Acceleration Feedback, pp. 397-402.	
Mullen, Jon	Univ. of Kentucky
Hoagg, Jesse B.	Univ. of Kentucky

TuA12	VV G.1
Optimization I (Regular Session)	
Chair: Quijano, Nicanor	Univ. de los Andes
Co-Chair: Jovanovic, Mihailo	Univ. of Minnesota
10:00-10:20	TuA12.1
Sufficient Conditions for Optimality of Analog to Digital Converters, pp. 403-408.	
Osqui, Mitra	Massachusetts Inst. of Tech.
Megretski, Alexandre	Massachusetts Inst. of Tech.
Roozbehani, Mardavij	Massachusetts Inst. of Tech.
10:20-10:40	TuA12.2
Extremum Seeking for Multi-Population Games, pp. 409-414.	
Poveda, Jorge	Univ. de los Andes
Quijano, Nicanor	Univ. de los Andes
10:40-11:00	TuA12.3
A Generalization of the Lowner-John's Ellipsoid Theorem, pp. 415-420.	
Lasserre, Jean B.	LAAS-CNRS and Inst. of Mathematics, Univ. of Toulouse
11:00-11:20	TuA12.4
Mixed-Integer Minimization of the Cost Function of the Unit Commitment Problem for Isolated Power Systems, pp. 421-428.	
Tuffaha, Mutaz S. E.	Norwegian Univ. of Sc. and Tech.
Gravdahl, Jan Tommy	Norwegian Univ. of Sc. and Tech.
11:20-11:40	TuA12.5
Profit Maximizing Storage Allocation in Power Grids, pp. 429-435.	
Castillo, Anya	Johns Hopkins Univ.
Gayme, Dennice	Johns Hopkins Univ.
11:40-12:00	TuA12.6
A "Plug-N-Play" Computationally Efficient Approach for Control Design of Large-Scale Nonlinear Systems Using Co-Simulation, pp. 436-441.	
Baldi, Simone	Univ. di Firenze
Michailidis, Iakovos	Democritus Univ. Xanthi
Jula, Hossein	Penn State - Harrisburg
Kosmatopoulos, Elias	ITI/CERTH
Ioannou, Petros A.	Univ. of Southern California

TuA13 VV G.2

Modeling, Estimation and Control of Distributed Parameter Systems I (Invited Session)

Chair: Demetriou, Michael A.	Worcester Pol. Inst.
Co-Chair: Fahroo, Fariba	AFOSR
Organizer: Demetriou, Michael A.	Worcester Pol. Inst.
Organizer: Fahroo, Fariba	AFOSR

10:00-10:20 TuA13.1

Adaptive Consensus Filters of Spatially Distributed Systems with Limited Connectivity (I), pp. 442-447.

Demetriou, Michael A.	Worcester Pol. Inst.

10:20-10:40 TuA13.2

Lyapunov Techniques for Stabilization of Switched Linear Systems of Conservation Laws (I), pp. 448-453.

Lamare, Pierre-Olivier	Univ. Joseph Fourier
Girard, Antoine	Univ. Joseph Fourier
Prieur, Christophe	CNRS

10:40-11:00 TuA13.3

Approximation Methods for Boundary Control of the Boussinesq Equations (I), pp. 454-459.

Burns, John A	Virginia Tech.
Hu, Weiwei	Virginia Tech.

11:00-11:20 TuA13.4

Exponential Stabilization of a Class of Flexible Microgrippers Using Dynamic Boundary Port Hamiltonian Control (I), pp. 460-465.

Ramirez, Hector	FEMTO-ST / ENSMM
Le Gorrec, Yann	ENSMM, FEMTO-ST / AS2M
Zwart, Hans	Univ. of Twente

11:20-11:40 TuA13.5

Marcum Q-Functions and Explicit Feedback Laws for Stabilization of Constant Coefficient 2 X 2 Linear Hyperbolic Systems (I), pp. 466-471.

Vazquez, Rafael	Univ. de Sevilla
Krstic, Miroslav	Univ. of California, San Diego

11:40-12:00 TuA13.6

Boundary Control and Observer Design for an Uncertain Wave Process by Second-Order Sliding-Mode Technique (I), pp. 472-477.

Pisano, Alessandro	Univ. of Cagliari
Orlov, Yury	CICESE
Usai, Elio	Univ. of Cagliari

TuA14 VV G.3

Interval Estimation of Uncertain Systems (Invited Session)

Chair: Efimov, Denis	INRIA - LNE
Co-Chair: Raïssi, Tarek	Conservatoire National des Arts et Métiers
Organizer: Efimov, Denis	INRIA - LNE
Organizer: Raïssi, Tarek	Conservatoire National des Arts et Métiers

10:00-10:20 TuA14.1

A Sparse Set Membership Approach to Interval Estimation of Nonlinear Functions and Application to Fault Detection (I), pp. 478-483.

Novara, Carlo	Pol. di Torino

10:20-10:40 TuA14.2

A Validated Integration Algorithm for Nonlinear ODEs Using Taylor Models and Ellipsoidal Calculus (I), pp. 484-489.

Houska, Boris	Shanghai Jiao Tong Univ.
Villanueva, Mario E.	Imperial Coll. London
Chachuat, Benoît	Imperial Coll. London

10:40-11:00 TuA14.3

Fault Detection Using Interval Kalman Filtering Enhanced by Constraint Propagation (I), pp. 490-495.

Xiong, Jun	LAAS-CNRS
Jauberthie, Carine	LAAS-CNRS
Trave-Massuyes, Louise	LAAS-CNRS
Le Gall, Françoise	LAAS-CNRS

11:00-11:20 TuA14.4

Nonlinear Set-Membership Identification and Fault Detection Using a Bayesian Framework: Application to the Wind Turbine Benchmark (I), pp. 496-501.

Fernández-Cantí, Rosa	Univ. Pol. de Catalunya (UPC)
Tornil, Sebastian	Univ. Pol. de Catalunya (UPC)
Blesa, Joaquim	Univ. Pol. de Catalunya (UPC)
Puig, Vicenc	Univ. Pol. de Catalunya (UPC)

11:20-11:40 TuA14.5

Optimal Input Design for Online State and Parameter Estimation Using Interval Sliding Mode Observers (I), pp. 502-507.

Senkel, Luise	Univ. of Rostock
Rauh, Andreas	Univ. of Rostock
Aschemann, Harald	Univ. of Rostock

11:40-12:00 TuA14.6

A Fast Method for Solving Guard Set Intersection in Nonlinear Hybrid Reachability (I), pp. 508-513.

Maiga, Moussa	PRISME-LAAS
Ramdani, Nacim	Univ. of Orléans
Trave-Massuyes, Louise	CNRS

TuA15 VV 2.1

Variational Approaches in Optimal Control (Invited Session)

Chair: Frankowska, Helene	CNRS, Univ. Pierre et Marie Curie
Co-Chair: Vinter, Richard B.	Imperial Coll. London
Organizer: Frankowska, Helene	CNRS, Univ. Pierre et Marie Curie
Organizer: Vinter, Richard B.	Imperial Coll. London

10:00-10:20 TuA15.1

Second-Order Conditions for Optimal Control Problems with Mixed Control-State Constraints and Control Appearing Linearly (I), pp. 514-519.

Maurer, Helmut	Univ. Münster
Osmolovskii, Nikolai	Univ. of Tech. Radom

10:20-10:40 TuA15.2

Free Time Optimal Control Problems with Time Delays (I), pp. 520-525.

Boccia, Andrea	Imperial Coll. London
Falugi, Paola	Imperial Coll. London
Maurer, Helmut	Univ. Münster
Vinter, Richard B.	Imperial Coll. London

10:40-11:00 TuA15.3

When Does Relaxation Reduce the Minimum Cost of an Optimal Control Problem?, pp. 526-531.

Palladino, Michele — Imperial Coll. London
Vinter, Richard B. — Imperial Coll. London

11:00-11:20 TuA15.4

Sensitivity Interpretations of the Co-State Trajectory for Opimal Control Problems with State Constraints (I), pp. 532-537.

Bettiol, Piernicola — Univ. de Brest
Frankowska, Helene — CNRS and Univ. Pierre et Marie Curie
Vinter, Richard B. — Imperial Coll.

11:20-11:40 TuA15.5

The Goh Necessary Optimality Conditions for the Mayer Problem with Control Constraints (I), pp. 538-543.

Frankowska, Helene — CNRS and Univ. Pierre et Marie Curie
Tonon, Daniela — IMJ, Univ. Pierre et Marie Curie

11:40-12:00 TuA15.6

Second-Order Necessary Optimality Conditions in State Constrained Optimal Control (I), pp. 544-549.

Hoehener, Daniel — Univ. Pierre et Marie Curie

TuA16 — VV 2.2

Game Theory I (Regular Session)

Chair: Castanon, David A. — Boston Univ.
Co-Chair: Frazzoli, Emilio — Massachusetts Inst. of Tech.

10:00-10:20 TuA16.1

Distributed Efficient Charging Coordinations for Electric Vehicles under Progressive Second Price Auction Mechanism, pp. 550-555.

Zou, Suli — Beijing Inst. of Tech.
Ma, Zhongjing — Beijing Inst. of Tech.
Liu, Xiangdong — Beijing Inst. of Tech.

10:20-10:40 TuA16.2

Cow-Path Games with Asymmetric Information: Life As a Cow Gets Harder, pp. 556-561.

Spieser, Kevin — Massachusetts Inst. of Tech.
Frazzoli, Emilio — Massachusetts Inst. of Tech.

10:40-11:00 TuA16.3

Game-Theoretic Analysis of the Nodal Pricing Mechanism for Electricity Markets, pp. 562-567.

Tang, Wenyuan — Univ. of Southern California
Jain, Rahul — Univ. of Southern California

11:00-11:20 TuA16.4

Analysis of Best-Reply Strategies in Repeated Finite Markov Chains Games, pp. 568-573.

Clempner, Julio — Superior School of Physics and Mathematics of IPN, Mexico D.F.
Poznyak, Alexander S. — CINVESTAV-IPN

11:20-11:40 TuA16.5

Decomposition Techniques for Markov Zero-Sum Games with Nested Information, pp. 574-581.

Zheng, Jiefu — Boston Univ.
Castanon, David A. — Boston Univ.

11:40-12:00 TuA16.6

Strategic Multi-Layer Network Formation, pp. 582-587.

Moradi Shahrivar, Ebrahim — Univ. of Waterloo
Sundaram, Shreyas — Univ. of Waterloo

TuA17 — VV 2.3

Stochastic Systems I (Regular Session)

Chair: Lee, Taeyoung — George Washington Univ.
Co-Chair: Sun, Hui — Univ. of Illinois, Urbana-Champaign

10:00-10:20 TuA17.1

Stochastic Optimal Motion Planning and Estimation for the Attitude Kinematics on SO(3), pp. 588-593.

Lee, Taeyoung — George Washington Univ.

10:20-10:40 TuA17.2

Robust Observer Design for a Class of Stochastic Nonlinear Systems, pp. 594-599.

Barbata, Asma — Univ. de Lorraine
Zasadzinski, Michel — CRAN
Souley Ali, Harouna — Univ. Henri Poincaré
Messaoud, Hassani — Ec. Nationale d'Ingénieurs de Monastir

10:40-11:00 TuA17.3

A Stochastic Hybrid Algorithm for Robust Global Almost Sure Synchronization on the Circle: All-To-All Communication, pp. 600-605.

Subbaraman, Anantharaman — Univ. of California, Santa Barbara
Hartman, Matthew — Univ. of California, Santa Barbara
Teel, Andrew R. — Univ. of California, Santa Barbara

11:00-11:20 TuA17.4

Performance Prediction of L1 Adaptive Control in Linear Stochastic Systems, pp. 606-611.

Sun, Hui — Univ. of Illinois, Urbana-Champaign
Li, Zhiyuan — Univ. of Illinois, Urbana-Champaign
Hovakimyan, Naira — Univ. of Illinois, Urbana-Champaign
Basar, Tamer — Univ. of Illinois, Urbana-Champaign

11:20-11:40 TuA17.5

A Stochastic Opinion Dynamics Model with Multiple Contents, pp. 612-617.

Louzada Pinto, Julio Cesar — Telecom Sud Paris
Chahed, Tijani — Telecom Sud Paris
Jakubowicz, Jérémie — Telecom SudParis - CNRS

11:40-12:00 TuA17.6

Anticorrelated Discrete-Time Stochastic Simulation, pp. 618-623.

Maginnis, Peter A. — Univ. of Illinois, Urbana-Champaign
West, Matthew — Univ. of Illinois, Urbana-Champaign
Dullerud, Geir E. — Univ. of Illinois, Urbana-Champaign

TuA18	Auditorium
Quantum Feedback Control (Tutorial Session)	
Chair: James, Matthew R.	Australian National Univ.
Co-Chair: Yamamoto, Naoki	Keio Univ.
Organizer: James, Matthew R.	Australian National Univ.
10:00-10:40	TuA18.1
*Overview of Quantum Feedback Control (I)**.	
James, Matthew R.	Australian National Univ.
10:40-11:20	TuA18.2
*Linear Quantum Systems (I)**.	
Nurdin, Hendra Ishwara	The Univ. of New South Wales
11:20-12:00	TuA18.3
*Quantum Feedback Experiments and Applications (I)**.	
Yamamoto, Naoki	Keio Univ.

TuB01	PA B.1
Topics in Nonlinear Systems II (Regular Session)	
Chair: Jungers, Marc	CNRS - Univ. de Lorraine
Co-Chair: Kazi, Faruk	Indian Inst. of Tech. Bombay
13:30-13:50	TuB01.1
Interconnecting a System Having a Single Input-To-State Gain with a System Having a Region-Dependent Input-To-State Gain, pp. 624-629.	
Stein Shiromoto, Humberto	GIPSA-Lab.
Andrieu, Vincent	Univ. de Lyon
Prieur, Christophe	CNRS
13:50-14:10	TuB01.2
On Using Disconnected Level Sets Lyapunov Functions in the Context of Sampled-Data Systems, pp. 630-635.	
Louis, Julien	Univ. de Lorraine, CNRS, CRAN
Jungers, Marc	Univ. de Lorraine, CNRS, CRAN
Daafouz, Jamal	Univ. de Lorraine, CNRS, CRAN
14:10-14:30	TuB01.3
Stabilizing Dynamic Feedback Design of Quasi-Polynomial Systems Using Their Underlying Reduced Linear Dynamics, pp. 636-641.	
Magyar, Attila	Univ. of Pannonia
Hangos, Katalin M.	Computer & Automation Res. Inst. of the Hungarian Acad. Sc.
Szederkényi, Gábor	Computer & Automation Res. Inst. of the Hungarian Acad. Sc.
14:30-14:50	TuB01.4
Energy and Power Based Perspective of Memristive Controllers, pp. 642-647.	
Pasumarthy, Ramkrishna	Indian Inst. of Tech. Madras
Saha, Gourav	Indian Inst. of Tech. Madras
Kazi, Faruk	Indian Inst. of Tech. Bombay
Singh, Navdeep	Veermata Jijabai Tech. Inst. (VJTI)
14:50-15:10	TuB01.5
Generalized Scattering Transformation and Its Applications to Stabilization of Conic Systems, pp. 648-653.	
Polushin, Ilia G.	Western Univ.
15:10-15:30	TuB01.6
Averaging for Nonlinear Systems on Riemannian Manifolds, pp. 654-659.	
Taringoo, Farzin	McGill Univ.
Nesic, Dragan	Univ. of Melbourne
Tan, Ying	Univ. of Melbourne
Dower, Peter M.	Univ. of Melbourne

TuB02	PA G.1
Network Analysis II (Regular Session)	
Chair: di Bernardo, Mario	Univ. of Naples Federico II
Co-Chair: Bürger, Mathias	Univ. of Stuttgart
13:30-13:50	TuB02.1
Consensus Via Adaptation of the Network Structure, pp. 660-665.	
De Lellis, Pietro	Univ. of Naples Federico II
di Bernardo, Mario	Univ. of Naples Federico II
Scafuti, Francesco	Univ. of Naples Federico II
13:50-14:10	TuB02.2
Fault-Tolerant Stabilization of Multiple-Integrator Networks with General Information Sharing, pp. 666-671.	
Locatelli, Arturo	Pol. di Milano
Schiavoni, Nicola L.M.	Pol. di Milano
14:10-14:30	TuB02.3
Fault-Tolerant Consensus in Integrator Networks with Assignment of Agreement Law and Dynamics, pp. 672-677.	
Locatelli, Arturo	Pol. di Milano
Schiavoni, Nicola L.M.	Pol. di Milano
14:30-14:50	TuB02.4
Effectiveness of IP Address Randomization in Decoy-Based Moving Target Defense, pp. 678-685.	
Clark, Andrew	Univ. of Washington
Sun, Kun	George Mason Univ.
Poovendran, Radha	Univ. of Washington
14:50-15:10	TuB02.5
On the Controllability and Weight Controllability of Double Integrator Consensus Systems, pp. 686-691.	
Goldin, Darina	Tech. Univ. Berlin
15:10-15:30	TuB02.6
Practical Cluster Synchronization of Heterogeneous Sytems on Graphs with Acyclic Topology, pp. 692-697.	
Montenbruck, Jan Maximilian	Univ. of Stuttgart
Bürger, Mathias	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart

TuB03	PA 1.1
Stability of Switched Systems: Theoretical and Computational Aspects I (Invited Session)	
Chair: Chitour, Yacine	Univ. Paris-Sud, CNRS, Supelec
Co-Chair: Mason, Paolo	CNRS, Supélec
Organizer: Chitour, Yacine	Univ. Paris-Sud, CNRS, Supelec
Organizer: Mason, Paolo	CNRS, Supélec
Organizer: Sigalotti, Mario	INRIA Saclay
13:30-13:50	TuB03.1
Robust Exponential Stabilization of a Certain Class of Switched Systems, pp. 698-703.	
Mancilla-Aguilar, J. L.	Inst. Tecnológico de Buenos Aires
Garcia, Rafael A.	Inst. Tecnológico de Buenos Aires

13:50-14:10	TuB03.2
Is Switching Systems Stability Harder for Continuous Time Systems? (I), pp. 704-709.	
Protasov, Vladimir	Moscow State Univ.
Jungers, Raphaël M.	Univ. of Louvain
14:10-14:30	TuB03.3
Polytope Joint Lyapunov Functions for Stable and for Stabilizable Positive LSS (I), pp. 710-715.	
Guglielmi, Nicola	Univ. of L'Aquila
Laglia, Linda	Univ. of L'Aquila
Protasov, Vladimir	Moscow State Univ.
14:30-14:50	TuB03.4
Properties of Barabanov Norms and Extremal Trajectories Associated with Continuous-Time Linear Switched Systems (I), pp. 716-721.	
Gaye, Moussa	CMAP Ec. Pol. , LSS Supelec
Mason, Paolo	CNRS, Lab. des Signaux et Systèmes, Supélec
Chitour, Yacine	Univ. Paris-Sud, CNRS, Supelec
14:50-15:10	TuB03.5
Robust Stability Conditions for Switched Linear Systems: Commutator Bounds and the Lojasiewicz Inequality (I), pp. 722-726.	
Baryshnikov, Yuliy	Univ. of Illinois, Urbana-Champaign
Liberzon, Daniel	Univ. of Illinois, Urbana-Champaign
15:10-15:30	TuB03.6
Switched Stability of Nonlinear Systems Via SOS-Convex Lyapunov Functions and Semidefinite Programming (I), pp. 727-732.	
Ahmadi, Amir Ali	IBM Watson Res. Center
Jungers, Raphaël M.	Univ. of Louvain

TuB04	PA 1.2
Control and Optimization in Medicine and Biology (Invited Session)	
Chair: Paschalidis, Ioannis	Boston Univ.
Co-Chair: Vidyasagar, Mathukumalli	The Univ. of Texas at Dallas
Organizer: Paschalidis, Ioannis	Boston Univ.
Organizer: Vidyasagar, Mathukumalli	The Univ. of Texas at Dallas
13:30-13:50	TuB04.1
A Linear Reformulation of Boolean Optimization Problems and Structure Identification of Gene Regulation Networks (I), pp. 733-738.	
Breindl, Christian	Univ. of Stuttgart
Chaves, Madalena	INRIA
Allgower, Frank	Univ. of Stuttgart
13:50-14:10	TuB04.2
A New Distributed Algorithm for Side-Chain Positioning in the Process of Protein Docking (I), pp. 739-744.	
Moghadasi, Mohammad	Boston Univ.
Kozakov, Dima	Boston Univ.
Vakili, Pirooz	Boston Univ.
Vajda, Sandor	Boston Univ.
Paschalidis, Ioannis	Boston Univ.
14:10-14:30	TuB04.3
Optimizing Regulation Functions in Gene Network Identification (I), pp. 745-750.	
Richard, Guilhem	Boston Univ.
Julius, Agung	Rensselaer Pol. Inst.
Belta, Calin	Boston Univ.
14:30-14:50	TuB04.4
Approximating the Solution of the Chemical Master Equation by Combining Finite State Projection and Stochastic Simulation (I), pp. 751-756.	
Hjartarson, Aron	ETH Zurich
Ruess, Jakob	ETH Zurich
Lygeros, John	ETH Zurich
14:50-15:10	TuB04.5
Excitable Systems in Cell Motility (I), pp. 757-762.	
Iglesias, Pablo A.	Johns Hopkins Univ.
15:10-15:30	TuB04.6
Novel Risk-Based Monitoring Solution to the Data Overload in Intensive Care Medicine, pp. 763-769.	
McManus, Michael	Etiometry LLC
Baronov, Dimitar	Boston Univ.
Almodovar, Melvin	Boston Children's Hospital
Laussen, Peter	The Hospital for Sick Children, Toronto
Butler, Evan	Boston Univ.

TuB05	PA 1.3
Linear System Observers (Regular Session)	
Chair: Geromel, Jose C.	UNICAMP
Co-Chair: Sanfelice, Ricardo G.	Univ. of Arizona
13:30-13:50	TuB05.1
Reduced-Order Multi-Objective H-Infinity Control of an Overhead Crane Test Setup, pp. 770-775.	
Hilhorst, Gijs	K. U. Leuven
Pipeleers, Goele	K. U. Leuven
Swevers, Jan	K. U. Leuven
13:50-14:10	TuB05.2
Low-Dimensional Functional Observer Design for Linear Systems Via Observer Reduction Approach, pp. 776-781.	
Sadamoto, Tomonori	Tokyo Inst. of Tech.
Ishizaki, Takayuki	Tokyo Inst. of Tech.
Imura, Jun-ichi	Tokyo Inst. of Tech.
14:10-14:30	TuB05.3
Linear Offset-Free Model Predictive Control: A Minimum-Variance Unbiased Filter Based Approach, pp. 782-786.	
Wang, Haokun	Zhejiang Univ.
Zhao, Jun	Zhejiang Univ.
Xu, Zuhua	Zhejiang Univ.
Shao, Zhijiang	Zhejiang Univ.
14:30-14:50	TuB05.4
Continuous-Discrete Interval Observers for Systems with Discrete Measurements, pp. 787-792.	
Mazenc, Frederic	EPI INRIA DISCO
Dinh, Thach N.	INRIA & MINES ParisTech

14:50-15:10	TuB05.5
H2 Filtering Design for Sampled-Data Systems, pp. 793-798.	
Souza, Matheus	FEEC - UNICAMP
Fioravanti, Andre R.	UNICAMP
Geromel, Jose C.	UNICAMP
15:10-15:30	TuB05.6
A Design Procedure for a Single Time-Varying Functional Observer, pp. 799-804.	
Rotella, Frédéric	ENIT
Zambettakis, Irène	Univ. Paul Sabatier

TuB06	PA 1.4
Agents and Autonomous Systems I (Regular Session)	
Chair: Yucelen, Tansel	Georgia Inst. of Tech.
Co-Chair: Roy, Sandip	Washington State Univ.
13:30-13:50	TuB06.1
Hybrid Protocols for Maintaining Connectivity of Multiagent Systems, pp. 805-810.	
De La Torre, Gerardo	Georgia Inst. of Tech.
Yucelen, Tansel	Georgia Inst. of Tech.
Johnson, Eric N.	Georgia Inst. of Tech.
13:50-14:10	TuB06.2
Consensus Protocols for Networked Multiagent Systems with Relative Position and Neighboring Velocity Information, pp. 811-816.	
De La Torre, Gerardo	Georgia Inst. of Tech.
Yucelen, Tansel	Georgia Inst. of Tech.
Johnson, Eric N.	Georgia Inst. of Tech.
14:10-14:30	TuB06.3
Distributed Online Topology Design for Network-Level Disturbance Rejection, pp. 817-822.	
Chapman, Airlie	Univ. of Washington
Schoof, Eric	Univ. of Washington
Mesbahi, Mehran	Univ. of Washington
14:30-14:50	TuB06.4
Vulnerability of Continuous-Time Network Synchronization Processes: A Minimum Energy Perspective, pp. 823-828.	
Dhal, Rahul	Washington State Univ.
Roy, Sandip	Washington State Univ.
14:50-15:10	TuB06.5
Spatial Distribution of Satellite Constellations on Circular Orbits, pp. 829-834.	
Vos, Ewoud	Univ. of Groningen
Scherpen, Jacquelien M.A.	Univ. of Groningen
van der Schaft, Arjan J.	Univ. of Groningen
15:10-15:30	TuB06.6
Distributed Offline Load Balancing in MapReduce Networks, pp. 835-840.	
Charalambous, Themistoklis	Royal Inst. of Tech. (KTH)
Kalyvianaki, Evangelia	Imperial Coll. London
Hadjicostis, Christoforos	Univ. of Cyprus
Johansson, Mikael	Royal Inst. of Tech. (KTH)

TuB07	PA 2.1
Nonlinear Control Applications II (Regular Session)	
Chair: Lanzon, Alexander	Univ. of Manchester
Co-Chair: Chowdhary, Girish	Massachusetts Inst. of Tech.
13:30-13:50	TuB07.1
Effect of Unmodelled Actuator Dynamics on Feedback Linearised Systems and a Two Stage Feedback Linearisation Method, pp. 841-846.	
Kara Mohamed, Mohamed	Univ. of Manchester
Lanzon, Alexander	Univ. of Manchester
13:50-14:10	TuB07.2
Fault Tolerant Path Following for a Quadrotor, pp. 847-852.	
Akhtar, Adeel	Univ. of Waterloo
Waslander, Steven L.	Univ. of Waterloo
Nielsen, Christopher	Univ. of Waterloo
14:10-14:30	TuB07.3
Comparison between Nonlinear Model-Based Controllers and Gain-Scheduling Internal Model Control Based on Identified Model, pp. 853-860.	
Jahanshahi, Esmaeil	Norwegian Univ. of Sc. & Tech.
Skogestad, Sigurd	Norwegian Univ. of Sc. & Tech.
14:30-14:50	TuB07.4
Nonparametric Adaptive Control Using Gaussian Processes with Online Hyperparameter Estimation, pp. 861-867.	
Grande, Robert	Massachusetts Inst. of Tech.
Chowdhary, Girish	Oklahoma State Univ.
How, Jonathan P.	MIT
14:50-15:10	TuB07.5
A Concurrent Learning Adaptive-Optimal Control Architecture for Nonlinear Systems, pp. 868-873.	
Chowdhary, Girish	Oklahoma State Univ.
Mühlegg, Maximilian	Tech. Univ. of Munich
How, Jonathan P.	MIT
Holzapfel, Florian	Tech. Univ. München
15:10-15:30	TuB07.6
A Bayesian Nonparameteric Approach to Adaptive Control Using Gaussian Processes, pp. 874-879.	
Chowdhary, Girish	Oklahoma State Univ.
Kingravi, Hassan	Georgia Inst. of Tech.
How, Jonathan P.	MIT
Vela, Patricio	Georgia Inst. of Tech.

TuB08	PA 2.2
Trends in Traffic Modeling and Control (Invited Session)	
Chair: Sacone, Simona	Univ. of Genova
Co-Chair: Ferrara, Antonella	Univ. of Pavia
Organizer: Sacone, Simona	Univ. of Genova
Organizer: Ferrara, Antonella	Univ. of Pavia
Organizer: Siri, Silvia	Univ. of Genova
13:30-13:50	TuB08.1
Quasi-Dynamic Traffic Light Control for a Single Intersection (I), pp. 880-885.	
Geng, Yanfeng	Boston Univ.
Cassandras, Christos G.	Boston Univ.

13:50-14:10	TuB08.2
Computational Analysis of Freeway Traffic Control Based on a Linearized Prediction Model (I), pp. 886-891.	
Maggi, Lorenzo	Univ. of Genova - Dept. DIBRIS
Maratea, Marco	Univ. of Genova - Dept. DIBRIS
Sacone, Simona	Univ. of Genova
Siri, Silvia	Univ. of Genova
14:10-14:30	TuB08.3
Eco-Driving in Urban Traffic Networks Using Traffic Signal Information (I), pp. 892-898.	
De Nunzio, Giovanni	INP Grenoble, IFPen Paris
Canudas de Wit, Carlos	CNRS, GIPSA-Lab.
Moulin, Philippe	IFP Energies Nouvelles
Di Domenico, Domenico	IFP New Energy
14:30-14:50	TuB08.4
Robust H_infinity Control for Switched Nonlinear Systems with Application to High-Level Urban Traffic Control (I), pp. 899-904.	
Hajiahmadi, Mohammad	Delft Univ. of Tech.
De Schutter, Bart	Delft Univ. of Tech.
Hellendoorn, Hans	Delft Univ. of Tech.
14:50-15:10	TuB08.5
Supervisory Model Predictive Control for Freeway Traffic Systems (I), pp. 905-910.	
Ferrara, Antonella	Univ. of Pavia
Sacone, Simona	Univ. of Genova
Siri, Silvia	Univ. of Genova
15:10-15:30	TuB08.6
A Multi-Agent Decision Support System for Optimization of Co-Modal Transportation Route Planning Services, pp. 911-916.	
Dotoli, Mariagrazia	Pol. di Bari
Slim, Hammadi	Ec. Centrale de Lille
Karama, Jeribi	Ec. Centrale de Lille
Carmine, Russo	Pol. di Bari
Hayfa, Zgaya	Univ. Lille 2

TuB09	PA 2.3
Delay Systems II (Regular Session)	
Chair: Proskurnikov, Anton	St.-Petersburg State Univ.
Co-Chair: Hromcik, Martin	Czech Tech. Univ.
13:30-13:50	TuB09.1
Consensus in Switching Symmetric Networks of First-Order Agents with Delayed Relative Measurements, pp. 917-921.	
Proskurnikov, Anton	St.-Petersburg State Univ.
13:50-14:10	TuB09.2
Revisiting the Problem of Robust H-Infinity Control with Regional Pole Location of Uncertain Discrete-Time Systems with Delayed States, pp. 922-927.	
Teixeira, Marlon Henrique	CEFET/MG - Campus Div.
Leite, Valter J. S.	CEFET/MG - Campus Div.
Silva, Luís F. P.	PPGEL / CEFET-MG
Gonçalves, Eduardo Nunes	Centro Federal de Educação Tecnológica de Minas Gerais
14:10-14:30	TuB09.3
Bessel Inequality for Robust Stability Analysis of Time-Delay System, pp. 928-933.	
Gouaisbaut, Frederic	Univ. of Toulouse, LAAS CNRS
Ariba, Yassine	ICAM
Seuret, Alexandre	CNRS
14:30-14:50	TuB09.4
Robust Output Stabilization of Time-Varying Input Delay Systems Using Attractive Ellipsoid Method, pp. 934-939.	
Polyakov, Andrey	INRIA-LNE,
Poznyak, Alexander S.	CINVESTAV-IPN
Richard, Jean-Pierre	Ec. Centrale de Lille
14:50-15:10	TuB09.5
Zero Vibration Shapers with Distributed Delays of Various Types, pp. 940-945.	
Vyhlidal, Tomas	Czech Tech. Univ. in Prague
Kucera, Vladimir	Czech Tech. Univ. in Prague
Hromcik, Martin	Czech Tech. Univ. FEE
15:10-15:30	TuB09.6
Stability of Systems with Fast-Varying Delay Using Improved Wirtinger's Inequality, pp. 946-951.	
Seuret, Alexandre	CNRS
Gouaisbaut, Frederic	Univ. of Toulouse, LAAS CNRS
Fridman, Emilia	Tel-Aviv Univ.

TuB10	PA 2.4
Robotics I (Regular Session)	
Chair: Saglam, Cenk Oguz	Univ. of California, Santa Barbara
Co-Chair: Nielsen, Christopher	Univ. of Waterloo
13:30-13:50	TuB10.1
Reactive Collision Avoidance for Multiple Robots by Non Linear Time Scaling, pp. 952-958.	
Singh, Arun Kumar	IIIT-Hyderabad
Krishna, K. Madhava	IIIT-Hyderabad
13:50-14:10	TuB10.2
Mathematical Model of Robot on Base of Airship, pp. 959-964.	
Pshikhopov, Viacheslav	Southern Federal Univ.
Medvedev, Mikhail	Southern Federal Univ.
Gaiduk, Anatoliy	Southern Federal Univ.
Neydorf, Rudolf	Southern Federal Univ.
Belyaev, Victor	Southern Federal Univ.
Fedorenko, Roman	Southern Federal Univ.
Krukhmalev, Victor	Southern Federal Univ.
14:10-14:30	TuB10.3
Near Time-Optimal and Sensor-Based Motion Planning for Robotic Manipulators, pp. 965-970.	
Zanchettin, Andrea Maria	Pol. di Milano
Rocco, Paolo	Pol. di Milano
14:30-14:50	TuB10.4
Iterative Optimal Feedback Control Design under Relaxed Rigidity Constraints for Multi-Robot Cooperative Manipulation, pp. 971-976.	
Sieber, Dominik	Tech. Univ. München
Deroo, Frederik	Tech. Univ. München
Hirche, Sandra	Tech. Univ. München

14:50-15:10	TuB10.5
Switching Policies for Metastable Walking, pp. 977-983.	
Saglam, Cenk Oguz	Univ. of California, Santa Barbara
Byl, Katie	Univ. of California, Santa Barbara
15:10-15:30	TuB10.6
On the Duality of Robot and Sensor Path Planning, pp. 984-989.	
Swingler, Ashleigh	Duke Univ.
Ferrari, Silvia	Duke Univ.

TuB11	PA 2.5
Energy Systems II (Regular Session)	
Chair: Gros, Sebastien	Chalmers Univ. of Tech.
Co-Chair: Paoletti, Simone	Univ. di Siena
13:30-13:50	TuB11.1
On the Implementation of Gain-Scheduled LPV Control for Oxygen Stoichiometry Regulation in PEM Fuel Cells, pp. 990-995.	
Bianchi, Fernando	Catalonia Inst. for Energy Res.
Kunusch, Cristian	Inst. de Robòtica i Informàtica Industrial (CSIC-UPC)
Ocampo-Martinez, Carlos	Tech. Univ. of Catalonia (UPC)
Sánchez-Peña, Ricardo S.	Buenos Aires Inst. of Tech. (ITBA)
13:50-14:10	TuB11.2
Estimation of a Simple Model of Solar Power Generation Using Partial Information, pp. 996-1000.	
Bianchini, Gianni	Univ. di Siena
Paoletti, Simone	Univ. di Siena
Vicino, Antonio	Univ. di Siena
Corti, Franco	Siemens Italia
Nebiacolombo, Federico	Softeco Sismat
14:10-14:30	TuB11.3
An Economic NMPC Formulation for Wind Turbine Control, pp. 1001-1006.	
Gros, Sebastien	Chalmers Univ. of Tech.
14:30-14:50	TuB11.4
A Real-Time MHE and NMPC Scheme for Wind Turbine Control, pp. 1007-1012.	
Gros, Sebastien	Chalmers Univ. of Tech.
Vukov, Milan	Katholieke Univ. Leuven
Diehl, Moritz	Katholieke Univ. Leuven
14:50-15:10	TuB11.5
Wind Power Bidding in a Soft Penalty Market, pp. 1013-1018.	
Giannitrapani, Antonio	Univ. di Siena
Paoletti, Simone	Univ. di Siena
Vicino, Antonio	Univ. di Siena
Zarrilli, Donato	Univ. di Siena
15:10-15:30	TuB11.6
Large-Scale Probabilistic Forecasting in Energy Systems Using Sparse Gaussian Conditional Random Fields, pp. 1019-1024.	
Wytock, Matt	Carnegie Mellon Univ.
Kolter, J. Zico	Carnegie Mellon Univ.

TuB12	VV G.1
Optimization II (Regular Session)	
Chair: Lavaei, Javad	Columbia Univ.
Co-Chair: Lestas, Ioannis	Univ. of Cambridge
13:30-13:50	TuB12.1
On the Emergence of Oscillations in Distributed Resource Allocation, pp. 1025-1030.	
Holding, Thomas James	Univ. of Cambridge
Lestas, Ioannis	Univ. of Cambridge
13:50-14:10	TuB12.2
Global Output-Feedback Extremum Seeking Control Via Monitoring Functions, pp. 1031-1036.	
Oliveira, Tiago Roux	State Univ. of Rio de Janeiro
Hsu, Liu	COPPE/UFRJ
Aminde, Nerito Oliveira	Federal Univ. of Rio de Janeiro - COPPE/UFRJ
14:10-14:30	TuB12.3
Accelerated Dual Descent for Constrained Convex Network Flow Optimization, pp. 1037-1042.	
Zargham, Michael	Univ. of Pennsylvania
Ribeiro, Alejandro	Univ. of Pennsylvania
Jadbabaie, Ali	Univ. of Pennsylvania
14:30-14:50	TuB12.4
On the Exactness of Semidefinite Relaxation for Nonlinear Optimization Over Graphs: Part I, pp. 1043-1050.	
Sojoudi, Somayeh	California Inst. of Tech.
Lavaei, Javad	Columbia Univ.
14:50-15:10	TuB12.5
On the Exactness of Semidefinite Relaxation for Nonlinear Optimization Over Graphs: Part II, pp. 1051-1057.	
Sojoudi, Somayeh	California Inst. of Tech.
Lavaei, Javad	Columbia Univ.
15:10-15:30	TuB12.6
Regularization-Based Identification for Level Set Equations, pp. 1058-1064.	
Yang, Insoon	Univ. of California, Berkeley
Tomlin, Claire J.	Univ. of California, Berkeley

TuB13	VV G.2
Modeling, Estimation and Control of Distributed Parameter Systems II (Invited Session)	
Chair: Demetriou, Michael A.	Worcester Pol. Inst.
Co-Chair: Fahroo, Fariba	AFOSR
Organizer: Demetriou, Michael	Worcester Pol. Inst.
Organizer: Fahroo, Fariba	AFOSR
13:30-13:50	TuB13.1
Mixed Sensitivity Reduction for Time-Delay Systems by Stable Controllers (I), pp. 1065-1070.	
Wakaiki, Masashi	Kyoto Univ.
Yamamoto, Yutaka	Kyoto Univ.
13:50-14:10	TuB13.2
LQ-Optimal Control by Spectral Factorization of Extended Semigroup Boundary Control Systems with Approximate Boundary Observation (I), pp. 1071-1076.	
Dehaye, Jérémy R.	Univ. of Namur
Winkin, Joseph J.	Univ. of Namur

14:10-14:30	TuB13.3
Some Continuity Properties of Riccati Equations (I), pp. 1077-1082.	
Curtain, Ruth Frances	Univ. of Groningen
14:30-14:50	TuB13.4
Output Regulation Theory for Distributed Parameter Systems with Unbounded Control and Observation (I), pp. 1083-1088.	
Paunonen, Lassi	Tampere Univ. of Tech.
Pohjolainen, Seppo	Tampere Univ. of Tech.
14:50-15:10	TuB13.5
A Stability Result for a Scalar Neutral Equation with Multiple Delays (I), pp. 1089-1094.	
Fabiano, Richard H.	Univ. of North Carolina at Greensboro
15:10-15:30	TuB13.6
Nonlinear Control under Input Delays That Depend on Delayed States (I), pp. 1095-1100.	
Bekiaris-Liberis, Nikolaos	Univ. of California, San Diego
Krstic, Miroslav	Univ. of California, San Diego

TuB14	VV G.3
Uncertain Systems I (Regular Session)	
Chair: Bokor, Jozsef	MTA SZTAKI Hungarian Acad. of Sciences
Co-Chair: Kashima, Kenji	Osaka Univ.
13:30-13:50	TuB14.1
Recursively Feasible Robust MPC for Linear Systems with Additive and Multiplicative Uncertainty Using Optimized Polytopic Dynamics, pp. 1101-1106.	
Muñoz-Carpintero, Diego	Oxford Univ.
Cannon, Mark	Oxford Univ.
Kouvaritakis, Basil	Oxford Univ.
13:50-14:10	TuB14.2
Robust Motion Control of a Robot Manipulator Via Integral Suboptimal Second Order Sliding Modes, pp. 1107-1112.	
Ferrara, Antonella	Univ. of Pavia
Incremona, Gian Paolo	Univ. of Pavia
14:10-14:30	TuB14.3
Polynomial Chaos Based Uncertainty Quantification in Hamiltonian and Chaotic Systems, pp. 1113-1118.	
Pasini, Jose Miguel	United Tech. Res. Center
Sahai, Tuhin	United Tech. Res. Center
14:30-14:50	TuB14.4
Discrete-Time Robust Controller Design for a Class of Nonlinear Systems with Uncertainties, pp. 1119-1124.	
Feng, Fan	Marquette Univ.
Yaz, Edwin	Marquette Univ.
Schneider, Susan	Marquette Univ.
Yaz, Yvonne	Milwaukee School of Engineering
14:50-15:10	TuB14.5
Convex Optimization Approach to Observer-Based Stabilization of Linear Systems with Parameter Uncertainties, pp. 1125-1130.	
Kheloufi, Houria	Univ. of Mouloud Mammeri
Bedouhene, Fazia	Univ. of Mouloud Mammeri
Zemouche, Ali	Univ. de Lorraine
Alessandri, Angelo	Univ. of Genoa
15:10-15:30	TuB14.6
Measuring the Instability in Continuous-Time Linear Systems with Polytopic Uncertainty, pp. 1131-1136.	
Chesi, Graziano	Univ. of Hong Kong

TuB15	VV 2.1
Optimization and Data Analysis on Manifolds (Invited Session)	
Chair: Absil, Pierre-Antoine	Univ. Catholique de Louvain
Co-Chair: Afsari, Bijan	Johns Hopkins Univ.
Organizer: Absil, Pierre-Antoine	Univ. Catholique de Louvain
Organizer: Afsari, Bijan	Johns Hopkins Univ.
13:30-13:50	TuB15.1
Voronoi Cells in Lie Groups and Coset Decompositions: Implications for Optimization, Integration, and Fourier Analysis (I), pp. 1137-1143.	
Yan, Yan	Johns Hopkins Univ.
Chirikjian, Gregory	Johns Hopkins Univ.
13:50-14:10	TuB15.2
Statistical Tests for Group Comparison of Manifold-Valued Data (I), pp. 1144-1149.	
Collard, Anne	Univ. of Liège
Phillips, Christophe	Univ. of Liège
Sepulchre, Rodolphe J.	Univ. of Cambridge
14:10-14:30	TuB15.3
Interpolation and Polynomial Fitting in the SPD Manifold (I), pp. 1150-1155.	
Machado, Luis	ISR, Univ. of Coimbra
Silva Leite, Fátima	Univ. of Coimbra
14:30-14:50	TuB15.4
Robust Estimation of Rotations from Relative Measurements by Maximum Likelihood (I), pp. 1156-1161.	
Boumal, Nicolas	Univ. Catholique de Louvain
Singer, Amit	Princeton
Absil, Pierre-Antoine	Univ. Catholique de Louvain
14:50-15:10	TuB15.5
The Alignment Distance on Spaces of Linear Dynamical Systems (I), pp. 1162-1167.	
Afsari, Bijan	Johns Hopkins Univ.
Vidal, Rene	Johns Hopkins Univ.

TuB16	VV 2.2
Game Theory II (Regular Session)	
Chair: Marden, Jason	Univ. of Colorado at Boulder
Co-Chair: Bauso, Dario	Univ. di Palermo
13:30-13:50	TuB16.1
Social Coordination in Unknown Price-Sensitive Populations, pp. 1168-1173.	
Brown, Philip N.	Univ. of Colorado at Boulder
Marden, Jason	Univ. of Colorado at Boulder
13:50-14:10	TuB16.2
Distributed Optimization by Myopic Strategic Interactions and the Price of Heterogeneity, pp. 1174-1179.	
Gharesifard, Bahman	Queens Univ. Canada
Touri, Behrouz	Georgia Tech. Univ.
Basar, Tamer	Univ. of Illinois, Urbana-Champaign
Langbort, Cedric	Univ. of Illinois, Urbana-Champ.

14:10-14:30	TuB16.3
On the Consistency of Leaders' Conjectures in Hierarchical Games, pp. 1180-1185.	
Kulkarni, Ankur A.	Indian Inst. of Tech. Bombay
Shanbhag, Uday V.	Pennsylvania State Univ.
14:30-14:50	TuB16.4
Nonlinear Stochastic H2 / H infinity Control with Multiple Decision Makers, pp. 1186-1191.	
Mukaidani, Hiroaki	Hiroshima Univ.
14:50-15:10	TuB16.5
Bandwagon Effect in Mean Field Games, pp. 1192-1197.	
Stella, Leonardo	Univ. di Palermo
Bagagiolo, Fabio	Univ. di Trento
Bauso, Dario	Univ. di Palermo
Pesenti, Raffaele	Univ. di Venezia - Ca' Foscari
15:10-15:30	TuB16.6
Nash Strategy for Markov Jump Stochastic Delay Systems, pp. 1198-1203.	
Mukaidani, Hiroaki	Hiroshima Univ.
Unno, Masaru	NTT FINANCE Corp.
Yamamoto, Toru	Hiroshima Univ.
Xu, Hua	Univ. of Tsukuba

TuB17	VV 2.3
Stochastic Systems II (Regular Session)	
Chair: Veretennikov, Alexander Yu.	Univ. of Leeds
Co-Chair: Primbs, James A.	Univ. of Texas at Dallas
13:30-13:50	TuB17.1
Extremum Problems with Total Variation Distance, pp. 1204-1209.	
Charalambous, Charalambos D.	Univ. of Cyprus
Tzortzis, Ioannis	Univ. of Cyprus
Loyka, Sergey	Univ. of Ottawa
Charalambous, Themistoklis	Royal Inst. of Tech. (KTH)
13:50-14:10	TuB17.2
On Stock Trading Using a PI Controller in an Idealized Market: The Robust Positive Expectation Property, pp. 1210-1216.	
Malekpour, Shirzad	Univ. of Wisconsin-Madison
Primbs, James A.	Univ. of Texas at Dallas
Barmish, B. Ross	Univ. of Wisconsin
14:10-14:30	TuB17.3
Exponential Convergence of Multi-Dimensional Stochastic Mechanical Systems with Switching, pp. 1217-1222.	
Anulova, Svetlana V.	Inst. of Control Sciences RAS
Veretennikov, Alexander Yu.	Univ. of Leeds
Shcherbakov, Pavel	Inst. for Control Science, RAS
14:30-14:50	TuB17.4
Small-Gain Conditions for Stochastic Network Systems, pp. 1223-1228.	
Wu, Zhaojing	Yantai Univ.
Karimi, Hamid Reza	Univ. of Agder
Shi, Peng	Univ. of Glamorgan
14:50-15:10	TuB17.5
Stability and Stabilization of Homogeneous Stochastic Systems, pp. 1229-1234.	
Hoshino, Kenta	Hokkaido Univ.
Yamashita, Yuh	Hokkaido Univ.
Nishimura, Yuki	Kagoshima Univ.
Tsubakino, Daisuke	Hokkaido Univ.
15:10-15:30	TuB17.6
On Uniform Detectability of Discrete-Time Stochastic Systems Subject to Multiplicative Noise, pp. 1235-1240.	
Zhang, Weihai	Shandong Univ. of Science and Tech.
Zheng, Wei Xing	Univ. of Western Sydney

TuB18	Auditorium
Quantum Control I (Regular Session)	
Chair: Kosut, Robert L.	SC Solutions, Inc.
Co-Chair: James, Matthew R.	Australian National Univ.
13:30-13:50	TuB18.1
On the Lossless Property of a Class of Nonlinear Quantum Systems Revisited, pp. 1241-1246.	
Maalouf, Aline I.	Univ. of New South Wales at Austral. Defence Force Acad.
Petersen, Ian R.	Univ. of New South Wales at Austral. Defence Force Acad.
13:50-14:10	TuB18.2
Adaptive Quantum Control Via Direct Fidelity Estimation and Indirect Model-Based Parametric Process Tomography, pp. 1247-1252.	
Kosut, Robert L.	SC Solutions, Inc.
Rabitz, Herschel	Princeton Univ.
Grace, Matthew	Sandia National Lab.
14:10-14:30	TuB18.3
Shape Dependent Controllability of a Quantum Transistor, pp. 1253-1258.	
Mehats, Florian	Univ. of Rennes 1
Privat, Yannick	CNRS and Univ. Paris 6
Sigalotti, Mario	INRIA Saclay
14:30-14:50	TuB18.4
Quantum Filtering Using POVM Measurements, pp. 1259-1264.	
Somaraju, Ram Abhinav	Vrije Univ. Brussel
Sarlette, Alain	Ghent Univ.
Thienpont, Hugo	Vrije Univ. Brussel, Brussels Photonics Team
14:50-15:10	TuB18.5
Extended LMI Approach to Coherent Quantum LQG Control Design, pp. 1265-1270.	
Wang, Shi	Australian National Univ.
James, Matthew R.	Australian National Univ.
15:10-15:30	TuB18.6
Quantum Control Model for Spatial Propagation of Electromagnetic Fields in Dielectrics, pp. 1271-1276.	
Dong, Wen-Bin	Tsinghua Univ.
Wu, Rebing	Tsinghua Univ.
Zhang, Jing	Tsinghua Univ.
Li, Chunwen	Tsinghua Univ.
Tarn, Tzyh-Jong	Washington Univ.

TuC01 PA B.1

Topics in Nonlinear Systems III (Regular Session)

Chair: Benosman, Mouhacine — Mitsubishi Electric Res. Lab.
Co-Chair: Nesic, Dragan — Univ. of Melbourne

16:00-16:20 TuC01.1

Nonlinear Backstepping Learning-Based Adaptive Control of Electromagnetic Actuators with Proof of Stability, pp. 1277-1282.

Atinc, Gokhan M. — Univ. of Illinois at Urbana Champaign
Benosman, Mouhacine — Mitsubishi Electric Res. Lab.

16:20-16:40 TuC01.2

Nonlinear Analysis and Control of a Reaction Wheel-Based 3D Inverted Pendulum, pp. 1283-1288.

Muehlebach, Michael — ETH Zurich
Gajamohan, Mohanarajah — ETH Zurich
D'Andrea, Raffaello — ETH Zurich

16:40-17:00 TuC01.3

Controllability and Invariance of Monotone Systems for Robust Ventilation Automation in Buildings, pp. 1289-1294.

Meyer, Pierre-Jean — Univ. Joseph Fourier
Girard, Antoine — Univ. Joseph Fourier
Witrant, Emmanuel — Univ. Joseph Fourier

17:00-17:20 TuC01.4

A Homing Guidance Law for Binary Range-Rate Measurements, pp. 1295-1300.

Oyler, Dave W. — Univ. of Michigan
Kabamba, Pierre T. — Univ. of Michigan
Girard, Anouck — Univ. of Michigan

17:20-17:40 TuC01.5

A Simple Proof of Finite-Time Stabilizability of without Drift Systems by Discontinuous Feedback Laws, pp. 1301-1306.

Jammazi, Chaker — Univ. de Carthage, Ec. Pol. de Tunisie

17:40-18:00 TuC01.6

Quasilinear Control Approach to Wind Farm Power Control, pp. 1307-1312.

Guo, Yi — Univ. of Oklahoma
Kabamba, Pierre T. — Univ. of Michigan
Meerkov, Semyon M. — Univ. of Michigan
Ossareh, Hamid R. — Univ. of Michigan
Tang, Choon Yik — Univ. of Oklahoma

TuC02 PA G.1

Network Analysis III (Regular Session)

Chair: Kibangou, Alain — Univ. Joseph Fourier-CNRS
Co-Chair: Panteley, Elena V. — Lab. des Signaux et Systemes, CNRS - SUPELEC

16:00-16:20 TuC02.1

Algebraic Characterization of Observability in Distance-Regular Consensus Networks, pp. 1313-1318.

Kibangou, Alain — Univ. Joseph Fourier-CNRS
Commault, Christian. — GIPSA-Lab.

16:20-16:40 TuC02.2

Asymptotic Phase Synchronization of Kuramoto Model with Weighted Non-Symmetric Interconnections: A Case Study, pp. 1319-1324.

El Ati, Ali — Univ. Paris-Sud 11
Panteley, Elena V. — Lab. des Signaux et Systemes, CNRS - SUPELEC

16:40-17:00 TuC02.3

Frozen State Conditions for Asymptotic Consensus of Time-Varying Cooperative Nonlinear Networks, pp. 1325-1330.

Manfredi, Sabato — Univ. of Naples Federico II
Angeli, David — Imperial Coll.

17:00-17:20 TuC02.4

A Virtual Space Embedding for the Analysis of Dynamical Networks, pp. 1331-1336.

Innocenti, Giacomo — Univ. di Firenze
Paoletti, Paolo — Univ. of Liverpool

17:20-17:40 TuC02.5

Robust Synchronization of Coprime Factor Perturbed Multi-Agent Systems, pp. 1337-1342.

Jongsma, Hidde-Jan — Univ. of Groningen
Trentelman, Harry L. — Univ. of Groningen
Camlibel, M. Kanat — Univ. of Groningen

17:40-18:00 TuC02.6

Knock-Out/Down-Based Structure Identification in Networks of Heterogeneous Subsystems, pp. 1343-1348.

Suzuki, Masayasu — Japan Science and Tech. Agency
Takatsuki, Nobuki — Tokyo Inst. of Tech.
Imura, Jun-ichi — Tokyo Inst. of Tech.
Aihara, Kazuyuki — Univ. of Tokyo

TuC03 PA 1.1

Stability of Switched Systems: Theoretical and Computational Aspects II (Invited Session)

Chair: Chitour, Yacine — Univ. Paris-Sud, CNRS, Supelec
Co-Chair: Sigalotti, Mario — INRIA Saclay
Organizer: Chitour, Yacine — Univ. Paris-Sud, CNRS, Supelec
Organizer: Mason, Paolo — CNRS, Lab. des Signaux et Systèmes, Supélec
Organizer: Sigalotti, Mario — INRIA Saclay

16:00-16:20 TuC03.1

Optimal Switching Control Design for Polynomial Systems: An LMI Approach (I), pp. 1349-1354.

Henrion, Didier — LAAS-CNRS
Daafouz, Jamal — Univ. de Loraine, CRAN, CNRS
Claeys, Mathieu — LAAS-CNRS

16:20-16:40 TuC03.2

Stability Analysis of Positive Bilinear Control Systems: A Variational Approach (I), pp. 1355-1359.

Hochma, Gal — Tel Aviv Univ.
Margaliot, Michael — Tel Aviv Univ.

16:40-17:00 TuC03.3

On Primitivity of Sets of Matrices (I), pp. 1360-1365.

Blondel, Vincent — MIT
Jungers, Raphaël M. — Univ. of Louvain
Olshevsky, Alexander — Univ. of Illinois at Urbana-Champ.

17:00-17:20	TuC03.4
Sampling of Singularly Perturbed Switched Linear Systems (I), pp. 1366-1371.	
El Hachemi, Fouad	CRAN CNRS Nancy Univ.
Sigalotti, Mario	INRIA Saclay
Daafouz, Jamal	Univ. de Loraine, CRAN, CNRS
17:20-17:40	TuC03.5
Optimal Switching between Two Linear Consensus Protocols (I), pp. 1372-1377.	
Ron, Orel	Tel Aviv Univ.
Margaliot, Michael	Tel Aviv Univ.
17:40-18:00	TuC03.6
An Averaging Result for Switched DAEs with Multiple Modes, pp. 1378-1383.	
Iannelli, Luigi	Univ. of Sannio
Pedicini, Carmen	Univ. of Sannio
Trenn, Stephan	Univ. of Kaiserslautern
Vasca, Francesco	Univ. of Sannio

TuC04	PA 1.2
Biomolecular Systems (Regular Session)	
Chair: Yeung, Enoch	California Inst. of Tech.
Co-Chair: Azuma, Shun-ichi	Kyoto Univ.
16:00-16:20	TuC04.1
Modeling Environmental Disturbances with the Chemical Master Equation, pp. 1384-1391.	
Yeung, Enoch	California Inst. of Tech.
Beck, James L.	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.
16:20-16:40	TuC04.2
Flexible Refinement of Protein-Ligand Docking on Manifolds, pp. 1392-1397.	
Mirzaei, Hanieh	Boston Univ.
Villar, Elizabeth	Boston Univ.
Mottarella, Scott	Boston Univ.
Beglov, Dmitri	Boston Univ.
Paschalidis, Ioannis	Boston Univ.
Vajda, Sandor	Boston Univ.
Kozakov, Dima	Boston Univ.
Vakili, Pirooz	Boston Univ.
16:40-17:00	TuC04.3
Temperature Dependence of Biomolecular Circuit Designs, pp. 1398-1403.	
Sen, Shaunak	Indian Inst. of Tech. Delhi
Murray, Richard M.	California Inst. of Tech.
17:00-17:20	TuC04.4
An in Silico Modeling Toolbox for Rapid Prototyping of Circuits in a Biomolecular "Breadboard" System, pp. 1404-1410.	
Tuza, Zoltan A	Pazmany Peter Catholic Univ.
Singhal, Vipul	California Inst. of Tech.
Kim, Jongmin	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.
17:20-17:40	TuC04.5
Performance Analysis of Chemotaxis Controllers, pp. 1411-1416.	
Azuma, Shun-ichi	Kyoto Univ.
Owaki, Katsuya	Kyoto Univ.
Shinohara, Nobuhiro	Kyoto Univ.
Sugie, Toshiharu	Kyoto Univ.
17:40-18:00	TuC04.6
Infinitesimal Interconnection Variation in Nonlinear Networked Systems, pp. 1417-1422.	
Yang, Insoon	Univ. of California, Berkeley
Burden, Samuel	Univ. of California, Berkeley
Sastry, Shankar	Univ. of California, Berkeley
Tomlin, Claire J.	Univ. of California, Berkeley

TuC05	PA 1.3
Linear Systems I (Regular Session)	
Chair: Charalambous, Themistoklis	Royal Inst. of Tech. (KTH)
Co-Chair: Ntogramatzidis, Lorenzo	Curtin Univ.
16:00-16:20	TuC05.1
Asymptotic Stability and Decay Rates of Positive Linear Systems with Unbounded Delays, pp. 1423-1428.	
Feyzmahdavian, Hamid Reza	Royal Inst. of Tech. (KTH)
Charalambous, Themistoklis	Royal Inst. of Tech. (KTH)
Johansson, Mikael	Royal Inst. of Tech. (KTH)
16:20-16:40	TuC05.2
Linear Multivariable Identification Using Observable State Space Parameterizations, pp. 1429-1434.	
Romano, Rodrigo Alvite	Inst. Mauá de Tecnologia
Pait, Felipe	Univ. Sao Paulo
16:40-17:00	TuC05.3
Nonovershooting Multivariable Tracking Control for Time-Varying References, pp. 1435-1440.	
Schmid, Robert	Univ. of Melbourne
Ntogramatzidis, Lorenzo	Curtin Univ.
Gao, Suzhan	Univ. of Melbourne
17:00-17:20	TuC05.4
Squaring down of General MIMO Systems to Invertible Uniform Rank Systems Via Pre And/or Post Compensators, pp. 1441-1446.	
Sannuti, Peddapullaiah	Rutgers Univ.
Saberi, Ali	Washington State Univ.
Zhang, Meirong	Washington State Univ.
17:20-17:40	TuC05.5
Robust Eigenstructure Assignment in the Computation of Friends of Output-Nulling Subspaces, pp. 1447-1452.	
Ntogramatzidis, Lorenzo	Curtin Univ.
Schmid, Robert	The Univ. of Melbourne
17:40-18:00	TuC05.6
Almost Perfect Tracking through Mixed Numerical-Analytical Stable Pseudo-Inversion of Non Minimum Phase Plants, pp. 1453-1460.	
Jetto, L.	Univ. Pol. delle Marche
Orsini, Valentina	Univ. Pol. delle Marche
Romagnoli, Raffaele	Univ. Pol. delle Marche

TuC06	PA 1.4
Agents and Autonomous Systems II (Regular Session)	
Chair: De La Torre, Gerardo	Georgia Inst. of Tech.
Co-Chair: Malhame, Roland P.	Ec. Pol. de Montreal
16:00-16:20	TuC06.1
Control of Undirected Four-Agent Formations in 3-Dimensional Space, pp. 1461-1465.	
Park, Myoung-Chul	Gwangju Inst. of Science and Tech. (GIST)
Jeong, Kyungmin	Korea Atomic Energy Res. Inst. (KAERI)
Ahn, Hyo-Sung	Gwangju Inst. of Science and Tech. (GIST)
16:20-16:40	TuC06.2
Formation Control of Multiple Groups of Robots, pp. 1466-1471.	
Sarkar, Soumic	Indian Inst. of Tech. Delhi
Kar, Indra Narayan	Indian Inst. of Tech. Delhi
16:40-17:00	TuC06.3
Evasion from a Group of Pursuers with Double Integrator Kinematics, pp. 1472-1477.	
Bakolas, Efstathios	The Univ. of Texas at Austin
17:00-17:20	TuC06.4
Multi-Objective Control for Multi-Agent Systems Using Lyapunov-Like Barrier Functions, pp. 1478-1483.	
Panagou, Dimitra	Univ. of Illinois, Urbana-Champaign
Stipanovic, Dusan M.	Univ. of Illinois, Urbana-Champaign
Voulgaris, Petros G.	Univ. of Illinois, Urbana-Champaign
17:20-17:40	TuC06.5
Online Distributed Optimization Via Dual Averaging, pp. 1484-1489.	
Hosseini, Saghar	Univ. of Washington
Chapman, Airlie	Univ. of Washington
Mesbahi, Mehran	Univ. of Washington
17:40-18:00	TuC06.6
Consensus Algorithms and the Decomposition-Separation Theorem, pp. 1490-1495.	
Bolouki, Sadegh	GERAD, Ec. Pol. de Montreal
Malhame, Roland P.	Ec. Pol. de Montreal

TuC07	PA 2.1
Distributed Control I (Regular Session)	
Chair: Stursberg, Olaf	Univ. of Kassel
Co-Chair: Herrmann, Guido	Univ. of Bristol
16:00-16:20	TuC07.1
Distributed Adaptive Leader-Following Control for Multi-Agent Multi-Degree Manipulators with Finite-Time Guarantees, pp. 1496-1501.	
Mahyuddin, Muhammad Nasiruddin	Univ. of Bristol
Herrmann, Guido	Univ. of Bristol
Lewis, Frank L.	Univ. of Texas at Arlington
16:20-16:40	TuC07.2
Output Consensus Control for Heterogeneous Multi-Agent Systems, pp. 1502-1507.	
Alvergue, Luis	Louisiana State Univ.
Pandey, Abhishek	Louisiana State Univ.
Gu, Guoxiang	Louisiana State Univ.
Chen, Xiang	Univ. of Windsor
16:40-17:00	TuC07.3
On the Convergence Rate of a Jacobi Algorithm for Cooperative Distributed MPC, pp. 1508-1513.	
Gross, Dominic	Univ. of Kassel
Stursberg, Olaf	Univ. of Kassel
17:00-17:20	TuC07.4
Further Results on Distributed Secondary Control in Microgrids, pp. 1514-1519.	
Bouattour, Hedi	Univ. of Stuttgart
Simpson-Porco, John W.	Univ. of California, Santa Barbara
Dörfler, Florian	Univ. of California, Santa Barbara
Bullo, Francesco	Univ. of California, Santa Barbara
17:20-17:40	TuC07.5
Measuring Sparsity in Spatially Interconnected Systems, pp. 1520-1525.	
Motee, Nader	Lehigh Univ.
Sun, Qiyu	Univ. of Central Florida
17:40-18:00	TuC07.6
A Distributed Method for Convex Quadratic Programming Problems Arising in Optimal Control of Distributed Systems, pp. 1526-1531.	
Kozma, Attila	Katholieke Univ. Leuven
Frasch, Janick	Univ. of Heidelberg
Diehl, Moritz	Katholieke Univ. Leuven

TuC08	PA 2.2
Automotive Control I (Regular Session)	
Chair: Di Benedetto, M. Domenica	Univ. of L'Aquila
Co-Chair: Singhose, William	Georgia Inst. of Tech.
16:00-16:20	TuC08.1
Dynamic Response Characteristics of a Two-Wheeled Inverted-Pendulum Transporter, pp. 1532-1537.	
Castro, Arnoldo	Georgia Inst. of Tech.
Adams, Christopher	Georgia Inst. of Tech.
Singhose, William	Georgia Inst. of Tech.
16:20-16:40	TuC08.2
Torque Allocation in Electric Vehicles with In-Wheel Motors: A Performance-Oriented Approach (I), pp. 1538-1543.	
De Castro, Ricardo	German Aerospace Center (DLR)
Tanelli, Mara	Pol. di Milano
Ruy Esteves, Araùjo	Univ. do Porto
Savaresi, Sergio M.	Pol. Di Milano
16:40-17:00	TuC08.3
A Novel Mid-Ranging Approach for Idle Speed Control of a Hybrid Electric Powertrain, pp. 1544-1551.	
Kandler, Christoph	Univ. of Duisburg-Essen
Koenings, Tim	Univ. of Duisburg-Essen

Ding, Steven X.	Univ. of Duisburg-Essen
Wobbe, Frank	IAV GmbH
Weinhold, Nick	IAV GmbH
Schultalbers, Matthias	IAV GmbH
17:00-17:20	TuC08.4
Electric Rear Axle Torque Vectoring for Combined Yaw Stability and Velocity Control Near the Limit of Handling, pp. 1552-1557.	
Siampis, Efstathios	Cranfield Univ.
Massaro, Matteo	Univ. di Padova
Velenis, Efstathios	Cranfield Univ.
17:20-17:40	TuC08.5
Vehicle Attitude Control with Saturating Actuators: Workload Balancing and Reference Adaptation, pp. 1558-1563.	
Borri, Alessandro	IASI-CNR
Bianchi, Domenico	Univ. of L'Aquila
Di Benedetto, M. Domenica	Univ. of L'Aquila
Di Gennaro, Stefano	Univ. of L'Aquila
17:40-18:00	TuC08.6
Compositional Equivalence Checking for Models and Code of Control Systems, pp. 1564-1571.	
Majumdar, Rupak	UCLA
Saha, Indranil	Univ. of California, Berkeley
Ueda, Koichi	Toyota Motor Engineering & Manufacturing North America, Inc.
Yazarel, Hakan	Univ. of Pennsylvania

TuC09	PA 2.3
Delay Systems III (Regular Session)	
Chair: Fridman, Emilia	Tel-Aviv Univ.
Co-Chair: Mazenc, Frederic	EPI INRIA DISCO
16:00-16:20	TuC09.1
Stability of Piecewise Affine Systems with State-Dependent Delay, and Application to Congestion Control, pp. 1572-1577.	
Fiter, Christophe	Univ. Lille1 - Sciences et Tech.
Fridman, Emilia	Tel-Aviv Univ.
16:20-16:40	TuC09.2
State and Output Feedback Control of Switched Linear Systems with Time-Varying Delay, pp. 1578-1583.	
Bolzern, Paolo	Pol. di Milano
Deaecto, Grace S.	UNICAMP
Galbusera, Luca	Consiglio Nazionale delle Ricerche
16:40-17:00	TuC09.3
Stabilization of Linear Time Varying Systems with Input Delays: Application to Rapidly Time Varying Systems, pp. 1584-1589.	
Mazenc, Frederic	EPI INRIA DISCO
Malisoff, Michael	Louisiana State Univ.
Niculescu, Silviu-Iulian	CNRS-Supelec
17:00-17:20	TuC09.4
Characterizing Invariance Properties of Linear Time-Delay Systems: The General Case, pp. 1590-1595.	
Li, Xu-Guang	Northeastern Univ. Liaoning
Niculescu, Silviu-Iulian	CNRS-Supelec
Cela, Arben	Paris East Univ. ESIEE Paris
Zhang, Lu	Northeastern Univ.
Li, Xu	Northeastern Univ. Liaoning
17:20-17:40	TuC09.5
A Razumikhin Approach for the Incremental Stability of Delayed Nonlinear Systems, pp. 1596-1601.	
Chaillet, Antoine	Univ. Paris Sud 11
Pogromsky, A. Yu.	Eindhoven Univ. of Tech.
Rüffer, Björn S.	Univ. of Paderborn
17:40-18:00	TuC09.6
Stabilizing Any SISO LTI Plant with an Arbitrarily Large Unknown Delay and Unknown B Matrix, pp. 1602-1607.	
Miller, Daniel E.	Univ. of Waterloo
Gaudette, Darrell L.	Univ. of Waterloo

TuC10	PA 2.4
Robotics II (Regular Session)	
Chair: Krukhmalev, Victor	Southern Federal Univ.
Co-Chair: Singh, Arun Kumar	IIIT-Hyderabad
16:00-16:20	TuC10.1
Optical Flow Sensing and the Inverse Perception Problem for Flying Bats (I), pp. 1608-1615.	
Kong, Zhaodan	Boston Univ.
Ozcimder, Kayhan	Boston Univ.
Fuller, Nathan W.	Boston Univ.
Greco, Alison	Boston Univ.
Theriault, Diane H.	Boston Univ.
Wu, Zheng	Boston Univ.
Kunz, Thomas H.	Boston Univ.
Betke, Margrit	Boston Univ.
Baillieul, John	Boston Univ.
16:20-16:40	TuC10.2
Local Equilibrium Controllability of a Spherical Robot Actuated by a Pendulum, pp. 1616-1621.	
Gajbhiye, Sneha	IIT Bombay
Banavar, Ravi N.	Indian Inst. of Tech.
16:40-17:00	TuC10.3
Position Control Via Force Feedback for a Class of Standard Mechanical Systems in the Port-Hamiltonian Framework, pp. 1622-1627.	
Munoz-Arias, Mauricio	Univ. of Groningen
Scherpen, Jacquelien M.A.	Univ. of Groningen
Dirksz, Daniel A.	Incas3
17:00-17:20	TuC10.4
Controlled Invariants and Trajectory Planning for Underactuated Mechanical Systems, pp. 1628-1633.	
Shiriaev, Anton	NTNU/Umea Univ.
Freidovich, Leonid B.	Umea Univ.
Spong, Mark W.	Univ. of Texas at Dallas
17:20-17:40	TuC10.5
Application of Hamiltonian Dynamics to Manipulator Control in Constrained Workspace, pp. 1634-1639.	
Casagrande, Daniele	Univ. of Udine
Fenu, Gianfranco	Univ. of Trieste
Pellegrino, Felice Andrea	Univ. of Trieste
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome

17:40-18:00	TuC10.6
An Output Maneuvering Approach to Control the Cartesian Position of the Quadrotor Helicopter, pp. 1640-1645.	
Rodríguez-Cortés, Hugo	CINVESTAV-IPN
Corona-Sanchez, Jose Juan	CINVESTAV

TuC11	PA 2.5
Energy and Power Systems (Regular Session)	
Chair: Wahyudie, Addy	United Arab Emirates Univ.
Co-Chair: Bolognani, Saverio	Massachusetts Inst. of Tech.
16:00-16:20	TuC11.1
Dynamics-Aware Optimal Power Flow, pp. 1646-1652.	
Mallada, Enrique	Cornell Univ.
Tang, A. Kevin	Cornell Univ.
16:20-16:40	TuC11.2
Tracking Controller Design Methodology for Passive Port-Controlled Hamiltonians with Application to Type-2 STATCOM Systems, pp. 1653-1658.	
Gui, Yonghao	Hanyang Univ.
Chang, Dong Eui	Univ. of Waterloo
Chung, Chung Choo	Hanyang Univ.
16:40-17:00	TuC11.3
Identification of Power Distribution Network Topology Via Voltage Correlation Analysis, pp. 1659-1664.	
Bolognani, Saverio	Massachusetts Inst. of Tech.
Bof, Nicoletta	Univ. di Padova
Michelotti, Davide	Univ. di Padova
Muraro, Riccardo	Univ. di Padova
Schenato, Luca	Univ. di Padova
17:00-17:20	TuC11.4
Identification and Observation in the Anode Line of PEM Fuel Cell Stacks, pp. 1665-1670.	
Kunusch, Cristian	Univ. Pol. de Catalunya
Moreno Pérez, Jaime Alberto	UNAM
Angulo, Marco Tulio	National Autonomous Univ. of Mexico
17:20-17:40	TuC11.5
Sliding Mode and Fuzzy Logic Control for Heaving Wave Energy Converter, pp. 1671-1677.	
Wahyudie, Addy	United Arab Emirates Univ.
17:40-18:00	TuC11.6
LIDAR-Assisted Preview Controllers Design for a MW-Scale Commercial Wind Turbine Model, pp. 1678-1683.	
Wang, Na	Colorado School of Mines
Johnson, Kathryn	Colorado School of Mines
Wright, Alan	National Renewable Energy Lab.
Carcangiu, Carlo	ALSTOM WIND S.L.U.

TuC12	VV G.1
Optimization III (Regular Session)	
Chair: Jovanovic, Mihailo	Univ. of Minnesota
Co-Chair: Hu, Guoqiang	Nanyang Tech. Univ.
16:00-16:20	TuC12.1
An ADMM Algorithm for Matrix Completion of Partially Known State Covariances, pp. 1684-1689.	
Lin, Fu	Univ. of Minnesota
Jovanovic, Mihailo	Univ. of Minnesota
Georgiou, Tryphon T.	Univ. of Minnesota
16:20-16:40	TuC12.2
A Total Variation Based Approach for Robust Consensus in Distributed Networks, pp. 1690-1695.	
Benameur, Walid	Telecom SudParis
Bianchi, Pascal	Telecom ParisTech - CNRS/LTCI
Jakubowicz, Jérémie	Telecom SudParis - CNRS
16:40-17:00	TuC12.3
On a Multiplicative Update Dual Optimization Algorithm for Constrained Linear MPC, pp. 1696-1701.	
Di Cairano, Stefano	Mitsubishi Electric Res. Lab.
Brand, Matthew	Mitsubishi Electric Res. Lab.
17:00-17:20	TuC12.4
State Covariances and the Matrix Completion Problem, pp. 1702-1707.	
Chen, Yongxin	Univ. of Minnesota
Jovanovic, Mihailo	Univ. of Minnesota
Georgiou, Tryphon T.	Univ. of Minnesota
17:20-17:40	TuC12.5
Extremum Seeking under Input Constraint for Systems with a Time-Varying Extremum, pp. 1708-1713.	
Ye, Maojiao	Nanyang Tech. Univ. Singapore
Hu, Guoqiang	Nanyang Tech. Univ. Singapore
17:40-18:00	TuC12.6
A Particle System for Global Optimization, pp. 1714-1719.	
Zhang, Chi	Univ. of Illinois, Urbana-Champaign
Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign

TuC13	VV G.2
Differential Games and Applications (Invited Session)	
Chair: Basar, Tamer	Univ. of Illinois, Urbana-Champaign
Co-Chair: Befekadu, Getachew	Univ. of Notre Dame
Organizer: Basar, Tamer	Univ. of Illinois, Urbana-Champaign
Organizer: Befekadu, Getachew	Univ. of Notre Dame
Organizer: Pham, Khanh D.	Air Force Res. Lab.
Organizer: Zhu, Quanyan	Princeton Univ.
16:00-16:20	TuC13.1
Price and Variance of Anarchy in Mean-Variance Cost Density-Shaping Stochastic Differential Games (I), pp. 1720-1725.	
Zyskowski, Matthew	Univ. of Notre Dame
Zhu, Quanyan	Univ. of Illinois, Urbana-Champaign

16:20-16:40	TuC13.2
A Nash Game with Long-Term and Short-Term Players (I), pp. 1726-1731.	
Papavassilopoulos, George P.	National Tech. Univ. of Athens
Abou-Kandil, Hisham	Ec. Normale Sup. Cachan
Jungers, Marc	CNRS - Univ. de Lorraine
16:40-17:00	TuC13.3
Numerical ISS Controller Design Via a Dynamic Game Approach (I), pp. 1732-1737.	
Gruene, Lars	Univ. of Bayreuth
Sigurani, Manuela	Univ. of Bayreuth
17:00-17:20	TuC13.4
A Numerical Algorithm to Find All Scalar Feedback Nash Equilibria (I), pp. 1738-1743.	
Engwerda, Jacob	Tilburg Univ.
17:20-17:40	TuC13.5
Games on Large Random Interaction Structures: Information and Complexity Aspects (I), pp. 1744-1749.	
Kordonis, Ioannis	National Tech. Univ. of Athens
Papavassilopoulos, George P.	National Tech. Univ. of Athens
17:40-18:00	TuC13.6
H2 / H infinity Control of Stochastic Systems with Multiple Decision Makers: A Stackelberg Game Approach, pp. 1750-1755.	
Mukaidani, Hiroaki	Hiroshima Univ.

TuC14	VV G.3
Uncertain Systems II (Regular Session)	
Chair: Levant, Arie	Tel - Aviv Univ.
Co-Chair: Rovithakis, George A.	Aristotle Univ. of Thessaloniki
16:00-16:20	TuC14.1
Quadratic Separators in the Input-Output Setting, pp. 1756-1761.	
Szabo, Zoltan	MTA SZTAKI
Biró, Zsolt	Computer and Automation Res. Inst. Hungarian Academy of Sc.
Bokor, Jozsef	MTA SZTAKI Hungarian Acad. of Sciences
16:20-16:40	TuC14.2
Homogeneous Discrete Differentiation of Functions with Unbounded Higher Derivatives, pp. 1762-1767.	
Livne, Miki	Tel-Aviv Univ.
Levant, Arie	Tel-Aviv Univ.
16:40-17:00	TuC14.3
Robust Bifurcation Analysis Based on the Nyquist Stability Criterion, pp. 1768-1773.	
Inoue, Masaki	Tokyo Inst. of Tech.
Imura, Jun-ichi	Tokyo Inst. of Tech.
Kashima, Kenji	Osaka Univ.
Aihara, Kazuyuki	Univ. of Tokyo
17:00-17:20	TuC14.4
Prescribed Performance Control of Strict Feedback Systems with Deadzone Input Nonlinearity, pp. 1774-1779.	
Theodorakopoulos, Achilles	Aristotle Univ. of Thessaloniki
Rovithakis, George A.	Aristotle Univ. of Thessaloniki
17:20-17:40	TuC14.5
On the Sample Complexity of Uncertain Linear and Bilinear Matrix Inequalities, pp. 1780-1785.	
Chamanbaz, Mohammadreza	Data Storage Inst. (DSI)
Dabbene, Fabrizio	CNR-IEIIT
Tempo, Roberto	CNR-IEIIT, Pol. di Torino
Venkataramanan, V.	Data Storage Inst.
Wang, Qing-Guo	National Univ. of Singapore
17:40-18:00	TuC14.6
Discrete-Time Adaptive Learning Control for Parametric Uncertainties with Unknown Periods, pp. 1786-1791.	
Yu, Miao	Aalto Univ.
Huang, Deqing	Imperial Coll. London

TuC15	VV 2.1
Trends in Optimal Control: Theoretical Issues and Applications (Invited Session)	
Chair: Chittaro, Francesca	LSIS
Co-Chair: Poggiolini, Laura	Univ. degli Studi di Firenze
Organizer: Chittaro, Francesca	LSIS
Organizer: Poggiolini, Laura	Univ. degli Studi di Firenze
Organizer: Stefani, Gianna	Univ. Di Firenze
16:00-16:20	TuC15.1
How Pilots Fly: An Inverse Optimal Control Problem Approach (I), pp. 1792-1797.	
Maillot, Thibault	Univ. du Sud-Toulon-Var
Serres, Ulysse	Univ. Claude Bernard Lyon 1 - CNRS
Gauthier, Jean-Paul	Univ. du Sud-Toulon-Var
Ajami, Alain	Univ. du Sud-Toulon-Var
16:20-16:40	TuC15.2
Minimum-Time Strong Optimality of a Singular Arc : Extended Dubins Problem (I), pp. 1798-1803.	
Chittaro, Francesca	LSIS
Stefani, Gianna	Univ. Di Firenze
16:40-17:00	TuC15.3
Riemannian Metrics on 2D Manifolds Related to the Euler-Poinsot Rigid Body Problem (I), pp. 1804-1809.	
Bonnard, Bernard	Inst. de Mathématiques de Bourgogne
Cots, Olivier	INRIA Sophia Antipolis
Shcherbakova, Nataliya	ENSIACET INP Toulouse, Lab. de Génie Chimique
17:00-17:20	TuC15.4
On the Control of Cell Migration and Proliferation in Glioblastoma (I), pp. 1810-1815.	
Schaettler, Heinz M.	Washington Univ.
Ledzewicz, Urszula	Southern Illinois Univ. at Edwardsville
Kim, Yangjin	Konkuk Univ.
de los Reyes, Aurelio	Univ. of the Philippines
Eunok, Jung	Konkuk Univ.

17:20-17:40	TuC15.5
Geometric Modeling of the Movement Based on an Inverse Optimal Control Approach (I), pp. 1816-1821.	
Jean, Frederic	Ec. Nat. Sup. des Tech. Avancees
Mason, Paolo	CNRS, Lab. des Signaux et Systèmes, Supélec
Chittaro, Francesca	LSIS
17:40-18:00	TuC15.6
On Optimal Control Problems with Impulsive Commutative Dynamics (I), pp. 1822-1827.	
Aronna, Maria Soledad	Univ. di Padova
Rampazzo, Franco	Univ. di Padova

TuC16	VV 2.2
Game Theory III (Regular Session)	
Chair: Shamma, Jeff S.	Georgia Inst. of Tech.
Co-Chair: Jain, Rahul	Univ. of Southern California
16:00-16:20	TuC16.1
Design of Mechanisms for Demand Response Programs, pp. 1828-1833.	
Barreto, Carlos	Univ. de los Andes
Mojica-Nava, Eduardo	National Univ. of Colombia
Quijano, Nicanor	Univ. de los Andes
16:20-16:40	TuC16.2
Solving Multichain Stochastic Games with Mean Payoff by Policy Iteration, pp. 1834-1841.	
Akian, Marianne	INRIA Saclay Ile-de-France and CMAP
Cochet-Terrasson, Jean	CGA
Detournay, Sylvie	CMAP, Ec. Pol.
Gaubert, Stephane	INRIA and Ec. Pol.
16:40-17:00	TuC16.3
Revisiting Evolutionary Game Theory, pp. 1842-1847.	
Brunetti, Ilaria	INRIA
Altman, Eitan	INRIA
17:00-17:20	TuC16.4
Dynamic Mechanism Design in Correlated Environments, pp. 1848-1853.	
Kotsalis, Georgios	Georgia Inst. of Tech.
Shamma, Jeff S.	Georgia Inst. of Tech.
17:20-17:40	TuC16.5
Stochastic Game Approach for Replay Attack Detection, pp. 1854-1859.	
Miao, Fei	Univ. of Pennsylvania
Pajic, Miroslav	Univ. of Pennsylvania
Pappas, George J.	Univ. of Pennsylvania
17:40-18:00	TuC16.6
Coarse Resistance Tree Methods for Stochastic Stability Analysis, pp. 1860-1865.	
Borowski, Holly	Univ. of Colorado, Boulder
Marden, Jason	Univ. of Colorado, Boulder
Frew, Eric W.	Univ. of Colorado, Boulder
Leslie, David	Univ. of Bristol

TuC17	VV 2.3
Stochastic Systems III (Regular Session)	
Chair: Nair, Girish N.	Univ. of Melbourne
Co-Chair: Leonard, Naomi Ehrich	Princeton Univ.
16:00-16:20	TuC17.1
Physical Realizability Conditions for Mixed Bilinear-Linear Cascades with Pure Field Coupling, pp. 1866-1871.	
Duffaut Espinosa, Luis Augusto	Univ. of New South Wales at ADFA
Miao, Zibo	The Australian National Univ.
Petersen, Ian R.	Univ. of New South Wales at ADFA
Ugrinovskii, Valery	Univ. of New South Wales
James, Matthew R.	Australian National Univ.
16:20-16:40	TuC17.2
A Stochastic Controller for Vector Linear Systems with Additive Cauchy Noises, pp. 1872-1879.	
Fernandez, Javier	Univ. of California, Los Angeles
Speyer, Jason L.	Univ. of California, Los Angeles
Idan, Moshe	Tech. - Israel Institute of Tech.
16:40-17:00	TuC17.3
On the Speed-Accuracy Trade-Off in Collective Decision Making, pp. 1880-1885.	
Srivastava, Vaibhav	Princeton Univ.
Leonard, Naomi Ehrich	Princeton Univ.
17:00-17:20	TuC17.4
Controlling Uncertain Stochastic Systems: Some Numerical Comparisons, pp. 1886-1891.	
Souto, Rafael Fontes	State Univ. of Campinas - UNICAMP
Do Val, Joao B.R.	UNICAMP - FEEC
Oliveira, Ricardo C. L. F.	Univ. of Campinas - UNICAMP
17:20-17:40	TuC17.5
Convex Relaxations of a Probabilistically Robust Control Design Problem, pp. 1892-1897.	
M. Jasour, Ashkan	Pennsylvania State Univ.
Lagoa, Constantino M.	Pennsylvania State Univ.
17:40-18:00	TuC17.6
Linear-Quadratic-Gaussian Mean Field Games under High Rate Quantization (I), pp. 1898-1903.	
Nourian, Mojtaba	Univ. of Melbourne
Nair, Girish N.	Univ. of Melbourne

TuC18	Auditorium
Quantum Control II (Regular Session)	
Chair: Yamamoto, Naoki	Keio Univ.
Co-Chair: Petersen, Ian R.	Univ. of New South Wales at the Austral. Defence Force Academy
16:00-16:20	TuC18.1
Estimation and Initialization of Quantum Network Via Continuous Measurement on Single Node, pp. 1904-1909.	
Kato, Yuzuru	Keio Univ.
Yamamoto, Naoki	Keio Univ.

16:20-16:40 TuC18.2

Distributed Generation of Entanglement between Spatially Separated Propagating Gaussian Fields Via Coherent Feedback, pp. 1910-1917.

Shi, Zhan — Univ. of New South Wales
Nurdin, Hendra Ishwara — Univ. of New South Wales

16:40-17:00 TuC18.3

Reachable Set of Open Single Spin System, pp. 1918-1923.

Yuan, Haidong — Hong Kong Pol. Univ.

17:00-17:20 TuC18.4

Sampling-Based Learning Control for Quantum Systems with Hamiltonian Uncertainties, pp. 1924-1929.

Dong, Daoyi — Univ. of New South Wales
Chen, Chunlin — Nanjing Univ.
Long, Ruixing — Princeton Univ.
Qi, Bo — CAS
Petersen, Ian R. — Univ. of New South Wales at the Austral. Defence Force Academy

17:20-17:40 TuC18.5

Systems Identification for Passive Linear Quantum Systems: The Transfer Function Approach, pp. 1930-1937.

Guta, Madalin Ionut — Univ. of Nottingham
Yamamoto, Naoki — Keio Univ.

17:40-18:00 TuC18.6

Robust Stability of Quantum Systems with Nonlinear Dynamic Uncertainties, pp. 1938-1943.

Petersen, Ian R. — Univ. of New South Wales at the Austral. Defence Force Academy

WePL	Auditorium
From Distributed Control Systems to Game Theory: There and Back Again (Plenary Session)	
Chair: Tempo, Roberto	CNR-IEIIT, Pol. di Torino
Co-Chair: Tits, Andre L.	Univ. of Maryland
08:30-09:30	WePL.1
From Distributed Control Systems to Game Theory: There and Back Again.	
Shamma, Jeff S.	Georgia Inst. of Tech.

WeA01	PA B.1
Computational Methods (Regular Session)	
Chair: Lasserre, Jean B.	LAAS-CNRS and Inst. of Mathematics, Univ. of Toulouse
Co-Chair: Maciejowski, Jan M.	Univ. of Cambridge
10:00-10:20	WeA01.1
A Set Simulation Approach to the Computation of Invariant Sets for Nonlinear Systems, pp. 1944-1949.	
Cugueró Escofet, Pep	Univ. Pol. de Catalunya
Saludes, Jordi	Univ. Pol. de Catalunya
Escobet, Teresa	Univ. Pol. de Catalunya
10:20-10:40	WeA01.2
Direct Numerical Solution of Algebraic Lyapunov Equations for Large-Scale Systems Using Quantized Tensor Trains, pp. 1950-1957.	
Nip, Michael	Univ. of California, Santa Barbara
Hespanha, Joao P.	Univ. of California, Santa Barbara
Khammash, Mustafa H.	ETH Zurich
10:40-11:00	WeA01.3
Sample Average Approximations in Optimal Control of Uncertain Systems, pp. 1958-1965.	
Phelps, Chris	Univ. of California, Santa Cruz
Royset, Johannes	Univ. of California
Gong, Qi	Univ. of California, Santa Cruz
11:00-11:20	WeA01.4
A Lagrangian Relaxation View of Linear and Semidefinite Hierarchies, pp. 1966-1970.	
Lasserre, Jean B.	LAAS-CNRS and Inst. of Mathematics, Univ. of Toulouse
11:20-11:40	WeA01.5
Graphical FPGA Design for a Predictive Controller with Application to Spacecraft Rendezvous, pp. 1971-1976.	
Hartley, Edward N.	Univ. of Cambridge
Maciejowski, Jan M.	Univ. of Cambridge
11:40-12:00	WeA01.6
Optimal Performance Tuning of a PI-Controller for an Integrator Plant with Uncertain Parameters As a Convex Optimisation Problem, pp. 1977-1982.	
Esch, Jonas	Univ. of Duisburg Essen
Koenings, Tim	Univ. of Duisburg-Essen
Ding, Steven X.	Univ. of Duisburg-Essen

WeA02	PA G.1
Modeling, Coordination and Consensus Agreement in Multi-Component Systems: Applications (Invited Session)	
Chair: Fanti, Maria Pia	Pol. of Bari
Co-Chair: Hadjicostis, Christoforos	Univ. of Cyprus
Organizer: Fanti, Maria Pia	Pol. of Bari
Organizer: Hadjicostis, Christoforos	Univ. of Cyprus
10:00-10:20	WeA02.1
Distributed Balancing of a Digraph with Integer Weights (I), pp. 1983-1988.	
Rikos, Apostolos	Univ. of Cyprus
Hadjicostis, Christoforos	Univ. of Cyprus
10:20-10:40	WeA02.2
Symmetric Continuum Opinion Dynamics: Convergence, but Sometimes Only in Distribution (I), pp. 1989-1994.	
Hendrickx, Julien M.	Univ. Catholique de Louvain
Olshevsky, Alexander	Univ. of Illinois at Urbana-Champaign
10:40-11:00	WeA02.3
Distributed Kalman Filter with Minimum-Time Covariance Computation (I), pp. 1995-2000.	
Thia, Jerry, Yew Jia	Univ. of Cambridge
Yuan, Ye	Univ. of Cambridge
Shi, Ling	Hong Kong Univ. of Science and Tech.
Goncalves, Jorge M.	Univ. of Cambridge
11:00-11:20	WeA02.4
Multi-Robot Mixing Using Braids (I), pp. 2001-2005.	
Diaz-Mercado, Yancy	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
11:20-11:40	WeA02.5
Asynchronous Consensus-Based Distributed Target Tracking (I), pp. 2006-2011.	
Giannini, Silvia	Pol. di Bari
Petitti, Antonio	National Council of Res.
Di Paola, Donato	National Res. Council (CNR)
Rizzo, Alessandro	Pol. di Bari
11:40-12:00	WeA02.6
Discrete Consensus in Networks with Constrained Capacity (I), pp. 2012-2017.	
Fanti, Maria Pia	Pol. di Bari
Franceschelli, Mauro	Univ. of Cagliari
Mangini, Agostino Marcello	Pol. di Bari
Pedroncelli, Giovanni	Univ. of Trieste
Ukovich, Walter	Univ. of Trieste

WeA03	PA 1.1
Stability of Hybrid Systems (Regular Session)	
Chair: Teel, Andrew R.	Univ. of California at Santa Barbara
Co-Chair: Baños, Alfonso	Univ. of Murcia
10:00-10:20	WeA03.1
Delay-Dependent Stability of Reset Control Systems with Input/output Delays, pp. 2018-2023.	
Davo Navarro, Miguel Angel	Univ. of Murcia
Baños, Alfonso	Univ. of Murcia
10:20-10:40	WeA03.2
Guaranteed Estimates of the Domain of Attraction for a Class of Hybrid Systems, pp. 2024-2029.	
Luk, Chuen Kit	Univ. of Hong Kong
Chesi, Graziano	Univ. of Hong Kong
Han, Dongkun	Univ. of Hong Kong
10:40-11:00	WeA03.3
A Stabilization Result with Application to Bipedal Locomotion, pp. 2030-2035.	
Teel, Andrew R.	Univ. of California at Santa Barbara
Goebel, Rafal	Loyola Univ. Chicago
Morris, Benjamin	Texas A&M Univ.
Ames, Aaron	Texas A&M Univ.
Grizzle, Jessy W.	Univ. of Michigan
11:00-11:20	WeA03.4
Results on Non-Linear Hybrid Output Regulation, pp. 2036-2041.	
Cox, Nicholas	Univ. of California, Santa Barbara
Teel, Andrew R.	Univ. of California, Santa Barbara
Marconi, Lorenzo	Univ. di Bologna
11:20-11:40	WeA03.5
Stability of Hybrid Lévy Systems, pp. 2042-2047.	
Gerencsér, László	MTA SZTAKI
Mánfay, Máté	The Computer and Automation Res. Inst. Hungarian Academy
11:40-12:00	WeA03.6
Event-Triggered Algorithms for Continuous-Time Systems Based on Reachability Analysis, pp. 2048-2053.	
Meslem, Nacim	GIPSA-Lab. INP Grenoble
Prieur, Christophe	CNRS

WeA04	PA 1.2
Biomedical Systems (Regular Session)	
Chair: Lemos, Joao M.	Inesc-id
Co-Chair: Medvedev, Alexander V.	Uppsala Univ.
10:00-10:20	WeA04.1
Model-Based Angiogenic Inhibition of Tumor Growth Using Feedback Linearization, pp. 2054-2059.	
Szeles, Annamaria	Budapest Univ. of Tech. and Ec.
Drexler, Dániel András	Budapest Univ. of Tech. and Ec.
Sápi, Johanna	Obuda Univ.
Harmati, Istvan	Budapest Univ. of Tech. and Ec.
Kovács, Levente	Obuda Univ.
10:20-10:40	WeA04.2
Reverse Engineering Combination Therapies for Evolutionary Dynamics of Disease: An H-infinity Approach, pp. 2060-2065.	
Jonsson, Vanessa	California Inst. of Tech.
Matni, Nikolai	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.
10:40-11:00	WeA04.3
Averaged Modeling of the Cardiovascular System, pp. 2066-2071.	
Codrean, Alexandru	Pol. Univ. of Timisoara
Dragomir, Toma-Leonida	Pol. Univ. of Timisoara
11:00-11:20	WeA04.4
A Nonlinear Continuous-Discrete Filter with Model Parameter Uncertainty and Application to Anesthesia, pp. 2072-2077.	
Lemos, Joao M.	Inesc-id
Rocha, Conceicao	Fac. de Ciências da Univ. do Porto
Mendonça, Teresa	Fac. de Ciências da Univ. do Porto
Silva, Maria Eduarda	Faculdade de Ec. da Univ. do Porto
11:20-11:40	WeA04.5
Finite-Dimensional Reducibility of Time-Delay Systems under Pulse-Modulated Feedback, pp. 2078-2083.	
Churilov, Alexander	St. Petersburg State Marine Tech. Univ.
Medvedev, Alexander V.	Uppsala Univ.
Mattsson, Per	Uppsala Univ.
11:40-12:00	WeA04.6
Robust Tube-Based Predictive Control of Blood Glucose Concentration in Type 1 Diabetes, pp. 2084-2089.	
Kirchsteiger, Harald	Johannes Kepler Univ. Linz
Del Re, Luigi	Johannes Kepler Univ. Linz

WeA05	PA 1.3
Linear Systems II (Regular Session)	
Chair: Broucke, Mireille E.	Univ. of Toronto
Co-Chair: Saberi, Ali	Washington State Univ.
10:00-10:20	WeA05.1
Tracking Control with Adaptively Allocated Maximum Input Amplitudes and Enlarged Domain of Attraction for Linear Systems, pp. 2090-2096.	
Diepold, Klaus Jürgen	Tech. Univ. München
Pieczona, Sebastian Jan	Tech. Univ. München
10:20-10:40	WeA05.2
Block Circulant Control: A Geometric Approach, pp. 2097-2102.	
Sniderman, Adam C.	Univ. of Toronto
Broucke, Mireille E.	Univ. of Toronto
D'Eleuterio, Gabriele M. T.	Univ. of Toronto
10:40-11:00	WeA05.3
Fixed-Structure LPV Controller Synthesis Based on Implicit Input Output Representations, pp. 2103-2108.	
Wollnack, Simon	Tech. Univ. Hamburg
Abbas, Hossam Seddik	Assiut Univ.
Werner, Herbert	Hamburg Univ. of Tech.
Tóth, Roland	Eindhoven Univ. of Tech.

11:00-11:20	WeA05.4
New KYP Lemma Based Stability Tests and Control Law Design Algorithms for Differential Linear Repetitive Processes, pp. 2109-2114.	
Paszke, Wojciech	Univ. of Zielona Gora
Rogers, Eric	Univ. of Southampton
Galkowski, Krzysztof	Univ. of Zielona Gora
11:20-11:40	WeA05.5
Control Theoretic B-Spline Smoothing with Constraints on Derivatives, pp. 2115-2120.	
Fujioka, Hiroyuki	Fukuoka Inst. of Tech.
Kano, Hiroyuki	Tokyo Denki Univ.
11:40-12:00	WeA05.6
Realization of Precompensators Via Stabilizing Non-Regular Static State Feedback, pp. 2121-2126.	
Castañeda Toledo, Eduardo	CINVESTAV-IPN, U. Guadalajara
Kucera, Vladimir	Czech Tech. Univ. in Prague
Ruiz-Leon, Javier	CINVESTAV-Guadalajara

WeA06	PA 1.4
Agents and Autonomous Systems III (Regular Session)	
Chair: Lin, Zongli	Univ. of Virginia
Co-Chair: Usai, Elio	Univ. degli Studi di Cagliari
10:00-10:20	WeA06.1
Continuous-Time Fractional Bounded Positive Systems, pp. 2127-2132.	
Hmamed, Abdelaziz	Faculty of Science Dhar Elmhraz
Mesquine, Fouad	Univ. Cadi Ayyad.
Benzaouia, Abdellah	Faculty of Science Semlalia
Benhayoun, Mohamed	Univ. Cadi Ayyad
Tadeo, Fernando	Univ. of Valladolid
10:20-10:40	WeA06.2
Optimal Distributed Controllers Based on Gradient-Flow Method for Multi-Agent Coordination, pp. 2133-2138.	
Sakurama, Kazunori	Tottori Univ.
Azuma, Shun-ichi	Kyoto Univ.
Sugie, Toshiharu	Kyoto Univ.
10:40-11:00	WeA06.3
Local Average Consensus in Distributed Measurement of Spatial-Temporal Varying Parameters: 1D Case, pp. 2139-2144.	
Cai, Kai	Univ. of Toronto
Anderson, Brian D.O.	Australian National Univ.
Yu, Changbin (Brad)	The Australian National Univ.
11:00-11:20	WeA06.4
Finite-Time Consensus for a Network of Perturbed Double Integrators by Second-Order Sliding Mode Technique, pp. 2145-2150.	
Pilloni, Alessandro	Univ. of Cagliari
Pisano, Alessandro	Univ. of Cagliari
Franceschelli, Mauro	Univ. of Cagliari
Usai, Elio	Univ. of Cagliari
11:20-11:40	WeA06.5
Flocking and Rendezvous Control Protocols for Nonlinear Dynamical Systems Via Hybrid Stabilization of Sets, pp. 2151-2156.	
Haddad, Wassim M.	Georgia Inst. of Tech.
Nersesov, Sergey G.	Villanova Univ.
Hui, Qing	Texas Tech. Univ.
Ghasemi, Masood	Villanova Univ.
11:40-12:00	WeA06.6
Multiagent Self-Localization Using Bearing Only Measurements, pp. 2157-2162.	
Ye, Mengbin (Ben)	Univ. of Auckland/Australian National Univ.
Anderson, Brian D.O.	Australian National Univ.
Yu, Changbin (Brad)	Australian National Univ.

WeA07	PA 2.1
Distributed Control II (Regular Session)	
Chair: Ugrinovskii, Valery	Univ. of New South Wales
Co-Chair: Xie, Lihua	Nanyang Tech. Univ.
10:00-10:20	WeA07.1
Distributed H infinity Tracking Control for Discrete-Time Multi-Agent Systems with a High-Dimensional Leader, pp. 2163-2168.	
Wen, Guanghui	Southeast Univ.
Ugrinovskii, Valery	Univ. of New South Wales
10:20-10:40	WeA07.2
Achieving String Stability in Irrigation Channels under Distributed Distant-Downstream Control, pp. 2169-2174.	
Soltanian, Laven	Univ. of Melbourne
Cantoni, Michael	Univ. of Melbourne
10:40-11:00	WeA07.3
Coordinated Output Regulation of Multiple Heterogeneous Linear Systems, pp. 2175-2180.	
Meng, Ziyang	Royal Inst. of Tech.
Yang, Tao	Royal Inst. of Tech.
Dimarogonas, Dimos V.	Royal Inst. of Tech.
Johansson, Karl H.	Royal Inst. of Tech.
11:00-11:20	WeA07.4
Mean Square Formation and Containment Control of Multi-Agent Systems under Noisy Measurements, pp. 2181-2186.	
Liu, Shuai	Nanyang Tech. Univ.
Xie, Lihua	Nanyang Tech. Univ.
Zhang, Huanshui	Shandong Univ.
11:20-11:40	WeA07.5
Distributed Extremum Seeking Control of Networked Large-Scale Systems under Constraints, pp. 2187-2192.	
Xu, Jinming	Nanyang Tech. Univ.
Soh, Yeng Chai	Nanyang Tech. Univ.
11:40-12:00	WeA07.6
Computation Time Analysis of a Distributed Optimization Algorithm Applied to Automated Irrigation Networks, pp. 2193-2199.	
Farhadi, Alireza	Sharif Univ. of Tech.
Cantoni, Michael	Univ. of Melbourne
Dower, Peter M.	Univ. of Melbourne

WeA08	PA 2.2
Automotive Control II (Regular Session)	
Chair: Evangelou, Simos Andreas	Imperial Coll.
Co-Chair: Velenis, Efstathios	Cranfield Univ.
10:00-10:20	WeA08.1
Green Driving Optimization of a Series Hybrid Electric Vehicle, pp. 2200-2207.	
Lot, Roberto	Univ. of Padua
Evangelou, Simos Andreas	Imperial Coll.
10:20-10:40	WeA08.2
Optimal, Stable Switching between Arcs During Low-Speed Ackerman Path Tracking with Rate-Limited Steering, pp. 2208-2213.	
Berkemeier, Matthew D.	Autonomous Solutions, Inc.
10:40-11:00	WeA08.3
Real Time Implementation of an Optimal Power Management Strategy for a Plug-In Hybrid Electric Vehicle, pp. 2214-2219.	
Pagliara, Enrico	Univ. of Salento
Parlangeli, Gianfranco	Univ. of Salento
Donateo, Teresa	Univ. of Salento
Adamo, Francesco	Univ. of Salento
11:00-11:20	WeA08.4
Solution of a Hybrid Optimal Control Problem for Parallel Hybrid Vehicles Subject to Thermal Constraints, pp. 2220-2226.	
Boehme, Thomas Juergen	IAV Automotive Engineering
Schori, Markus	Univ. of Rostock
Frank, Benjamin	IAV GmbH
Schultalbers, Matthias	IAV GmbH, Ingenieurgesellschaft Auto und Verkehr
Lampe, Bernhard P.	Univ. of Rostock
11:20-11:40	WeA08.5
Optimal Control of Manifold Filling During VDE Mode Transitions (I), pp. 2227-2232.	
Gupta, Rohit	Univ. of Michigan
Hudson, Jennifer	Western Michigan Univ.
Bloch, Anthony M.	Univ. of Michigan
Kolmanovsky, Ilya V.	Univ. of Michigan
11:40-12:00	WeA08.6
On the Optimality of Handbrake Cornering, pp. 2233-2238.	
Tavernini, Davide	Univ. di Padova
Velenis, Efstathios	Cranfield Univ.
Lot, Roberto	Univ. di Padova
Massaro, Matteo	Univ. di Padova

WeA09	PA 2.3
Delay Systems IV (Regular Session)	
Chair: Mondié, Sabine	CINVESTAV-IPN
Co-Chair: Pepe, Pierdomenico	Univ. of L' Aquila
10:00-10:20	WeA09.1
Proportional Integral Retarded Control of Second Order Linear Systems, pp. 2239-2244.	
Ramírez, Adrián	CINVESTAV-IPN
Mondié, Sabine	CINVESTAV-IPN
Garrido, Rubén	CINVESTAV-IPN
10:20-10:40	WeA09.2
Construction of Lyapunov Functionals for Coupled Differential and Continuous Time Difference Equations, pp. 2245-2250.	
Mazenc, Frederic	EPI INRIA DISCO
Ito, Hiroshi	Kyushu Inst. of Tech.
Pepe, Pierdomenico	Univ. of L' Aquila
10:40-11:00	WeA09.3
IQC Analysis for Time-Delay Reset Control Systems with First Order Reset Elements, pp. 2251-2256.	
Mercader Gómez, Pedro	Univ. of Murcia
Carrasco, Joaquin	Univ. of Manchester
Baños, Alfonso	Univ. of Murcia
11:00-11:20	WeA09.4
Receding Horizon Control of Hybrid Linear Delayed Systems: Application to Sewer Networks, pp. 2257-2262.	
Joseph-Duran, Bernat	Tech. Univ. of Catalonia
Ocampo-Martinez, Carlos	Tech. Univ. of Catalonia
Cembrano, Gabriela	UPC-CSIC
11:20-11:40	WeA09.5
Stabilizing Sets of the Low-Order Controllers for the Systems with Multiple Time Delays, pp. 2263-2268.	
Ou, Linlin	Zhejiang Univ. of Tech.
Chen, Junjie	Zhejiang Univ. of Tech.
Zhang, Weidong	Shanghai Jiaotong Univ.
Yang, Wen	East China Univ. of Science and Tech.

WeA10	PA 2.4
Robotics III (Regular Session)	
Chair: Hirche, Sandra	Tech. Univ. München
Co-Chair: Espinosa-Perez, Gerardo	Univ. Nacional Autonoma de Mexico
10:00-10:20	WeA10.1
Geometric Control and Differential Flatness of a Quadrotor UAV with a Cable-Suspended Load, pp. 2269-2274.	
Sreenath, Koushil	Carnegie Mellon Univ.
Lee, Taeyoung	George Washington Univ.
Kumar, Vijay	Univ. of Pennsylvania
10:20-10:40	WeA10.2
Unicycle Steering by Brakes: A Passive Guidance Support for an Assistive Cart, pp. 2275-2280.	
Fontanelli, Daniele	Univ. of Trento
Giannitrapani, Antonio	Univ. of Siena
Palopoli, Luigi	Univ. of Trento
Prattichizzo, Domenico	Univ. of Siena
10:40-11:00	WeA10.3
Variable-Resolution Velocity-Time Roadmap Generation Considering Safety Constraints for Autonomous Vehicles, pp. 2281-2287.	
Xiang, Jingyu	Nagoya Univ.
Tazaki, Yuichi	Nagoya Univ.
Suzuki, Tatsuya	Nagoya Univ.
Levedahl, Blaine	Nagoya Univ.

11:00-11:20	WeA10.4
Consensus Control of Flexible Joint Robots, pp. 2288-2293.	
Avila-Becerril, Sofia	Univ. Nacional Autonoma de Mexico
Espinosa-Perez, Gerardo	Univ. Nacional Autonoma de Mexico
Panteley, Elena V.	Lab. des Signaux et Systemes, CNRS - SUPELEC
Ortega, Romeo	LSS-SUPELEC
11:20-11:40	WeA10.5
Adaptive Compensation of Actuator Dynamics in Manipulators without Joint Torque Measurement, pp. 2294-2299.	
Namvar, Mehrzad	Sharif Univ. of Tech.
Kazemi, Hadi	Sharif Univ. of Tech.
11:40-12:00	WeA10.6
Fluid-Based Cooperative Underwater Localization, pp. 2300-2305.	
Song, Zhuoyuan	Univ. of Florida
Mohseni, Kamran	Univ. of Florida

WeA11	PA 2.5
Electrical Power Systems I (Regular Session)	
Chair: Liu, Steven	Univ. of Kaiserslautern
Co-Chair: Yuan, Ye	Univ. of Cambridge
10:00-10:20	WeA11.1
Flexible Loads and Renewable Integration: Distributed Control and Price of Anarchy, pp. 2306-2312.	
Chakraborty, Pratyush	Univ. of Florida
Khargonekar, Pramod P.	Univ. of Florida
10:20-10:40	WeA11.2
Optimal Power Flow in Tree Networks, pp. 2313-2318.	
Gan, Lingwen	California Inst. of Tech.
Li, Na	California Inst. of Tech.
Topcu, Ufuk	Univ. of Pennsylvania
Low, Steven	California Inst. of Tech.
10:40-11:00	WeA11.3
Market Integration of Virtual Power Plants, pp. 2319-2325.	
Petersen, Mette	Aalborg Univ. and DONG Energy
Hansen, Lars Henrik	Dong Energy
Bendtsen, Jan Dimon	Aalborg Univ.
Edlund, Kristian	DONG Energy
Stoustrup, Jakob	Aalborg Univ.
11:00-11:20	WeA11.4
Load-Frequency Control, Economic Dispatch and Unit Commitment in Smart Mircogrids Based on Hierarchical Model Predictive Control, pp. 2326-2333.	
Berkel, Felix	Univ. of Kaiserslautern
Görges, Daniel	Univ. of Kaiserslautern
Liu, Steven	Univ. of Kaiserslautern
11:20-11:40	WeA11.5
Synchronization of Droop-Controlled Microgrids with Distributed Rotational and Electronic Generation, pp. 2334-2339.	
Schiffer, Johannes	Tech. Univ. Berlin
Goldin, Darina	Tech. Univ. Berlin
Raisch, Joerg	Tech. Univ. Berlin
Sezi, Tevfik	Siemens AG
11:40-12:00	WeA11.6
Real-Time Fault Diagnosis for Large-Scale Nonlinear Power Networks, pp. 2340-2345.	
Pan, Wei	Imperial Coll. London
Yuan, Ye	Univ. of Cambridge
Sandberg, Henrik	KTH Royal Inst. of Tech.
Goncalves, Jorge M.	Univ. of Cambridge
Stan, Guy-Bart Vincent	Imperial Coll. London

WeA12	VV G.1
Optimization Algorithms I (Regular Session)	
Chair: Darbha, Swaroop	Texas A & M Univ.
Co-Chair: Cortes, Jorge	Univ. of California, San Diego
10:00-10:20	WeA12.1
Distributed Line Search Via Dynamic Convex Combinations, pp. 2346-2351.	
Cortes, Jorge	Univ. of California, San Diego
Martinez, Sonia	Univ. of California, San Diego
10:20-10:40	WeA12.2
Distributed Algorithms for Optimization Problems with Equality Constraints, pp. 2352-2357.	
Matei, Ion	Palo Alto Res. Center
Baras, John S.	Univ. of Maryland
10:40-11:00	WeA12.3
Proximal Newton Methods for Convex Composite Optimization, pp. 2358-2363.	
Patrinos, Panagiotis	IMT Inst. for Advanced Studies Lucca
Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca
11:00-11:20	WeA12.4
Forward and Reverse Auction Algorithms for Nonlinear Resource Allocation, pp. 2364-2371.	
Bangla, Ajay Kumar	Boston Univ.
Castanon, David A.	Boston Univ.
11:20-11:40	WeA12.5
A Dual Decomposition Algorithm for Separable Nonconvex Optimization Using the Penalty Function Framework, pp. 2372-2377.	
Tran Dinh, Quoc	Ec. Pol. Federale de Lausanne, Switzerland
Necoara, Ion	Univ. Pol. Bucharest
Diehl, Moritz	Katholieke Univ. Leuven
11:40-12:00	WeA12.6
Computation of Lower Bounds for a Multiple Depot, Multiple Vehicle Routing Problem with Motion Constraints, pp. 2378-2383.	
Manyam, Satyanarayana Gupta	Texas A & M Univ.
Rathinam, Sivakumar	Texas A & M Univ.
Darbha, Swaroop	Texas A & M Univ.

WeA13 VV G.2

Distributed Coordination, Networked Interaction, and Games (Invited Session)

Chair: Shamma, Jeff S. — Georgia Inst. of Tech.
Co-Chair: Baras, John S. — Univ. of Maryland
Organizer: Shamma, Jeff S. — Georgia Inst. of Tech.
Organizer: Baras, John S. — Univ. of Maryland

10:00-10:20 WeA13.1

A Dynamic Mechanism for LQG Power Networks with Random Type Parameters and Pricing Delay, pp. 2384-2390.

Okajima, Yusuke — Waseda Univ.
Murao, Toshiyuki — Waseda Univ.
Hirata, Kenji — Nagaoka Univ. of Tech.
Uchida, Kenko — Waseda Univ.

10:20-10:40 WeA13.2

Decentralized Dynamics to Optimal and Stable States in the Assignment Game (I), pp. 2391-2397.

Nax, Heinrich H. — PSE, Ec. Normale Superieure
Pradelski, Bary S. R. — Oxford-Man Inst. of Quantitative Finance, Univ. of Oxfo
Young, H.Peyton — Johns Hopkins Univ.

10:40-11:00 WeA13.3

Decentralized Control of Partially Observable Markov Decision Processes (I), pp. 2398-2405.

Amato, Christopher — MIT
Chowdhary, Girish — Oklahoma State Univ.
Geramifard, Alborz — MIT
Ure, Nazim Kemal — MIT
Kochenderfer, Mykel — Lincoln Lab., MIT

11:00-11:20 WeA13.4

A Distributed Learning Algorithm with Bit-Valued Communications for Multi-Agent Welfare Optimization (I), pp. 2406-2411.

Menon, Anup — Univ. of Maryland
Baras, John S. — Univ. of Maryland

11:20-11:40 WeA13.5

Estimation Over Lossy Networks: A Dynamic Game Approach, pp. 2412-2417.

Moon, Jun — Univ. of Illinois, Urbana-Champaign
Basar, Tamer — Univ. of Illinois, Urbana-Champaign

11:40-12:00 WeA13.6

Fast Convergence in Semi-Anonymous Potential Games (I), pp. 2418-2423.

Borowski, Holly — Univ. of Colorado, Boulder
Marden, Jason — Univ. of Colorado, Boulder
Frew, Eric W. — Univ. of Colorado, Boulder

WeA14 VV G.3

H-Inf Control Systems (Regular Session)

Chair: Gattami, Ather — KTH - Royal Inst. of Tech.
Co-Chair: Karimi, Alireza — EPFL

10:00-10:20 WeA14.1

A Simple Approach to H-Infinity Analysis, pp. 2424-2428.

Bamieh, Bassam — Univ. of California, Santa Barbara
Gattami, Ather — KTH - Royal Inst. of Tech.

10:20-10:40 WeA14.2

H Infinity Synthesis with Unstable Weighting Filters: An LMI Solution, pp. 2429-2434.

Koroglu, Hakan — Chalmers Univ. of Tech.

10:40-11:00 WeA14.3

Overlapping Mode-Dependent H infinity Control of Discrete-Time Markovian Jump Linear Systems, pp. 2435-2440.

Ge, Xiaohua — Central Queensland Univ.
Han, Qing-Long — Central Queensland Univ.
Jiang, Xiefu — Hangzhou Dianzi Univ.

11:00-11:20 WeA14.4

Network Internal Signal Feedback and Injection: Interconnection Matrix Design, pp. 2441-2446.

Zarudniev, Mykhailo — CEA, LETI, MINATEC
Korniienko, Anton — Ec. Centrale de Lyon
Scorletti, Gerard — Ec. Centrale de Lyon
Villard, Patrick — CEA LETI

11:20-11:40 WeA14.5

A Lagrangian Dual Approach to the Generalized KYP Lemma, pp. 2447-2452.

You, Seungil — California Inst. of Tech.
Doyle, John C. — California Inst. of Tech.

11:40-12:00 WeA14.6

An LMI Formulation of Fixed-Order H-infinity and H-2 Controller Design for Discrete-Time Systems with Polytopic Uncertainty, pp. 2453-2458.

Sadabadi, Mahdieh Sadat — EPFL
Karimi, Alireza — EPFL

WeA15 VV 2.1

Stochastic Optimal Control I (Regular Session)

Chair: Darouach, Mohamed — Univ. de Lorraine, CRAN-CNRS UMR 7039
Co-Chair: Pavone, Marco — Stanford Univ.

10:00-10:20 WeA15.1

A Probabilistic Approach to Planning and Control in Autonomous Urban Driving, pp. 2459-2464.

Vitus, Michael P. — UC Berkeley
Tomlin, Claire J. — UC Berkeley

10:20-10:40 WeA15.2

A Uniform-Grid Discretization Algorithm for Stochastic Optimal Control with Risk Constraints, pp. 2465-2470.

Chow, Yinlam — Stanford Univ.
Pavone, Marco — Stanford Univ.

10:40-11:00 WeA15.3

Chance-Constrained LQG with Bounded Control Policies, pp. 2471-2476.

Hokayem, Peter — ABB Switzerland Ltd.
Chatterjee, Debasish — Indian Inst. of Tech. Bombay
Lygeros, John — ETH Zurich

11:00-11:20 WeA15.4

Convexity of Optimal Linear Controller Design, pp. 2477-2482.

Dvijotham, Krishnamurthy — Univ. of Washington
Theodorou, Evangelos — Univ. of Washington
Todorov, Emanuel — Univ. of Washington
Fazel, Maryam — Univ. of Washington

11:20-11:40	WeA15.5
Discrete-Time Inverse Optimal Control for Stochastic Nonlinear Systems Trajectory Tracking, pp. 2483-2487.	
Elvira Ceja, Jose Santiago	CINVESTAV-IPN, Campus Guadalajara
Sanchez, Edgar N.	CINVESTAV
11:40-12:00	WeA15.6
Ergodic Problems for Linear Exponential Quadratic Gaussian Control and Linear Quadratic Stochastic Differential Games, pp. 2488-2492.	
Duncan, Tyrone E.	Univ. of Kansas
Pasik-Duncan, Bozenna	Univ. of Kansas

WeA16	VV 2.2
Mean Field Games I (Invited Session)	
Chair: Bauso, Dario	Univ. di Palermo
Co-Chair: Tembine, Hamidou	SUPELEC
Organizer: Bauso, Dario	Univ. di Palermo
Organizer: Tembine, Hamidou	SUPELEC
Organizer: Basar, Tamer	Univ. of Illinois, Urbana-Champaign
10:00-10:20	WeA16.1
LQG Mean-Field Games with Ergodic Cost (I), pp. 2493-2498.	
Bardi, Martino	Univ. di Padova
Priuli, Fabio	Univ. di Roma Tor Vergata
10:20-10:40	WeA16.2
Mean Field Capital Accumulation Games: The Long Time Behavior (I), pp. 2499-2504.	
Huang, Minyi	Carleton Univ.
10:40-11:00	WeA16.3
Recursive Estimation of Common Partially Observed Disturbances in MFG Systems with Application to Large Scale Power Markets (I), pp. 2505-2512.	
Caines, Peter E.	McGill Univ.
Kizilkale, Arman C.	Ec. Pol. de Montreal
11:00-11:20	WeA16.4
Mean-Field Games with Logistic Population Dynamics (I), pp. 2513-2518.	
Gomes, Diogo	King Abdullah Univ. of Science and Tech.
Ribeiro, Ricardo L	IME - USP
11:20-11:40	WeA16.5
Opinion Dynamics and Stubbornness through Mean-Field Games (I), pp. 2519-2524.	
Stella, Leonardo	Univ. di Palermo
Bagagiolo, Fabio	Univ. di Trento
Bauso, Dario	Univ. di Palermo
Como, Giacomo	Lund Univ.

WeA17	VV 2.3
Modeling I (Regular Session)	
Chair: Camlibel, Kanat	Univ. of Groningen
Co-Chair: Goncalves, Jorge M.	Univ. of Cambridge
10:00-10:20	WeA17.1
Turbulence Modeling and Kalman Prediction for the Control of Large AO Systems (I), pp. 2525-2531.	
Beghi, Alessandro	Univ. di Padova
Cenedese, Angelo	Univ. di Padova
Masiero, Andrea	Univ. di Padova
10:20-10:40	WeA17.2
Parametric and Non-Parametric Stochastic Anomaly Detection in Analysis of Eye-Tracking Data, pp. 2532-2537.	
Jansson, Daniel	Uppsala Univ.
Medvedev, Alexander V.	Uppsala Univ.
10:40-11:00	WeA17.3
Incrementally Port-Hamiltonian Systems, pp. 2538-2543.	
Camlibel, M. Kanat	Univ. of Groningen
van der Schaft, Arjan J.	Univ. of Groningen
11:00-11:20	WeA17.4
Low-Rank Representation of Neural Activity and Detection of Submovements, pp. 2544-2549.	
Chang, Young Hwan	Univ. of California, Berkeley
Chen, Mo	Univ. of California, Berkeley
Overduin, Simon Alexander	UC Berkeley
Gowda, Suraj	UC Berkeley, EECS
Carmena, Jose M.	UC Berkeley
Tomlin, Claire J.	UC Berkeley
11:20-11:40	WeA17.5
Dynamic Modelling of Die Melt Temperature Profile in Polymer Extrusion, pp. 2550-2555.	
Abeykoon, Chamil	Queen's Univ. Belfast
Kelly, Adrian L.	Univ. of Bradford
Martin, Peter J.	Queen's Univ. Belfast
Li, Kang	Queen's Univ. Belfast
11:40-12:00	WeA17.6
Minimax Projection Method for Linear Evolution Equations, pp. 2556-2561.	
Zhuk, Sergiy	IBM Res.

WeA18	Auditorium
Game Theory and Networked Systems (Tutorial Session)	
Chair: Marden, Jason	Univ. of Colorado at Boulder
Co-Chair: Jadbabaie, Ali	Univ. of Pennsylvania
Organizer: Marden, Jason	Univ. of Colorado at Boulder
10:00-10:30	WeA18.1
Incentivizing Local Behavior in Distributed Systems (I), pp. 2562-2562.	
Marden, Jason	Univ. of Colorado at Boulder
10:30-11:00	WeA18.2
Learning in Networked Systems (I), pp. 2563-2563.	
Shamma, Jeff S.	Georgia Inst. of Tech.

11:00-11:30	WeA18.3
*Distributed Routing and Robustness in Dynamical Flow Networks (I)**.	
Dahleh, Munther A.	Massachusetts Inst. of Tech.
11:30-12:00	WeA18.4
*Learning and Coordination in Networks (I)**.	
Jadbabaie, Ali	Univ. of Pennsylvania

WeB01	PA B.1
Algebraic/Geometric Methods I (Regular Session)	
Chair: Respondek, Witold	INSA de Rouen
Co-Chair: Silvestre, Carlos	Univ. of Macau
13:30-13:50	WeB01.1
Partial Linearization of the PVTOL with Internal Stability, pp. 2564-2569.	
Lechappe, Vincent	Ec. Centrale de Nantes-IRCCyN
Aoustin, Yannick	CNRS, Univ. of nantes
Marquez-Martinez, Luis Alejandro	CICESE Res. Center
Moog, Claude	CNRS
13:50-14:10	WeB01.2
Feedback Transformation Group for Nonlinear Input-Output Systems, pp. 2570-2575.	
Gray, W. Steven	Old Dominion Univ.
Duffaut Espinosa, Luis Augusto	Univ. of New South Wales at ADFA
14:10-14:30	WeB01.3
A Jet Space Approach to Check Pfaffian Systems for Flatness, pp. 2576-2581.	
Schlacher, Kurt	Johannes Kepler Univ. Linz
Schöberl, Markus	Johannes Kepler Univ. Linz
14:30-14:50	WeB01.4
Algebraic Observability of Nonlinear Differential Algebraic Systems with Geometric Index One, pp. 2582-2587.	
Sato, Kazuhiro	Kyoto Univ.
14:50-15:10	WeB01.5
Nonlinear Observer for 3D Rigid Body Motion, pp. 2588-2593.	
Bras, Sergio	Inst. Superior Técnico - ID
Izadi, Maziar	New Mexico State Univ.
Silvestre, Carlos	Univ. of Macau
Sanyal, Amit	New Mexico State Univ.
Oliveira, Paulo Jorge	Inst. Superior Técnico
15:10-15:30	WeB01.6
Lie Algebras and Regularity of Controls for Real-Analytic Control Systems, pp. 2594-2598.	
Sussmann, Hector J.	Rutgers Univ.

WeB02	PA G.1
Modeling, Coordination and Consensus Agreement in Multi-Component Systems: Theory (Invited Session)	
Chair: Fanti, Maria Pia	Pol. of Bari
Co-Chair: Hadjicostis, Christoforos	Univ. of Cyprus
Organizer: Fanti, Maria Pia	Pol. of Bari
Organizer: Hadjicostis, Christoforos	Univ. of Cyprus
13:30-13:50	WeB02.1
Randomized Consensus with Attractive and Repulsive Links (I), pp. 2599-2604.	
Shi, Guodong	Royal Inst. of Tech.
Proutiere, Alexandre	Royal Inst. of Tech.
Johansson, Mikael	Royal Inst. of Tech.
Johansson, Karl H.	Royal Inst. of Tech.
13:50-14:10	WeB02.2
On the Convergence of the Max-Consensus Protocol with Asynchronous Updates (I), pp. 2605-2610.	
Giannini, Silvia	Pol. di Bari
Di Paola, Donato	National Res. Council (CNR)
Petitti, Antonio	National Res. Council (CNR)
Rizzo, Alessandro	Pol. di Bari
14:10-14:30	WeB02.3
Finite-Time Consensus with Disturbance Attenuation for Directed Switching Network Topologies by Discontinuous Local Interactions (I), pp. 2611-2616.	
Franceschelli, Mauro	Univ. of Cagliari
Pilloni, Alessandro	Univ. of Cagliari
Pisano, Alessandro	Univ. of Cagliari
Giua, Alessandro	Univ. of Cagliari, Italy / Aix-Marseille Univ. France
Usai, Elio	Univ. of Cagliari
14:30-14:50	WeB02.4
Decentralised Minimum-Time Average Consensus in Digraphs (I), pp. 2617-2622.	
Charalambous, Themistoklis	Royal Inst. of Tech. (KTH)
Yuan, Ye	Univ. of Cambridge
Yang, Tao	Royal Inst. of Tech.
Pan, Wei	Imperial Coll. London
Hadjicostis, Christoforos	Univ. of Cyprus
Johansson, Mikael	Royal Inst. of Tech.
14:50-15:10	WeB02.5
Synchronization of Delayed Dynamical Networks with Switching Topologies (I), pp. 2623-2628.	
Liu, Tao	Univ. of Groningen
Cao, Ming	Univ. of Groningen
15:10-15:30	WeB02.6
Finite-Field Consensus (I), pp. 2629-2634.	
Pasqualetti, Fabio	Univ. of California, Riverside
Borra, Domenica	Pol. Univ. of Turin
Bullo, Francesco	Univ. California at Santa Barbara

WeB03 PA 1.1

Hybrid Systems I (Regular Session)

Chair: Zaccarian, Luca — LAAS-CNRS

Co-Chair: Zheng, Wei Xing — Univ. of Western Sydney

13:30-13:50 WeB03.1

Hybrid Control for Mobile Target Localization with Stereo Vision, pp. 2635-2640.

Freundlich, Charles — Duke Univ.

Mordohai, Philippos — Stevens Inst. of Tech.

Zavlanos, Michael M. — Duke Univ.

13:50-14:10 WeB03.2

Discrete Abstraction for a Class of Stochastic Hybrid Systems Based on Bounded Bisimulation, pp. 2641-2646.

Kobayashi, Koichi — Japan Adv Inst. of Sci & Tech.

Fukui, Yasuhito — Japan Adv Inst. of Sci & Tech.

Hiraishi, Kunihiko — Japan Adv Inst. of Sci & Tech.

14:10-14:30 WeB03.3

A Hybrid Anti-Windup Scheme for Output Saturated SISO Linear Closed Loops, pp. 2647-2652.

Sassano, Mario — Univ. of Rome, Tor Vergata

Zaccarian, Luca — LAAS-CNRS

14:30-14:50 WeB03.4

On the Optimal Control of Hybrid Systems on Lie Groups and the Exponential Gradient HMP Algorithm, pp. 2653-2658.

Taringoo, Farzin — McGill Univ.

Caines, Peter E. — McGill Univ.

14:50-15:10 WeB03.5

Necessary and Sufficient Conditions for Output Regulation in a Class of Hybrid Linear Systems, pp. 2659-2664.

Carnevale, Daniele — Univ. di Roma

Galeani, Sergio — Univ. Di Roma, Tor Vergata

Sassano, Mario — Univ. of Rome, Tor Vergata

15:10-15:30 WeB03.6

Pointwise Minimum Norm Control Laws for Hybrid Systems, pp. 2665-2670.

Sanfelice, Ricardo G. — Univ. of Arizona

WeB04 PA 1.2

Biological Systems I (Regular Session)

Chair: Hara, Shinji — The Univ. of Tokyo

Co-Chair: Julius, Agung — Rensselaer Pol. Inst.

13:30-13:50 WeB04.1

Turing Instability in Reaction-Diffusion Systems with a Single Diffuser: Characterization Based on Root Locus, pp. 2671-2676.

Miyazako, Hiroki — The Univ. of Tokyo

Hori, Yutaka — The Univ. of Tokyo

Hara, Shinji — The Univ. of Tokyo

13:50-14:10 WeB04.2

Optimal and Feedback Control for Light-Based Circadian Entrainment, pp. 2677-2682.

Zhang, Jiaxiang — Rensselaer Pol. Inst.

Wen, John T. — Rensselaer Pol. Inst.

Julius, Agung — Rensselaer Pol. Inst.

14:10-14:30 WeB04.3

Sensing from Control: Airframe Deformation for Simultaneous Actuation and State Estimation (I), pp. 2683-2690.

Hinson, Brian — Univ. of Washington

Rombokas, Eric — Univ. of Washington

Dyhr, Jonathan P. — Univ. of Washington

Daniel, Thomas — Univ. of Washington

Morgansen, Kristi A. — Univ. of Washington

14:30-14:50 WeB04.4

Stability Analysis and Reduction of Gene Transcription Models, pp. 2691-2696.

Belgacem, Ismail — INRIA Biocore

Gouze, Jean-Luc — INRIA

14:50-15:10 WeB04.5

Using First Passage Times to Manage Eco-System Regime Shifts, pp. 2697-2702.

Tamba, Tua — Univ. of Notre Dame

Lemmon, Michael — Univ. of Notre Dame

15:10-15:30 WeB04.6

Identifying Stochastic Biochemical Networks from Single-Cell Population Experiments: A Comparison of Approaches Based on the Fisher Information, pp. 2703-2708.

Ruess, Jakob — ETH Zurich

Lygeros, John — ETH Zurich

WeB05 PA 1.3

Linear Systems III (Regular Session)

Chair: Kucera, Vladimir — Czech Tech. Univ. in Prague

Co-Chair: Apkarian, Pierre — ONERA & Mathematics Inst. Univ. Paul Sabatier

13:30-13:50 WeB05.1

Ensemble Controllability of Time-Invariant Linear Systems, pp. 2709-2714.

Qi, Ji — Washington Univ. in St. Louis

Li, Jr-Shin — Washington Univ. in St. Louis

13:50-14:10 WeB05.2

Improving the Exponential Decay Rate by Back and Forth Iterations of the Feedback in Time, pp. 2715-2719.

Natarajan, Vivek — Tel Aviv Univ.

Weiss, George — Tel Aviv Univ.

14:10-14:30 WeB05.3

A Novel Description of Linear Time--Invariant Networks Via Structured Coprime Factorizations, pp. 2720-2725.

Sabau, Serban — UPENN

Oara, Cristian — Univ. Pol. Bucharest

Warnick, Sean — Brigham Young Univ.

Jadbabaie, Ali — Univ. of Pennsylvania

14:30-14:50 WeB05.4

Affine LPV Modeling: An Hinfinity Based Approach, pp. 2726-2733.

Taamallah, Skander — National Aerospace Lab. (NLR)

Bombois, Xavier — Delft Univ. of Tech.

Van den Hof, Paul M.J. — Eindhoven Univ. of Tech.

14:50-15:10 WeB05.5

On the Properties of Linear Multirate Systems with Coprime Output Rates, pp. 2734-2739.

Zamani, Mohsen — Australian National Univ.
Bottegal, Giulio — KTH Royal Inst. of Tech.
Anderson, Brian D.O. — Australian National Univ.

15:10-15:30 WeB05.6

Automated Tuning of Gain-Scheduled Control Systems, pp. 2740-2745.

Gahinet, Pascal M. — The MathWorks, Inc.
Apkarian, Pierre — ONERA & Mathematics Inst. Univ. Paul Sabatier

WeB06 PA 1.4

Agents and Autonomous Systems IV (Regular Session)

Chair: Dimarogonas, Dimos V. — Royal Inst. of Tech.
Co-Chair: Yu, Changbin (Brad) — The Australian National Univ.

13:30-13:50 WeB06.1

Translational Velocity Consensus Using Distance-Only Measurements, pp. 2746-2751.

Jiang, Bomin — Australian National Univ.
Deghat, Mohammad — Australian National Univ.
Anderson, Brian D.O. — Australian National Univ.

13:50-14:10 WeB06.2

Group Consensus of Multiple Integrator Agents under General Topology, pp. 2752-2757.

Qin, Jiahu — Australian National Univ.
Yu, Changbin (Brad) — Australian National Univ.

14:10-14:30 WeB06.3

Reconfiguration in Motion Planning of Single and Multi-Agent Systems under Infeasible Local LTL Specifications, pp. 2758-2763.

Guo, Meng — Royal Inst. of Tech. (KTH)
Dimarogonas, Dimos V. — Royal Inst. of Tech. (KTH)

14:30-14:50 WeB06.4

Finite-Time Observers for Tracking Control of Multi-Agent Systems, pp. 2764-2768.

Zhang, Bin — Beihang Univ.
Jia, Yingmin — Beihang Univ.
Matsuno, Fumitoshi — Kyoto Univ.

14:50-15:10 WeB06.5

Optimal Leader-Follower Control for Crowd Evacuation, pp. 2769-2774.

Yang, Yuecheng — Royal Inst. of Tech.
Dimarogonas, Dimos V. — Royal Inst. of Tech.
Hu, Xiaoming — Royal Inst. of Tech.

15:10-15:30 WeB06.6

Shortest Path Set Induced Vertex Ordering and Its Application to Distributed Distance Optimal Formation Planning and Control on Graphs, pp. 2775-2780.

Yu, Jingjin — Massachusetts Inst. of Tech.
LaValle, Steven — Univ. of Illinois

WeB07 PA 2.1

Distributed Control III (Regular Session)

Chair: Pallottino, Lucia — Univ. of Pisa
Co-Chair: Werner, Herbert — Hamburg Univ. of Tech.

13:30-13:50 WeB07.1

Noise-To-State Exponentially Stable Distributed Convex Optimization on Weight-Balanced Digraphs, pp. 2781-2786.

Mateos, David — Univ. of California, San Diego
Cortes, Jorge — Univ. of California, San Diego

13:50-14:10 WeB07.2

Robust Control of Decomposable LPV Systems under Time-Invariant and Time-Varying Interconnection Topologies (Part 1), pp. 2787-2792.

Eichler, Annika — Hamburg Univ. of Tech.
Hoffmann, Christian — Hamburg Univ. of Tech.
Werner, Herbert — Hamburg Univ. of Tech.

14:10-14:30 WeB07.3

Robust Control of Decomposable LPV Systems under Time-Invariant and Time-Varying Interconnection Topologies (Part 2), pp. 2793-2798.

Eichler, Annika — Hamburg Univ. of Tech.
Hoffmann, Christian — Hamburg Univ. of Tech.
Werner, Herbert — Hamburg Univ. of Tech.

14:30-14:50 WeB07.4

Robust Stability Analysis of Interconnected Systems with Uncertain Time-Varying Time Delays Via IQCs, pp. 2799-2804.

Eichler, Annika — Hamburg Univ. of Tech.
Hoffmann, Christian — Hamburg Univ. of Tech.
Werner, Herbert — Hamburg Univ. of Tech.

14:50-15:10 WeB07.5

A Time Expanded Network Based Algorithm for Safe and Efficient Distributed Multi-Agent Coordination, pp. 2805-2810.

Ferrati, Mirko — Univ. of Pisa
Pallottino, Lucia — Univ. of Pisa

15:10-15:30 WeB07.6

A Round-Robin Protocol for Distributed Estimation with H infinity Consensus, pp. 2811-2815.

Ugrinovskii, Valery — Univ. of New South Wales
Fridman, Emilia — Tel-Aviv Univ.

WeB08 PA 2.2

Automotive Control III (Regular Session)

Chair: Lagoa, Constantino M. — Pennsylvania State Univ.
Co-Chair: Stobart, Richard — Loughborough Univ.

13:30-13:50 WeB08.1

Lateral Vehicle Dynamics Control Based on Tyre Utilization Coefficients and Tyre Force Measurements, pp. 2816-2821.

Kunnappillil Madhusudhanan, Anil — Delft Univ. of Tech.
Corno, Matteo — Pol. di Milano
Holweg, Edward — SKF

13:50-14:10 WeB08.2

Robust Map Design by Outlier Point Selection for Terrain-Based Vehicle Localization, pp. 2822-2827.

Laftchiev, Emil — Pennsylvania State Univ.
Lagoa, Constantino M. — Pennsylvania State Univ.
Brennan, Sean — Pennsylvania State Univ.

14:10-14:30	WeB08.3
Hydraulic Clutch Modeling for Automotive Control (I), pp. 2828-2833.	
Thornton, Sarah	Massachusetts Inst. of Tech.
Pietron, Gregory	Ford Motor Company
Yanakiev, Diana	Ford Motor Company
McCallum, James	Ford Motor Company
Annaswamy, Anuradha	Massachusetts Inst. of Tech.
14:30-14:50	WeB08.4
Multivariable Decoupled Longitudinal and Lateral Vehicle Control: A Model-Free Design, pp. 2834-2839.	
Menhour, Lghani	Centre de Robotique (CAOR)
d'Andrea-Novel, Brigitte	Mines ParisTech
Fliess, Michel	Ec. Pol.
Mounier, Hugues	Univ. Paris Sud
14:50-15:10	WeB08.5
Detection of Roof Load for Automotive Safety Systems, pp. 2840-2845.	
Sadeghi Reineh, Maryam	Linköping Univ.
Enqvist, Martin	Linköping Univ.
Gustafsson, Fredrik	Linkoping Univ.
15:10-15:30	WeB08.6
Sliding Mode Fault Tolerant Control of Uncertain Systems with Time Varying Delay: Application to AFR Control, pp. 2846-2851.	
Han, Xiaoran	Loughborough Univ.
Stobart, Richard	Loughborough Univ.

WeB09	PA 2.3
Sliding Control I (Regular Session)	
Chair: Edwards, Christopher	Univ. of Exeter
Co-Chair: Moreno, Jaime A.	Univ. Nacional Autónoma de México
13:30-13:50	WeB09.1
A Sliding Mode Fault Detection Scheme for Corrupted Measurement Data Exchange in a Network of Dynamical Systems, pp. 2852-2857.	
Menon, Prathyush P	Univ. of Exeter
Edwards, Christopher	Univ. of Exeter
13:50-14:10	WeB09.2
Fast Second-Order Sliding Mode Control Design Based on Lyapunov Function, pp. 2858-2863.	
Cruz-Zavala, Emmanuel	Univ. Nacional Autónoma de México
Moreno, Jaime A.	Univ. Nacional Autónoma de México
Fridman, Leonid M.	National Autonomous Univ. of Mexico
14:10-14:30	WeB09.3
Robust Control for Propofol Induced Anesthesia Based on High-Order Sliding-Mode Control, pp. 2864-2869.	
Gallardo-Hernández, Ana Gabriela	Univ. Nacional Autónoma de México
Fridman, Leonid M.	Univ. Nacional Autónoma de México
Eslava Escobar, Aldo	Univ. Nacional Autónoma de México
Davila, Jorge	National Pol. Inst.
Leder, Ronald	Univ. Nacional Autónoma de México
Revilla-Monsalve, Cristina	Centro Médico Nacional Siglo XXI
Islas-Andrade, Sergio	Centro Medico Nacional Siglo XXI
Hernandez Perez, Ana Luisa	Hospital de Cardiología CMNSXXI
14:30-14:50	WeB09.4
Comparison between Explicit and Implicit Discrete-Time Implementations of Sliding-Mode Controllers, pp. 2870-2875.	
Huber, Olivier	INRIA
Acary, Vincent	INRIA Rhone-Alpes
Brogliato, Bernard	INRIA
14:50-15:10	WeB09.5
Second Order Sliding Mode Control of an Overhead-Crane in the Presence of External Perturbations, pp. 2876-2880.	
Vázquez, Carlos	Umeå Univ.
Fridman, Leonid M.	National Autonomous Univ. of Mexico
Collado, Joaquin	CINVESTAV
15:10-15:30	WeB09.6
New Reaching Law for Quasi-Sliding Mode Control of Discrete Time Systems, pp. 2881-2887.	
Bartoszewicz, Andrzej	Tech. Univ. of Lodz
Leśniewski, Piotr	Tech. Univ. of Lodz

WeB10	PA 2.4
Robotics IV (Regular Session)	
Chair: Maggiore, Manfredi	Univ. of Toronto
Co-Chair: Nielsen, Christopher	Univ. of Waterloo
13:30-13:50	WeB10.1
Synthesis of Virtual Holonomic Constraints for 3-DOF Mechanical Systems, pp. 2888-2893.	
Consolini, Luca	Univ. of Parma
Maggiore, Manfredi	Univ. of Toronto
13:50-14:10	WeB10.2
Coordinated Path Following for a Multi-Agent System of Unicycles, pp. 2894-2899.	
Doosthoseini, Alireza	Univ. of Waterloo
Nielsen, Christopher	Univ. of Waterloo
14:10-14:30	WeB10.3
Extended Rauch-Tung-Striebel Controller, pp. 2900-2905.	
Zima, Miroslav	Univ. of West Bohemia, Plzen
Leopoldo, Armesto	Univ. Pol. de Valencia
Girbés, Vicent	Univ. Pol. de Valencia
Sala, Antonio	Univ. Pol. de Valencia
Smidl, Vaclav	UTIA, AV CR
14:30-14:50	WeB10.4
Inverse Optimal Control for Deterministic Continuous-Time Nonlinear Systems, pp. 2906-2913.	
Johnson, Miles	Univ. of Illinois, Urbana-Champaign
Aghasadeghi, Navid	Univ. of Illinois, Urbana Champaign
Bretl, Timothy	Univ. of Illinois, Urbana-Champaign
14:50-15:10	WeB10.5
Simultaneous Low-Order Control of a Nonlinear Quadrotor Model at Four Equilibria, pp. 2914-2919.	
Nanjangud, Akshay	Univ. of Texas, Dallas

15:10-15:30	WeB10.6
Sufficient Conditions for the Lipschitz Continuity of QP-Based Multi-Objective Control of Humanoid Robots, pp. 2920-2926.	
Morris, Benjamin	Texas A&M Univ.
Powell, Matthew	Texas A&M Univ.
Ames, Aaron	Texas A&M Univ.

WeB11	PA 2.5
Electrical Power Systems II (Regular Session)	
Chair: Andersson, Goran	Swiss Federal Inst. of Tech.
Co-Chair: Khargonekar, Pramod P.	Univ. of Florida
13:30-13:50	WeB11.1
Controller Design of a Grid-Tie Inverter Bypassing DQ Transformation, pp. 2927-2932.	
Ohta, Yoshito	Kyoto Univ.
Ohori, Akihiro	DAIHEN Corp.
Hattori, Nobuyuki	DAIHEN Corp.
Hirata, Kenji	Nagaoka Univ. of Tech.
13:50-14:10	WeB11.2
Stability and Convergence of Distributed Algorithms for the OPF Problem, pp. 2933-2938.	
Devane, Eoin	Univ. of Cambridge
Lestas, Ioannis	Univ. of Cambridge
14:10-14:30	WeB11.3
Optimal Load Management System for Aircraft Electric Power Distribution, pp. 2939-2945.	
Maasoumy, Mehdi	Univ. of California at Berkeley
Nuzzo, Pierluigi	Univ. of California at Berkeley
Iandola, Forrest	Univ. of California at Berkeley
Kamgarpour, Maryam	Swiss Federal Inst. of Tech.
Sangiovanni-Vincentelli, Alberto	Univ. of California at Berkeley
Tomlin, Claire J.	Univ. of California at Berkeley
14:30-14:50	WeB11.4
Predictive Control for Real-Time Frequency Regulation and Rotational Inertia Provision in Power Systems, pp. 2946-2953.	
Ulbig, Andreas	ETH Zurich
Rinke, Tobias	
Chatzivasileiadis, Spyros	ETH Zurich
Andersson, Goran	Swiss Federal Inst. of Tech.
14:50-15:10	WeB11.5
Optimal Load Following in Power Grids in the Presence of Battery-Powered Agents, pp. 2954-2959.	
Dalkilic, Ozgur	The Ohio State Univ.
Eryilmaz, Atilla	The Ohio State Univ.
15:10-15:30	WeB11.6
Optimal Branch Exchange for Feeder Reconfiguration in Distribution Networks, pp. 2960-2965.	
Peng, Qiuyu	California Inst. of Tech.
Low, Steven	California Inst. of Tech.

WeB12	VV G.1
Optimization Algorithms II (Regular Session)	
Chair: Tanaka, Takashi	Massachusetts Inst. of Tech.
Co-Chair: Notarstefano, Giuseppe	Univ. del Salento
13:30-13:50	WeB12.1
Gradient Based Projection Method for Constrained Optimization, pp. 2966-2971.	
Mills, Greg	Univ. of California, San Diego
Krstic, Miroslav	Univ. of California, San Diego
13:50-14:10	WeB12.2
A Complex Singular Value Decomposition Algorithm Based on the Riemannian Newton Method, pp. 2972-2978.	
Sato, Hiroyuki	Kyoto Univ.
Iwai, Toshihiro	Kyoto Univ.
14:10-14:30	WeB12.3
Distributed Partition-Based Optimization Via Dual Decomposition, pp. 2979-2984.	
Carli, Ruggero	Univ. of Padova
Notarstefano, Giuseppe	Univ. del Salento
14:30-14:50	WeB12.4
A Faithful Distributed Implementation of Dual Decomposition and Average Consensus Algorithms, pp. 2985-2990.	
Tanaka, Takashi	Massachusetts Inst. of Tech.
Farokhi, Farhad	KTH - Royal Inst. of Tech.
Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
14:50-15:10	WeB12.5
Achievable Performances in Basic Perturbation-Based Extremum Seeking Control for Wiener-Hammerstein Situations, pp. 2991-2998.	
Deschenes, Jean-Sebastien	Univ. du Quebec a Rimouski
St-Onge, Pierre Normand	Univ. du Quebec a Rimouski
15:10-15:30	WeB12.6
Large Gain Stability and Adaptive Expansion Estimation in Extremum Seeking, pp. 2999-3005.	
Gabriel Bousquet, Gabriel	Massachusetts Inst. of Tech.
Slotine, Jean-Jacques	Massachusetts Inst. of Tech.

WeB13	VV G.2
Distributed Parameter Systems I (Regular Session)	
Chair: Morris, Kirsten	Univ. of Waterloo
Co-Chair: Girard, Antoine	Univ. Joseph Fourier
13:30-13:50	WeB13.1
Design of Multi-Objective Failure-Tolerant Control Systems for Infinite-Dimensional Systems, pp. 3006-3013.	
Mesbah, Ali	Massachusetts Inst. of Tech.
Kishida, Masako	Univ. of Canterbury
Braatz, Richard D.	Massachusetts Inst. of Tech.
13:50-14:10	WeB13.2
Strong Stabilization of Piezoelectric Beams with Magnetic Effects (I), pp. 3014-3019.	
Morris, Kirsten	Univ. of Waterloo
Ozer, A. Ozkan	Univ. of Waterloo

14:10-14:30	WeB13.3
Backstepping Control of an Aeroelastic System with Large Mach Numbers, pp. 3020-3025.	
Sezgin, Aziz	Istanbul Univ.
Krstic, Miroslav	Univ. of California, San Diego
14:30-14:50	WeB13.4
A New H2-Norm Lyapunov Function for the Stability of a Singularly Perturbed System of Two Conservation Laws, pp. 3026-3031.	
Tang, Ying	Grenoble Univ.
Prieur, Christophe	CNRS
Girard, Antoine	Univ. Joseph Fourier
14:50-15:10	WeB13.5
Oil Drilling Inspired Compensation of Wave Actuator Dynamics for Nonlinear Systems, pp. 3032-3037.	
Bekiaris-Liberis, Nikolaos	Univ. of California, San Diego
Krstic, Miroslav	Univ. of California, San Diego
15:10-15:30	WeB13.6
Optimal Control for Non-Exponentially Stabilizable Spatially Invariant Systems with an Application to Vehicle Platooning, pp. 3038-3042.	
Zwart, Hans	Univ. of Twente
Firooznia, Amir	Eindhoven Univ. of Tech.
Ploeg, Jeroen	TNO
Van De Wouw, Nathan	Eindhoven Univ. of Tech.

WeB14	VV G.3
Robust Control I (Regular Session)	
Chair: Szabo, Zoltan	MTA SZTAKI
Co-Chair: Scherer, Carsten W.	Univ. of Stuttgart
13:30-13:50	WeB14.1
Robust Control of Microgrid Frequency with Attached Storage System, pp. 3043-3048.	
Han, Yi	Colorado State Univ.
Jain, Abhishek	Colorado State Univ.
Young, Peter M.	Colorado State Univ.
Zimmerle, Daniel	Colorado State Univ.
13:50-14:10	WeB14.2
Elimination Lemma and Contractive Extensions, pp. 3049-3054.	
Szabo, Zoltan	MTA SZTAKI
Biró, Zsolt	Computer and Automation Res. Inst. Hungarian Academy of
Gaspar, Peter	MTA SZTAKI
Bokor, Jozsef	MTA SZTAKI Hungarian Acad. of Sciences
14:10-14:30	WeB14.3
Robustness Analysis of Nonlinear Systems with Feedback Linearizing Control, pp. 3055-3060.	
Al-Gburi, Abeer	Univ. of Southampton
French, Mark	Univ. of Southampton
Freeman, Christopher T.	Univ. of Southampton
14:30-14:50	WeB14.4
Robust Bounded Control for the Flexible Arm Robot, pp. 3061-3066.	
Alazki, Hussain	Autonomous Univ. Carmen (UNACAR)
Ordaz, Patricio	CINVESTAV
Poznyak, Alexander S.	CINVESTAV-IPN
14:50-15:10	WeB14.5
Robust Globally Exponentially Stable Control for Mechanical Systems in Free/Constrained-Motion Tasks, pp. 3067-3072.	
Romero, Jose Guadalupe	Lab. des Signaux et Systèmes, CNRS–SUPELEC
Navarro-Alarcon, David	Chinese Univ. of Hong Kong
Panteley, Elena V.	Lab. des Signaux et Systemes, CNRS - SUPELEC
15:10-15:30	WeB14.6
Higher Order Sliding Mode Controller for Driving Steering Vehicle Wheels: Tracking Trajectory Problem, pp. 3073-3078.	
Manceur, Malik	Reims Chanpagne-Ardenne Univ.
Menhour, Lghani	Centre de Robotique (CAOR)

WeB15	VV 2.1
Stochastic Optimal Control II (Regular Session)	
Chair: Li, Jr-Shin	Washington Univ. in St. Louis
Co-Chair: Monteriù, Andrea	Univ. Pol. delle Marche
13:30-13:50	WeB15.1
On Optimal Jamming Over an Additive Noise Channel, pp. 3079-3084.	
Akyol, Emrah	UC Santa Barbara
Rose, K.	Univ. of California
Basar, Tamer	Univ. of Illinois, Urbana-Champaign
13:50-14:10	WeB15.2
Optimal Reduced-Order Quadratic Solution for the Non-Gaussian Finite-Horizon Regulator Problem, pp. 3085-3090.	
Cacace, Filippo	Univ. Campus Biomedico di Roma
Fasano, Antonio	Univ. Campus Bio-Medico di Roma
Germani, Alfredo	Univ. dell'Aquila
Monteriù, Andrea	Univ. Pol. delle Marche
14:10-14:30	WeB15.3
Optimal Ensemble Control of Stochastic Linear Systems, pp. 3091-3096.	
Qi, Ji	Washington Univ. in St. Louis
Zlotnik, Anatoly	Washington Univ. in St. Louis
Li, Jr-Shin	Washington Univ. in St. Louis
14:30-14:50	WeB15.4
Sensing and Actuation Strategies for Event Triggered Stochastic Optimal Control, pp. 3097-3102.	
Meng, Xiangyu	Univ. of Alberta
Wang, Bing-Chang	Univ. of Newcastle
Chen, Tongwen	Univ. of Alberta
Darouach, Mohamed	Univ. de Lorraine, CRAN-CNRS
14:50-15:10	WeB15.5
Mean Field LQG Games with Model Uncertainty, pp. 3103-3108.	
Huang, Jianhui	The Hong Kong Pol. Univ.
Huang, Minyi	Carleton Univ.
15:10-15:30	WeB15.6
Towards a Thermodynamics of Control: Entropy, Energy and Kalman Filtering, pp. 3109-3114.	
Delvenne, Jean-Charles	Univ. Catholique de Louvain
Sandberg, Henrik	KTH Royal Inst. of Tech.

WeB16	VV 2.2
Mean Field Games II (Invited Session)	
Chair: Bauso, Dario	Univ. di Palermo
Co-Chair: Tembine, Hamidou	SUPELEC
Organizer: Bauso, Dario	Univ. di Palermo
Organizer: Tembine, Hamidou	SUPELEC
Organizer: Basar, Tamer	Univ. of Illinois, Urbana-Champaign
13:30-13:50	WeB16.1
Semi-Lagrangian Schemes for Mean Field Game Models (I), pp. 3115-3120.	
Carlini, Elisabetta	Univ. di Roma La Sapienza
Silva, Francisco José	XLIM- Univ. de Limoges
13:50-14:10	WeB16.2
A Feedback Particle Filter-Based Approach to Optimal Control with Partial Observations (I), pp. 3121-3127.	
Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign
Meyn, Sean	Univ. of Florida
14:10-14:30	WeB16.3
On a Mean Field Game Optimal Control Approach Modeling Fast Exit Scenarios in Human Crowds (I), pp. 3128-3133.	
Buger, Martin	Univ. of Muenster
Di Francesco, Marco	Univ. of Bath
Markowich, Peter	King Abdullah Univ. of Science and Tech.
Wolfram, Marie-Therese	Univ. of Vienna
14:30-14:50	WeB16.4
Robust Linear Quadratic Mean-Field Games in Crowd-Seeking Social Networks (I), pp. 3134-3139.	
Tembine, Hamidou	SUPELEC
Bauso, Dario	Univ. di Palermo
Basar, Tamer	Univ. of Illinois, Urbana-Champaign
14:50-15:10	WeB16.5
A Linear Quadratic Control Problem with Mean Field Dependent Fixed Costs (I), pp. 3140-3145.	
Pesenti, Raffaele	Univ. di Venezia - Ca' Foscari
Faggian, Silvia	Univ. di Venezia - Ca' Foscari
15:10-15:30	WeB16.6
Decentralized Estimation in a Class of Measurements Induced Mean Field Control Problems (I), pp. 3146-3151.	
Abedinpour Fallah, Mehdi	Ec. Pol. de Montreal
Malhame, Roland P.	Ec. Pol. de Montreal
Martinelli, Francesco	Univ. di Roma Tor Vergata

WeB17	VV 2.3
Modeling II (Regular Session)	
Chair: Blanke, Mogens	Tech. Univ. of Denmark
Co-Chair: Warnick, Sean	Brigham Young Univ.
13:30-13:50	WeB17.1
Modelling and L1 Adaptive Control of Temperature in Biomass Pretreatment, pp. 3152-3159.	
Prunescu, Remus Mihail	Tech. Univ. of Denmark
Blanke, Mogens	Tech. Univ. of Denmark
Sin, Gürkan	Tech. Univ. of Denmark
13:50-14:10	WeB17.2
A Greedy Policy for Fleet-Level Radar Resource Management, pp. 3160-3165.	
Zhao, Jinxin	Univ. of Michigan
Seok, Jinwoo	Univ. of Michigan
Selvakumar, Jhanani	Univ. of Michigan
Bencatel, Ricardo	Univ. of Porto - School of Engineering
Kabamba, Pierre T.	Univ. of Michigan
Girard, Anouck	Univ. of Michigan
14:10-14:30	WeB17.3
Canonical Interconnection of Discrete Linear Port-Hamiltonian Systems, pp. 3166-3171.	
Aoues, Said	Univ. of Lyon
Eberard, Damien	Univ. LYON, INSA
Marquis-Favre, Wilfrid	Univ. LYON, INSA
14:30-14:50	WeB17.4
Automatic Partitioning and Simulation of Weakly Coupled Systems, pp. 3172-3177.	
Papadopoulos, Alessandro Vittorio	Pol. di Milano
Akesson, Johan	Lund Univ.
Casella, Francesco	Pol. di Milano
Leva, Alberto	Pol. di Milano
14:50-15:10	WeB17.5
A Control-Oriented Model for Lead-Acid Batteries Including Degradation, pp. 3178-3183.	
Shi, Ying	Pennsylvania State Univ.
Rahn, Christopher D.	Pennsylvania State Univ.
15:10-15:30	WeB17.6
Robust Signal-Structure Reconstruction, pp. 3184-3189.	
Chetty, Vasu	Brigham Young Univ.
Hayden, David P.	Univ. of Cambridge
Goncalves, Jorge M.	Univ. of Cambridge
Warnick, Sean	Brigham Young Univ.

WeB18	Auditorium
Formal Methods in Control I (Invited Session)	
Chair: Zamani, Majid	Delft Univ. of Tech.
Co-Chair: Mazo Jr., Manuel	Delft Univ. of Tech.
Organizer: Zamani, Majid	Delft Univ. of Tech.
Organizer: Mazo Jr., Manuel	Delft Univ. of Tech.
13:30-13:50	WeB18.1
Abstraction-Based Solution of Optimal Stopping Problems under Uncertainty (I), pp. 3190-3196.	
Reissig, Gunther	Univ. of the Federal Armed Forces Munich
Rungger, Matthias	Univ. of California at Los Angeles
13:50-14:10	WeB18.2
Optimal Control of Non-Deterministic Systems for a Computationally Efficient Fragment of Temporal Logic (I), pp. 3197-3204.	
Wolff, Eric	California Inst. of Tech.
Topcu, Ufuk	Univ. of Pennsylvania
Murray, Richard M.	California Inst. of Tech.
14:10-14:30	WeB18.3
On Symbolic Optimal Control Via Approximate Simulation Relations (I), pp. 3205-3210.	
de Roo, Froukje	INCAS3
Mazo Jr., Manuel	Delft Univ. of Tech.
14:30-14:50	WeB18.4
A Control Lyapunov Function Approach for the Computation of the Infinite-Horizon Stochastic Reach-Avoid Problem (I), pp. 3211-3216.	
Tkachev, Ilya	TU Delft
Abate, Alessandro	Univ. of Oxford
14:50-15:10	WeB18.5
Incremental Sampling-Based Algorithm for Minimum-Violation Motion Planning (I), pp. 3217-3224.	
Reyes Castro, Luis Ignacio	Massachusetts Inst. of Tech.
Chaudhari, Pratik	Massachusetts Inst. of Tech.
Tumova, Jana	Royal Inst. of Tech.
Karaman, Sertac	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.
Rus, Daniela	MIT
15:10-15:30	WeB18.6
Mode Sequences As Symbolic States in Abstractions of Incrementally Stable Switched Systems (I), pp. 3225-3230.	
Le Corronc, Euriell	Univ. de Toulouse, LAAS
Girard, Antoine	Univ. Joseph Fourier
Goessler, Gregor	INRIA

WeC01	PA B.1
Algebraic/Geometric Methods II (Regular Session)	
Chair: Guay, Martin	Queen's Univ.
Co-Chair: Gray, W. Steven	Old Dominion Univ.
16:00-16:20	WeC01.1
Stabilization of Nonlinear Systems Via Potential-Based Realization, pp. 3231-3236.	
Guay, Martin	Queen's Univ.
Hudon, Nicolas	Univ. Catholique de Louvain
16:20-16:40	WeC01.2
Explicit Invariant Approximation of the Mrpi Set for LTI Dynamics with Zonotopic Disturbances, pp. 3237-3242.	
Stoican, Florin	UPB (Pol. Univ. of Bucharest)
Hovd, Morten	Norwegian Univ. of Sci. & Tech.
Olaru, Sorin	SUPELEC & INRIA
16:40-17:00	WeC01.3
Groebner Basis Computation of Feedback Control for Time Optimal State Transfer, pp. 3243-3248.	
Patil, Deepak	Indian Inst. of Tech. Bombay
Mulla, Ameer	Indian Inst. of Tech. Bombay
Chakraborty, Debraj	Indian Inst. of Tech. Bombay
Pillai, Harish	Indian Inst. of Tech. Bombay
17:00-17:20	WeC01.4
Multi-Input Control Affine Systems Linearizable Via One-Fold Prolongation and Their Flatness, pp. 3249-3254.	
Nicolau, Florentina	LMI - INSA Rouen
Respondek, Witold	INSA de Rouen
17:20-17:40	WeC01.5
Intrinsic Filtering on SO(3) with Discrete-Time Observations, pp. 3255-3260.	
Barrau, Axel	Mines ParisTech
Bonnabel, Silvere	Mines ParisTech
17:40-18:00	WeC01.6
Almost Global Finite Time Stabilization of Rigid Body Attitude Dynamics, pp. 3261-3266.	
Sanyal, Amit	New Mexico State Univ.
Bohn, Jan	New Mexico State Univ.
Bloch, Anthony M.	Univ. of Michigan
18:00-18:20	WeC01.7
On the Use of Dirac Structures on Hilbert Spaces in the Synthesis of Boundary Control Laws for Port-Hamiltonian Systems, pp. 3267-3272.	
Macchelli, Alessandro	Univ. of Bologna

WeC02	PA G.1
Communication Networks (Regular Session)	
Chair: Paganini, Fernando	Univ. ORT Uruguay
Co-Chair: Mascolo, Saverio	Pol. di Bari
16:00-16:20	WeC02.1
Information Spreading on Almost Torus Networks, pp. 3273-3280.	
Masucci, Antonia Maria	ENSEA
Silva, Alonso	Alcatel-Lucent Bell Lab. France
16:20-16:40	WeC02.2
Local SIP Overload Control: Controller Design and Optimization by Extremum Seeking, pp. 3281-3286.	
De Cicco, Luca	Pol. di Bari
Cofano, Giuseppe	Pol. di Bari
Mascolo, Saverio	Pol. di Bari
16:40-17:00	WeC02.3
A Reputation-Based Stackelberg Game Approach for Spectrum Sharing with Cognitive Cooperation, pp. 3287-3292.	
Afghah, Fatemeh	Univ. of Maine
Costa, Maice	Univ. of Maryland

Razi, Abolfazl	Univ. of Maine
Abedi, Ali	Univ. of Maine
Ephremides, Anthony	Univ. of Maryland
17:00-17:20	WeC02.4
Dynamics of Heterogeneous Peer-To-Peer Networks, pp. 3293-3298.	
Paganini, Fernando	Univ. ORT Uruguay
Ferragut, Andres	Univ. ORT Uruguay
Zubeldia, Martin	Univ. ORT Uruguay
17:20-17:40	WeC02.5
TCP Reno and Queue Management: Local Stability and Hopf Bifurcation Analysis, pp. 3299-3305.	
Raman, Shankar	Indian Inst. of Tech. Madras
Mohan, Archith	Indian Inst. of Tech. Madras
Raina, Gaurav	Cambridge Univ.
17:40-18:00	WeC02.6
Robust Output Synchronization of a Network of Heterogeneous Nonlinear Agents Via Nonlinear Regulation Theory, pp. 3306-3311.	
Isidori, Alberto	Univ. di Roma
Marconi, Lorenzo	Univ. di Bologna
Casadei, Giacomo	CASY-DEI
18:00-18:20	WeC02.7
Stability of Longest-Queue-First Scheduling in Linear Wireless Networks with Multihop Traffic and One-Hop Interference, pp. 3312-3317.	
Kang, Xiaohan	Arizona State Univ.
Jaramillo, Juan Jose	Univ. EAFIT
Ying, Lei	Arizona State Univ.

WeC03	PA 1.1
Hybrid Systems II (Regular Session)	
Chair: Tarraf, Danielle C.	The Johns Hopkins Univ.
Co-Chair: Sanfelice, Ricardo G.	Univ. of Arizona
16:00-16:20	WeC03.1
Completeness and Other Properties of Input-Output Based Finite Approximations, pp. 3318-3325.	
Tarraf, Danielle C.	The Johns Hopkins Univ.
16:20-16:40	WeC03.2
Open Problems in Reset Control, pp. 3326-3331.	
Zhao, Guanglei	Shanghai Jiao Tong Univ.
Nesic, Dragan	Univ. of Melbourne
Tan, Ying	Univ. of Melbourne
Wang, Jingcheng	Shanghai Jiao Tong Univ.
16:40-17:00	WeC03.3
Alternative Stability Conditions for Hybrid Systems, pp. 3332-3337.	
Dashkovskiy, Sergey	Univ. of Applied Sciences Erfurt
Promkam, Ratthaprom	Univ. of Bremen
17:00-17:20	WeC03.4
Passivity-Based Observer Design for a Class of Lagrangian Systems with Perfect Unilateral Constraints, pp. 3338-3343.	
Tanwani, Aneel	Gipsa Lab.
Brogliato, Bernard	INRIA
Prieur, Christophe	CNRS
17:20-17:40	WeC03.5
Stability Analysis of an I.I.D. Descriptor Jump Linear System: A Spectral Analysis Approach, pp. 3344-3348.	
Chávez Fuentes, Jorge R.	Pontificia Univ. Católica del Perú
Costa, Eduardo F.	Univ. Sao Paulo, Inst. de Ciencias Matematicas e deComputaçã
Terra, Marco Henrique	Univ. of São Paulo at São Carlos
17:40-18:00	WeC03.6
A Robust Finite-Time Convergent Hybrid Observer for Linear Systems, pp. 3349-3354.	
Li, Yuchun	Univ. of Arizona
Sanfelice, Ricardo G.	Univ. of Arizona

WeC04	PA 1.2
Biological Systems II (Regular Session)	
Chair: Palumbo, Pasquale	IASI-CNR
Co-Chair: Lygeros, John	ETH Zurich
16:00-16:20	WeC04.1
An Islet Population Model of Pancreatic Insulin Production, pp. 3355-3360.	
De Gaetano, Andrea	CNR
Gaz, Claudio Roberto	Sapienza - Univ. di Roma
Gori Giorgi, Claudio	Sapienza - Univ. di Roma
Palumbo, Pasquale	IASI-CNR
16:20-16:40	WeC04.2
Optimal Allocation Strategies of Perennial Plants, pp. 3361-3366.	
Mironchenko, Andrii	Univ. of Würzburg
Kozlowski, Jan	Jagiellonian Univ.
16:40-17:00	WeC04.3
Integral Population Control of a Quadratic Dimerization Process, pp. 3367-3372.	
Briat, Corentin	ETH Zürich
Khammash, Mustafa H.	ETH Zurich
17:00-17:20	WeC04.4
Nonlinear State Estimation for Complex Immune Responses, pp. 3373-3378.	
Bara, Ouassim	Univ. of Tennessee
Day, Judy	Univ. of Tennessee
Djouadi, Seddik, M.	Univ. of Tennessee
17:20-17:40	WeC04.5
A Simple Setpoint Controller for Dynamic Manipulation of Biological Cells Using Optical Tweezers, pp. 3379-3384.	
Cheah, C.C.	Nanyang Tech. Univ.
Li, Xiang	Nanyang Tech. Univ.
Yan, Xiao	City Univ. of Hong Kong
Sun, Dong	City Univ. of Hong Kong
Liaw, Hwee Choo	National Univ. of Singapore
17:40-18:00	WeC04.6
Optimal Control of Neurons Using the Homotopy Perturbation Method, pp. 3385-3390.	
Dasanayake, Isuru Sammana	Washington Univ. in St. Louis
Zlotnik, Anatoly	Washington Univ. in St. Louis
Zhang, Wei	Washington Univ. in St. Louis
Li, Jr-Shin	Washington Univ. in St. Louis

WeC05	PA 1.3
Stability of Linear Systems (Regular Session)	
Chair: Leite, Valter J. S.	CEFET/MG - Campus Div.
Co-Chair: Jayawardhana, Bayu	Univ. of Groningen
16:00-16:20	WeC05.1
Numerically Tractable Stability Tests for 2-D Singular Discrete-Time Systems, pp. 3391-3396.	
Caldeira, André F	PPGEL / CEFET-MG
Coutinho, Daniel	Univ. Federal de Santa Catarina
de Souza, Carlos E.	LNCC
Leite, Valter J. S.	CEFET/MG - Campus Div.
16:20-16:40	WeC05.2
A Characterization of Solutions for General Copositive Quadratic Lyapunov Inequalities, pp. 3397-3402.	
Kim, Kwang-Ki	Georgia Inst. of Tech.
Braatz, Richard D.	Massachusetts Inst. of Tech.
16:40-17:00	WeC05.3
Analysis of Complex Balanced Chemical Reaction Networks with Fixed Boundary Concentrations, pp. 3403-3408.	
Rao, Shodhan	Univ. of Groningen
van der Schaft, Arjan J.	Univ. of Groningen
Jayawardhana, Bayu	Univ. of Groningen
17:00-17:20	WeC05.4
Lp-Stability with Respect to Sets Applied towards Self-Triggered Communication for Single-Integrator Consensus, pp. 3409-3414.	
Tolic, Domagoj	Univ. of Zagreb
17:20-17:40	WeC05.5
Constrained Stabilization with Maximum Stability Radius for Linear Continuous-Time Systems, pp. 3415-3420.	
Shafai, Bahram	Northeastern Univ.
Ghadami, Rasoul	Northeastern Univ.
Oghbaee, Amirreza	NorthEastern Univ.
17:40-18:00	WeC05.6
Stability and Robustness of Discrete Linear Repetitive Processes in the Finite Frequency Domain Using the KYP Lemma, pp. 3421-3426.	
Paszke, Wojciech	Univ. of Zielona Gora
Dabkowski, Pawel Grzegorz	Nicolaus Copernicus Univ.
Rogers, Eric	Univ. of Southampton
Galkowski, Krzysztof	Univ. of Zielona Gora

WeC06	PA 1.4
Agents and Autonomous Systems V (Regular Session)	
Chair: Scherpen, Jacquelien M.A.	Univ. of Groningen
Co-Chair: Matei, Ion	Univ. of Maryland
16:00-16:20	WeC06.1
Game Theoretic Approach to the Stabilization of Heterogeneous Multiagent Systems Using Subsidy, pp. 3427-3432.	
Morimoto, Takuya	Osaka Univ.
Kanazawa, Takafumi	Osaka Univ.
Ushio, Toshimitsu	Osaka Univ.
16:20-16:40	WeC06.2
Efficient Tracking and Pursuit of Moving Targets by Heuristic Solution of the Traveling Salesman Problem, pp. 3433-3438.	
Englot, Brendan	United Tech. Res. Center
Sahai, Tuhin	United Tech. Res. Center
Cohen, Isaac	United Tech. Res. Center
16:40-17:00	WeC06.3
Robust Synchronization of Lur'e Networks with Incremental Nonlinearities, pp. 3439-3444.	
Zhang, Fan	Univ. of Groningen
Trentelman, Harry L.	Univ. of Groningen
Scherpen, Jacquelien M.A.	Univ. of Groningen
17:00-17:20	WeC06.4
Opinion Dynamics with Noisy Information, pp. 3445-3450.	
Huang, Minyi	Carleton Univ.
Manton, Jonathan H.	The Univ. of Melbourne
17:20-17:40	WeC06.5
Bipartite Consensus for Multi-Agent Systems on Directed Signed Networks, pp. 3451-3456.	
Hu, Jiangping	Univ. of Electronic Science and Tech. of China
Zheng, Wei Xing	Univ. of Western Sydney
17:40-18:00	WeC06.6
Algorithms for Sparse Stable Systems, pp. 3457-3462.	
Belabbas, Mohamed Ali	Univ. of Illinois at Urbana-Champaign
18:00-18:20	WeC06.7
Supervised Coverage Control with Guaranteed Collision Avoidance and Proximity Maintenance, pp. 3463-3468.	
Atinc, Gokhan M.	Univ. of Illinois, Urbana-Champaign
Stipanovic, Dusan M.	Univ. of Illinois, Urbana-Champaign
Voulgaris, Petros G.	Univ. of Illinois, Urbana-Champaign
Karkoub, Mansour	Texas A&M Univ.

WeC07	PA 2.1
Emerging Control Applications (Regular Session)	
Chair: Verhaegen, Michel	Delft Univ. of Tech.
Co-Chair: Maggio, Martina	Lund Univ.
16:00-16:20	WeC07.1
Model Reference Adaptive Control of a Full-Bridge Buck Inverter with Minimal Controller Synthesis, pp. 3469-3474.	
Salvi, Alessandro	Univ. of Naples Federico II
Santini, Stefania	Univ. di Napoli Federico II
Biel, Domingo	Univ. Pol. de Catalunya
Olm, Josep M.	Univ. Pol. de Catalunya
di Bernardo, Mario	Univ. di Napoli Federico II

16:20-16:40	WeC07.2
State Feedback Control with Quadratic Output for Wavefront Correction in Adaptive Optics, pp. 3475-3480.	
Marinica, Raluca Mihaela	Delft Univ. of Tech.
Smith, Carlas	Delft Univ. of Tech.
Verhaegen, Michel	Delft Univ. of Tech.
16:40-17:00	WeC07.3
On Differentially Private Filtering for Event Streams, pp. 3481-3486.	
Le Ny, Jerome	Pol. Montreal
17:00-17:20	WeC07.4
A General Control-Theoretical Methodology for Runtime Resource Allocation in Computing Systems, pp. 3487-3492.	
Leva, Alberto	Pol. di Milano
Papadopoulos, Alessandro Vittorio	Pol. di Milano
Maggio, Martina	Lund Univ.
17:20-17:40	WeC07.5
Turning Angle Control of Power Kites for Wind Energy, pp. 3493-3498.	
De Lellis, Marcelo	Federal Univ. of Santa Catarina
Saraiva da Silva, Ramiro	Federal Univ. of Santa Catarina
Trofino, Alexandre	Federal Univ. of Santa Catarina
17:40-18:00	WeC07.6
Preliminary Design of a Model-Based Position Controller for Magnetic Microfibers, pp. 3499-3504.	
Karve, Harshwardhan	Clemson Univ.
Luxi, Cheng	Clemson Univ.
Groff, Richard E.	Clemson Univ.
18:00-18:20	WeC07.7
A Robust MPC Approach to the Design of Treatments, pp. 3505-3510.	
Bekiroglu, Korkut	Pennsylvania State Univ.
Lagoa, Constantino M.	Pennsylvania State Univ.
Murphy, Suzan A.	Univ. of Michigan
Lanza, Stephanie T.	Pennsylvania State Univ.

WeC08	PA 2.2
Ground Vehicles (Regular Session)	
Chair: Sename, Olivier	Grenoble Inst. of Tech.
Co-Chair: Lin, Zongli	Univ. of Virginia
16:00-16:20	WeC08.1
A New LPV/Hinf Semi-Active Suspension Control Strategy with Performance Adaptation to Roll Behavior Based on Non Linear Algebraic Road Profile Estimation, pp. 3511-3516.	
Fergani, Soheib	Grenoble Univ.
Menhour, Lghani	Centre de Robotique (CAOR)
Sename, Olivier	Grenoble Inst. of Tech.
Dugard, Luc	CNRS-Grenoble INP
d'Andrea-Novel, Brigitte	Mines ParisTech
16:20-16:40	WeC08.2
Integrated Control Design Based on Driver-In-The-Loop Vehicle Dynamics, pp. 3517-3522.	
Nemeth, Balazs	MTA SZTAKI
Gaspar, Peter	MTA SZTAKI
Bokor, Jozsef	MTA SZTAKI
16:40-17:00	WeC08.3
Advantages of Rear Steer in LTI and LPV Vehicle Stability Control, pp. 3523-3528.	
Selmanaj, Donald	Pol. Di Milano
Corno, Matteo	Pol. di Milano
Sename, Olivier	Grenoble Inst. of Tech.
Savaresi, Sergio M.	Pol. Di Milano
17:00-17:20	WeC08.4
Flocking of Wheeled Vehicles in the Presence of Large Communication Delay through a Potential Functional Approach, pp. 3529-3534.	
Hu, Haiyun	Univ. of Virginia
Yoon, Se Young (Pablo)	Univ. of Virginia
Lin, Zongli	Univ. of Virginia
17:20-17:40	WeC08.5
Double Exponential Smoothing for Predictive Vision Based Target Tracking of a Wheeled Mobile Robot, pp. 3535-3540.	
Guerin, Francois	Univ. Le Havre
Fabri, Simon G.	Univ. of Malta
Bugeja, Marvin K.	Univ. of Malta
17:40-18:00	WeC08.6
Position Synchronized Path Following for a Mobile Robot and Manipulator, pp. 3541-3546.	
Li, Yuqian	Univ. of Waterloo
Nielsen, Christopher	Univ. of Waterloo
18:00-18:20	WeC08.7
An Identification Method for Individual Driver Steering Behaviour Modelled by Switched Affine Systems, pp. 3547-3553.	
Diehm, Gunter	Karlsruhe Inst. of Tech.
Maier, Stefan	Karlsruhe Inst. of Tech.
Flad, Michael	Karlsruhe Inst. of Tech.
Soeren, Hohmann	Karlsruhe Inst. of Tech.

WeC09	PA 2.3
Sliding Control II (Regular Session)	
Chair: Fridman, Leonid M.	National Autonomous Univ. of Mexico
Co-Chair: Moreno, Jaime A.	National Autonomous Univ. of Mexico
16:00-16:20	WeC09.1
Finite Time Converging Input Observers for Nonlinear Second-Order Systems, pp. 3554-3559.	
Moreno, Jaime A.	National Autonomous Univ. of Mexico (NUAM)
Dochain, Denis	Univ. Catholique de Louvain
16:20-16:40	WeC09.2
A Robust MPC/ISM Hierarchical Multi-Loop Control Scheme for Robot Manipulators, pp. 3560-3565.	
Ferrara, Antonella	Univ. of Pavia
Incremona, Gian Paolo	Univ. of Pavia
Magni, Lalo	Univ. of Pavia
16:40-17:00	WeC09.3
On a Sign Controller for the Triple Integrator, pp. 3566-3571.	
Sanchez, Tonametl	National Auton. Univ. of Mexico
Moreno, Jaime A.	National Auton. Univ. of Mexico

17:00-17:20	WeC09.4
Performance Margins in Conventional and Second Order Sliding Mode Controllers, pp. 3572-3577.	
Rosales Martínez, José Antonio	National Autonomous Univ. of Mexico
Shtessel, Yuri B.	Univ. of Alabama at Huntsville
Fridman, Leonid M.	National Autonomous Univ. of Mexico
17:20-17:40	WeC09.5
Dynamic Surface for Output Feedback Sliding Modes, the Case of Relative Degree Two, pp. 3578-3583.	
Aparicio Martínez, Andrea	National Autonomous Univ. of Mexico
Castaños, Fernando	CINVESTAV
Fridman, Leonid M.	National Autonomous Univ. of Mexico
17:40-18:00	WeC09.6
A New Approach to Applying Discrete Sliding Mode Control to 2D Systems, pp. 3584-3589.	
Argha, Ahmadreza	Univ. of Tech. Sydney
Li, Li	Univ. of Tech. Sydney
Su, Steven W.	Univ. of Tech. Sydney

WeC10	PA 2.4
Autonomous Robots (Regular Session)	
Chair: Paley, Derek A.	Univ. of Maryland
Co-Chair: Guerin, Francois	Univ. Le Havre
16:00-16:20	WeC10.1
Position-Trajectory Control System for Robot on Base of Airship, pp. 3590-3595.	
Pshikhopov, Viacheslav	Southern Federal Univ.
Medvedev, Mikhail	Southern Federal Univ.
Gaiduk, Anatoliy	Southern Federal Univ.
Belyaev, Victor	Southern Federal Univ.
Fedorenko, Roman	Southern Federal Univ.
Krukhmalev, Victor	Southern Federal Univ.
16:20-16:40	WeC10.2
Kinematic Navigation of a Nonholonomic Robot for 3D Environmental Extremum Seeking without Gradient Estimation, pp. 3596-3601.	
Matveev, Alexey S.	St. Petersburg Univ.
Hoy, Michael	Univ. of New South Wales
Savkin, Andrey	Univ. of New South Wales
16:40-17:00	WeC10.3
Motion Planning in Crowds Using Statistical Model Checking to Enhance the Social Force Model, pp. 3602-3608.	
Colombo, Alessio	Univ. di Trento
Legay, Axel	INRIA
Palopoli, Luigi	Univ. di Trento
Sedwards, Sean	INRIA
Fontanelli, Daniele	Univ. di Trento
17:00-17:20	WeC10.4
Dynamic Control of Autonomous Quadrotor Flight in an Estimated Wind Field, pp. 3609-3616.	
Sydney, Nitin	Univ. of Maryland
Smyth, Brendan	Univ. of Maryland
Paley, Derek A.	Univ. of Maryland
17:20-17:40	WeC10.5
Circumnavigation of an Unknown Target Using UAVs with Range and Range Rate Measurements, pp. 3617-3622.	
Cao, Yongcan	Air Force Res. Lab.
Muse, Jonathan	Air Force Res. Lab.
Casbeer, David W.	Air Force Res. Lab.
Kingston, Derek B.	Air Force Res. Lab.
17:40-18:00	WeC10.6
A Successive Approximation-Based Approach for Optimal Kinodynamic Motion Planning with Nonlinear Differential Constraints, pp. 3623-3628.	
Ha, Jung-Su	KAIST
Lee, Ju-Jang	KAIST
Choi, Han-Lim	KAIST

WeC11	PA 2.5
Power Electronics (Regular Session)	
Chair: Alexandridis, Antonis	Univ. of Patras
Co-Chair: Griño, Robert	Univ. Pol. de Catalunya
16:00-16:20	WeC11.1
Power Controller Design and Stability Analysis of a Photovoltaic System with a Dc/dc Boost Converter, pp. 3629-3634.	
Krommydas, Konstantinos	Univ. of Patras
Alexandridis, Antonis	Univ. of Patras
16:20-16:40	WeC11.2
Hybrid Control of the Boost Converter: Robust Global Stabilization, pp. 3635-3640.	
Theunisse, Thomas Adrianus Frederik	Eindhoven Univ. of Tech.
Chai, Jun	Univ. of Arizona
Sanfelice, Ricardo G.	Univ. of Arizona
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
16:40-17:00	WeC11.3
Conditions for Existence of Equilibrium Points of Systems with Constant Power Loads, pp. 3641-3646.	
Sanchez, Santiago	NTNU
Ortega, Romeo	LSS-SUPELEC
Bergna, Gilbert	SUPELEC
Molinas Cabrera, Marta	NTNU
Grino, Robert	Univ. Pol. de Catalunya
17:00-17:20	WeC11.4
On the Generalized-Proportional-Integral Multi-Level Sigma-Delta Sliding Mode Control of a Buck-Based Inverter, pp. 3647-3652.	
Salas Sánchez, Erik Jesús	-
Escobar Valderrama, Gerardo	Univ. Autonoma de Yucatan
Sira-Ramirez, Hebertt	CINVESTAV

17:20-17:40	WeC11.5
Cascade Sliding Mode-PID Controller for a Coupled-Inductor Boost Converter, pp. 3653-3658.	
Carrero, Niliana Andreina	Univ. Pol. de Catalunya
Batlle, Carles	EPSEVG and IOC, Univ. Pol. de Catalunya
Fossas, Enric	Univ. Pol. de Catalunya
17:40-18:00	WeC11.6
Design and Analysis of a Novel Bounded Nonlinear Controller for Three-Phase Ac/dc Converters, pp. 3659-3664.	
Konstantopoulos, George	Univ. of Sheffield
Alexandridis, Antonis	Univ. of Patras

WeC12	VV G.1
Optimization Algorithms III (Regular Session)	
Chair: Goyal, Vineet	Columbia Univ.
Co-Chair: Pallottino, Lucia	Univ. of Pisa
16:00-16:20	WeC12.1
A Subgradient Based Algorithm for Distributed Task Assignment for Heterogeneous Mobile Robots, pp. 3665-3670.	
Settimi, Alessandro	Univ. of Pisa
Pallottino, Lucia	Univ. of Pisa
16:20-16:40	WeC12.2
Asynchronous Distributed Optimization Using a Randomized Alternating Direction Method of Multipliers, pp. 3671-3676.	
Iutzeler, Franck	Telecom ParisTech
Bianchi, Pascal	Telecom ParisTech - CNRS/LTCI
Ciblat, Philippe	Telecom ParisTech
Hachem, Walid	Telecom ParisTech - CNRS/LTCI
16:40-17:00	WeC12.3
A Warm-Started Homogeneous and Self-Dual Interior-Point Method for Linear Economic Model Predictive Control, pp. 3677-3683.	
Sokoler, Leo Emil	Tech. Univ. of Denmark
Skajaa, Anders	Tech. Univ. of Denmark
Frison, Gianluca	Tech. Univ. of Denmark
Halvgaard, Rasmus	Tech. Univ. of Denmark
Jorgensen, John Bagterp	Tech. Univ. of Denmark
17:00-17:20	WeC12.4
Low-Rank Modifications of Riccati Factorizations with Applications to Model Predictive Control, pp. 3684-3690.	
Nielsen, Isak	Linköping Univ.
Ankelhed, Daniel	Linköping Univ.
Axehill, Daniel	Linköping Univ.
17:20-17:40	WeC12.5
Extension of a Saddle Point Mirror Descent Algorithm with Application to Robust PageRank, pp. 3691-3696.	
Tremba, Andrey	Inst. of Control Sciences RAS
Nazin, Alexander V.	Inst. of Control Sciences RAS
17:40-18:00	WeC12.6
Near-Optimal Execution Policies for Demand-Response Contracts in Electricity Markets, pp. 3697-3702.	
Goyal, Vineet	Columbia Univ.
Iyengar, Garud	Columbia Univ.
Qiu, Zhen	Columbia Univ.
18:00-18:20	WeC12.7
Evolutionary Computation for Model Order Reduction with Parametric Generalised SPA, pp. 3703-3707.	
Muscato, Giovanni	Univ. di Catania
Xibilia, M. Gabriella	Univ. di Messina

WeC13	VV G.2
Distributed Parameter Systems II (Regular Session)	
Chair: Chambrion, Thomas	Univ. de Lorraine
Co-Chair: Tsubakino, Daisuke	Hokkaido Univ.
16:00-16:20	WeC13.1
A Sufficient Condition for Partial Ensemble Controllability of Bilinear Schrodinger Equations with Bounded Coupling Terms, pp. 3708-3713.	
Chambrion, Thomas	Univ. de Lorraine
16:20-16:40	WeC13.2
Total Variation of the Control and Energy of Bilinear Quantum Systems, pp. 3714-3719.	
Boussaïd, Nabile	Univ. de Franche-Comté
Caponigro, Marco	Conservatoire National des Arts et Métiers
Chambrion, Thomas	Univ. de Lorraine
16:40-17:00	WeC13.3
Boundary Control of a Cascade of Two Parabolic PDEs with Different Diffusion Coefficients, pp. 3720-3725.	
Tsubakino, Daisuke	Hokkaido Univ.
Krstic, Miroslav	Univ. of California, San Diego
Yamashita, Yuh	Hokkaido Univ.
17:00-17:20	WeC13.4
Resource-Aware Model Predictive Control of Spatially Distributed Processes Using Event-Triggered Communication (I), pp. 3726-3731.	
Yao, Zhiyuan	Univ. of California, Davis
El-Farra, Nael H.	Univ. of California, Davis
17:20-17:40	WeC13.5
Inversion Based Feedforward Control for Higher-Dimensional Parabolic Systems with Spatially Distributed Control Input, pp. 3732-3737.	
Alt, Simon	Univ. of Stuttgart
Malchow, Florian	Robert Bosch GmbH
Sawodny, Oliver	Univ. of Stuttgart
17:40-18:00	WeC13.6
Null Controllability of the 2D Heat Equation Using Flatness, pp. 3738-3743.	
Martin, Philippe	Mines ParisTech
Rosier, Lionel	Univ. Henri Poincare Nancy 1
Rouchon, Pierre	Mines ParisTech

WeC14	VV G.3
Robust Control II (Regular Session)	
Chair: Karimi, Alireza	EPFL
Co-Chair: Young, Peter M.	Colorado State Univ.
16:00-16:20	WeC14.1
Frequency-Domain Robust Control Toolbox, pp. 3744-3749.	
Karimi, Alireza	EPFL

16:20-16:40 WeC14.2

A Robust Continuous Time Fixed Lag Smoother for Nonlinear Uncertain Systems, pp. 3750-3755.

Rehman, Obaid Ur — Univ. of New South Wales, Canberra

Petersen, Ian R. — Univ. of New South Wales at the Australian Defence Force Acad.

16:40-17:00 WeC14.3

Time-Domain Nu-Gap Robustness Analysis for Shift-Invariant Systems, pp. 3756-3761.

Khong, Sei Zhen — Lund Univ.

Cantoni, Michael — Univ. of Melbourne

17:00-17:20 WeC14.4

Real Gyroscopic Uncertainties in Robust Control of Flexible Rotors, pp. 3762-3769.

Riemann, Bernd — Tech. Univ. Darmstadt

Sehr, Martin Arno — Univ. of California, San Diego

Schittenhelm, Rudolf Sebastian — Tech. Univ. Darmstadt

Rinderknecht, Stephan — Tech. Univ. Darmstadt

17:20-17:40 WeC14.5

Stability Analysis with Integral Quadratic Constraints: A Dissipativity Based Proof, pp. 3770-3775.

Veenman, Joost — Univ. of Stuttgart

Scherer, Carsten W. — Univ. of Stuttgart

17:40-18:00 WeC14.6

On the Design of Robust Static Output Feedback Controllers Via Robust Stabilizability Functions, pp. 3776-3781.

Chesi, Graziano — Univ. of Hong Kong

18:00-18:20 WeC14.7

A New Robust 'Integral of Sign of Error' Feedback Controller with Adaptive Compensation Gain, pp. 3782-3787.

Bidikli, Baris — Celal Bayar Univ.

Tatlicioglu, Enver — Izmir Inst. of Tech.

Bayrak, Alper — Izmir Inst. of Tech.

Zergeroglu, Erkan — Gebze Inst. of Tech.

WeC15 — VV 2.1

Constrained Control I (Regular Session)

Chair: Prieur, Christophe — CNRS

Co-Chair: Findeisen, Rolf — OVG Univ. Magdeburg

16:00-16:20 WeC15.1

Necessary and Sufficient Conditions for Invariance of Convex Sets for Discrete-Time Saturated Systems, pp. 3788-3793.

Fiacchini, Mirko — GIPSA-Lab.

Prieur, Christophe — CNRS

Tarbouriech, Sophie — LAAS-CNRS

16:20-16:40 WeC15.2

QLC-Based Design of Reference Tracking Controllers for Systems with Asymmetric Saturating Actuators, pp. 3794-3799.

Kabamba, Pierre T. — Univ. of Michigan

Meerkov, Semyon M. — Univ. of Michigan

Ossareh, Hamid R. — Univ. of Michigan

16:40-17:00 WeC15.3

Constrained Tracking with Guaranteed Error Bounds, pp. 3800-3805.

Di Cairano, Stefano — Mitsubishi Electric Res. Lab.

Borrelli, Francesco — Unversity of California at Berkeley

17:00-17:20 WeC15.4

Analysis and Constrained Control of Nonlinear Interconnected Systems Exploiting Positively Invariant Family of Sets, pp. 3806-3811.

Kern, Benjamin — Otto-von-Guericke Univ. Magdeburg

Findeisen, Rolf — Otto-von-Guericke Univ. Magdeburg

17:20-17:40 WeC15.5

Cooperative Distributed Tracking MPC for Constrained Linear Systems: Theory and Synthesis, pp. 3812-3817.

Conte, Christian — ETH Zurich

Zeilinger, Melanie N. — UC Berkeley

Morari, Manfred — ETH Zurich

Jones, Colin N. — École Pol. Fédérale de Lausanne (EPFL)

17:40-18:00 WeC15.6

Fault-Tolerant Control Allocation: An Unknown Input Observer Based Approach with Constrained Output Fault Directions, pp. 3818-3824.

Cristofaro, Andrea — Univ. of Camerino

Johansen, Tor Arne — Norwegian Univ. of Science & Tech.

18:00-18:20 WeC15.7

Maximum Hands-Off Control and L1 Optimality, pp. 3825-3830.

Nagahara, Masaaki — Kyoto Univ.

Quevedo, Daniel E. — Univ. of Newcastle

Nesic, Dragan — Univ. of Melbourne

WeC16 — VV 2.2

Optimal Control I (Regular Session)

Chair: Valcher, Maria Elena — Univ. di Padova

Co-Chair: Caines, Peter E. — McGill Univ.

16:00-16:20 WeC16.1

The Hybrid Minimum Principle in the Presence of Switching Costs, pp. 3831-3836.

Pakniyat, Ali — McGill Univ.

Caines, Peter E. — McGill Univ.

16:20-16:40 WeC16.2

An Approximate Dynamic Programming Approach for Model-Free Control of Switched Systems, pp. 3837-3844.

Lu, Wenjie — Duke Univ.

Ferrari, Silvia — Duke Univ.

16:40-17:00 WeC16.3

Optimal Tracking Control for Linear Discrete-Time Systems Using Reinforcement Learning, pp. 3845-3850.

Kiumarsi-Khomartash, Bahare — Ferdowsi Univ. of Mashhad

Lewis, Frank L. — Univ. of Texas at Arlington

Mohammad-B. Naghibi-Sistani — Ferdowsi Univ. of Mashhad

Karimpour, Ali — Ferdowsi Univ. of Mashhad

17:00-17:20 WeC16.4

Online Solution to the Linear Quadratic Tracking Problem of Continuous-Time Systems Using Reinforcement Learning, pp. 3851-3856.

Modares, Hamidreza — Univ. of Texas at Arlington

Lewis, Frank L. — Univ. of Texas at Arlington

17:20-17:40	WeC16.5
A Generalized Reduced Gradient Method for the Optimal Control of Multiscale Dynamical Systems, pp. 3857-3863.	
Rudd, Keith	Duke Univ.
Foderaro, Greg	Duke Univ.
Ferrari, Silvia	Duke Univ.
17:40-18:00	WeC16.6
Finite-Horizon Optimal Control of Boolean Control Networks, pp. 3864-3869.	
Fornasini, Ettore	Univ. di Padova
Valcher, Maria Elena	Univ. di Padova
18:00-18:20	WeC16.7
Controllability and Optimal Strokes for N-Link Microswimmer, pp. 3870-3875.	
Giraldi, Laetitia	Ec. Pol.
Martinon, Pierre	INRIA Saclay - CMAP Pol.
Zoppello, Marta	Univ. di Padova

WeC17	VV 2.3
Modeling and Identification (Regular Session)	
Chair: Ames, Aaron	Texas A&M Univ.
Co-Chair: Soderstrom, Torsten	Uppsala Univ.
16:00-16:20	WeC17.1
Switching Scheme, Equivalence, and Analog Validation of the Alternative Fractional Variable-Order Derivative Definition, pp. 3876-3881.	
Sierociuk, Dominik	Warsaw University of Tech.
Malesza, Wiktor	Warsaw University of Tech.
Macias, Michał	Warsaw University of Tech.
16:20-16:40	WeC17.2
Model Validation Methods for Errors-In-Variables Estimation, pp. 3882-3887.	
Soderstrom, Torsten	Uppsala Univ.
Yuz, Juan I.	Univ. Tecnica Federico Santa Maria
16:40-17:00	WeC17.3
Port-Hamiltonian Formulation of Simple Macro-Economic Systems, pp. 3888-3893.	
Macchelli, Alessandro	Univ. of Bologna
17:00-17:20	WeC17.4
Time Delay: An Alternative Definition for Optimal System Identification, pp. 3894-3899.	
Juliani, Rodrigo C. G.	Univ. of Sao Paulo
Alves, Vitor Alex Oliveira	Maua Inst. of Technology
Garcia, Claudio	Univ. of Sao Paulo
17:20-17:40	WeC17.5
Regularized Nuclear Norm Spectrum Estimation in Frequency Domain, pp. 3900-3905.	
Akcay, Huseyin	Anadolu Univ.
Turkay, Semiha	Anadolu Univ.
17:40-18:00	WeC17.6
Matrix-Valued Monge-Kantorovich Optimal Mass Transport, pp. 3906-3911.	
Ning, Lipeng	Univ. of Minnesota
Georgiou, Tryphon T.	Univ. of Minnesota
Tannenbaum, Allen	Univ. of Alabama

WeC18	Auditorium
Formal Methods in Control II (Invited Session)	
Chair: Mazo Jr., Manuel	Delft Univ. of Tech.
Co-Chair: Zamani, Majid	Delft Univ. of Tech.
Organizer: Mazo Jr., Manuel	Delft Univ. of Tech.
Organizer: Zamani, Majid	Delft Univ. of Tech.
16:00-16:20	WeC18.1
Feedback Control Law Generation for Safety Controller Synthesis (I), pp. 3912-3917.	
Winn, Andrew	Rensselaer Pol. Inst.
Julius, Agung	Rensselaer Pol. Inst.
16:20-16:40	WeC18.2
A Trajectory Splicing Approach to Concretizing Counterexamples for Hybrid Systems (I), pp. 3918-3925.	
Zutshi, Aditya	Univ. of Colorado, Boulder
Sankaranarayanan, Sriram	Univ. of Colorado, Boulder
Deshmukh, Jyotirmoy	Toyota Tech. Center
Kapinski, James	Toyota
16:40-17:00	WeC18.3
Bisimilar Finite Abstractions of Stochastic Control Systems (I), pp. 3926-3931.	
Zamani, Majid	Delft Univ. of Tech.
Mohajerin Esfahani, Peyman	ETH Zurich
Majumdar, Rupak	Univ. of California, Los Angeles
Abate, Alessandro	Univ. of Oxford
Lygeros, John	ETH Zurich
17:00-17:20	WeC18.4
A Symbolic Approach to the Design of Robust Cyber-Physical Systems (I), pp. 3932-3937.	
Rungger, Matthias	Univ. of California, Los Angeles
Tabuada, Paulo	Univ. of California, Los Angeles
17:20-17:40	WeC18.5
Optimal Control of MDPs with Temporal Logic Constraints (I), pp. 3938-3943.	
Svorenova, Maria	Masaryk Univ.
Cerna, Ivana	Masaryk Univ.
Belta, Calin	Boston Univ.
17:40-18:00	WeC18.6
Robust Multi-Agent Collision Avoidance through Scheduling (I), pp. 3944-3950.	
Bruni, Leonardo	Pol. di Milano
Colombo, Alessandro	Pol. di Milano
Del Vecchio, Domitilla	Massachusetts Institute of Tech.

ThPL	Auditorium
Controlling Wind Energy for Utility Grid Reliability (Plenary Session)	
Chair: Parisini, Thomas	Imperial Coll. & Univ. of Trieste
Co-Chair: Tempo, Roberto	CNR-IEIIT, Pol. di Torino
08:30-09:30	ThPL.1
*Controlling Wind Energy for Utility Grid Reliability**.	
Pao, Lucy Y.	Univ. of Colorado Boulder

ThA01	PA B.1
Stability of Nonlinear Systems I (Regular Session)	
Chair: Solís-Daun, Julio	Univ. Autonoma Metropolitana-Iztapalapa
Co-Chair: Tabuada, Paulo	Univ. of California at Los Angeles
10:00-10:20	ThA01.1
Accurate Approximation of the Largest Null-Controllable Set for Single-Input Bilinear Systems, pp. 3951-3956.	
Schulze Darup, Moritz	Ruhr-Univ. Bochum
Monnigmann, Martin	Ruhr-Univ. Bochum
10:20-10:40	ThA01.2
On Increasing-Gain Observers for Nonlinear Continuous-Time Systems, pp. 3957-3962.	
Alessandri, Angelo	Univ. of Genoa
Rossi, Anna	Univ. of Genoa
10:40-11:00	ThA01.3
Is Dissipativeness = Dissipativeness? ... When Two Theories Met, pp. 3963-3968.	
Solis-Daun, Julio	Univ. Autonoma Metropolitana-Iztapalapa
11:00-11:20	ThA01.4
Towards a Compositional Analysis of Multi-Machine Power Systems Transient Stability, pp. 3969-3974.	
Caliskan, Sina Yamac	Univ. of California at Los Angeles
Tabuada, Paulo	Univ. of California at Los Angeles
11:20-11:40	ThA01.5
Robust Stability of Singularly Perturbed Systems with Delays, pp. 3975-3980.	
Yang, Yang	Florida Atlantic Univ.
Wang, Yuan	Florida Atlantic Univ.
11:40-12:00	ThA01.6
Swinging up the Stephenson-Kapitza Pendulum, pp. 3981-3987.	
Michalowsky, Simon	Univ. of Stuttgart
Ebenbauer, Christian	Univ. of Stuttgart

ThA02	PA G.1
Networked Control I (Regular Session)	
Chair: Tsiotras, Panagiotis	Georgia Inst. of Tech.
Co-Chair: Chen, Xiang	Univ. of Windsor
10:00-10:20	ThA02.1
LQG Cheap Control Over SNR-Limited Lossy Channels with Delay, pp. 3988-3993.	
Chiuso, Alessandro	Univ. di Padova
Laurenti, Nicola	Univ. di Padova
Schenato, Luca	Univ. di Padova
Zanella, Andrea	Univ. di Padova
10:20-10:40	ThA02.2
A Sequential Pursuer-Target Assignment Problem under External Disturbances, pp. 3994-3999.	
Sun, Wei	Georgia Inst. of Tech.
Tsiotras, Panagiotis	Georgia Inst. of Tech.
10:40-11:00	ThA02.3
Online Sensor Transmission Power Schedule for Remote State Estimation, pp. 4000-4005.	
Li, Yuzhe	Hong Kong Univ. of Sci. and Tech.
Quevedo, Daniel E.	The Univ. of Newcastle
Lau, Vincent K. N.	Hong Kong Univ. of Sci. and Tech.
Shi, Ling	Hong Kong Univ. of Sci. and Tech.
11:00-11:20	ThA02.4
Power-Aware Communication for Wireless Sensor-Actuator Systems, pp. 4006-4011.	
Gatsis, Konstantinos	Univ. of Pennsylvania
Pajic, Miroslav	Univ. of Pennsylvania
Ribeiro, Alejandro	Univ. of Pennsylvania
Pappas, George J.	Univ. of Pennsylvania
11:20-11:40	ThA02.5
H_infinity Almost Synchronization for Homogeneous Networks of Non-Introspective SISO Agents under External Disturbances, pp. 4012-4017.	
Peymani Foroushani, Ehsan	Norwegian Univ. of Sci. and Tech.
Grip, Håvard Fjær	Norwegian Univ. of Sci. and Tech.
Saberi, Ali	Washington State Univ.
Fossen, Thor I.	Norwegain Univ. of Sci. and Tech.
11:40-12:00	ThA02.6
Stabilizability Over Deterministic Relay Networks, pp. 4018-4023.	
Pajic, Miroslav	Univ. of Pennsylvania
Sundaram, Shreyas	Univ. of Waterloo
Pappas, George J.	Univ. of Pennsylvania

ThA03 PA 1.1

Switched Systems II (Regular Session)

Chair: Trenn, Stephan — Univ. of Kaiserslautern
Co-Chair: Liu, Steven — Univ. of Kaiserslautern

10:00-10:20 ThA03.1

Quadratic Filtering of Non-Gaussian Systems with Intermittent Observations, pp. 4024-4029.

Cacace, Filippo — Univ. Campus Biomedico di Roma
Fasano, Antonio — Univ. Campus Biomedico di Roma
Germani, Alfredo — Univ. dell'Aquila

10:20-10:40 ThA03.2

Regularity and Passivity for Jump Rules in Linear Switched Systems, pp. 4030-4035.

Costantini, Giuliano — Tech. Univ. Kaiserslautern
Trenn, Stephan — Tech. Univ. Kaiserslautern
Vasca, Francesco — Univ. of Sannio

10:40-11:00 ThA03.3

Worst-Case Optimal Estimators for Switched ARX Systems, pp. 4036-4041.

Cheng, Yongfang — Northeastern Univ.
Wang, Yin — Northeastern Univ.
Sznaier, Mario — Northeastern Univ.

11:00-11:20 ThA03.4

Output-Based Control and Scheduling Codesign for Control Systems Sharing a Limited Resource, pp. 4042-4047.

Reimann, Sven — Univ. of Kaiserslautern
Al-Areqi, Sanad — Univ. of Kaiserslautern
Liu, Steven — Univ. of Kaiserslautern

11:20-11:40 ThA03.5

Projection-Based Degree of Distinguishability in Switching Linear Systems, pp. 4048-4053.

Baglietto, Marco — Univ. of Genoa
Battistelli, Giorgio — Univ. of Florence
Tesi, Pietro — Univ. of Genoa

11:40-12:00 ThA03.6

On Discerning Controllers for Switching Linear Systems, pp. 4054-4059.

Baglietto, Marco — Univ. of Genoa
Battistelli, Giorgio — Univ. of Florence
Tesi, Pietro — Univ. of Genoa

ThA04 PA 1.2

Genetic Regulatory Systems (Regular Session)

Chair: Aydin Gol, Ebru — Boston Univ.
Co-Chair: Menini, Laura — Univ. di Roma Tor Vergata

10:00-10:20 ThA04.1

Resource Competition As a Source of Non-Minimum Phase Behavior in Transcription-Translation Systems, pp. 4060-4067.

Yeung, Enoch — California Inst. of Tech.
Kim, Jongmin — California Inst. of Tech.
Murray, Richard M. — California Inst. of Tech.

10:20-10:40 ThA04.2

Stochastic Modeling of Dwell-Time Distributions During Transcriptional Pausing and Initiation, pp. 4068-4073.

Xu, Xiaohua — Duke Univ.
Kumar, Niraj — Univ. of Massachusetts Boston
Krishnan, Arjun — Princeton Univ.
Kulkarni, Rahul — Univ. of Massachusetts Boston

10:40-11:00 ThA04.3

Data-Driven Verification of Synthetic Gene Networks, pp. 4074-4079.

Aydin Gol, Ebru — Boston Univ.
Densmore, Douglas — Boston Univ.
Belta, Calin — Boston Univ.

11:00-11:20 ThA04.4

On the Stability of Hybrid Limit Cycles and Isolated Equilibria in a Genetic Network with Binary Hysteresis, pp. 4080-4085.

Shu, Qin — Univ. of Arizona
Sanfelice, Ricardo G. — Univ. of Arizona

11:20-11:40 ThA04.5

On Periodic Reference Tracking Using Batch-Mode Reinforcement Learning with Application to Gene Regulatory Network Control, pp. 4086-4091.

Sootla, Aivar — Imperial Coll. London
Strelkowa, Natalja — Boehringer Ingelheim Pharma GmbH & Co. KG
Barahona, Mauricio — Imperial Coll. London
Ernst, Damien — Univ. of Liège
Stan, Guy-Bart Vincent — Imperial Coll. London

11:40-12:00 ThA04.6

Immersion and Darboux Polynomials of Boolean Networks with Application to the Pseudomonas Syringae Hrp Regulon, pp. 4092-4097.

Menini, Laura — Univ. di Roma Tor Vergata
Tornambe, Antonio — Univ. di Roma Tor Vergata

ThA05 PA 1.3

Data-Driven Modeling and Control of Linear Parameter-Varying Systems (Invited Session)

Chair: Piga, Dario — Eindhoven Univ. of Tech.
Co-Chair: Formentin, Simone — Pol. di Milano
Organizer: Piga, Dario — Eindhoven Univ. of Tech.
Organizer: Tóth, Roland — Eindhoven Univ. of Tech.

10:00-10:20 ThA05.1

Direct Design from Data of LPV Feedback Controllers (I), pp. 4098-4103.

Novara, Carlo — Pol. di Torino

10:20-10:40 ThA05.2

Identification of LPV State Space Systems by a Separable Least Squares Approach (I), pp. 4104-4109.

Lopes dos Santos, P. — Univ. do Porto
Azevedo Perdicoulis, T-P — ISR-Coimbra & UTAD
Ramos, Jose A. — Nova Southeastern Univ.
Martins de Carvalho, J.L. — Univ. do Porto
Rivera, Daniel E. — Arizona State Univ.

10:40-11:00	ThA05.3
Direct Data-Driven Control of Linear Parameter-Varying Systems (I), pp. 4110-4115.	
Formentin, Simone	Pol. di Milano
Piga, Dario	Eindhoven Univ. of Tech.
Tóth, Roland	Eindhoven Univ. of Tech.
Savaresi, Sergio M.	Pol. Di Milano
11:00-11:20	ThA05.4
Gain-Scheduled Synthesis with Dynamic Generalized Strictly Positive Real Multipliers: A Complete Solution (I), pp. 4116-4121.	
Scherer, Carsten W.	Univ. of Stuttgart
11:20-11:40	ThA05.5
Experimental Identification of Spatially-Interconnected Parameter-Invariant and LPV Models for Actuated Beams (I), pp. 4122-4127.	
Liu, Qin	Hamburg Univ. of Tech.
Werner, Herbert	Hamburg Univ. of Tech.
11:40-12:00	ThA05.6
LPV Model Order Selection in an LS-SVM Setting, pp. 4128-4133.	
Piga, Dario	Eindhoven Univ. of Tech.
Tóth, Roland	Eindhoven Univ. of Tech.

ThA06	PA 1.4
Sensor Networks I (Regular Session)	
Chair: Selmic, Rastko R.	Louisiana Tech. Univ.
Co-Chair: Aghdam, Amir G.	Concordia Univ.
10:00-10:20	ThA06.1
Multi-UGV Multi-Destination Navigation in Coordinate-Free and Localization-Free Wireless Sensor and Actuator Networks, pp. 4134-4139.	
Zhang, Guyu	Louisiana Tech. Univ.
Selmic, Rastko R.	Louisiana Tech. Univ.
Duncan, Christian	Louisiana Tech. Univ.
Kanno, Jinko	Louisiana Tech. Univ.
10:20-10:40	ThA06.2
Joint Optimal Relay Selection and Power Allocation for Cooperative Transmission in Wireless Sensor Networks, pp. 4140-4145.	
Habibi, Jalal	Concordia Univ.
Ghrayeb, Ali	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.
10:40-11:00	ThA06.3
An Explicit Solution for the Energy-Efficient Cooperative Transmission Problem in Wireless Sensor Networks, pp. 4146-4151.	
Habibi, Jalal	Concordia Univ.
Ghrayeb, Ali	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.
11:00-11:20	ThA06.4
Distributed and Adaptive Power-Aware Scheduling of Wireless Sensor Networks, pp. 4152-4157.	
Jaleel, Hassan	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
11:20-11:40	ThA06.5
Interpolation for Gas Source Detection Using Parameter Estimation in a Sensor Network, pp. 4158-4163.	
Tokumoto, Shinichiro	Keio Univ.
Namerikawa, Toru	Keio Univ.
11:40-12:00	ThA06.6
Energy-Efficient Data Collection in Heterogeneous Wireless Sensor and Actor Networks, pp. 4164-4169.	
Abbas, Waseem	Georgia Inst. of Tech.
Jaleel, Hassan	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.

ThA07	PA 2.1
Control of Fusion Plasmas in Tokamaks (Invited Session)	
Chair: Schuster, Eugenio	Lehigh Univ.
Co-Chair: Pironti, Alfredo	Univ. di Napoli Federico II
Organizer: Schuster, Eugenio	Lehigh Univ.
Organizer: Pironti, Alfredo	Univ. di Napoli Federico II
10:00-10:20	ThA07.1
First-Principles-Driven Control of the Rotational Transform Profile in High Performance Discharges in the DIII-D Tokamak (I), pp. 4170-4175.	
Shi, Wenyu	Lehigh Univ.
Barton, Justin	Lehigh Univ.
Wehner, William	Lehigh Univ.
Boyer, Mark D.	Lehigh Univ.
Kritz, Arnold	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
10:20-10:40	ThA07.2
An IDA-PBC Approach for the Control of 1D Plasma Profile in Tokamaks (I), pp. 4176-4181.	
Vu, Ngoc Minh Trang	Grenoble Inst. of Tech.
Nouailletas, Rémy	CEA - IRFM
Lefevre, Laurent	Grenoble Inst. of Tech.
Brémond, Sylvain	CEA Cadarache
10:40-11:00	ThA07.3
Physics-Based Control-Oriented Modeling of the Safety Factor Profile Dynamics in High Performance Tokamak Plasmas (I), pp. 4182-4187.	
Barton, Justin	Lehigh Univ.
Shi, Wenyu	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
11:00-11:20	ThA07.4
Burn Control in Fusion Reactors Using Simultaneous Boundary and Distributed Actuation (I), pp. 4188-4193.	
Boyer, Mark D.	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
11:20-11:40	ThA07.5
Robust Control of the Safety Factor Profile and Stored Energy Evolutions in High Performance Burning Plasma Scenarios in the ITER Tokamak (I), pp. 4194-4199.	
Barton, Justin	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
11:40-12:00	ThA07.6
Optimization of the Magnetic Diagnostics for Plasma Shape Identification in Tokamak Machines (I), pp. 4200-4205.	
Pironti, Alfredo	Univ. di Napoli Federico II
Albanese, R.	Univ. Mediterranea di Reggio Calabria
Ambrosino, Giuseppe	Univ. degli Studi di Napoli
Ariola, Marco	Univ. di Napoli Parthenope

ThA08	PA 2.2
Aerospace I (Regular Session)	
Chair: Lamnabhi-Lagarrigue, Francoise	CNRS and EECI
Co-Chair: Marconi, Lorenzo	Univ. di Bologna
10:00-10:20	ThA08.1
Design of IMM Estimation with Differential Game Based Guidance System in Maneuvering Target Interception, pp. 4206-4211.	
Wang, Ting-Kuo	National Taiwan Univ.
Fu, Li-Chen	National Taiwan Univ.
Hsueh, Ming-Hsiung	National Taiwan Univ.
10:20-10:40	ThA08.2
Global Trajectory Tracking for Underactuated VTOL Aerial Vehicles Using a Cascade Control Paradigm, pp. 4212-4217.	
Naldi, Roberto	Univ. di Bologna
Furci, Michele	DEI Univ. of Bologna
Sanfelice, Ricardo G.	Univ. of Arizona
Marconi, Lorenzo	Univ. di Bologna
10:40-11:00	ThA08.3
Differential Games Missile Guidance with Bearings-Only Measurements, pp. 4218-4223.	
Battistini, Simone	Univ. di Roma La Sapienza
Shima, Tal	Tech. - Israel Inst. of Tech.
11:00-11:20	ThA08.4
A Critical Bisimulation Approach to Safety Criticality Analysis of Large–Scale Air Traffic Management Systems, pp. 4224-4229.	
Pezzuti, Davide	Univ. of L'Aquila
Pola, Giordano	Univ. of L'Aquila
De Santis, Elena	Univ. of L'Aquila
Di Benedetto, M. Domenica	Univ. of L'Aquila
11:20-11:40	ThA08.5
Global Asymptotic Stabilization for Some Nonlinear Models of Flexible Aerospace Vehicles, pp. 4230-4235.	
Burlion, Laurent	ONERA
Duraffourg, Elodie	ONERA
Ahmed-Ali, Tarek	GREYC CNRS
Lamnabhi-Lagarrigue, Francoise	CNRS and EECI
11:40-12:00	ThA08.6
Simplifying Quadrotor Controllers by Using Simplified Design Models, pp. 4236-4241.	
Gonzalez-Sanchez, Mario Francisco	Univ. Autónoma de Nuevo León
Amezquita-Brooks, Luis Antonio	Univ. Autónoma de Nuevo León
Licéaga-Castro, Eduardo	Univ. Autónoma de Nuevo León
Zambrano-Robledo, Patricia	Univ. Autónoma de Nuevo León

ThA09	PA 2.3
Advances in High-Order Sliding-Mode Control (Invited Session)	
Chair: Pisano, Alessandro	Univ. of Cagliari
Co-Chair: Punta, Elisabetta	National Res. Council of Italy
Organizer: Pisano, Alessandro	Univ. of Cagliari
Organizer: Punta, Elisabetta	National Res. Council of Italy
Organizer: Tanelli, Mara	Pol. di Milano
10:00-10:20	ThA09.1
MATLAB Toolbox for Singular LQ Based Sliding Mode Control Design (I), pp. 4242-4247.	
Castillo Lopez, Alberto Ismael	National Autonomous Univ. of Mexico
Fridman, Leonid M.	National Autonomous Univ. of Mexico
10:20-10:40	ThA09.2
Output Regulation of Some Classes of SISO Non-Minimum Phase Non-Affine Systems (I), pp. 4248-4253.	
Bartolini, Giorgio	National Res. Council of Italy
Estrada, Antonio	Inria Lille - Nord Europe
Punta, Elisabetta	National Res. Council of Italy
10:40-11:00	ThA09.3
Novel Environment for the Practical Implementation of Higher Order Sliding Mode Controllers (I), pp. 4254-4259.	
Oza, Harshal B.	Univ. of Kent
Spurgeon, Sarah K.	Univ. of Kent
11:00-11:20	ThA09.4
On Fixed and Finite Time Stability in Sliding Mode Control (I), pp. 4260-4265.	
Levant, Arie	Tel - Aviv Univ.
11:20-11:40	ThA09.5
Shear Force Reconstruction in a Vertically Oriented Probe Microscope Using a Super-Twisting Observer (I), pp. 4266-4271.	
Nguyen, Thang	Univ. of Exeter
Khan, Said Ghani	Univ. of Bristol
Edwards, Christopher	Univ. of Exeter
Herrmann, Guido	Univ. of Bristol
Harniman, Robert	Univ. of Bristol
Burgess, Stuart C.	Univ. of Bristol
Antognozzi, Massimo	Univ. of Bristol
Miles, Mervyn J	Univ. of Bristol
11:40-12:00	ThA09.6
Combined Switched/time-Based Adaptation in Second Order Sliding Mode Control, pp. 4272-4277.	
Pisano, Alessandro	Univ. of Cagliari
Tanelli, Mara	Pol. di Milano
Ferrara, Antonella	Univ. of Pavia

ThA10 PA 2.4

Nonlinear Identification I (Regular Session)

Chair: Tyukin, Ivan — Univ. of Leicester
Co-Chair: Weyer, Erik — Univ. of Melbourne

10:00-10:20 ThA10.1

Identifiability and Excitation of Polynomial Systems (I), pp. 4278-4283.

Gevers, Michel — Univ. Catholique de Louvain, and Vrije Univ. Brussel
Bazanella, Alexandre S. — Univ. Federal Do Rio Grande Do Sul
Coutinho, Daniel — Univ. Federal de Santa Catarina
Dasgupta, Soura — Univ. of Iowa

10:20-10:40 ThA10.2

Explicit Reduced-Order Integral Formulations of State and Parameter Estimation Problems for a Class of Nonlinear Systems, pp. 4284-4289.

Tyukin, Ivan — Univ. of Leicester
Gorban, Alexander N. — ETH-Zentrum

10:40-11:00 ThA10.3

A Novel LOO Based Two-Stage Method for Automatic Model Construction of a Class of Nonlinear Dynamic Systems, pp. 4290-4295.

Li, Kang — Queen's Univ. Belfast
Zhang, Long — Queen's Univ. Belfast
Bai, Er-Wei — Univ. of Iowa

11:00-11:20 ThA10.4

Local Variable Selection and Dimension Determination of Nonlinear Non-Parametric Systems, pp. 4296-4301.

Bai, Er-Wei — Univ. of Iowa
Li, Kang — Queen's Univ. Belfast
Zhao, Wenxiao — Acad. of Math. and Systems Science, Chinese Acad. Sc.
Xu, Weiyu — Univ. of Iowa

11:20-11:40 ThA10.5

Subspace Identification of Hammerstein Systems with Nonparametric Input Backlash and Switch Nonlinearities, pp. 4302-4307.

Pouliquen, Mathieu — Univ. de Caen
Giri, Fouad — Normandie Univ.
Gehan, Olivier — ENSICAEN
Pigeon, Eric — Univ. of CAEN
Miloud, Miloud — ENSICAEN
Targui, Boubekeur — ENSICAEN

11:40-12:00 ThA10.6

Study of the Effective Number of Parameters in Nonlinear Identification Benchmarks, pp. 4308-4313.

Marconato, Anna — Vrije Univ. Brussels
Schoukens, Maarten — Vrije Univ. Brussels
Rolain, Yves J. — Vrije Univ. Brussels
Schoukens, Johan — Vrije Univ. Brussels

ThA11 PA 2.5

Pricing As an Information Channel for Implementing Smart Grid Load Control (Invited Session)

Chair: Zhang, Bowen — Boston Univ.
Co-Chair: Bilgin, Enes — Boston Univ.
Organizer: Zhang, Bowen — Boston Univ.
Organizer: Bilgin, Enes — Boston Univ.

10:00-10:20 ThA11.1

Real-Time Power Control of Data Centers for Providing Regulation Service (I), pp. 4314-4321.

Chen, Hao — Boston Univ.
Coskun, Ayse K. — Boston Univ.
Caramanis, Michael C. — Boston Univ.

10:20-10:40 ThA11.2

A Two Level Feedback System Design to Provide Regulation Reserve (I), pp. 4322-4328.

Zhang, Bowen — Boston Univ.
Baillieul, John — Boston Univ.

10:40-11:00 ThA11.3

Equilibrium and Dynamics of Local Voltage Control in Distribution Systems (I), pp. 4329-4334.

Farivar, Masoud — California Inst. of Tech.
Chen, Lijun — Univ. of Colorado at Boulder
Low, Steven — California Inst. of Tech.

11:00-11:20 ThA11.4

Robust Modeling of Probabilistic Uncertainty in Smart Grids: Data Ambiguous Chance Constrained Optimum Power Flow (I), pp. 4335-4340.

Bienstock, Daniel — Columbia Univ.
Chertkov, Michael — Los Alamos National Lab.
Harnett, Sean — Columbia Univ.

11:20-11:40 ThA11.5

Smart Building Real Time Pricing for Offering Load-Side Regulation Service Reserves (I), pp. 4341-4348.

Bilgin, Enes — Boston Univ.
Caramanis, Michael C. — Boston Univ.
Paschalidis, Ioannis — Boston Univ.

11:40-12:00 ThA11.6

Pricing Design for Robustness in Linear Quadratic Games, pp. 4349-4354.

Calderone, Daniel Joseph — Univ. of California, Berkeley
Ratliff, Lillian — Univ. of California, Berkeley
Sastry, Shankar — Univ. of California, Berkeley

ThA12	VV G.1
Fault Detection (Regular Session)	
Chair: Varga, Andreas	German Aerospace Center (DLR)
Co-Chair: Varagnolo, Damiano	KTH Royal Inst. of Tech.
10:00-10:20	ThA12.1
Data Characterization for Automatic Selection of Valve Stiction Detection Algorithms, pp. 4355-4360.	
Zakharov, Alexey	Aalto Univ.
Zattoni, Elena	Univ. of Bologna
Xie, Lei	National Key Lab. of Industrial Control Tech.
Pozo Garcia, Octavio	Aalto Univ.
Jamsa-jounela, Sirkka-liisa	Aalto Univ.
10:20-10:40	ThA12.2
Maximized Mutual Information Based Non-Gaussian Subspace Projection Method for Quality Relevant Process Monitoring and Fault Detection, pp. 4361-4366.	
Mori, Junichi	McMaster Univ.
Yu, Jie	McMaster Univ.
10:40-11:00	ThA12.3
Inversion-Based Synthesis Algorithm of Periodic Fault Detection and Isolation Filters, pp. 4367-4372.	
Varga, Andreas	German Aerospace Center (DLR)
11:00-11:20	ThA12.4
Gossip Average Consensus in a Byzantine Environment Using Stochastic Set-Valued Observers, pp. 4373-4378.	
Silvestre, Daniel	Inst. Superior Técnico
Rosa, Paulo Andre Nobre	Deimos Engenharia
Cunha, Rita	Inst. Superior Técnico
Hespanha, Joao P.	Univ. of California, Santa Barbara
Silvestre, Carlos	Univ. of Macau
11:20-11:40	ThA12.5
Parameter-Invariant Detection of Unknown Inputs in Networked Systems, pp. 4379-4384.	
Weimer, James	Univ. of Pennsylvania
Varagnolo, Damiano	Royal Inst. of Tech.
Stankovic, Milos S.	Univ. of Belgrade
Johansson, Karl H.	Royal Inst. of Tech.
11:40-12:00	ThA12.6
Actuator-Fault Detection and Isolation Based on Interval Observers and Invariant Sets, pp. 4385-4390.	
Xu, Feng	Univ. Pol. de Catalunya
Puig, Vicenc	Univ. Pol. de Catalunya
Ocampo-Martinez, Carlos	Univ. Pol. de Catalunya
Stoican, Florin	UPB (Pol. Univ. of Bucharest)
Olaru, Sorin	Supelec

ThA13	VV G.2
Estimation I (Regular Session)	
Chair: Batista, Pedro	Inst. Superior Técnico, Univ. Técnica de Lisboa
Co-Chair: Pin, Gilberto	Electrolux Professional S.p.A.
10:00-10:20	ThA13.1
A Nonlinear Adaptive Observer with Excitation-Based Switching, pp. 4391-4398.	
Pin, Gilberto	Electrolux Professional S.p.A.
Chen, Boli	Imperial Coll. London
Parisini, Thomas	Imperial Coll. & Univ. of Trieste
10:20-10:40	ThA13.2
Discrete-Time Frequency-Locked-Loop Filters for Parameters Estimation of Sinusoidal Signals, pp. 4399-4404.	
Tedesco, Francesco	Univ. della Calabria
Casavola, Alessandro	Univ. della Calabria
Fedele, Giuseppe	Univ. della Calabria
10:40-11:00	ThA13.3
Nonlinear Adaptive Estimation of the State of Charge for Lithium-Ion Batteries, pp. 4405-4410.	
Wang, Yebin	Mitsubishi Electric Res. Lab.
Fang, Huazhen	Univ. of California, San Diego
Sahinoglu, Zafer	MERL
Wada, Toshihiro	Mitsubishi Electric Corp.
Hara, Satoshi	Mitsubishi Electric Corp.
11:00-11:20	ThA13.4
Reduced-Order H-Infinity Filtering for Commensurate Fractional-Order Systems, pp. 4411-4415.	
Shen, Jun	The Univ. of Hong Kong
Lam, James	The Univ. of Hong Kong
Li, Ping	The Univ. of Hong Kong
11:20-11:40	ThA13.5
Optimal Joint Detection and Estimation in Linear Models, pp. 4416-4421.	
Chen, Jianshu	UCLA
Zhao, Yue	Princeton Univ.
Goldsmith, Andrea	Stanford Univ.
Poor, H. Vincent	Princeton Univ.
11:40-12:00	ThA13.6
Robust Actuator Fault Diagnosis of a Wind Turbine Benchmark Model (I), pp. 4422-4427.	
Simani, Silvio	Univ. of Ferrara
Farsoni, Saverio	Univ. of Ferrara
Castaldi, Paolo	Univ. di Bologna, II

ThA14	VV G.3
Output Feedback and Observers I (Regular Session)	
Chair: Katayama, Hitoshi	Shizuoka Univ.
Co-Chair: Khosravian, Alireza	Australian National Univ.
10:00-10:20	ThA14.1
Observability and Dead-Beat Observers for Boolean Networks Modeled As Polynomial Discrete-Time Systems, pp. 4428-4433.	
Menini, Laura	Univ. di Roma Tor Vergata
Tornambe, Antonio	Univ. di Roma Tor Vergata
10:20-10:40	ThA14.2
Second-Order-Optimal Filters on Lie Groups, pp. 4434-4441.	
Saccon, Alessandro	Eindhoven Univ. of Tech.
Trumpf, Jochen	Australian National Univ.
Mahony, Robert	Australian National Univ.
Aguiar, A. Pedro	Univ. of Porto
10:40-11:00	ThA14.3
Observability Necessary Conditions for the Existence of Observers, pp. 4442-4447.	
Andrieu, Vincent	Univ. de Lyon
Besancon, Gildas	GIPSA-Lab. Grenoble INP
Serres, Ulysse	Univ. Claude Bernard Lyon 1 - CNRS
11:00-11:20	ThA14.4
Output Feedback Guaranteed Tracking Control through Finite Observers, pp. 4448-4453.	
Kurzhanski, Alexander	Ec. at UC Berkeley
Tochilin, Pavel	Moscow State (Lomonosov) Univ.
11:20-11:40	ThA14.5
Bias Estimation for Invariant Systems on Lie Groups with Homogeneous Outputs, pp. 4454-4460.	
Khosravian, Alireza	Australian National Univ.
Trumpf, Jochen	Australian National Univ.
Mahony, Robert	Australian National Univ.
Lageman, Christian	Univ. of Wurzburg
11:40-12:00	ThA14.6
Closed-Loop Glucose Control: Application to the Euglycemic Hyperinsulinemic Clamp, pp. 4461-4466.	
Palumbo, Pasquale	IASI-CNR
Pepe, Pierdomenico	Univ. de L' Aquila
Panunzi, Simona	Consiglio Nazionale delle Ricerche
De Gaetano, Andrea	CNR

ThA15	VV 2.1
Constrained Control II (Regular Session)	
Chair: Johansson, Karl H.	Royal Inst. of Tech.
Co-Chair: Valmórbida, Giórgio	Univ. of Oxford
10:00-10:20	ThA15.1
Periodic Behaviors in Multi-Agent Systems with Input Saturation Constraints, pp. 4467-4472.	
Yang, Tao	Royal Inst. of Tech.
Meng, Ziyang	Royal Inst. of Tech.
Dimarogonas, Dimos V.	Royal Inst. of Tech.
Johansson, Karl H.	Royal Inst. of Tech.
10:20-10:40	ThA15.2
An Adaptive Control Design for 3D Curve Tracking Based on Robust Forward Invariance, pp. 4473-4478.	
Malisoff, Michael	Louisiana State Univ.
Zhang, Fumin	Georgia Inst. of Tech.
10:40-11:00	ThA15.3
Model Recovery Anti-Windup Compensator Design for Magnitude and Rate Saturated LPV Systems, pp. 4479-4484.	
Peni, Tamas	Computer and Automation Res. Intitute of Hungarian Acad. o
Szabo, Zoltan	MTA SZTAKI
Vanek, Balint	MTA SZTAKI
Bokor, Jozsef	MTA SZTAKI Hungarian Acad. of Sciences
11:00-11:20	ThA15.4
Nonlinear Output Regulation for Over-Actuated Linear Systems, pp. 4485-4490.	
Valmórbida, Giórgio	Univ. of Oxford
Galeani, Sergio	Univ. di Roma Tor Vergata
11:20-11:40	ThA15.5
Alternative Strategies for Designing Stabilizing Model Predictive Controllers, pp. 4491-4497.	
Xue, Mengran	Univ. of Michigan
Hiskens, Ian A.	Univ. of Michigan
11:40-12:00	ThA15.6
Randomized Analysis and Synthesis of Robust Linear Static Anti-Windup, pp. 4498-4503.	
Formentin, Simone	Pol. di Milano
Savaresi, Sergio M.	Pol. di Milano
Zaccarian, Luca	LAAS-CNRS
Dabbene, Fabrizio	CNR-IEIIT

ThA16	VV 2.2
Optimal Control II (Regular Session)	
Chair: Sousa, Joao	Univ. Porto - Faculdade Engenharia
Co-Chair: Murphey, Todd	Northwestern Univ.
10:00-10:20	ThA16.1
Shortest Paths for the Dubins' Vehicle in Heterogeneous Environments, pp. 4504-4509.	
Herisse, Bruno	ONERA - The French Aerospace Lab.
Pepy, Romain	Onera - The French Aerospace Lab.
10:20-10:40	ThA16.2
Global Path Planning for Competitive Robotic Cars, pp. 4510-4516.	
Rizano, Tizar	Univ. of Trento
Fontanelli, Daniele	Univ. of Trento
Palopoli, Luigi	Univ. of Trento
Pallottino, Lucia	Univ. of Pisa
Salaris, Paolo	Univ. of Pisa
10:40-11:00	ThA16.3
Trajectory Optimization for Continuous Ergodic Exploration on the Motion Group SE(2), pp. 4517-4522.	
Miller, Lauren	Northwestern Univ.
Murphey, Todd	Northwestern Univ.

11:00-11:20	ThA16.4
Comparison of Numerical Methods in the Contrast Imaging Problem in NMR, pp. 4523-4528.	
Bonnard, Bernard	Inst. de Mathématiques de Bourgogne
Claeys, Mathieu	LAAS-CNRS
Cots, Olivier	INRIA Sophia Antipolis
Martinon, Pierre	INRIA Saclay - CMAP Pol.
11:20-11:40	ThA16.5
Reachability Analysis of Dynamic Programming Based Controlled Systems, pp. 4529-4534.	
Silva, Jorge Estrela	Inst. of Engineering of Porto
Sousa, Joao	Univ. of Porto
Pereira, Fernando Lobo	Univ. of Porto

ThA17	VV 2.3
System Identification I (Regular Session)	
Chair: Garnier, Hugues	Univ. of Lorraine
Co-Chair: Kamel, Abderrahim	National School of Engineers of Gabes
10:00-10:20	ThA17.1
Identification of the Fuel-Thrust Dynamics of a Gas Turbo Engine, pp. 4535-4540.	
Torres, Marco	Univ. Autónoma de Nuevo León
Sosa, Gil	Univ. Autónoma de Nuevo León
Amezquita-Brooks, Luis Antonio	Univ. Autónoma de Nuevo León
Licéaga-Castro, Eduardo	Univ. Autónoma de Nuevo León
Zambrano-Robledo, Patricia	Univ. Autónoma de Nuevo León
10:20-10:40	ThA17.2
Predictor Input Selection for Direct Identification in Dynamic Networks, pp. 4541-4546.	
Dankers, Arne	Delft Univ. of Tech.
Van den Hof, Paul M.J.	Eindhoven Univ. of Tech.
Heuberger, Peter S.C.	Eindhoven Univ. of Tech.
10:40-11:00	ThA17.3
Identification of LPV Partial Differential Equation Models, pp. 4547-4552.	
Schorsch, Julien	Univ. of Lorraine
Gilson, Marion	Univ. of Lorraine
Laurain, Vincent	Univ. de Lorraine
Garnier, Hugues	Univ. of Lorraine
11:00-11:20	ThA17.4
Continuous-Time System Identification of a Ship on a River, pp. 4553-4558.	
Padilla Bernedo, Arturo Andrés	Max-Planck-Inst. fuer Dynamik komplexer Tech. Systeme
Yuz, Juan I.	Univ. Tecnica Federico Santa Maria
11:20-11:40	ThA17.5
Linear Fractional LPV Model Identification from Local Experiments: An H-Infinity-Based Optimization Technique, pp. 4559-4564.	
Vizer, Daniel	Univ. of Poitiers
Mercère, Guillaume	Univ. of Poitiers
Prot, Olivier	Univ. de Limoges
Laroche, Edouard	Strasbourg Univ.
Lovera, Marco	Pol. di Milano
11:40-12:00	ThA17.6
Hierarchical Gradient Based Identification of Discrete-Time Delay Systems, pp. 4565-4570.	
Saida, Bedoui	National School of Engineers of Gabes
Ltaief, Majda	National School of Engineers of Gabes
Kamel, Abderrahim	National School of Engineers of Gabes

ThA18	Auditorium
Coordinated Control: Models and Mechanisms from Collective Animal Behavior (Tutorial Session)	
Chair: Leonard, Naomi Ehrich	Princeton Univ.
Co-Chair: Paley, Derek A.	Univ. of Maryland
Organizer: Leonard, Naomi Ehrich	Princeton Univ.
10:00-10:40	ThA18.1
*Coordinated Tracking and Decision-Making in Animal Groups (I)**.	
Leonard, Naomi Ehrich	Princeton Univ.
10:40-11:20	ThA18.2
*Motion Coordination and Information Transmission in Bio-Groups (I)**.	
Paley, Derek A.	Univ. of Maryland
11:20-12:00	ThA18.3
A Bio-Inspired Robust 3D Plume Tracking Strategy Using Mobile Sensor Networks (I), pp. 4571-4578.	
Wu, Wencen	Georgia Inst. of Tech.
Chang, Dongsik	Georgia Inst. of Tech.
Zhang, Fumin	Georgia Inst. of Tech.

ThB01	PA B.1
Stability of Nonlinear Systems II (Regular Session)	
Chair: Zuyev, Alexander	National Acad. of Sciences of Ukraine
Co-Chair: Rüffer, Björn S.	Univ. of Paderborn
13:30-13:50	ThB01.1
Global Dynamics of Epidemic Spread Over Complex Networks, pp. 4579-4585.	
Ahn, Hyoung Jun	California Inst. of Tech.
Hassibi, Babak	California Inst. of Tech.
13:50-14:10	ThB01.2
Lyapunov Stability for Continuous-Time 2D Nonlinear Systems, pp. 4586-4589.	
Shaker, Hamid Reza	Aalesund Univ. Coll.
14:10-14:30	ThB01.3
Separable Lyapunov Functions for Monotone Systems, pp. 4590-4594.	
Rantzer, Anders	Lund Univ.
Rüffer, Björn S.	Univ. of Paderborn
Dirr, Gunther	Univ. of Wuerzburg
14:30-14:50	ThB01.4
Piecewise Linear in Rates Lyapunov Functions for Complex Reaction Networks, pp. 4595-4600.	
Ali Al-Radhawi, Muhammad	Imperial Coll.
Angeli, David	Imperial Coll.

14:50-15:10	ThB01.5
Stability and Feedback Stabilization for a Class of Mixed Potential Systems, pp. 4601-4606.	
Hudon, Nicolas	Univ. Catholique de Louvain
Guay, Martin	Queen's Univ.
Dochain, Denis	Univ. Catholique de Louvain
15:10-15:30	ThB01.6
Optimal Stabilization of Nonlinear Systems by an Output Feedback Law in a Critical Case, pp. 4607-4612.	
Grushkovskaya, Victoria	National Acad. of Sci. of Ukraine
Zuyev, Alexander	National Acad. of Sci. of Ukraine

ThB02	PA G.1
Networked Control II (Regular Session)	
Chair: Granichin, Oleg N.	Sankt-Petersburg State Univ.
Co-Chair: Quijano, Nicanor	Univ. de los Andes
13:30-13:50	ThB02.1
Local Voting Protocol in Decentralized Load Balancing Problem with Switched Topology, Noise, and Delays, pp. 4613-4618.	
Amelina, Natalia	St. Petersburg State Univ.
Granichin, Oleg N.	St. Petersburg State Univ.
Kornivetc, Aleksandra	St. Petersburg State Univ.
13:50-14:10	ThB02.2
Stabilization of Distributed Networked Control Systems with Constant Feedback Delay, pp. 4619-4624.	
Razeghi-Jahromi, Mohammad	Univ. of Rochester
Seyedi, Alireza	Univ. of Central Florida
14:10-14:30	ThB02.3
Event-Triggered Dynamic Output Feedback Control of LTI Systems Over Sensor-Controller-Actuator Networks, pp. 4625-4630.	
Tallapragada, Pavankumar	Univ. of Maryland
Chopra, Nikhil	Univ. of Maryland
14:30-14:50	ThB02.4
Stability Analysis of Nonlinear Networked Control Systems with Asynchronous Communication: A Small-Gain Approach, pp. 4631-4637.	
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
Borgers, Dominicus Paulus	Eindhoven Univ. of Tech.
Van De Wouw, Nathan	Eindhoven Univ. of Tech.
Nesic, Dragan	Univ. of Melbourne
Teel, Andrew R.	Univ. of California at Santa Barbara
14:50-15:10	ThB02.5
Synchronization of Dynamical Networks with a Communication Infrastructure: A Smart Grid Application, pp. 4638-4643.	
Giraldo, Jairo	Univ. de los Andes
Mojica-Nava, Eduardo	National Univ. of Colombia
Quijano, Nicanor	Univ. de los Andes
15:10-15:30	ThB02.6
A Distributed Control Strategy for Optimal Reactive Power Flow with Power Constraints, pp. 4644-4649.	
Bolognani, Saverio	Massachusetts Inst. of Tech.
Carli, Ruggero	Univ. di Padova
Cavraro, Guido	Univ. di Padova
Zampieri, Sandro	Univ. di Padova

ThB03	PA 1.1
Switched Systems III (Regular Session)	
Chair: Baglietto, Marco	Univ. of Genova
Co-Chair: Perdon, Anna Maria	Univ. Pol. delle Marche
13:30-13:50	ThB03.1
A Constructive Condition for Inaccessible Signal Rejection with Quadratic Stability in Discrete-Time Linear Switching Systems, pp. 4650-4655.	
Zattoni, Elena	Univ. of Bologna
Marro, Giovanni	Univ. of Bologna
13:50-14:10	ThB03.2
Adaptive State Feedback Stabilization of Uncertain Switched Nonlinear Systems Consisting of Feedback Linearizable Non-Switching Dynamics, pp. 4656-4661.	
Chiang, Ming-Li	National Taiwan Univ.
Fu, Li-Chen	National Taiwan Univ.
14:10-14:30	ThB03.3
Switching Rule Design for Inverter-Fed Induction Motors, pp. 4662-4667.	
Scharlau, Cesar C.	Univ. Federal de Santa Catarina
May Dezuo, Tiago Jackson	Univ. Federal de Santa Catarina
Trofino, Alexandre	Federal Univ. of Santa Catarina
Reginatto, Romeu	Univ. Estadual do Oeste do Paraná
14:30-14:50	ThB03.4
Robust Output Feedback Control of Uncertain Switched Euler-Lagrange Systems, pp. 4668-4673.	
Cheng, Teng-Hu	Univ. of Florida
Downey, Ryan	Univ. of Florida
Dixon, Warren E.	Univ. of Florida
14:50-15:10	ThB03.5
New LMI Methods to the Robust Control of Discrete-Time Markov Jump Linear Systems, pp. 4674-4679.	
Todorov, Marcos	LNCC
Fragoso, Marcelo	LNCC / MCT
15:10-15:30	ThB03.6
Computing Period and Shape of Oscillations in Piecewise Linear Lur'e Systems: A Complementarity Approach, pp. 4680-4685.	
Sessa, Valentina	Univ. of Sannio
Iannelli, Luigi	Univ. of Sannio
Acary, Vincent	INRIA Rhone-Alpes
Brogliato, Bernard	INRIA
Vasca, Francesco	Univ. of Sannio

ThB04	PA 1.2
Emerging Control Theory (Regular Session)	
Chair: Wisniewski, Rafal	Aalborg Univ.
Co-Chair: Belta, Calin	Boston Univ.
13:30-13:50	ThB04.1
Controllability Measure for Nonlinear Systems in Complex Region, pp. 4686-4692.	
Kato, Daichi	Tokyo Inst. of Tech.
Sekiguchi, Kazuma	Tokyo City Univ.
Sampei, Mitsuji	Tokyo Inst. of Tech.

13:50-14:10	ThB04.2
Decision Making under Privacy Restrictions, pp. 4693-4698.	
Venkitasubramaniam, Parv	Lehigh Univ.
14:10-14:30	ThB04.3
Shared-Control for Fully Actuated Linear Mechanical Systems, pp. 4699-4704.	
Jiang, Jingjing	Imperial Coll. London
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome
14:30-14:50	ThB04.4
Stochastic Reachability for Control of Spacecraft Relative Motion, pp. 4705-4712.	
Lesser, Kendra	Univ. of New Mexico
Oishi, Meeko	Univ. of New Mexico
Erwin, Richard Scott	Air Force Res. Lab.
14:50-15:10	ThB04.5
Converse Barrier Certificate Theorem, pp. 4713-4718.	
Wisniewski, Rafal	Aalborg Univ.
Sloth, Christoffer	Aalborg Univ.
15:10-15:30	ThB04.6
Distribution Temporal Logic: Combining Correctness with Quality of Estimation, pp. 4719-4724.	
Jones, Austin	Boston Univ.
Schwager, Mac	Boston Univ.
Belta, Calin	Boston Univ.

ThB05	PA 1.3
Sampled Data (Regular Session)	
Chair: Shima, Tal	Tech. - Israel Inst. of Tech.
Co-Chair: Carrasco, Diego S.	Univ. of Newcastle
13:30-13:50	ThB05.1
Analog Loop Shifting in H2 Optimization of Input-Delay Sampled-Data Systems, pp. 4725-4729.	
Mirkin, Leonid	Tech. - Israel Inst. of Tech.
Shima, Tal	Tech. - Israel Inst. of Tech.
Tadmor, Gilead	Northeastern Univ.
13:50-14:10	ThB05.2
L1 Analysis of Sampled-Data Systems Via Fast-Lifting and Piecewise Linear Approximation, pp. 4730-4735.	
Kim, Jung Hoon	Kyoto Univ.
Hagiwara, Tomomichi	Kyoto Univ.
14:10-14:30	ThB05.3
H2 Self-Triggered Dynamic Output Feedback for Networked Control, pp. 4736-4741.	
Souza, Matheus	FEEC - UNICAMP
Geromel, Jose C.	UNICAMP
14:30-14:50	ThB05.4
The Role of Asymptotic Sampling Zero Dynamics in the Sampled-Data Control of Continuous Nonlinear Systems, pp. 4742-4747.	
Carrasco, Diego S.	Univ. of Newcastle
Goodwin, Graham C.	Univ. of Newcastle
14:50-15:10	ThB05.5
A Convex Approach to Stabilization of Sampled-Data Piecewise Affine Slab Systems, pp. 4748-4753.	
Moarref, Miad	Concordia Univ.
Rodrigues, Luis	Concordia Univ.
15:10-15:30	ThB05.6
Self-Triggered Control for Multi-Agent Systems under a Directed Switching Graph, pp. 4754-4759.	
Defoort, Michael	UVHC
Di Gennaro, Stefano	Univ. of L'Aquila
Djemai, Mohamed	Univ. de Valenciennes et du Hainaut-Cambrésis (UVHC)

ThB06	PA 1.4
Sensor Networks II (Regular Session)	
Chair: Egerstedt, Magnus	Georgia Inst. of Tech.
Co-Chair: Oh, Songhwai	Seoul National Univ.
13:30-13:50	ThB06.1
Distributed Tracking with Doppler Sensors, pp. 4760-4765.	
Battistelli, Giorgio	Univ. di Firenze
Chisci, Luigi	Univ. di Firenze
Fantacci, Claudio	Univ. di Firenze
Farina, Alfonso	SELEX - ES
Graziano, Antonio	SELEX Sistemi Integrati
13:50-14:10	ThB06.2
Distributed Gaussian Process Regression for Mobile Sensor Networks under Localization Uncertainty, pp. 4766-4771.	
Choi, Sungjoon	Seoul National Univ.
Jadaliha, Mahdi	Michigan State Univ.
Choi, Jongeun	Michigan State Univ.
Oh, Songhwai	Seoul National Univ.
14:10-14:30	ThB06.3
Sensor Data Forwarding Strategies for State Estimation in Multi-Hop Wireless Networks, pp. 4772-4777.	
Xin, Kefei	Zhejiang Univ.
Cheng, Peng	Zhengjiang Univ.
Chen, Jiming	Zhejiang Univ.
Xie, Lihua	Nanyang Tech. Univ.
14:30-14:50	ThB06.4
Almost Sure Convergence of a Randomized Algorithm for Relative Localization in Sensor Networks (I), pp. 4778-4783.	
Ravazzi, Chiara	Pol. di Torino
Frasca, Paolo	Univ. of Twente
Tempo, Roberto	CNR-IEIIT, Pol. di Torino
Ishii, Hideaki	Tokyo Inst. of Tech.
14:50-15:10	ThB06.5
Unstructured Sequential Testing in Sensor Networks, pp. 4784-4789.	
Fellouris, Georgios	Univ. of Illinois, Urbana-Champaign
Tartakovsky, Alexander	Univ. of Southern California
15:10-15:30	ThB06.6
Opportunistic Sensor Activation in the Face of Data Deluge, pp. 4790-4795.	
Nar, Kamil	Univ. of Illinois, Urbana-Champaign
Bhattacharya, Sourabh	Iowa State Univ.
Basar, Tamer	Univ. of Illinois, Urbana-Champaign

ThB07	PA 2.1
Building Systems (Invited Session)	
Chair: Ahuja, Sunil	United Tech. Res. Center
Co-Chair: Hencey, Brandon	Cornell Univ.
Organizer: Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
Organizer: Ahuja, Sunil	United Tech. Res. Center
13:30-13:50	ThB07.1
Energy-Efficient Control of an Air Handling Unit for a Single-Zone VAV System (I), pp. 4796-4801.	
Goyal, Siddharth	Univ. of Florida
Barooah, Prabir	Univ. of Florida
13:50-14:10	ThB07.2
Online Thermal Estimation, Control, and Self-Excitation of Buildings (I), pp. 4802-4807.	
Radecki, Peter	Cornell Univ.
Hencey, Brandon	Cornell Univ.
14:10-14:30	ThB07.3
Modeling and Control of HVAC Systems with Ice Cold Thermal Energy Storage (I), pp. 4808-4813.	
Beghi, Alessandro	Univ. di Padova
Cecchinato, Luca	Univ. di Padova
Rampazzo, Mirco	Univ. di Padova
Simmini, Francesco	Univ. di Padova
14:30-14:50	ThB07.4
Building Energy Models: Quantifying Uncertainties Due to Stochastic Processes (I), pp. 4814-4820.	
Ahuja, Sunil	United Tech. Res. Center
Peles, Slaven	Univ. of Manitoba
14:50-15:10	ThB07.5
On Optimal Thermal Control of an Idealized Room Including Hard Limits on Zone-Temperature and a Max-Control Cost Term (I), pp. 4821-4826.	
Burns, John A	Virginia Tech.
Cliff, Eugene M.	Virginia Tech.
15:10-15:30	ThB07.6
Building Temperature Control with Adaptive Feedforward (I), pp. 4827-4832.	
Wen, John T.	Rensselaer Pol. Inst.
Mishra, Sandipan	Rensselaer Pol. Inst.
Mukherjee, Sumit	Rensselaer Pol. Inst.
Tantisujjatham, Nicholas	Rensselaer Pol. Inst.
Minakais, Matt	Rensselaer Pol. Inst.

ThB08	PA 2.2
Aerospace II (Regular Session)	
Chair: Serrani, Andrea	The Ohio State Univ.
Co-Chair: De Santis, Elena	Univ. of L'Aquila
13:30-13:50	ThB08.1
Nested Zero-Dynamics Redesign for a Non-Minimum Phase Longitudinal Model of a Hypersonic Vehicle, pp. 4833-4838.	
Serrani, Andrea	The Ohio State Univ.
13:50-14:10	ThB08.2
Nonlinear Control of Aerial Vehicles Subjected to Aerodynamic Forces, pp. 4839-4846.	
Pucci, Daniele	INRIA
Hamel, Tarek	Univ. de Nice Sophia Antipolis
Morin, Pascal	UPMC
Samson, Claude	INRIA Sophia-Antipolis
14:10-14:30	ThB08.3
Real-Time Switched Model Predictive Control of a Twin Rotor System, pp. 4847-4852.	
Tahir, Furqan	Imperial Coll. London
Ahmed, Qadeer	OSU
Bhatti, Aamer Iqbal	Muhammad Ali Jinnah Univ.
14:30-14:50	ThB08.4
An MPC-Based Attitude Control System for All-Electric Spacecraft with On/off Actuators, pp. 4853-4858.	
Leomanni, Mirko	Univ. di Siena
Garulli, Andrea	Univ. di Siena
Giannitrapani, Antonio	Univ. di Siena
Scortecci, Fabrizio	Aerospazio Tecnologie S.r.l.
14:50-15:10	ThB08.5
Parallelisation of Sequential Monte Carlo for Real-Time Control in Air Traffic Management, pp. 4859-4864.	
Eele, Alison	Univ. of Cambridge
Maciejowski, Jan M.	Univ. of Cambridge
Chau, Thomas C. P.	Imperial Coll. London
Luk, Wayne	Imperial Coll. London
15:10-15:30	ThB08.6
Three Dimensional Retro-PN Based Impact Time Control for Higher Speed Nonmaneuvering Targets, pp. 4865-4870.	
Ghosh, Satadal	Indian Inst. of Science
Ghose, Debasish	Indian Inst. of Science
Raha, Soumyendu	Indian Inst. of Science

ThB09	PA 2.3
Large-Scale Systems (Regular Session)	
Chair: Edwards, Christopher	Univ. of Exeter
Co-Chair: Menon, Prathyush P	Univ. of Exeter
13:30-13:50	ThB09.1
Mean-Field Learning for Satisfactory Solutions, pp. 4871-4876.	
Tembine, Hamidou	SUPELEC
Tempone, Raul F.	KAUST
Vilanova, Pedro	KAUST
13:50-14:10	ThB09.2
Fault Detection and Isolation of Inland Navigation Channel: Application to the Cuinchy-Fontinettes Reach, pp. 4877-4882.	
Duviella, Eric	Ec. des Mines de Douai
Lala, Rajaoarisoa	Ec. des Mines de Douai
Blesa, Joaquim	Univ. Pol. de Catalunya
Chuquet, Karine	VNF
14:10-14:30	ThB09.3
Sparse Distributed Observers for a Network of Dynamical Systems, pp. 4883-4888.	
Edwards, Christopher	Univ. of Exeter
Menon, Prathyush P	Univ. of Exeter

14:30-14:50	ThB09.4
Plug-And-Play Distributed State Estimation for Linear Systems, pp. 4889-4894.	
Riverso, Stefano	Univ. degli Studi di Pavia
Farina, Marcello	Pol. di Milano
Scattolini, Riccardo	Pol. di Milano
Ferrari-Trecate, Giancarlo	Univ. degli Studi di Pavia
14:50-15:10	ThB09.5
Minimum Cost Input-Output and Control Configuration Selection: A Structural Systems Approach, pp. 4895-4900.	
Pequito, Sergio	Carnegie Mellon Univ. - Inst. Superior Tecnico
Kar, Soummya	Carnegie Mellon Univ.
Aguiar, A. Pedro	Faculty of Engineering, Univ. of Porto
15:10-15:30	ThB09.6
Controllability of a Class of Networked Passive Linear Systems, pp. 4901-4906.	
Besselink, Bart	KTH Royal Inst. of Tech.
Sandberg, Henrik	KTH Royal Inst. of Tech.
Johansson, Karl H.	KTH Royal Inst. of Tech.
Imura, Jun-ichi	KTH Tokyo Inst. of Tech.

ThB10	PA 2.4
Nonlinear Identification II (Regular Session)	
Chair: Schoukens, Johan	Vrije Univ. Brussels
Co-Chair: Gevers, Michel	Univ. Catholique de Louvain, and Vrije Univ. Brussels
13:30-13:50	ThB10.1
An Identification Algorithm for Parallel Wiener-Hammerstein Systems, pp. 4907-4912.	
Schoukens, Maarten	Vrije Univ. Brussels
Vandersteen, Gerd G.	Vrije Univ. Brussels
Rolain, Yves J.	Vrije Univ. Brussels
13:50-14:10	ThB10.2
How Nonlinear System Identification Can Benefit from Recent Time-Varying Tools: The Time-Varying Best Linear Approximation, pp. 4913-4918.	
Vanbeylen, Laurent	Vrije Univ. Brussels
Louarroudi, Ebrahim	Vrije Univ. Brussels
Pintelon, Rik M.	Vrije Univ. Brussels
14:10-14:30	ThB10.3
Recursive Identification for Hammerstein Systems with Bounded Noise, pp. 4919-4924.	
Pouliquen, Mathieu	Univ. de Caen
Pigeon, Eric	Univ. of Caen
Gehan, Olivier	ENSICAEN
14:30-14:50	ThB10.4
Nonlinearity Tests of the Saint Venant Equations, pp. 4925-4930.	
Foo, Mathias	Asia Pacific Center for Theoretical Physics (APCTP)
Weyer, Erik	Univ. of Melbourne
14:50-15:10	ThB10.5
A Preliminary Study on Optimal Input Design for Nonlinear Systems (I), pp. 4931-4936.	
De Cock, Alexander	Vrije Univ. Brussels
Gevers, Michel	Univ. Catholique de Louvain, and Vrije Univ. Brussels
Schoukens, Johan	Vrije Univ. Brussels
15:10-15:30	ThB10.6
From Coupled to Decoupled Polynomial Representations in Parallel Wiener-Hammerstein Models, pp. 4937-4942.	
Tiels, Koen	Vrije Univ. Brussels
Schoukens, Johan	Vrije Univ. Brussels

ThB11	PA 2.5
Smart Grid: Market and Communication Mechanisms (Invited Session)	
Chair: Stoustrup, Jakob	Aalborg Univ.
Co-Chair: Annaswamy, Anuradha	Massachusetts Inst. of Tech.
Organizer: Stoustrup, Jakob	Aalborg Univ.
Organizer: Annaswamy, Anuradha	Massachusetts Inst. of Tech.
13:30-13:50	ThB11.1
Adjustable Consumption Participating in the Electricity Markets (I), pp. 4943-4948.	
Biegel, Benjamin	Aalborg Univ.
Hansen, Lars Henrik	Dong Energy
Stoustrup, Jakob	Aalborg Univ.
Andersen, Palle	Aalborg Univ.
Harbo, Silas	Danish Energy Association
13:50-14:10	ThB11.2
Risk-Limiting Power Grid Control with an ARMA-Based Prediction Model (I), pp. 4949-4956.	
Ono, Masahiro	Keio Univ.
Topcu, Ufuk	Univ. of Pennsylvania
Yo, Masaki	Keio Univ.
Adachi, Shuichi	Keio Univ.
14:10-14:30	ThB11.3
A Novel Packet Switching Framework with Binary Information in Demand Side Management (I), pp. 4957-4963.	
Zhang, Bowen	Boston Univ.
Baillieul, John	Boston Univ.
14:30-14:50	ThB11.4
Stability Analysis of a Model for the Market Dynamics of a Smart Grid (I), pp. 4964-4970.	
Sorrentino, Francesco	Univ. of New Mexico
Tolic, Domagoj	Univ. of Zagreb
Fierro, Rafael	Univ. of New Mexico
Picozzi, Sergio	Univ. of Maryland
Gordon, Jeffrey R.	Univ. of New Mexico
Mammoli, Andrea	Univ. of New Mexico
14:50-15:10	ThB11.5
Mean Field Based Control of Power System Dispersed Energy Storage Devices for Peak Load Relief (I), pp. 4971-4976.	
Kizilkale, Arman C.	Ec. Pol. de Montreal
Malhame, Roland P.	Ec. Pol. de Montreal

15:10-15:30 ThB11.6

Power Line Control under Uncertainty of Ambient Temperature (I), pp. 4977-4982.

Blanchet, Jose — Columbia Univ.
Bienstock, Daniel — Columbia Univ.
Li, Juan — Columbia Univ.

ThB12 VV G.1

Fault Diagnosis I (Regular Session)

Chair: Nikiforov, Igor V. — Univ. de Tech. de Troyes
Co-Chair: Djemai, Mohamed — Univ. de Valenciennes et du Hainaut-Cambrésis

13:30-13:50 ThB12.1

Resilient Plant Monitoring System: Design, Analysis, and Performance Evaluation, pp. 4983-4990.

Garcia, Humberto E. — Idaho National Lab.
Lin, Wen-Chiao — Idaho National Lab.
Meerkov, Semyon M. — Univ. of Michigan
Ravichandran, Maruthi — Univ. of Michigan

13:50-14:10 ThB12.2

A Distributed Detection and Isolation Scheme for Multiple Sensor Faults in Interconnected Nonlinear Systems, pp. 4991-4996.

Reppa, Vasso — Univ. of Cyprus
Polycarpou, Marios M. — Univ. of Cyprus
Panayiotou, Christos — Univ. of Cyprus

14:10-14:30 ThB12.3

Statistical Detection of Abnormal Ozone Measurements Based on Constrained Generalized Likelihood Ratio Test, pp. 4997-5002.

Harrou, Fouzi — Texas A&M Univ.
Fillatre, Lionel — I3S Lab. Univ. of Nice Sophia-Antipolis
Bobbia, Michel — Air Normand
Nikiforov, Igor V. — Univ. de Tech. de Troyes

14:30-14:50 ThB12.4

Active Diagnosis for a Class of Switched Systems, pp. 5003-5008.

Van Gorp, Jeremy — Univ. de Valenciennes et du Hainaut-Cambrésis
Giua, Alessandro — Univ. of Cagliari, Italy / Aix-Marseille Univ. France
Defoort, Michael — Univ. de Valenciennes et du Hainaut-Cambrésis
Djemai, Mohamed — Univ. de Valenciennes et du Hainaut-Cambrésis

14:50-15:10 ThB12.5

Predictability Analysis of Distributed Discrete Event Systems, pp. 5009-5015.

Ye, Lina — Inria Grenoble - Rhône-Alpes
Dague, Philippe — Univ. Paris-Sud
Nouioua, Farid — CNRS/Univ. Marseille

ThB13 VV G.2

Estimation II (Regular Session)

Chair: Speyer, Jason L. — Univ. of California at Los Angeles
Co-Chair: Kerrigan, Eric C. — Imperial Coll. London

13:30-13:50 ThB13.1

Multivariate Cauchy Estimator with Scalar Measurement and Process Noises, pp. 5016-5023.

Idan, Moshe — Tech. - Israel Institute of Tech.
Speyer, Jason L. — Univ. of California at Los Angeles

13:50-14:10 ThB13.2

State Estimation under Quantized Measurements: A Sigma-Point Bayesian Approach, pp. 5024-5029.

Manes, Costanzo — Univ. dell'Aquila
Martinelli, Francesco — Univ. di Roma Tor Vergata

14:10-14:30 ThB13.3

Positive Observer Design for Continuous-Time Takagi Sugeno Systems, pp. 5030-5035.

Zaidi, Ines — Univ. of Valladolid
Tadeo, Fernando — Univ. of Valladolid
Chaabane, Mohamed — Univ. of Sfax

14:30-14:50 ThB13.4

Estimation and Control of Discrete-Time LPV Systems Using Interval Observers (I), pp. 5036-5041.

Efimov, Denis — INRIA - LNE
Raïssi, Tarek — Conservatoire National des Arts et Métiers
Perruquetti, Wilfrid — Ec. Centrale de Lille
Zolghadri, Ali — Univ. Bordeaux I

14:50-15:10 ThB13.5

Underwater Inertial Navigation with Long Base Line Transceivers: A Near-Real-Time Approach, pp. 5042-5047.

Chen, Yiming — Univ. of California, Riverside
Zheng, Dongfang — Univ. of California, Riverside
Miller, Paul — MSA
Farrell, Jay A. — Univ. of California, Riverside

15:10-15:30 ThB13.6

Guaranteed Characterization of Exact Confidence Regions for FIR Models under Mild Assumptions on the Noise Via Interval Analysis, pp. 5048-5053.

Kieffer, Michel — CNRS-Supelec
Walter, Eric — CNRS-Supelec-Univ. Paris-Sud

ThB14 VV G.3

Output Feedback and Observers II (Regular Session)

Chair: Mahony, Robert — Australian National Univ.
Co-Chair: Batista, Pedro — Inst. Superior Técnico, Univ. Técnica de Lisboa

13:30-13:50 ThB14.1

A Class of Nonlinear Systems That Are Structurally Extended into Nonlinear Observer Forms, pp. 5054-5059.

Boutat, Driss — Ensi de Bourges

13:50-14:10 ThB14.2

Stability Analysis and Near Optimal Gain Tuning of an Attitude Estimator on the Special Orthogonal Group, pp. 5060-5065.

Khosravian, Alireza — Australian National Univ.

14:10-14:30	ThB14.3
GES Source Localization and Navigation Based on Discrete-Time Bearing Measurements, pp. 5066-5071.	
Batista, Pedro	Inst. Superior Técnico
Silvestre, Carlos	Univ. of Macau
Oliveira, Paulo Jorge	Inst. Superior Técnico
14:30-14:50	ThB14.4
Reduced-Order Observers for Nonlinear Sampled-Data Systems with Application to Marine Systems, pp. 5072-5077.	
Katayama, Hitoshi	Shizuoka Univ.
Aoki, Hirotaka	Yamaha Motor Co. Ltd.
14:50-15:10	ThB14.5
Robust Observers for a Class of Uncertainty Nonlinear Systems, pp. 5078-5083.	
Yu, Wen	CINVESTAV-IPN
Li, Xiaoou	CINVESTAV-IPN
15:10-15:30	ThB14.6
Output Feedback Stabilization with Prescribed Performance for Uncertain Nonlinear Systems in Canonical Form, pp. 5084-5089.	
Bechlioulis, Charalampos	National Tech. Univ. of Athens
Theodorakopoulos, Achilles	Aristotle Univ. of Thessaloniki
Rovithakis, George A.	Aristotle Univ. of Thessaloniki

ThB15	VV 2.1
Nonlinear Predictive Control (Regular Session)	
Chair: Aguiar, A. Pedro	Faculty of Engineering, Univ. of Porto
Co-Chair: Mayne, David Q.	Imperial Coll. London
13:30-13:50	ThB15.1
A Model Predictive Control Scheme with Additional Performance Index for Transient Behavior, pp. 5090-5095.	
Alessandretti, Andrea	Inst. Superior Técnico (IST) / École Pol. Fédérale
Aguiar, A. Pedro	Faculty of Engineering, Univ. of Porto
Jones, Colin N.	École Pol. Fédérale de Lausanne (EPFL)
13:50-14:10	ThB15.2
Tracking a Periodic Reference Using Nonlinear Model Predictive Control, pp. 5096-5100.	
Falugi, Paola	Imperial Coll. London
Mayne, David Q.	Imperial Coll. London
14:10-14:30	ThB15.3
Efficient NMPC for Nonlinear Models with Linear Subsystems, pp. 5101-5106.	
Quirynen, Rien	Katholieke Univ. Leuven
Gros, Sebastien	Chalmers Univ. of Tech.
Diehl, Moritz	Katholieke Univ. Leuven
14:30-14:50	ThB15.4
A Lyapunov Function for Periodic Economic Optimizing Model Predictive Control, pp. 5107-5112.	
Zanon, Mario	Katholieke Univ. Leuven
Gros, Sebastien	Chalmers Univ. of Tech.
Diehl, Moritz	Katholieke Univ. Leuven
14:50-15:10	ThB15.5
Auto-Generated Algorithms for Nonlinear Model Predictive Control on Long and on Short Horizons, pp. 5113-5118.	
Vukov, Milan	Katholieke Univ. Leuven
Domahidi, Alexander	ETH Zurich
Ferreau, Hans Joachim	ABB Corp. Res.
Morari, Manfred	ETH Zurich
Diehl, Moritz	Katholieke Univ. Leuven
15:10-15:30	ThB15.6
Economic Model Predictive Control with Transient Average Constraints, pp. 5119-5124.	
Muller, Matthias A.	Univ. of Stuttgart
Angeli, David	Imperial Coll.
Allgöwer, Frank	Univ. of Stuttgart

ThB16	VV 2.2
Optimal Control III (Regular Session)	
Chair: Yuz, Juan I.	Univ. Tecnica Federico Santa Maria
Co-Chair: Edwards, Christopher	Univ. of Exeter
13:30-13:50	ThB16.1
Constrained Discrete-Time State-Dependent Riccati Equation Technique: A Model Predictive Control Approach, pp. 5125-5130.	
Chang, Insu	Univ. of Illinois at Urbana-Champaign
Bentsman, Joseph	Univ. of Illinois at Urbana-Champaign
13:50-14:10	ThB16.2
Orthonormal Basis Functions Applied to Optimal Control with Pole Location Constraints, pp. 5131-5136.	
Velasquez, Ivan G.	Univ. Técnica Federico Santa Maria
Yuz, Juan I.	Univ. Tecnica Federico Santa Maria
Salgado, Mario E.	Univ. Tecnica Federico Santa Maria
14:10-14:30	ThB16.3
Acceleration Enhancement Factor for Damped Systems Subject to the Discrete Proximate Time-Optimal Servomechanism, pp. 5137-5142.	
Flores, Jeferson Vieira	PUCRS
Bedin Neto, Nelso Rugero	PUCRS
Salton, Aurelio Tergolina	Poontifícia Univ. Católica do Rio Grande do Sul
Gomes da Silva Jr, Joao Manoel	Univ. Federal do Rio Grande do Sul (UFRGS)
14:30-14:50	ThB16.4
Shortest Paths for Wheeled Robots with Limited Field-Of-View: Introducing the Vertical Constraint, pp. 5143-5149.	
Salaris, Paolo	Univ. of Pisa
Cristofaro, Andrea	Univ. of Camerino
Pallottino, Lucia	Univ. of Pisa
Bicchi, Antonio	Univ. di Pisa

14:50-15:10	ThB16.5
LQR Performance for Multi-Agent Systems: Benefits of Introducing Delayed Inter-Agent Measurements, pp. 5150-5155.	
Seuret, Alexandre	CNRS
Menon, Prathyush P	Univ. of Exeter
Edwards, Christopher	Univ. of Exeter
15:10-15:30	ThB16.6
Near Optimality of Greedy Strategies for String Submodular Functions with Forward and Backward Curvature Constraints, pp. 5156-5161.	
Zhang, Zhenliang	Colorado State Univ.
Wang, Zengfu	Northwestern Pol. Univ.
Chong, Edwin K. P.	Colorado State Univ.
Pezeshki, Ali	Colorado State Univ.
Moran, Bill	The Univ. of Melbourne

ThB17	VV 2.3
System Identification II (Regular Session)	
Chair: Helmke, Uwe R.	Univ. of Wuerzburg
Co-Chair: Chiuso, Alessandro	Univ. di Padova
13:30-13:50	ThB17.1
Rank-1 Kernels for Regularized System Identification (I), pp. 5162-5167.	
Chen, Tianshi	Linköping Univ. Sweden
Chiuso, Alessandro	Univ. di Padova
Pillonetto, Gianluigi	Univ. di Padova
Ljung, Lennart	Linkoping Univ.
13:50-14:10	ThB17.2
Linear System Identification Using Stable Spline Kernels and PLQ Penalties, pp. 5168-5173.	
Aravkin, Aleksandr Y.	IBM T.J. Watson Res. Center
Burke, James V.	Univ. of Washington
Pillonetto, Gianluigi	Univ. of Padova
14:10-14:30	ThB17.3
Kernel-Based Model Order Selection for Identification and Prediction of Linear Dynamic Systems (I), pp. 5174-5179.	
Pillonetto, Gianluigi	Univ. di Padova
Chen, Tianshi	Linköping Univ.
Ljung, Lennart	Linköping Univ.
14:30-14:50	ThB17.4
An Iterative Identification of Pole-Stucture in Dynamic Systems Based on Hyperbolic Metrics and Malmquist-Takenaka Representation, pp. 5180-5185.	
Soumelidis, Alexandros	Computer and Automation Res. Inst.
Bokor, Jozsef	MTA SZTAKI Hungarian Acad. of Sciences
Schipp, Ferenc	Eotvos Lorand Univ. of Budapest
14:50-15:10	ThB17.5
Online Identification of Switched Linear Systems Using the Hough Transform, pp. 5186-5191.	
Wang, Jiadong	Univ. of Alberta
Chen, Tongwen	Univ. of Alberta
15:10-15:30	ThB17.6
A Data-Centric System Identification Approach to Input Signal Design for Hammerstein Systems, pp. 5192-5197.	
Deshpande, Sunil	Arizona State Univ.
Rivera, Daniel E.	Arizona State Univ.

ThB18	Auditorium
Decentralized Control I (Regular Session)	
Chair: Charalambous, Charalambos D.	Univ. of Cyprus
Co-Chair: Matni, Nikolai	California Inst. of Tech.
13:30-13:50	ThB18.1
Synchronization for Heterogeneous Networks of Introspective Right-Invertible Agents with Uniform Constant Communication Delay, pp. 5198-5203.	
Wang, Xu	New York Univ.
Saberi, Ali	Washington State Univ.
Stoorvogel, Anton A.	Univ. of Twente
Grip, Håvard Fjær	Norwegian Univ. of Sci. and Tech.
Yang, Tao	Royal Inst. of Tech.
13:50-14:10	ThB18.2
Decentralized H2 Optimal Control of Haptic Interfaces for a Shared Virtual Environment, pp. 5204-5209.	
Kristalny, Maxim	Tech.
Cho, Jang Ho	Lund Univ.
14:10-14:30	ThB18.3
Delay-Independent Decentralized Fixed Modes for Multi-Channel LTI Systems Subject to Input and Output Delays, pp. 5210-5215.	
Momeni, Ahmadreza	Univ. of Toronto
Davison, Edward J.	Univ. of Toronto
14:30-14:50	ThB18.4
A Geometric Slicing Lower Bound for Average-Cost Dynamic Programming, pp. 5216-5221.	
Park, Se Yong	Univ. of California at Berkeley
Sahai, Anant	Univ. of California at Berkeley
14:50-15:10	ThB18.5
Dynamic Team Optimality Conditions of Distributed Stochastic Differential Decision Systems with Decentralized Noisy Information Structures, pp. 5222-5227.	
Charalambous, Charalambos D.	Univ. of Cyprus
Ahmed, Nasir	Univ. of Ottawa
15:10-15:30	ThB18.6
Decentralized Predictive Control for Tracking Constant References, pp. 5228-5233.	
Betti, Giulio	Pol. di Milano
Farina, Marcello	Pol. di Milano
Scattolini, Riccardo	Pol. di Milano

ThC01 PA B.1

Stability of Nonlinear Systems III (Regular Session)

Chair: Rantzer, Anders — Lund Univ.

Co-Chair: Laila, Dina Shona — The Univ. of Southampton

16:00-16:20 ThC01.1

A Spectral Operator-Theoretic Framework for Global Stability, pp. 5234-5239.

Mauroy, Alexandre — Univ. of California, Santa Barbara

Mezic, Igor — Univ. of California, Santa Barbara

16:20-16:40 ThC01.2

IDA-PBC for a Class of Underactuated Mechanical Systems with Application to a Rotary Inverted Pendulum, pp. 5240-5245.

Ryalat, Mutaz — Univ. of Southampton

Laila, Dina Shona — Univ. of Southampton

16:40-17:00 ThC01.3

Analytical Solutions to Feedback Systems on the Special Orthogonal Group SO(n), pp. 5246-5251.

Markdahl, Johan — Royal Inst. of Tech.

Thunberg, Anders, Johan — Royal Inst. of Tech.

Hoppe, Jens — Royal Inst. of Tech.

Hu, Xiaoming — Royal Inst. of Tech.

17:00-17:20 ThC01.4

Supercritical Hopf Equilibrium Points on the Boundary of the Stability Region, pp. 5252-5257.

Gouveia Júnior, Josaphat Ricardo R. — Federal Inst. of Tech. Education of Bahia

Alberto, Luis Fernando Costa — Univ. of Sao Paulo

Amaral, Fabiolo Moraes — Inst. Federal da Bahia

17:20-17:40 ThC01.5

LMI Searches for Discrete--Time Zames--Falb Multipliers, pp. 5258-5263.

Ahmad, Nur Syazreen — Univ. Sains Malaysia

Carrasco, Joaquin — Univ. of Manchester

Heath, William Paul — Univ. of Manchester

17:40-18:00 ThC01.6

Uniform Asymptotic Stabilization of Nonlinear Switched Systems with Arbitrary Switchings and with Dynamic Uncertainties by Means of Small Gain Theorems, pp. 5264-5269.

Dashkovskiy, Sergey — Univ. of Applied Sciences Erfurt

Pavlichkov, Svyatoslav — Univ. of Applied Sciences Erfurt

Jiang, Zhong-Ping — Pol. Inst. NYU

ThC02 PA G.1

Networked Control III (Regular Session)

Chair: Leong, Alex — Univ. of Melbourne

Co-Chair: Wirth, Fabian R. — Univ. Würzburg

16:00-16:20 ThC02.1

Discrete Average Consensus with Bounded Noise, pp. 5270-5275.

Zhou, Mengjie — Zhejiang Univ.

He, Jianping — Zhejiang Univ.

Cheng, Peng — Zhejiang Univ.

Chen, Jiming — Zhejiang Univ.

16:20-16:40 ThC02.2

Fault Detection and Isolation of Malicious Nodes in MIMO Multi-Hop Control Networks, pp. 5276-5281.

D'Innocenzo, Alessandro — Univ. of L'Aquila

Di Benedetto, M. Domenica — Univ. of L'Aquila

Smarra, Francesco — Univ. of L'Aquila

16:40-17:00 ThC02.3

Modeling Quantized Fading Channels As Uncertainty: A Quasi-Signal-To-Noise-Ratio Approach, pp. 5282-5287.

Chen, Xiang — Univ. of Windsor

Gu, Guoxiang — Louisiana State Univ.

Qiu, Li — Hong Kong Univ. of Sci. & Tech.

Feng, Yu — Zhejiang Univ. of Tech.

17:00-17:20 ThC02.4

Reducing Communication and Actuation in Distributed Control Systems, pp. 5288-5293.

Guinaldo, Maria — UNED

Lehmann, Daniel — Royal Inst. of Tech.

Sánchez Moreno, José — UNED

Dormido, Sebastián — UNED

Johansson, Karl H. — Royal Inst. of Tech.

17:20-17:40 ThC02.5

A Quantized Filtering Scheme for Multi-Sensor Linear State Estimation with Non-Detectability at the Sensors and Fusion Center Feedback, pp. 5294-5300.

Leong, Alex — Univ. of Melbourne

Dey, Subhrakanti — Uppsala Univ.

Nair, Girish N. — Univ. of Melbourne

17:40-18:00 ThC02.6

On Inter-Sampling Times for Event-Triggered Large-Scale Linear Systems (I), pp. 5301-5306.

De Persis, Claudio — Univ. of Groningen

Sailer, Rudolf — Univ. of Wuerzburg

Wirth, Fabian R. — IBM Res. Ireland

ThC03 PA 1.1

Switched Systems IV (Regular Session)

Chair: Murphey, Todd — Northwestern Univ.

Co-Chair: Zemouche, Ali — Univ. de Lorraine

16:00-16:20 ThC03.1

Projection-Based Optimal Mode Scheduling, pp. 5307-5314.

Caldwell, Timothy — Northwestern Univ.

Murphey, Todd — Northwestern Univ.

16:20-16:40 ThC03.2

On Subspace Decompositions of Finite Horizon DP Problems with Switched Linear Dynamics, pp. 5315-5320.

Tsakiris, Manolis — Johns Hopkins Univ.

Tarraf, Danielle C. — Johns Hopkins Univ.

16:40-17:00 ThC03.3

Output Feedback Control for Discrete-Time Linear Systems by Using Luenberger Observers under Unknown Switching, pp. 5321-5326.

Alessandri, Angelo — Univ. of Genoa

Bedouhene, Fazia — Univ. of Mouloud Mammeri

Kheloufi, Houria — Univ. of Mouloud Mammeri

Zemouche, Ali — Univ. de Lorraine

17:00-17:20	ThC03.4
Switched State-Feedback Control of Discrete-Time Linear Systems with Multiplicative Noises, pp. 5327-5332.	
Cavichioli Gonzaga, Carlos Alberto	USP
Costa, Oswaldo Luiz V.	Univ. of Sao Paulo
17:20-17:40	ThC03.5
Disturbance Decoupling Via State Feedback for Uncertain Switched Linear Systems, pp. 5333-5338.	
Otsuka, Naohisa	Tokyo Denki Univ.
Saito, Hiroki	Tokyo Denki Univ.
Conte, Giuseppe	Univ. Pol. delle Marche
Perdon, Anna Maria	Univ. Pol. delle Marche
17:40-18:00	ThC03.6
On the Characterization of Extreme Switching Sequences, pp. 5339-5344.	
Naghnaeian, Mohammad	Univ. of Illinois, Urbana-Champaign
Voulgaris, Petros G.	Univ. of Illinois, Urbana-Champaign

ThC04	PA 1.2
Machine Learning (Regular Session)	
Chair: Vidal, Rene	Johns Hopkins Univ.
Co-Chair: Srikant, R	Univ. of Illinois, Urbana-Champaign
16:00-16:20	ThC04.1
Bandits with Budgets, pp. 5345-5350.	
Jiang, Chong	Univ. of Illinois at Urbana-Champaign
Srikant, R	Univ. of Illinois, Urbana-Champaign
16:20-16:40	ThC04.2
Simultaneous Stochastic Approximation for the Spectroscopic Reconstruction of Neutron Distributions, pp. 5351-5356.	
Shlayan, Neveen	State Univ. of New York, Maritime
Costa, David	Univ. of Nevada Las Vegas
Kachroo, Pushkin	Virginia Tech.
Machorro, Eric	National Security Tech.
Luttman, Aaron	National Security Tech. LLC
16:40-17:00	ThC04.3
Adaptive Planning in Unknown Environments Using Grammatical Inference, pp. 5357-5363.	
Fu, Jie	Univ. of Delaware
Tanner, Herbert	Univ. of Delaware
Heinz, Jeffrey	Univ. of Delaware
17:00-17:20	ThC04.4
A Quorum Sensing Inspired Algorithm for Dynamic Clustering, pp. 5364-5370.	
Tan, Feng	Massachusetts Inst. of Tech.
Slotine, Jean-Jacques	Massachusetts Inst. of Tech.
17:20-17:40	ThC04.5
Integrated Pre-Processing for Bayesian Nonlinear System Identification with Gaussian Processes, pp. 5371-5376.	
Frigola, Roger	Univ. of Cambridge
Rasmussen, Carl Edward	Univ. of Cambridge
17:40-18:00	ThC04.6
Initial-State Invariant Binet-Cauchy Kernels for the Comparison of Linear Dynamical Systems, pp. 5377-5384.	
Chaudhry, Rizwan	Microsoft
Vidal, Rene	Johns Hopkins Univ.

ThC05	PA 1.3
Cooperative Control I (Regular Session)	
Chair: Ding, Zhengtao	The Univ. of Manchester
Co-Chair: Sagues, Carlos	Univ. de Zaragoza
16:00-16:20	ThC05.1
Adaptive Consensus Output Regulation of a Class of Heterogeneous Nonlinear Systems, pp. 5385-5390.	
Ding, Zhengtao	The Univ. of Manchester
16:20-16:40	ThC05.2
Guidance - Based Missile Allocation Algorithm against a Salvo Attack, pp. 5391-5396.	
Pryluk, Raviv	Tech. - Israel Inst. of Tech.
Shima, Tal	Tech. - Israel Inst. of Tech.
Golan, Oded M.	Rafael
16:40-17:00	ThC05.3
Reachability of Agents with Double Integrator Dynamics in Cyclic Pursuit, pp. 5397-5402.	
Mukherjee, Dwaipayan	Indian Inst. of Science
Ghose, Debasish	Indian Inst. of Science
17:00-17:20	ThC05.4
Distributed Entrapment for Multi-Robot Systems with Uncertainties, pp. 5403-5408.	
Montijano, Eduardo	Centro Univ. de la Defensa
Priolo, Attilio	Univ. degli Studi Roma Tre
Gasparri, Andrea	Univ. degli Studi Roma Tre
Sagues, Carlos	Univ. de Zaragoza
17:20-17:40	ThC05.5
An Asynchronous Distributed Algorithm for Solving a Linear Algebraic Equation, pp. 5409-5414.	
Liu, Ji	Univ. of Illinois at Urbana-Champaign
Mou, Shaoshuai	Yale Univ.
Morse, A. Stephen	Yale Univ.
17:40-18:00	ThC05.6
Synchronisation of Autonomous Agents with Minimum Communication, pp. 5415-5420.	
Lunze, Jan	Ruhr-Univ. Bochum

ThC06	PA 1.4
Sensor Networks III (Regular Session)	
Chair: Zefran, Milos	Univ. of Illinois at Chicago
Co-Chair: Tanner, Herbert	Univ. of Delaware
16:00-16:20	ThC06.1
Coverage Control with Information Aggregation, pp. 5421-5426.	
Jiang, Wen	Univ. of Illinois at Chicago
Zefran, Milos	Univ. of Illinois at Chicago

16:20-16:40 ThC06.2

Limited Benefit of Cooperation in Distributed Relative Localization, pp. 5427-5431.

Rossi, Wilbert Samuel — Pol. di Torino
Frasca, Paolo — Univ. of Twente
Fagnani, Fabio — Pol. Di Torino

16:40-17:00 ThC06.3

Distributed Weighted Least Squares Estimation with Fast Convergence in Large-Scale Systems, pp. 5432-5437.

Marelli, Damian — Univ. of Newcastle
Fu, Minyue — Univ. of Newcastle

17:00-17:20 ThC06.4

Distributed Privacy-Preserving Network Size Computation: A System-Identification Based Method, pp. 5438-5443.

Garin, Federica — CNRS
Yuan, Ye — Univ. of Cambridge

17:20-17:40 ThC06.5

Optimal DoS Attack Policy against Remote State Estimation, pp. 5444-5449.

Zhang, Heng — Zhejiang Univ.
Cheng, Peng — Zhejiang Univ.
Shi, Ling — Hong Kong Univ. of Sci. and Tech.
Chen, Jiming — Zhejiang Univ.

17:40-18:00 ThC06.6

Error Probabilities and Threshold Selection in Networked Nuclear Detection, pp. 5450-5455.

Pahlajani, Chetan — Univ. of Delaware
Sun, Jianxin — Univ. of Delaware
Poulakakis, Ioannis — Univ. of Delaware
Tanner, Herbert — Univ. of Delaware

ThC07 PA 2.1

Manufacturing (Regular Session)

Chair: Malhame, Roland P. — Ec. Pol. de Montreal
Co-Chair: Meerkov, Semyon M. — Univ. of Michigan

16:00-16:20 ThC07.1

A Modeling Framework for Model Predictive Scheduling Using Switching Max-Plus Linear Models, pp. 5456-5461.

van den Boom, Ton J. J. — Delft Univ. of Tech.
Lopes, Gabriel — Delft Univ. of Tech.
De Schutter, Bart — Delft Univ. of Tech.

16:20-16:40 ThC07.2

Touchscreen Crane Control Interfaces with Oscillation Suppression, pp. 5462-5467.

Kivila, Arto — Georgia Inst. of Tech.
Singhose, William — Georgia Inst. of Tech.

16:40-17:00 ThC07.3

Cellular Production Lines with Asymptotically Reliable Bernoulli Machines: Performance Analysis and Lead Time Control, pp. 5468-5473.

Meerkov, Semyon M. — Univ. of Michigan
Yan, Chao-Bo — Univ. of Michigan

17:00-17:20 ThC07.4

Optimal Control of a Markovian Failure-Prone Manufacturing System under a Risk-Averse Cost Criterion, pp. 5474-5478.

Ahmadi-Javid, Amir — Amirkabir Univ. of Tech.
Malhame, Roland P. — Ec. Pol. de Montreal

17:20-17:40 ThC07.5

On the Simultaneous Realization of Virtually Zero-Power and Zero-Compliance Controls, pp. 5479-5484.

Shahadat, Mhia Md. Zaglul — Saitama Univ.
Mizuno, Takeshi — Saitama Univ.
Ishino, Yuji — Saitama Univ.
Takasaki, Masaya — Saitama Univ.

17:40-18:00 ThC07.6

A Mixed Integer Linear Programming Model of a Steelmaking and Casting Plant, pp. 5485-5490.

Fanti, Maria Pia — Pol. di Bari
Stecco, Gabriella — Univ. of Trieste
Ukovich, Walter — Univ. of Trieste

ThC08 PA 2.2

Aerospace III (Regular Session)

Chair: Demetriou, Michael A. — Worcester Pol. Inst.
Co-Chair: Giannitrapani, Antonio — Univ. di Siena

16:00-16:20 ThC08.1

Adaptation of Consensus Penalty Terms for Attitude Synchronization of Spacecraft Formation with Unknown Parameters, pp. 5491-5496.

Zhang, Kewen — Worcester Pol. Inst.
Demetriou, Michael A. — Worcester Pol. Inst.

16:20-16:40 ThC08.2

Dynamic State Estimation in Distributed Aircraft Electric Control Systems Via Adaptive Submodularity, pp. 5497-5503.

Maillet, Quentin — Mines Paristech
Xu, Huan — California Inst. of Tech.
Ozay, Necmiye — Univ. of Michigan
Murray, Richard M. — California Inst. of Tech.

16:40-17:00 ThC08.3

Adaptive Time-Varying Sliding Mode Control for Autonomous Spacecraft Rendezvous, pp. 5504-5509.

Zhao, Lin — Beihang Univ.
Jia, Yingmin — Beihang Univ.
Matsuno, Fumitoshi — Kyoto Univ.

17:00-17:20 ThC08.4

Geometric Control of Cooperating Multiple Quadrotor UAVs with a Suspended Payload (I), pp. 5510-5515.

Lee, Taeyoung — George Washington Univ.
Sreenath, Koushil — Carnegie Mellon Univ.
Kumar, Vijay — Univ. of Pennsylvania

17:20-17:40 ThC08.5

Robust Adaptive Control for Spacecraft Cooperative Rendezvous and Docking, pp. 5516-5521.

Sun, Liang — Beijing Univ. of Aeronautics and Astronautics
Huo, Wei — Beijing Univ. of Aeronautics and Astronautics

17:40-18:00	ThC08.6
Robustness Analysis of a Moving Horizon Estimator for Space Debris Tracking During Atmospheric Reentry, pp. 5522-5527.	
Suwantong, Rata	ONERA
Beauvois, Dominique	Ec. Superieure D'Electricite
Dumur, Didier	SUPELEC
Bertrand, Sylvain	ONERA
Bui Quang, Paul	ONERA

ThC09	PA 2.3
Model and Controller Reduction (Regular Session)	
Chair: Macchelli, Alessandro	Univ. of Bologna
Co-Chair: Imura, Jun-ichi	Tokyo Inst. of Tech.
16:00-16:20	ThC09.1
Moment Matching Based Controller Reduction for Linear Systems, pp. 5528-5533.	
Ionescu, Tudor C.	Univ. of Sheffield
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome
16:20-16:40	ThC09.2
Benchmark Problem — Nonlinear Control of a 3-DOF Robotic Manipulator, pp. 5534-5539.	
Hoffmann, Christian	Hamburg Univ. of Tech.
Hashemi, Seyed Mahdi	Hamburg Univ. of Tech.
Abbas, Hossam Seddik	Assiut Univ.
Werner, Herbert	Hamburg Univ. of Tech.
16:40-17:00	ThC09.3
Dissipativity-Preserving Model Reduction Based on Generalized Singular Perturbation, pp. 5540-5545.	
Ishizaki, Takayuki	Tokyo Inst. of Tech.
Sandberg, Henrik	KTH Royal Inst. of Tech.
Kashima, Kenji	Osaka Univ.
Imura, Jun-ichi	Tokyo Inst. of Tech.
Aihara, Kazuyuki	Univ. of Tokyo
17:00-17:20	ThC09.4
Generalized Frequency-Interval Balanced Model Reduction Method, pp. 5546-5551.	
Shaker, Hamid Reza	Aalesund Univ. Coll.
17:20-17:40	ThC09.5
Generalized Incremental Balanced Truncation for Nonlinear Systems, pp. 5552-5557.	
Besselink, Bart	KTH Royal Inst. of Tech.
Van De Wouw, Nathan	Eindhoven Univ. of Tech.
Scherpen, Jacquelien M.A.	Univ. of Groningen
Nijmeijer, Hendrik	Eindhoven Univ. of Tech.

ThC10	PA 2.4
Adaptive Control I (Regular Session)	
Chair: Ge, Shuzhi Sam	Univ. of Electronic Sci. and Tech. of China
Co-Chair: Bobtsov, Alexey	Saint Petersburg National Res. Univ. of Information Tech.
16:00-16:20	ThC10.1
Adaptive Mirror Control for an Optical Resonator Cavity (I), pp. 5558-5564.	
Doelman, Niek	TNO Tech. Sciences
16:20-16:40	ThC10.2
Adaptive Model Predictive Control in the IPA-SQP Framework, pp. 5565-5570.	
Sun, Jing	Univ. of Michigan
Park, Hyeongjun	Univ. of Michigan
Kolmanovsky, Ilya V.	Univ. of Michigan
Choroszucha, Richard	Univ. of Michigan
16:40-17:00	ThC10.3
Adaptive Backstepping Control of Uncertain Nonlinear Systems with Input Quantization, pp. 5571-5576.	
Zhou, Jing	International Res. Inst. of Stavanger
Wen, Changyun	Nanyang Tech. Univ.
17:00-17:20	ThC10.4
Adaptive Controller for Linear System with Input Delay and Output Disturbance, pp. 5577-5582.	
Pyrkin, Anton	Saint-Petersburg State Univ. of ITMO
Bobtsov, Alexey	Saint Petersburg National Res. Univ. of Information Tech.
17:20-17:40	ThC10.5
Adaptive Control of Systems with Fast Varying Unknown Delay in Measurements, pp. 5583-5587.	
Selivanov, Anton	St. Petersburg State Univ.
Fridman, Emilia	Tel-Aviv Univ.
Fradkov, Alexander	Inst. for Problems of Mech. Eng.
17:40-18:00	ThC10.6
Adaptive Generalized PID Controllers and Fuzzy Logic Coordinator for Load Sharing in SMSE, pp. 5588-5593.	
Guerin, Francois	Univ. Le Havre
Lefebvre, Dimitri	Univ. Le Havre

ThC11	PA 2.5
Pricing and Control Mechanisms to Manage Demand and Intermittent Supply (Invited Session)	
Chair: Bitar, Eilyan	Cornell Univ.
Co-Chair: Meyn, Sean	Univ. of Florida
Organizer: Bitar, Eilyan	Cornell Univ.
Organizer: Meyn, Sean P.	Univ. of Florida
16:00-16:20	ThC11.1
Inefficiency in Forward Markets with Supply Friction (I), pp. 5594-5599.	
Cai, Desmond W. H.	California Inst. of Tech.
Wierman, Adam	California Inst. of Tech.

16:20-16:40	ThC11.2
Aggregate Flexibility of a Collection of Loads (I), pp. 5600-5607.	
Nayyar, Ashutosh	Univ. of California at Berkeley
Taylor, Joshua	Univ. of Toronto
Subramanian, Anand	Univ. of California at Berkeley
Poolla, Kameshwar	Univ. of California at Berkeley
Varaiya, Pravin P.	Univ. of California at Berkeley
16:40-17:00	ThC11.3
Day Ahead Dynamic Pricing for Demand Response in Uncertain Dynamic Environments (I), pp. 5608-5613.	
Jia, Liyan	Cornell Univ.
Tong, Lang	Cornell Univ.
17:00-17:20	ThC11.4
Optimal Power Flow in Direct Current Networks (I), pp. 5614-5619.	
Gan, Lingwen	California Inst. of Tech.
Low, Steven	California Inst. of Tech.
17:20-17:40	ThC11.5
On Incentive Compatibility of Deadline Differentiated Pricing for Deferrable Demand (I), pp. 5620-5627.	
Bitar, Eilyan	Cornell Univ.
Xu, Yunjian	Massachusetts Inst. of Tech.
17:40-18:00	ThC11.6
Decision Support for Offering Load-Side Regulation Service Reserves in Competitive Power Markets (I), pp. 5628-5635.	
Bilgin, Enes	Boston Univ.
Caramanis, Michael C.	Boston Univ.

ThC12	VV G.1
Fault Diagnosis II (Regular Session)	
Chair: Liu, Steven	Univ. of Kaiserslautern
Co-Chair: Findeisen, Rolf	OVG Univ. Magdeburg
16:00-16:20	ThC12.1
An Object-Oriented Design Method for Fault Detection and Isolation, pp. 5636-5642.	
Simon, Stefan	Univ. of Kaiserslautern
Liu, Steven	Univ. of Kaiserslautern
16:20-16:40	ThC12.2
Minimum-Variance Fault Isolation Observers for Discrete-Time Linear Systems, pp. 5643-5649.	
Wahrburg, Arne	Tech. Univ. Darmstadt
Haumann, Dominik	Tech. Univ. Darmstadt
Willert, Volker	Tech. Univ. Darmstadt
16:40-17:00	ThC12.3
Fault Diagnosis of Wind Turbine Drive Train Faults Based on Dynamical Clustering, pp. 5650-5655.	
Chammas, Antoine	Ec. des Mines de Douai
Duviella, Eric	Ec. des Mines de Douai
Lecoeuche, Stéphane	Ec. des Mines de Douai
17:00-17:20	ThC12.4
A Hybrid Stochastic-Deterministic Input Design Method for Active Fault Diagnosis, pp. 5656-5661.	
Scott, Joseph	Clemson Univ.
Marseglia, Giuseppe Roberto	Univ. of Pavia
Magni, Lalo	Univ. of Pavia
Braatz, Richard D.	Massachusetts Inst. of Tech.
Raimondo, Davide Martino	Univ. of Pavia
17:20-17:40	ThC12.5
Guaranteed Diagnosability of Parametric Faults in Nonlinear Systems, pp. 5662-5667.	
Hast, Daniel	OVG Univ. Magdeburg
Streif, Stefan	OVG Univ. Magdeburg
Findeisen, Rolf	OVG Univ. Magdeburg
17:40-18:00	ThC12.6
Adaptive High Order Sliding Mode Observer-Based Fault Reconstruction for a Class of Nonlinear Uncertain Systems, pp. 5668-5673.	
Liu, Jianxing	Univ. de Tech. de Belfort-Montbéliard
Laghrouche, Salah	Univ. de Tech. de Belfort-Montbéliard
Wack, Maxime	Univ. de Tech. de Belfort-Montbéliard

ThC13	VV G.2
Estimation III (Regular Session)	
Chair: Fujimoto, Kenji	Kyoto Univ.
Co-Chair: Zolghadri, Ali	Univ. Bordeaux I
16:00-16:20	ThC13.1
Stochastic Moving Horizon Estimation for Linear Discrete-Time Systems with Parameter Variation, pp. 5674-5679.	
Fujimoto, Kenji	Kyoto Univ.
Watanabe, Toshiaki	Nagoya Univ.
Hashimoto, Yoshihiro	Nagoya Inst. of Tech.
Nishida, Yoshiharu	KOBE STEEL, LTD.
16:20-16:40	ThC13.2
The Estimation of Radial Temperature Distribution in Cylindrical Battery Cells under Unknown Cooling Conditions, pp. 5680-5685.	
Kim, Youngki	Univ. of Michigan
Mohan, Shankar	Univ. of Michigan
Siegel, Jason B.	Univ. of Michigan
Stefanopoulou, Anna G.	Univ. of Michigan
Ding, Yi	U.S. Army Tank Automotive Res. Development, and Engineering
16:40-17:00	ThC13.3
Estimator Design for Input-Constrained Bilinear Systems with Application to Wave Energy Conversion, pp. 5686-5691.	
Abraham, Edo	Imperial Coll. London
Kerrigan, Eric C.	Imperial Coll. London
17:00-17:20	ThC13.4
Sensor-Based Globally Asymptotically Stable Range-Only Simultaneous Localization and Mapping, pp. 5692-5697.	
Lourenço, Pedro	Inst. Superior Técnico
Batista, Pedro	Inst. Superior Técnico
Oliveira, Paulo Jorge	Inst. Superior Técnico
Silvestre, Carlos	Univ. of Macau
Chen, Philip	Univ. of Texas at San Antonio

17:20-17:40	ThC13.5
Estimator Design for a Subsonic Rocket Car (Soft Landing) Based on State-Dependent Delay Measurement, pp. 5698-5703.	
Ahmed, Aftab	Georgia Inst. of Tech.
Verriest, Erik I.	Georgia Inst. of Tech.
17:40-18:00	ThC13.6
Acceleration Feedback Via an Algebraic State Estimation Method, pp. 5704-5709.	
Delpoux, Romain	Univ. Lille I
Sira-Ramirez, Hebertt	CINVESTAV
Floquet, Thierry	CNRS

ThC14	VV G.3
Markov Processes (Regular Session)	
Chair: Feinberg, Eugene A.	SUNY at Stony Brook
Co-Chair: Hjalmarsson, Håkan	KTH Royal Inst. of Tech.
16:00-16:20	ThC14.1
On-Board Stochastic Control of Electric Vehicle Recharging, pp. 5710-5715.	
Di Giorgio, Alessandro	Univ. of Rome "La Sapienza"
Liberati, Francesco	Univ. of Rome "La Sapienza"
Pietrabissa, Antonio	Univ. of Rome "La Sapienza"
16:20-16:40	ThC14.2
Optimality Conditions for Total-Cost Partially Observable Markov Decision Processes, pp. 5716-5721.	
Feinberg, Eugene A.	SUNY at Stony Brook
Kasyanov, Pavlo	National Tech. Univ. of Ukraine
Zgurovsky, Michael	National Tech. Univ. of Ukraine
16:40-17:00	ThC14.3
A Stochastic Reachability Approach to Emergency Building Evacuation, pp. 5722-5727.	
Wood, Tony A.	ETH Zurich
Summers, Sean	ETH Zurich
Lygeros, John	ETH Zurich
17:00-17:20	ThC14.4
Sufficiency of Markov Policies for Continuous-Time Markov Decision Processes and Solutions of Forward Kolmogorov Equation for Jump Markov Processes, pp. 5728-5732.	
Feinberg, Eugene A.	SUNY at Stony Brook
Mandava, Manasa	Stony Brook Univ.
Shiryaev, Albert N.	Steklov Mathematical Inst.
17:20-17:40	ThC14.5
Rational Inattention in Scalar LQG Control, pp. 5733-5739.	
Shafieepoorfard, Ehsan	Univ. of Illinois, Urbana-Champaign
Raginsky, Maxim	Univ. of Illinois, Urbana-Champaign
17:40-18:00	ThC14.6
Optimal Input Design for Non-Linear Dynamic Systems: A Graph Theory Approach, pp. 5740-5745.	
Valenzuela, Patricio E.	KTH Royal Inst. of Tech.
Rojas, Cristian R.	KTH Royal Inst. of Tech.
Hjalmarsson, Håkan	KTH Royal Inst. of Tech.

ThC15	VV 2.1
Predictive Control for Linear Systems I (Regular Session)	
Chair: Monnigmann, Martin	Ruhr-Univ. Bochum
Co-Chair: Magni, Lalo	Univ. of Pavia
16:00-16:20	ThC15.1
Multilevel Approximate Model Predictive Control and Its Application to Autonomous Vehicle Active Steering, pp. 5746-5751.	
Lee, Seung Hi	Hanyang Univ.
Chung, Chung Choo	Hanyang Univ.
16:20-16:40	ThC15.2
A Model Predictive Control Scheme for Mobile Robotic Vehicles in Dynamic Environments, pp. 5752-5757.	
Franze', Giuseppe	Univ. Degli Studi della Calabria
Lucia, Walter	Univ. of Calabria (UNICAL)
16:40-17:00	ThC15.3
Sparse Control Using Sum-Of-Norms Regularized Model Predictive Control, pp. 5758-5763.	
Khoshfetrat Pakazad, Sina	Linköping Univ.
Ohlsson, Henrik	Linköping Univ.
Ljung, Lennart	Linkoping Univ.
17:00-17:20	ThC15.4
Accelerating Model Predictive Control by Online Constraint Removal, pp. 5764-5769.	
Jost, Michael	Ruhr-Univ. Bochum
Monnigmann, Martin	Ruhr-Univ. Bochum
17:20-17:40	ThC15.5
Plug and Play Distributed Model Predictive Control Based on Distributed Invariance and Optimization, pp. 5770-5776.	
Zeilinger, Melanie N.	UC Berkeley
Pu, Ye	École Pol. Fédérale de Lausanne
Riverso, Stefano	Univ. degli Studi di Pavia
Ferrari-Trecate, Giancarlo	Univ. degli Studi di Pavia
Jones, Colin N.	École Pol. Fédérale de Lausanne (EPFL)
17:40-18:00	ThC15.6
Soft-Constrained Model Predictive Control Based on Off-Line-Computed Feasible Sets, pp. 5777-5782.	
Gautam, Ajay	Nanyang Tech. Univ.
Soh, Yeng Chai	Nanyang Tech. Univ.

ThC16	VV 2.2
Optimal Control IV (Regular Session)	
Chair: Pytlak, Radoslaw	Warsaw Univ. of Tech.
Co-Chair: Käpernick, Bartosz	Univ. of Ulm
16:00-16:20	ThC16.1
A Parallelizable Decomposition Approach for Constrained Optimal Control Problems, pp. 5783-5788.	
Käpernick, Bartosz	Univ. of Ulm
Hentzelt, Sebastian	Univ. of Ulm
Graichen, Knut	Univ. of Ulm

16:20-16:40 ThC16.2

Dissemination and Competition between Contents in Lossy Susceptible Infected Susceptible (SIS) Social Networks, pp. 5789-5796.

Louzada Pinto, Julio Cesar — Telecom Sud Paris
Chahed, Tijani — Telecom Sud Paris
Altman, Eitan — INRIA
Basar, Tamer — Univ. of Illinois, Urbana-Champaign

16:40-17:00 ThC16.3

A Decomposition Technique for Pursuit Evasion Games with Many Pursuers, pp. 5797-5802.

Festa, Adriano — Imperial Coll. London
Vinter, Richard B. — Imperial Coll. London

17:00-17:20 ThC16.4

Multi-Agent Differential Graphical Games: Nash Online Adaptive Learning Solutions, pp. 5803-5809.

Abouheaf, Mohammed — Univ. of Texas at Arlington
Lewis, Frank L. — Univ. of Texas at Arlington

17:20-17:40 ThC16.5

Moment LMI Approach to LTV Impulsive Control, pp. 5810-5815.

Claeys, Mathieu — LAAS-CNRS
Arzelier, Denis — LAAS-CNRS
Henrion, Didier — LAAS-CNRS
Lasserre, Jean B. — LAAS-CNRS and Inst. of Mathematics, Univ. of Toulouse

17:40-18:00 ThC16.6

Ellipsoidal Motions for Applied Control: From Theory to Computation, pp. 5816-5821.

Mesyats, Aleksei — Moscow State (Lomonosov) Univ.
Kurzhanski, Alexander — UC Berkeley

ThC17 VV 2.3

System Identification III (Regular Session)

Chair: Lovera, Marco — Pol. di Milano
Co-Chair: Van den Hof, Paul M.J. — Eindhoven Univ. of Tech.

16:00-16:20 ThC17.1

Central Extensions in Closed-Loop Optimal Experiment Design, pp. 5822-5827.

Hildebrand, Roland — Weierstrass Inst.
Gevers, Michel — Univ. Catholique de Louvain, and Vrije Univ. Brussel

16:20-16:40 ThC17.2

Parameter Identification for a Quadrotor Helicopter Using PSO, pp. 5828-5833.

Yang, Liu — Beihang Univ.
Liu, Jinkun — Beihang Univ.

16:40-17:00 ThC17.3

An Efficient Atomic Norm Minimization Approach to Identification of Low Order Models, pp. 5834-5839.

Yilmaz, Burak — Northeastern Univ.
Lagoa, Constantino M. — Pennsylvania State Univ.
Sznaier, Mario — Northeastern Univ.

17:00-17:20 ThC17.4

Bootstrap-Based Model Uncertainty Assessment in Continuous-Time Subspace Model Identification, pp. 5840-5845.

Bergamasco, Marco — Pol. di Milano
Lovera, Marco — Pol. di Milano
Ohta, Yoshito — Kyoto Univ.

17:20-17:40 ThC17.5

Nonparametric Estimation of the Best Linear Time-Invariant Approximation of a Linear Time-Varying System, pp. 5846-5851.

Pintelon, Rik M. — Vrije Univ. Brussel
Louarroudi, Ebrahim — Vrije Univ. Brussel
Lataire, John — Vrije Univ. Brussel

17:40-18:00 ThC17.6

Errors-In-Variables Identification Using Covariance Matching and Structural Equation Modeling, pp. 5852-5857.

Kreiberg, David — Uppsala Univ.
Soderstrom, Torsten — Uppsala Univ.
Yang-Wallentin, Fan — Uppsala Univ.

ThC18 Auditorium

Decentralized Control II (Regular Session)

Chair: Middleton, Richard H. — Univ. of Newcastle
Co-Chair: Lynch, Kevin M. — Northwestern Univ.

16:00-16:20 ThC18.1

Decentralized Polya's Algorithm for Stability Analysis of Large-Scale Nonlinear Systems, pp. 5858-5863.

Kamyar, Reza — Arizona State Univ.
Peet, Matthew M. — Arizona State Univ.

16:20-16:40 ThC18.2

Two-Dimensional Analysis of String Stability of Nonlinear Vehicle Strings, pp. 5864-5869.

Knorn, Steffi — Univ. of Newcastle
Middleton, Richard H. — Univ. of Newcastle

16:40-17:00 ThC18.3

On the Structure of Decentralized Controllers in Networked MDPs, pp. 5870-5877.

Horowitz, Matanya — California Inst. of Tech.

17:00-17:20 ThC18.4

A Systematic Design Process for Internal Model Average Consensus Estimators, pp. 5878-5883.

Elwin, Matthew L. — Northwestern Univ.
Freeman, Randy — Northwestern Univ.
Lynch, Kevin M. — Northwestern Univ.

17:20-17:40 ThC18.5

Analysis of Signaling in a Finite Stochastic System Motivated by Decentralized Control, pp. 5884-5889.

Uribe, César A. — Delft Univ. of Tech.
van Schuppen, Jan H. — Van Schuppen Control Res.

17:40-18:00 ThC18.6

Optimal Distributed LQG State Feedback with Varying Communication Delay, pp. 5890-5896.

Matni, Nikolai — California Inst. of Tech.
Doyle, John C. — California Inst. of Tech.

FrA01	PA B.1
Contraction Analysis – Theory and Applications I (Invited Session)	
Chair: di Bernardo, Mario	Univ. of Naples Federico II
Co-Chair: Sepulchre, Rodolphe	Univ. de Liege
Organizer: di Bernardo, Mario	Univ. of Naples Federico II
Organizer: Sepulchre, Rodolphe	Univ. of Cambridge
Organizer: Slotine, Jean-Jacques	Massachusetts Inst. of Tech.
08:30-08:50	FrA01.1
On Input-To-State Stability with Respect to Decomposable Invariant Sets (I), pp. 5897-5902.	
Angeli, David	Imperial Coll.
Efimov, Denis	INRIA - LNE
08:50-09:10	FrA01.2
Input-Dependent Stability Analysis of Systems with Saturation in Feedback (I), pp. 5903-5908.	
Pogromsky, A. Yu.	Eindhoven Univ. of Tech.
Matveev, Alexey S.	St.Petersburg Univ.
Chaillet, Antoine	Univ. Paris Sud 11
Rüffer, Björn S.	Univ. of Paderborn
09:10-09:30	FrA01.3
Transverse Contraction Criteria for Existence, Stability, and Robustness of a Limit Cycle (I), pp. 5909-5914.	
Manchester, Ian R.	Univ. of Sydney
Slotine, Jean-Jacques	Massachusetts Inst. of Tech.
09:30-09:50	FrA01.4
On Transverse Exponential Stability and Its Use in Incremental Stability, Observer and Synchronization (I), pp. 5915-5920.	
Andrieu, Vincent	Univ. de Lyon
Jayawardhana, Bayu	Univ. of Groningen
Praly, Laurent	MINES ParisTech
09:50-10:10	FrA01.5
Convergence and Cluster Synchronization in Networks of Discrete-Time and Asynchronous Systems (I), pp. 5921-5926.	
Russo, Giovanni	Univ. of Naples Federico II
di Bernardo, Mario	Univ. of Naples Federico II
Slotine, Jean-Jacques	Massachusetts Inst. of Tech.
10:10-10:30	FrA01.6
Output Feedback Stabilization for SISO Nonlinear Systems with an Observer in the Original Coordinates, pp. 5927-5932.	
Astolfi, Daniele	Univ. of Bologna
Praly, Laurent	MINES ParisTech

FrA02	PA G.1
Networked Control IV (Regular Session)	
Chair: Peñarrocha, Ignacio	Univ. Jaume I
Co-Chair: Freudenberg, James S.	Univ. of Michigan
08:30-08:50	FrA02.1
A Polynomial Approach for Observer Design in Networked Control Systems with Unknown Packet Dropout Rate, pp. 5933-5938.	
Peñarrocha, Ignacio	Univ. Jaume I
Dolz, Daniel	Univ. Jaume I
Sanchis, Roberto	Univ. Jaume I
08:50-09:10	FrA02.2
Zeros of Networks of Linear Multi-Agent Systems: Time-Invariant Interconnections, pp. 5939-5944.	
Zamani, Mohsen	Australian National Univ.
Helmke, Uwe R.	Univ. of Wuerzburg
Anderson, Brian D.O.	Australian National Univ.
09:10-09:30	FrA02.3
Effect of Switching Delay on a Networked Control System, pp. 5945-5950.	
Yu, Xi	Boston Univ.
Andersson, Sean	Boston Univ.
09:30-09:50	FrA02.4
Verifying Safety of Interconnected Passive Systems Using SOS Programming, pp. 5951-5956.	
Coogan, Samuel	Univ. of California, Berkeley
Arcak, Murat	Univ. of California, Berkeley
09:50-10:10	FrA02.5
H-Infinity Control of Singular Markovian Jump Systems with Operation Modes Disordering in Controller, pp. 5957-5962.	
Wang, Guoliang	Liaoning Shihua Univ.
10:10-10:30	FrA02.6
Robustness of Networked Control Systems with Multiple Actuator-Links and Bounded Packet Dropouts (I), pp. 5963-5968.	
Ljesnjanin, Merid	Univ. of Melbourne
Quevedo, Daniel E.	Univ. of Newcastle
Nesic, Dragan	Univ. of Melbourne

FrA03	PA 1.1
Control Issues for Switched Systems (Invited Session)	
Chair: Chitour, Yacine	Univ. Paris-Sud, CNRS, Supelec
Co-Chair: Mason, Paolo	CNRS, Lab. des Signaux et Systèmes, Supélec
Organizer: Chitour, Yacine	Univ. Paris-Sud, CNRS, Supelec
Organizer: Mason, Paolo	CNRS, Lab. des Signaux et Systèmes, Supélec
Organizer: Sigalotti, Mario	INRIA Saclay
08:30-08:50	FrA03.1
A Stabilizable Switched Linear System Does Not Necessarily Admit a Smooth Homogeneous Lyapunov Function (I), pp. 5969-5974.	
Blanchini, Franco	Univ. di Udine
Colaneri, Patrizio	Pol. di Milano
Valcher, Maria Elena	Univ. di Padova
08:50-09:10	FrA03.2
Stabilization of Switched Linear Differential-Algebraic Equations Via Time-Dependent Switching Signals (I), pp. 5975-5980.	
Mironchenko, Andrii	Univ. of Würzburg
Wirth, Fabian R.	Univ. of Würzburg
Wulff, Kai	TU Ilmenau
09:10-09:30	FrA03.3
An Observer for Switched Differential-Algebraic Equations Based on Geometric Characterization of Observability (I), pp. 5981-5986.	
Tanwani, Aneel	INRIA -- Rhone Alpes
Trenn, Stephan	Univ. of Kaiserslautern

09:30-09:50	FrA03.4
Invariant Sets of Affine Switched Systems (I), pp. 5987-5992.	
Nilsson, Petter	KTH Royal Inst. of Tech.
Boscain, Ugo V.	CNRS
Sigalotti, Mario	INRIA Saclay
Newling, James	Univ. of Warwick
09:50-10:10	FrA03.5
Stochastic Stability for Discrete-Time Markov Jump Lur'e Systems, pp. 5993-5998.	
Cavichioli Gonzaga, Carlos Alberto	USP
Costa, Oswaldo Luiz V.	Univ. of Sao Paulo
10:10-10:30	FrA03.6
Large-Signal Stability Conditions for Semi-Quasi-Z-Source Inverters: Switched and Averaged Models, pp. 5999-6004.	
Haimovich, Hernan	CIFASIS-CONICET and Univ. Nacional de Rosario
Middleton, Richard H.	The Univ. of Newcastle
De Nicoló, Lisandro	CIFASIS-CONICET; Univ. Nacional de Rosario

FrA04	PA 1.2
Advances and Current Challenges at the Confluence of Systems Identification and Machine Learning (Invited Session)	
Chair: Dinuzzo, Francesco	Max Planck Inst. for Intelligent Systems
Co-Chair: Sznaier, Mario	Northeastern Univ.
Organizer: Dinuzzo, Francesco	Max Planck Inst. for Int. Systems
Organizer: Sznaier, Mario	Northeastern Univ.
08:30-08:50	FrA04.1
Hankel Based Maximum Margin Classifiers: A Connection between Machine Learning and Wiener Systems Identification (I), pp. 6005-6010.	
Xiong, Fei	Northeastern Univ.
Cheng, Yongfang	Northeastern Univ.
Camps, Octavia I.	Northeastern Univ.
Sznaier, Mario	Northeastern Univ.
Lagoa, Constantino M.	Pennsylvania State Univ.
08:50-09:10	FrA04.2
Near-Ideal Behavior of a Modified Elastic Net Algorithm (I), pp. 6011-6012.	
Vidyasagar, Mathukumalli	The Univ. of Texas at Dallas
09:10-09:30	FrA04.3
Regularization Strategies for Nonparametric System Identification (I), pp. 6013-6018.	
Chiuso, Alessandro	Univ. di Padova
Chen, Tianshi	Linköping Univ.
Ljung, Lennart	Linköping Univ.
Pillonetto, Gianluigi	Univ. di Padova
09:30-09:50	FrA04.4
Noisy Estimation of Simultaneously Structured Models: Limitations of Convex Relaxation (I), pp. 6019-6024.	
Oymak, Samet	California Inst. of Tech.
Jalali, Amin	Univ. of Washington
Fazel, Maryam	Univ. of Washington
Hassibi, Babak	California Inst. of Tech.
09:50-10:10	FrA04.5
Least Squares Estimates and the Coverage of Least Squares Costs (I), pp. 6025-6030.	
Carè, Algo	Univ. di Brescia
Garatti, Simone	Pol. di Milano
Campi, M. C.	Univ. di Brescia
10:10-10:30	FrA04.6
Diagonal and Low-Rank Decompositions and Fitting Ellipsoids to Random Points (I), pp. 6031-6036.	
Saunderson, James	Massachusetts Inst. of Tech.
Parrilo, Pablo A.	Massachusetts Inst. of Tech.
Willsky, Alan S.	Massachusetts Inst. of Tech.

FrA05	PA 1.3
Cooperative Control II (Regular Session)	
Chair: Lin, Zhiyun	Zhejiang Univ.
Co-Chair: Werner, Herbert	Hamburg Univ. of Tech.
08:30-08:50	FrA05.1
Realizability of Similar Formation and Local Control of Directed Multi-Agent Networks in Discrete-Time, pp. 6037-6042.	
Wang, Lili	Zhejiang Univ.
Han, Zhimin	Zhejiang Univ.
Lin, Zhiyun	Zhejiang Univ.
08:50-09:10	FrA05.2
Leaderless Synchronization of Linear Multi-Agent Systems under Directed Switching Topologies: An Invariance Approach, pp. 6043-6048.	
Wu, Jingbo	Univ. of Stuttgart
Qin, Jiahu	Australian National Univ.
Yu, Changbin (Brad)	Australian National Univ.
Allgöwer, Frank	Univ. of Stuttgart
09:10-09:30	FrA05.3
A Linear Control Approach to Distributed Multi-Agent Formations in D-Dimensional Space, pp. 6049-6054.	
Lin, Zhiyun	Zhejiang Univ.
Chen, Zhiyong	Univ. of Newcastle
Fu, Minyue	Univ. of Newcastle
09:30-09:50	FrA05.4
Persistent Coverage Control with Variable Coverage Action in Multi-Robot Environment, pp. 6055-6060.	
Franco, Carlos	Inst. de Investigación en Ingeniería de Aragón
Lopez-Nicolas, Gonzalo	Univ. de Zaragoza
Sagues, Carlos	Univ. de Zaragoza
Llorente, Sergio	BSH Bosh Siemens Home Appliances
09:50-10:10	FrA05.5
Distributed Combinatorial Rigidity Control in Multi-Agent Networks, pp. 6061-6066.	
Williams, Ryan	Univ. of Southern California
Gasparri, Andrea	Univ. degli Studi Roma Tre
Priolo, Attilio	Univ. degli Studi Roma Tre
Sukhatme, Gaurav	Univ. of Southern California

10:10-10:30	FrA05.6
Convergence Speed in Formation Control of Multi-Agent Systems - a Robust Control Approach, pp. 6067-6072.	
Pilz, Ulf	Hamburg Univ. of Tech.
Werner, Herbert	Hamburg Univ. of Tech.

FrA06	PA 1.4
Advances in Estimation and Control in Wireless Sensor Networks I (Invited Session)	
Chair: Chiuso, Alessandro	Univ. di Padova
Co-Chair: Dey, Subhrakanti	Univ. of Melbourne
Organizer: Chiuso, Alessandro	Univ. di Padova
Organizer: Dey, Subhrakanti	Uppsala Univ.
Organizer: Schenato, Luca	Univ. di Padova
08:30-08:50	FrA06.1
Intermittent Kalman Filtering with Adversarial Erasures: Eigenvalue Cycles Again (I), pp. 6073-6078.	
Park, Se Yong	Univ. of California at Berkeley
Sahai, Anant	Univ. of California at Berkeley
08:50-09:10	FrA06.2
Stochastic Event-Triggered Sensor Scheduling for Remote State Estimation (I), pp. 6079-6084.	
Han, Duo	Hong Kong Univ. of Sci. and Tech.
Mo, Yilin	California Inst. of Tech.
Wu, Junfeng	Hong Kong Univ. of Sci. and Tech.
Sinopoli, Bruno	Carnegie Mellon Univ.
Shi, Ling	Hong Kong Univ. of Sci. and Tech.
09:10-09:30	FrA06.3
Robust Estimation in the Presence of Integrity Attacks (I), pp. 6085-6090.	
Mo, Yilin	California Inst. of Tech.
Sinopoli, Bruno	Carnegie Mellon Univ.
09:30-09:50	FrA06.4
Moment Stabilization Over Markov Channels (I), pp. 6091-6096.	
Minero, Paolo	Univ. of Notre Dame
Franceschetti, Massimo	University of California, San Diego
Taehyung, Lim J.	University of California, San Diego
09:50-10:10	FrA06.5
Remote Estimation Subject to Packet Loss and Quantization Noise (I), pp. 6097-6104.	
Dey, Subhrakanti	Uppsala Univ.
Chiuso, Alessandro	Univ. di Padova
Schenato, Luca	Univ. di Padova
10:10-10:30	FrA06.6
Clock Synchronization Over Directed Graphs (I), pp. 6105-6111.	
Seyboth, Georg Sebastian	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart

FrA07	PA 2.1
Process Control (Regular Session)	
Chair: Nounou, Hazem	Texas A&M Univ. at Qatar
Co-Chair: Rouchon, Pierre	Mines ParisTech
08:30-08:50	FrA07.1
A Stable Linear Adaptive Controller Applied to a Pneumatic Actuator System, pp. 6112-6117.	
Boubakir, Ahsene	LAJ, Faculty of Science and Tech. Univ. of Jijel
Plestan, Franck	Ec. Centrale de Nantes-IRCCyN
Labiod, Salim	Univ. of Jijel
Boudjema, Farès	Ec. Nationale Pol.
08:50-09:10	FrA07.2
Design of Sliding-Mode Controller Via Model Reduction for Automatic Generation Control of Micro Hydropower Plants: Isolated-Mode Case, pp. 6118-6123.	
Qian, Dianwei	North China Electric Power Univ.
Tong, Shiwen	Beijing Union Univ.
Yi, Jianqiang	China Acad. of Sciences
Deng, Mingcong	Tokyo Univ. of Agriculture and Tech.
09:10-09:30	FrA07.3
Improvement on Observer-Based Hinf Tracking Control for TS Fuzzy Systems with Unmeasurable Premise Variables, pp. 6124-6129.	
Ghorbel Hana, Louhichi	Univ. of Sfax
El Hajjaji, Ahmed	Univ. of Picardie-Jules Verne
Chaabane, Mohamed	Univ. of Sfax
09:30-09:50	FrA07.4
A Model-Free Technique for Designing Fixed-Order Controllers, pp. 6130-6135.	
Khadraoui, Sofiane	Texas A&M Univ. at Qatar
Nounou, Hazem	Texas A&M Univ. at Qatar
Nounou, Mohamed	Texas A&M Univ. at Qatar
Datta, Aniruddha	Texas A&M Univ.
Bhattacharyya, Shankar P.	Texas A&M Univ.
09:50-10:10	FrA07.5
Input/output Transfer Models of Binary Distillation Columns Derived from Convection-Diffusion Partial Differential Equations, pp. 6136-6142.	
Dudret, Stéphane	Air Liquide
Ammouri, Fouad	Air Liquide
Rouchon, Pierre	Mines ParisTech
10:10-10:30	FrA07.6
Closed-Loop Subspace Projection Based State-Space Model-Plant Mismatch Detection and Isolation for MIMO MPC Performance Monitoring, pp. 6143-6148.	
Chen, Jingyan	McMaster Univ.
Yu, Jie	McMaster Univ.
Mori, Junichi	McMaster Univ.

FrA08 PA 2.2

Maritime Control (Regular Session)

Chair: Chemori, Ahmed — CNRS

Co-Chair: Batista, Pedro — Inst. Superior Técnico

08:30-08:50 FrA08.1

Stability Analysis of a New Extended L1 Controller with Experimental Validation on an Underwater Vehicle, pp. 6149-6155.

Maalouf, Divine — CNRS / Univ. Montpellier II

Chemori, Ahmed — CNRS / Univ. Montpellier II

Creuze, Vincent — CNRS / Univ. Montpellier II

08:50-09:10 FrA08.2

Fish Lateral Line Inspired Hydrodynamic Force Estimation for Autonomous Underwater Vehicle Control, pp. 6156-6161.

Xu, Yiming — Univ. of Florida

Mohseni, Kamran — Univ. of Florida

09:10-09:30 FrA08.3

A Novel Methodology for Adaptive Wave Filtering of Marine Vessels: Theory and Experiments, pp. 6162-6167.

Hassani, Vahid — MARINTEK

Pascoal, Antonio Manuel — Inst. Superior Tecnico

Sorensen, Asgeir Johan — Norwegian Univ. of Sci and Tech.

09:30-09:50 FrA08.4

Iterated Nonlinear Control of Ship's Manoeuvring Models, pp. 6168-6175.

Revestido, Elias — Univ. de Cantabria

Tomas-Rodriguez, Maria — City Univ. London

Velasco Gonzalez, Francisco J. — Univ. de Cantabria

09:50-10:10 FrA08.5

GES Long Baseline Navigation with Unknown Sound Velocity and Discrete-Time Range Measurements, pp. 6176-6181.

Batista, Pedro — Inst. Superior Técnico

10:10-10:30 FrA08.6

Efficient Guidance in Finite Time Flow Fields, pp. 6182-6189.

Rhoads, Blane — Univ. of California, Santa Barbara

Mezic, Igor — Univ. of California, Santa Barbara

Poje, A. C — CUNY, College of Staten Island

FrA09 PA 2.3

Decentralized Dynamics and Optimization in Networks I (Invited Session)

Chair: Lee, Soomin — Univ. of Illinois, Urbana-Champaign

Co-Chair: Nedich, Angelia — Univ. of Illinois, Urbana-Champaign

Organizer: Lee, Soomin — Univ. of Illinois, Urbana-Champaign

Organizer: Nedich, Angelia — Univ. of Illinois, Urbana-Champaign

Organizer: Olshevsky, Alexander — Univ. of Illinois, Urbana-Champaign

08:30-08:50 FrA09.1

Convergence Time for Unbiased Quantized Consensus (I), pp. 6190-6195.

Etesami, Seyed Rasoul — Univ. of Illinois, Urbana-Champaign

Basar, Tamer — Univ. of Illinois, Urbana-Champaign

08:50-09:10 FrA09.2

Exponentially Fast Parameter Estimation in Networks Using Distributed Dual Averaging (I), pp. 6196-6201.

Shahrampour, Shahin — Univ. of Pennsylvania

Jadbabaie, Ali — Univ. of Pennsylvania

09:10-09:30 FrA09.3

A Non Progressive Model of Innovation Diffusion in Social Networks (I), pp. 6202-6207.

Rosa, Daniele — Univ. of Cagliari

Giua, Alessandro — Univ. of Cagliari, Italy / Aix-Marseille Univ. France

09:30-09:50 FrA09.4

On Indigenous Random Consensus and Averaging Dynamics (I), pp. 6208-6212.

Touri, Behrouz — Georgia Tech. Univ.

Langbort, Cedric — Univ. of Illinois, Urbana-Champaign

09:50-10:10 FrA09.5

Consensus with Ternary Messages (I), pp. 6213-6217.

Olshevsky, Alexander — Univ. of Illinois at Urbana-Champaign

10:10-10:30 FrA09.6

Optimal H-Infinity Control Design under Model Information Limitations and State Measurement Constraints, pp. 6218-6225.

Farokhi, Farhad — Royal Inst. of Tech.

Sandberg, Henrik — Royal Inst. of Tech.

Johansson, Karl H. — Royal Inst. of Tech.

FrA10 PA 2.4

Adaptive Control II (Regular Session)

Chair: Hackl, Christoph M. — Tech. Univ. of Munich

Co-Chair: Dixon, Warren E. — Univ. of Florida

08:30-08:50 FrA10.1

Fast Model-Based Extremum Seeking on Hammerstein Plants, pp. 6226-6231.

Sharafi, Jalil — The Univ. of Melbourne

Moase, William — The Univ. of Melbourne

Shekhar, Rohan C. — The Univ. of Melbourne

Manzie, Chris — The Univ. of Melbourne

08:50-09:10 FrA10.2

Model Reference Adaptive Consensus Control, pp. 6232-6237.

Miyasato, Yoshihiko — Inst. of Statistical Mathematics

09:10-09:30 FrA10.3

Adaptive and Distributed Control of Nonlinear and Heterogeneous Multi-Agent Systems, pp. 6238-6243.

Bidram, Ali — Univ. of Texas at Arlington

Lewis, Frank L. — Univ. of Texas at Arlington

Davoudi, Ali — Univ. of Texas at Arlington

Ge, Shuzhi Sam — Univ. of Electronic Science and Tech. of China

09:30-09:50 FrA10.4

Funnel Control with Disturbance Observer for Two-Mass Systems, pp. 6244-6249.

Hackl, Christoph M. — Tech. Univ. of Munich

09:50-10:10	FrA10.5
PI-Funnel Control with Anti-Windup and Its Application to Speed Control of Electrical Drives, pp. 6250-6255.	
Hackl, Christoph M.	Tech. Univ. of Munich
10:10-10:30	FrA10.6
Concurrent Learning-Based Approximate Optimal Regulation, pp. 6256-6261.	
Kamalapurkar, Rushikesh	Univ. of Florida
Walters, Patrick	Univ. of Florida
Dixon, Warren E.	Univ. of Florida

FrA11	PA 2.5
Smart Grid: Demand Response (Invited Session)	
Chair: Stoustrup, Jakob	Aalborg Univ.
Co-Chair: Annaswamy, Anuradha	Massachusetts Inst. of Tech.
Organizer: Stoustrup, Jakob	Aalborg Univ.
Organizer: Annaswamy, Anuradha	Massachusetts Inst. of Tech.
08:30-08:50	FrA11.1
Index Policies for Demand Response under Uncertainty (I), pp. 6262-6267.	
Taylor, Joshua	Univ. of Toronto
Mathieu, Johanna L.	ETH Zurich
08:50-09:10	FrA11.2
Integration of Heterogeneous Industrial Consumers to Provide Regulating Power to the Smart Grid (I), pp. 6268-6273.	
Rahnama, Samira	Aalborg Univ.
Stoustrup, Jakob	Aalborg Univ.
Rasmussen, Henrik	Aalborg Univ.
09:10-09:30	FrA11.3
Model-Based Feedback Control of Distributed Air-Conditioning Loads for Fast Demand-Side Ancillary Services (I), pp. 6274-6279.	
Braslavsky, Julio H.	CSIRO
Perfumo, Cristian	CSIRO Energy Tech.
Ward, John Kelvin	CSIRO Energy Tech.
09:30-09:50	FrA11.4
Modeling Energy Demand Aggregators for Residential Consumers (I), pp. 6280-6285.	
Di Bella, Giuseppe	Univ. di Palermo
Giarré, Laura	Univ. di Palermo
Jean-Marie, Alain	INRIA
Ippolito, Mariano	Univ. di Palermo
Neglia, Giovanni	INRIA Sophia Antipolis Méditerranée
Tinnirello, Ilenia	Univ. di Palermo
09:50-10:10	FrA11.5
Observer Design for Boundary Coupled PDEs: Application to Thermostatically Controlled Loads in Smart Grids (I), pp. 6286-6291.	
Moura, Scott	Univ. of California, Berkeley
Bendtsen, Jan Dimon	Aalborg Univ.
Ruiz, Victor	Univ. of California, San Diego
10:10-10:30	FrA11.6
On the Optimality of De-Synchronized Demand Response with Stochastic Renewables and Inertial Thermal Loads (I), pp. 6292-6297.	
Sharma, Gaurav	Texas A&M Univ.
Xie, Le	Texas A&M Univ.
Kumar, P. R.	Texas A&M Univ.

FrA12	VV G.1
Control, State Estimation, and Diagnosis of Discrete-Event Systems (Invited Session)	
Chair: Dotoli, Mariagrazia	Pol. di Bari
Co-Chair: Seatzu, Carla	Univ. of Cagliari
Organizer: Dotoli, Mariagrazia	Pol. di Bari
Organizer: Seatzu, Carla	Univ. of Cagliari
08:30-08:50	FrA12.1
Supervisory Control for Collision Avoidance in Vehicular Networks with Imperfect Measurements (I), pp. 6298-6303.	
Dallal, Eric	Univ. of Michigan
Colombo, Alessandro	Pol. di Milano
Del Vecchio, Domitilla	Massachusetts Insitute of Tech.
Lafortune, Stephane	Univ. of Michigan
08:50-09:10	FrA12.2
Probabilistic Marking Estimation in Labeled Petri Nets (I), pp. 6304-6310.	
Cabasino, Maria Paola	Univ. of Cagliari
Hadjicostis, Christoforos	Univ. of Cyprus
Seatzu, Carla	Univ. of Cagliari
09:10-09:30	FrA12.3
Intersection Based Decentralized Diagnosis: Implementation and Verification (I), pp. 6311-6316.	
Panteli, Maria	Univ. of Cyprus
Hadjicostis, Christoforos	Univ. of Cyprus
09:30-09:50	FrA12.4
Distributed Model Predictive Control of Timed Continuous Petri Nets (I), pp. 6317-6322.	
Wang, Liewei	Univ. of Zaragoza
Mahulea, Cristian	Univ. of Zaragoza
Silva, Manuel	Univ. of Zaragoza
09:50-10:10	FrA12.5
Multilevel Coordination Control of Modular DES (I), pp. 6323-6328.	
Komenda, Jan	Czech Acad. of Sciences
Masopust, Tomas	Czech Acad. of Sciences
van Schuppen, Jan H.	Van Schuppen Control Res.
10:10-10:30	FrA12.6
Design of Observations Graphs for Partially Observed Petri Nets: Application to the Diagnosability Analysis of DES, pp. 6329-6334.	
Lefebvre, Dimitri	Univ. Le Havre
Leclercq, Edouard	Univ. Le Havre
Guerin, Francois	Univ. Le Havre

FrA13	VV G.2
Estimation IV (Regular Session)	
Chair: Ye, Hao	Tsinghua Univ.
Co-Chair: Tedesco, Francesco	Univ. della Calabria
08:30-08:50	FrA13.1
A Dynamical Systems Approach to Energy Disaggregation, pp. 6335-6340.	
Dong, Roy	Univ. of California at Berkeley
Ratliff, Lillian	Univ. of California at Berkeley
Ohlsson, Henrik	Linköping Univ.
Sastry, Shankar	Univ. of California at Berkeley
08:50-09:10	FrA13.2
Lower Bounds in Parameter Estimation Based on Quantized Measurements, pp. 6341-6346.	
Wu, Hao	Tsinghua Univ.
Ye, Hao	Tsinghua Univ.
Wang, Wei	Tsinghua Univ.
09:10-09:30	FrA13.3
Can You Track the Tracker?, pp. 6347-6352.	
Ciuonzo, Domenico	Second University of Naples
Willett, Peter K.	Univ. of Connecticut
Bar-Shalom, Yaakov	Univ. of Connecticut
09:30-09:50	FrA13.4
A Convex Optimization Approach to Worst-Case Optimal Sensor Selection, pp. 6353-6358.	
Wang, Yin	Northeastern Univ.
Sznaier, Mario	Northeastern Univ.
Dabbene, Fabrizio	CNR-IEIIT
09:50-10:10	FrA13.5
A Distance Metric between Directed Weighted Graphs, pp. 6359-6364.	
Xu, Yunwen	Univ. of Illinois, Urbana-Champaign
Salapaka, Srinivasa	Univ. of Illinois, Urbana-Champaign
Beck, Carolyn L.	Univ. of Illinois, Urbana-Champaign
10:10-10:30	FrA13.6
An Immersion and Invariance Based Speed and Rotation Angle Observer for a Class of Revolute/Prismatic Manipulators with Two Degrees of Freedom, pp. 6365-6371.	
Rapp, Philipp	Univ. of Stuttgart
Sawodny, Oliver	Univ. of Stuttgart
Tarin, Cristina	Univ. of Stuttgart

FrA14	VV G.3
Toward Exact Methods for Robustness Analysis and Synthesis (Invited Session)	
Chair: Chesi, Graziano	Univ. of Hong Kong
Co-Chair: Ebihara, Yoshio	Kyoto Univ.
Organizer: Chesi, Graziano	Univ. of Hong Kong
08:30-08:50	FrA14.1
Analysis and Synthesis of Interconnected SISO Positive Systems with Switching (I), pp. 6372-6378.	
Ebihara, Yoshio	Kyoto Univ.
Peaucelle, Dimitri	LAAS-CNRS, Univ. de Toulouse
Arzelier, Denis	LAAS-CNRS
08:50-09:10	FrA14.2
Estimation of Consistent Parameter Sets for Continuous-Time Nonlinear Systems Using Occupation Measures and LMI Relaxations (I), pp. 6379-6384.	
Streif, Stefan	OVG Univ. Magdeburg
Rumschinski, Philipp	OVG Univ. Magdeburg
Henrion, Didier	LAAS-CNRS
Findeisen, Rolf	OVG Univ. Magdeburg
09:10-09:30	FrA14.3
A Mixed Deterministic and Stochastic Small Gain Theorem and Its Application to Networked Stabilization (I), pp. 6385-6390.	
Wan, Shuang	Hong Kong Univ. of Sci. & Tech.
Qiu, Li	Hong Kong Univ. of Sci. & Tech.
09:30-09:50	FrA14.4
Computational Complexity of Robust Control: A Review of Theoretical and Algorithmic Developments (I), pp. 6391-6396.	
Kim, Kwang-Ki	Georgia Inst. of Tech.
Braatz, Richard D.	Massachusetts Inst. of Tech.
09:50-10:10	FrA14.5
A New Procedure for Discretization and State Feedback Control of Uncertain Linear Systems (I), pp. 6397-6402.	
Braga, Marcio	Univ. of Campinas - UNICAMP
Morais, Cecília	Univ. of Campinas - UNICAMP
Tognetti, Eduardo Stockler	Univ. of Brasilia
Oliveira, Ricardo C. L. F.	Univ. of Campinas - UNICAMP
Peres, Pedro L. D.	Univ. of Campinas - UNICAMP
10:10-10:30	FrA14.6
Discrete-Time Stochastic Control Systems: Examples of Robustness to Strictly Causal Perturbations, pp. 6403-6408.	
Grammatico, Sergio	ETH Zurich
Subbaraman, Anantharaman	Univ. of California, Santa Barbara
Teel, Andrew R.	Univ. of California, Santa Barbara

FrA15 VV 2.1

Predictive Control for Linear Systems II (Regular Session)

Chair: Zheng, Wei Xing — Univ. of Western Sydney
Co-Chair: Hashimoto, Tomoaki — Osaka Univ.

08:30-08:50 FrA15.1

Embedding Norm-Bounded Model Predictive Control Allocation Strategy for the High Altitude Performance Demonstrator (HAPD) Aircraft, pp. 6409-6414.

Franze', Giuseppe — Univ. Degli Studi della Calabria
Mattei, Massimiliano — Seconda Univ. di Napoli
Scordamaglia, Valerio — Univ. of Reggio Calabria

08:50-09:10 FrA15.2

Decentralized Constraint Enforcement Using Reference Governors, pp. 6415-6421.

Kalabic, Uros V. — Univ. of Michigan
Kolmanovsky, Ilya V. — Univ. of Michigan

09:10-09:30 FrA15.3

Polygonic Representation of Explicit Model Predictive Control, pp. 6422-6427.

Oravec, Juraj — Slovak Univ. of Tech. in Bratislava
Blažek, Slavomír — Slovak Univ. of Tech. in Bratislava
Kvasnica, Michal — Slovak Univ. of Tech. in Bratislava
Di Cairano, Stefano — Mitsubishi Electric Res. Lab.

09:30-09:50 FrA15.4

An Approach for Model Predictive Control of Mixed Integer-Input Linear Systems Based on Convex Relaxations, pp. 6428-6433.

Schmitt, Marius Gerhard — ETH Zurich
Vujanic, Robin — ETH Zurich
Warrington, Joseph — ETH Zurich
Morari, Manfred — ETH Zurich

09:50-10:10 FrA15.5

Probabilistic Constrained Model Predictive Control for Linear Discrete-Time Systems with Additive Stochastic Disturbances, pp. 6434-6439.

Hashimoto, Tomoaki — Osaka Univ.

10:10-10:30 FrA15.6

Explicit Stochastic MPC Approach to Building Temperature Control, pp. 6440-6445.

Drgona, Jan — Slovak Univ. of Tech. in Bratislava
Kvasnica, Michal — Slovak Univ. of Tech. in Bratislava
Klauco, Martin — Slovak Univ. of Tech.
Fikar, Miroslav — Slovak Univ. of Tech. in Bratislava

FrA16 VV 2.2

Optimal Control V (Regular Session)

Chair: Elia, Nicola — Iowa State Univ.
Co-Chair: Rajagopal, Ram — Stanford Univ.

08:30-08:50 FrA16.1

Some Properties of Generalized Inverse of Non-Square Systems, pp. 6446-6451.

Li, Shenpeng — Monash Univ.
Zhang, Jingxin — Swinburne Univ. of Tech.

08:50-09:10 FrA16.2

Singular Linear-Quadratic Control for Semistabilization, pp. 6452-6457.

L'Afflitto, Andrea — Georgia Inst. of Tech.
Haddad, Wassim M. — Georgia Inst. of Tech.

09:10-09:30 FrA16.3

The Role of the Generalised Continuous Algebraic Riccati Equation in Impulse-Free Continuous-Time Singular LQ Optimal Control, pp. 6458-6462.

Ferrante, Augusto — Univ. di Padova
Ntogramatzidis, Lorenzo — Curtin Univ.

09:30-09:50 FrA16.4

A Projected SQP Method for Nonlinear Optimal Control with Quadratic Convergence, pp. 6463-6468.

Bayer, Florian Anton — Univ. of Stuttgart
Notarstefano, Giuseppe — Univ. del Salento
Allgöwer, Frank — Univ. of Stuttgart

09:50-10:10 FrA16.5

Costate Estimation of State-Inequality Path Constrained Optimal Control Problems Using Collocation at Legendre-Gauss-Radau Points, pp. 6469-6474.

Francolin, Camila — Univ. of Florida
Hou, Hongyan — Univ. of Florida
Hager, William W. — Univ. of Florida
Rao, Anil V. — Univ. of Florida

10:10-10:30 FrA16.6

Binocular Eye Tracking Control Satisfying Hering's Law, pp. 6475-6480.

Ghosh, Bijoy — Texas Tech. Univ.
Wijayasinghe, Indika — Texas Tech. Univ.

FrA17 VV 2.3

System Identification IV (Regular Session)

Chair: Stotsky, Alexander A. — Chalmers Univ. of Tech.
Co-Chair: Pintelon, Rik M. — Vrije Univ. Brussels

08:30-08:50 FrA17.1

Identification of Many-Core Systems-On-Chip with Input and Output Noises, pp. 6481-6488.

Diversi, Roberto — Univ. of Bologna
Tilli, Andrea — Univ. of Bologna
Bartolini, Andrea — Univ. of Bologna
Benini, Luca — Univ. of Bologna

08:50-09:10 FrA17.2

Anomaly Detection in Videos: A Dynamical Systems Approach, pp. 6489-6495.

Surana, Amit — United Tech. Res. Center
Nakhmani, Arie — Univ. of Alabama at Birmingham
Tannenbaum, Allen — Univ. of Alabama at Birmingham

09:10-09:30 FrA17.3

A Geometric Approach to Variance Analysis of Cascaded Systems, pp. 6496-6501.

Everitt, Niklas — KTH Royal Inst. of Tech.
Hjalmarsson, Håkan — KTH Royal Inst. of Tech.
Rojas, Cristian R. — KTH Royal Inst. of Tech.

09:30-09:50	FrA17.4
De-Embedding of Multiplexers by Schur Reduction, pp. 6502-6507.	
Lefteriu, Sanda	INRIA
Oldoni, Matteo	SIAE MICROELETRONICS
Olivi, Martine	INRIA
Seyfert, Fabien	INRIA
09:50-10:10	FrA17.5
Sequential Decision Making in Two-Dimensional Hypothesis Testing, pp. 6508-6515.	
Carlisle, Michael	City Univ. of New York, Baruch College
Hadjiliadis, Olympia	City Univ. of New York, Brooklyn College
10:10-10:30	FrA17.6
Robust Least-Squares Estimation with Harmonic Regressor: High Order Algorithms, pp. 6516-6521.	
Stotsky, Alexander A.	Chalmers Univ. of Tech.

FrA18	Auditorium
Decentralized Control III (Regular Session)	
Chair: Ferrari-Trecate, Giancarlo	Univ. degli Studi di Pavia
Co-Chair: Lessard, Laurent	Univ. of California, Berkeley
08:30-08:50	FrA18.1
Communication Delay Co-Design in H2 Decentralized Control Using Atomic Norm Minimization, pp. 6522-6529.	
Matni, Nikolai	California Inst. of Tech.
08:50-09:10	FrA18.2
Design of Plug-And-Play Model Predictive Control: An Approach Based on Linear Programming, pp. 6530-6535.	
Riverso, Stefano	Univ. degli Studi di Pavia
Farina, Marcello	Pol. di Milano
Ferrari-Trecate, Giancarlo	Univ. degli Studi di Pavia
09:10-09:30	FrA18.3
Asymptotic Synchronization of Leader-Follower Networks of Uncertain Euler-Lagrange Systems, pp. 6536-6541.	
Klotz, Justin	Univ. of Florida
Kan, Zhen	Univ. of Florida
Shea, John	Univ. of Florida
Pasiliao, Eduardo	AFRL
Dixon, Warren E.	Univ. of Florida
09:30-09:50	FrA18.4
Structural Results and Explicit Solution for Two-Player LQG Systems on a Finite Time Horizon, pp. 6542-6549.	
Lessard, Laurent	Univ. of California, Berkeley
Nayyar, Ashutosh	Univ. of California, Berkeley
09:50-10:10	FrA18.5
Pinning Control of Diffusively Coupled Oscillators in Fast Switching Networks, pp. 6550-6554.	
Manaffam, Saeed	Univ. of Central Florida
Seyedi, Alireza	Univ. of Central Florida
10:10-10:30	FrA18.6
Resilient Decentralized Stabilization for Uncertain Interconnected Systems with Neutral Delay, pp. 6555-6560.	
Zong, Guangdeng	Qufu Normal Univ.
Zheng, Wei Xing	Univ. of Western Sydney
Hou, Linlin	Qufu Normal Univ.

FrPL	Auditorium
Can Control Science Bring New Insights to Stock Trading Research? (Plenary Session)	
Chair: Cassandras, Christos G.	Boston Univ.
Co-Chair: Yamamoto, Yutaka	Kyoto Univ.
11:00-12:00	FrPL.1
*Can Control Science Bring New Insights to Stock Trading Research?**.	
Barmish, B. Ross	Univ. of Wisconsin

FrB01	PA B.1
Contraction Analysis – Theory and Applications II (Invited Session)	
Chair: di Bernardo, Mario	Univ. of Naples Federico II
Co-Chair: Sepulchre, Rodolphe	Univ. of Cambridge
Organizer: di Bernardo, Mario	Univ. of Naples Federico II
Organizer: Sepulchre, Rodolphe	Univ. of Cambridge
Organizer: Slotine, Jean-Jacques	Massachusetts Inst. of Tech.
13:30-13:50	FrB01.1
How Slaves Affect a Master Module in Gene Transcription Networks (I), pp. 6561-6567.	
Gyorgy, Andras	Massachusetts Inst. of Tech.
Del Vecchio, Domitilla	Massachusetts Inst. of Tech.
13:50-14:10	FrB01.2
Contraction and Stability Analysis of Steady-States for Open Quantum Systems Described by Lindblad Differential Equations (I), pp. 6568-6573.	
Rouchon, Pierre	Mines ParisTech
Sarlette, Alain	Ghent Univ.
14:10-14:30	FrB01.3
Contraction-Based Design of Positive Observers (I), pp. 6574-6579.	
Dinh, Thach N.	INRIA & MINES ParisTech
Bonnabel, Silvere	Mines ParisTech
Sepulchre, Rodolphe J.	Univ. of Cambridge
14:30-14:50	FrB01.4
On Differential Passivity of Physical Systems (I), pp. 6580-6585.	
Forni, Fulvio	Univ. of Liège
Sepulchre, Rodolphe J.	Univ. of Cambridge
van der Schaft, Arjan J.	Univ. of Groningen
14:50-15:10	FrB01.5
Contraction Analysis of Nonlinear Hamiltonian System (I), pp. 6586-6592.	
Lohmiller, Winfried	Massachusetts Inst. of Tech. / EADS
Slotine, Jean-Jacques	Massachusetts Inst. of Tech.
15:10-15:30	FrB01.6
A Small-Gain-Like Theorem for Large-Scale Systems, pp. 6593-6596.	
Scarciotti, Giordano	Imperial Coll. London
Praly, Laurent	MINES ParisTech
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome

FrB02	PA G.1
Networked Control V (Regular Session)	
Chair: Abichou, Azgal	Ec. Pol. De Tunis
Co-Chair: Fischer, Jörg	Karlsruhe Inst. of Tech.
13:30-13:50	FrB02.1
Packet-Based Dynamic Control for Nonlinear Networked Systems (I), pp. 6597-6603.	
Falasca, Stefano	Univ. di Pisa
Gamba, Massimiliano	Univ. di Pisa
Greco, Luca	Univ. Paris Sud 11
Chaillet, Antoine	Univ. Paris Sud 11
Bicchi, Antonio	Univ. di Pisa
13:50-14:10	FrB02.2
Finite-Time Consensus and Stability of Networked Nonlinear Systems, pp. 6604-6609.	
Zoghlami, Naim	Univ. of Evry
Beji, Lotfi	Univ. of Evry
Mlayeh, Rhouma	Pol. School of Tunisia
Abichou, Azgal	Ec. Pol. De Tunis
14:10-14:30	FrB02.3
A New Compensation Framework for LQ Control Over Lossy Networks, pp. 6610-6614.	
Yu, Jen-te	National Taiwan Univ.
Fu, Li-Chen	National Taiwan Univ.
14:30-14:50	FrB02.4
Sparse Networked Control of Input Constrained Linear Systems, pp. 6615-6620.	
Kong, He	Univ. of Newcastle
Goodwin, Graham C.	Univ. of Newcastle
Seron, Maria	Univ. of Newcastle
14:50-15:10	FrB02.5
A Model Predictive Approach for Cyber-Attack Detection and Mitigation in Control Systems, pp. 6621-6626.	
Rosich, Albert	Univ. of Luxembourg
Voos, Holger	Univ. of Luxembourg
Li, Yumei	Univ. of Luxembourg
Darouach, Mohamed	Univ. de Lorraine, CRAN-CNRS
15:10-15:30	FrB02.6
On Stability of Sequence-Based LQG Control (I), pp. 6627-6633.	
Fischer, Jörg	Karlsruhe Inst. of Tech.
Dolgov, Maxim	Karlsruhe Inst. of Tech.
Hanebeck, Uwe D.	Karlsruhe Inst. of Tech.

FrB03	PA 1.1
Analysis and Control of Systems with Hysteresis (Invited Session)	
Chair: Jayawardhana, Bayu	Univ. of Groningen
Co-Chair: Naso, David	Pol. di Bari
Organizer: Jayawardhana, Bayu	Univ. of Groningen
Organizer: Naso, David	Pol. di Bari
Organizer: Tan, Xiaobo	Michigan State Univ.
13:30-13:50	FrB03.1
LMI-Based Design of Linear Controllers for a Magnetic Shape Memory Push-Push Actuator (I), pp. 6634-6639.	
Riccardi, Leonardo	Pol. di Bari
Naso, David	Pol. di Bari
Turchiano, Biagio	Pol. di Bari
Janocha, Hartmut	Saarland Univ.
13:50-14:10	FrB03.2
PD Control of a Second-Order System with Hysteretic Actuator (I), pp. 6640-6645.	
Ouyang, Ruiyue	Univ. of Groningen
Jayawardhana, Bayu	Univ. of Groningen
Scherpen, Jacquelien M.A.	Univ. of Groningen
14:10-14:30	FrB03.3
A Rheological Model for the Rate-Dependent Prandtl-Ishlinskii Model (I), pp. 6646-6651.	
Al Janaideh, Mohammad	The Univ. of Michigan
Krejci, Pavel	Institute of Mathematics, Acad. of Sciences of the Czech Republ
14:30-14:50	FrB03.4
Stability Analysis for Systems with Saturation and Backlash in the Loop (I), pp. 6652-6657.	
Tarbouriech, Sophie	LAAS-CNRS
Queinnec, Isabelle	LAAS-CNRS
Prieur, Christophe	CNRS
14:50-15:10	FrB03.5
Design and Analysis of a Sliding Mode Controller for Systems with Hysteresis (I), pp. 6658-6663.	
Edardar, Mohamed	Michigan State Univ.
Tan, Xiaobo	Michigan State Univ.
Khalil, Hassan K.	Michigan State Univ.
15:10-15:30	FrB03.6
Control for Unknown Linear Systems Preceded by Hysteresis Represented by Preisach Model (I), pp. 6664-6669.	
Chen, Xinkai	Shibaura Inst. of Tech.

FrB04 PA 1.2

Iterative Learning Control I (Regular Session)

Chair: Rogers, Eric — Univ. of Southampton
Co-Chair: Chu, Bing — Univ. of Southampton

13:30-13:50 FrB04.1

Iterative Learning Control for Optimal Path Following Problems, pp. 6670-6675.

Janssens, Pieter — Katholieke Univ. Leuven
Van Loock, Wannes — Katholieke Univ. Leuven
Pipeleers, Goele — Katholieke Univ. Leuven
Debrouwere, Frederik — Katholieke Univ. Leuven
Swevers, Jan — Katholieke Univ. Leuven

13:50-14:10 FrB04.2

Iterative Learning Control with Variable Pass Length Applied to Trajectory Tracking on a Crane with Output Constraints, pp. 6676-6681.

Guth, Mickaël — Tech. Univ. Berlin
Seel, Thomas — Tech. Univ. Berlin
Raisch, Joerg — Tech. Univ. Berlin

14:10-14:30 FrB04.3

An Iterative Learning Control Approach for Synchronization of Multi-Agent Systems under Iteration-Varying Graph, pp. 6682-6687.

Yang, Shiping — National Univ. of Singapore
Xu, Jian-Xin — National Univ. of Singapore
Yu, Miao — Aalto Univ.

14:30-14:50 FrB04.4

Cascade Based Iterative Learning Control of Robotic-Assisted Upper Extremity Stroke Rehabilitation, pp. 6688-6693.

Xu, Wenkang — Nanjing Univ. of Science and Tech.
Chu, Bing — Univ. of Southampton
Rogers, Eric — Univ. of Southampton

14:50-15:10 FrB04.5

Iterative Feedforward Control: A Closed-Loop Identification Problem and a Solution, pp. 6694-6699.

Boeren, Frank — Eindhoven Univ. of Tech.
Oomen, Tom — Eindhoven Univ. of Tech.

15:10-15:30 FrB04.6

Singular Value Distribution of Non-Minimum Phase Systems with Application to Iterative Learning Control, pp. 6700-6705.

Chu, Bing — Univ. of Southampton
Owens, David H. — The Univ. of Sheffield

FrB05 PA 1.3

Cooperative Control III (Regular Session)

Chair: Yu, Changbin (Brad) — The Australian National Univ.
Co-Chair: Wang, Jing — Bethune-Cookman Univ.

13:30-13:50 FrB05.1

Formation Control of UAVs with a Fourth-Order Flight Dynamics, pp. 6706-6711.

Kuriki, Yasuhiro — Keio Univ.
Namerikawa, Toru — Keio Univ.

13:50-14:10 FrB05.2

Zero-Error Coordinated Tracking of Multiple Lagrange Systems Using Continuous Control, pp. 6712-6717.

Meng, Ziyang — Royal Inst. of Tech.
Dimarogonas, Dimos V. — Royal Inst. of Tech.
Johansson, Karl H. — Royal Inst. of Tech.

14:10-14:30 FrB05.3

Leader-Following Rendezvous with Connectivity Preservation of Multiple Double Integrator Systems Based Only Position Measurements, pp. 6718-6723.

Dong, Yi — Chinese Univ. of Hong Kong
Huang, Jie — Chinese Univ. of Hong Kong

14:30-14:50 FrB05.4

Robust Consensus of Nonlinear Heterogeneous Multi-Agent Systems, pp. 6724-6728.

Zhu, Lijun — Univ. of Newcastle
Chen, Zhiyong — Univ. of Newcastle

14:50-15:10 FrB05.5

Throughput Optimal Distributed Routing in Dynamical Flow Networks, pp. 6729-6734.

Lovisari, Enrico — Univ. of Lund
Como, Giacomo — Lund Univ.
Savla, Ketan — Univ. of Southern California

15:10-15:30 FrB05.6

Consensus for Agents with General Dynamics Using Optimistic Optimization, pp. 6735-6740.

Busoniu, Lucian — Tech. Univ. of Cluj-Napoca
Morarescu, Irinel-Constantin — Univ. de Lorraine

FrB06 PA 1.4

Advances in Estimation and Control in Wireless Sensor Networks II (Invited Session)

Chair: Dey, Subhrakanti — Univ. of Melbourne
Co-Chair: Schenato, Luca — Univ. di Padova
Organizer: Chiuso, Alessandro — Univ. di Padova
Organizer: Dey, Subhrakanti — Uppsala Univ.
Organizer: Schenato, Luca — Univ. di Padova

13:30-13:50 FrB06.1

Optimal Design of a Class of Controllers and Data-Dropout Compensators for LTI Plants Controlled Over Erasure Channels (I), pp. 6741-6746.

Silva, Eduardo I. — Univ. Tecnica Federico Santa Maria
Vargas, Francisco J. — Univ. Técnica Federico Santa María
Maass, Alejandro I. — Univ. Técnica Federico Santa María

13:50-14:10 FrB06.2

Event-Based Distributed Clock Synchronization for Wireless Sensor Networks (I), pp. 6747-6752.

Kadowaki, Yuki — Tokyo Inst. of Tech.
Ishii, Hideaki — Tokyo Inst. of Tech.

14:10-14:30 FrB06.3

Distributed Estimation of Binary Event Probabilities Via Hierarchical Bayes and Dual Decomposition (I), pp. 6753-6758.

Coluccia, Angelo — Univ. del Salento
Notarstefano, Giuseppe — Univ. del Salento

14:30-14:50	FrB06.4
Quantized Leaderless and Leader-Following Consensus of High-Order Multi-Agent Systems with Limited Data Rate (I), pp. 6759-6764.	
Qiu, Zhirong	Nanyang Tech. Univ.
Hong, Yiguang	Chinese Acad. of Sciences
Xie, Lihua	Nanyang Tech. Univ.
14:50-15:10	FrB06.5
Static LQG Teams with Countably Infinite Players (I), pp. 6765-6770.	
Mahajan, Aditya	McGIll Univ.
Martins, Nuno C.	Univ. of Maryland
Yuksel, Serdar	Queen's Univ.
15:10-15:30	FrB06.6
Fast Distributed Estimation of Empirical Mass Functions Over Anonymous Networks (I), pp. 6771-6777.	
Terelius, Håkan	Royal Inst. of Tech.
Varagnolo, Damiano	Royal Inst. of Tech.
Baquero, Carlos	INESC PORTO
Johansson, Karl H.	Royal Inst. of Tech.

FrB07	PA 2.1
Neural Networks (Regular Session)	
Chair: Yu, Wen	CINVESTAV-IPN
Co-Chair: Loukianov, Alexander G.	CINVESTAV IPN GDl
13:30-13:50	FrB07.1
Modeling of Human Driver Behavior Via Receding Horizon and Artificial Neural Network Controllers, pp. 6778-6785.	
Wei, Hongchuan	Duke Univ.
Ross, Weston	Duke Univ.
Varisco, Stefano	Ferrari S.p.A.
Krief, Philippe	Ferrari S.p.A.
Ferrari, Silvia	Duke Univ.
13:50-14:10	FrB07.2
Real-Time Sliding Mode Control with Neural Networks for a Doubly Fed Induction Generator (I), pp. 6786-6791.	
Ruiz-Cruz, Riemann	Inst. Tecnologico y de Estudios Superiores de Occidente
Sanchez, Edgar N.	CINVESTAV
Loukianov, Alexander G.	CINVESTAV IPN GDl
14:10-14:30	FrB07.3
Uncertainty Analysis in Air Quality Control Systems, pp. 6792-6797.	
Baroni, Gabriele	Inst. for Earth and Environmental Science Univ. of Pots
Carnevale, Claudio	Univ. of Brescia
Finzi, Giovanna	Univ. of Brescia
Pisoni, Enrico	Univ. of Brescia
Turrini, Enrico	Univ. of Brescia
Volta, Marialuisa	Univ. of Brescia
14:30-14:50	FrB07.4
Spike-Based Indirect Training of a Spiking Neural Network-Controlled Virtual Insect, pp. 6798-6805.	
Zhang, Xu	Duke Univ.
Xu, Ziye	Duke Univ.
Henriquez, Craig	Duke Univ.
Ferrari, Silvia	Duke Univ.
14:50-15:10	FrB07.5
A Neurodynamic Optimization Approach to Robust Pole Assignment for Synthesizing Linear State Feedback Control Systems, pp. 6806-6811.	
Le, Xinyi	Chinese Univ. of Hong Kong
Wang, Jun	Chinese Univ. of Hong Kong
15:10-15:30	FrB07.6
Neural Passivity Control of Nonlinear Multivariable Systems, pp. 6812-6817.	
Yu, Wen	CINVESTAV-IPN
Li, Xiaoou	CINVESTAV-IPN

FrB08	PA 2.2
Propulsion Systems Control and Optimization (Invited Session)	
Chair: Onori, Simona	Clemson Univ.
Co-Chair: Mohammadpour, Javad	Univ. of Georgia
Organizer: Onori, Simona	Clemson Univ.
Organizer: Mohammadpour, J.	Univ. of Georgia
Organizer: Di Cairano, Stefano	Mitsubishi Electric Res. Lab.
13:30-13:50	FrB08.1
A Discrete-Time Sliding Mode Formulation for Automotive Cold-Start Emission Control (I), pp. 6818-6823.	
Edelberg, Kyle	Univ. of California, Berkeley
Pan, Selina	Univ. of California, Berkeley
Hedrick, Karl	Univ. of California, Berkeley
13:50-14:10	FrB08.2
From Static to Dynamic Optimisation of Diesel-Engine Control (I), pp. 6824-6829.	
Asprion, Jonas	ETH Zurich
Chinellato, Oscar	FPT Motorenforschung AG
Onder, Christopher Harald	ETH Zurich
Guzzella, Lino	ETH Zurich
14:10-14:30	FrB08.3
Improving the Control Performance of an Organic Rankine Cycle System for Waste Heat Recovery from a Heavy-Duty Diesel Engine Using a Model-Based Approach (I), pp. 6830-6836.	
Peralez, Johan	IFP Energies nouvelles
Tona, Paolino	IFP
Lepreux, Olivier	IFP Lyon
Sciarretta, Antonio	Swiss Federal Inst. of Tech.
Voise, Luc	D2T Powertrain Engineering
Dufour, Pascal	Univ. Claude Bernard Lyon 1
Nadri, Madiha	Univ. Claude Bernard Lyon 1
14:30-14:50	FrB08.4
Recasting the HEV Energy Management Problem into an Infinite-Time Optimization Problem Including Stability (I), pp. 6837-6842.	
Mura, Roberto	Pol. di Milano
Utkin, Vadim I.	The Ohio State Univ.
Onori, Simona	Clemson Univ.
14:50-15:10	FrB08.5
Dynamic Steady-State Allocation for Over-Actuated Turbocharged Diesel Engines (I), pp. 6843-6848.	
Zhou, Junqiang	The Ohio State Univ.
Fiorentini, Lisa	The Ohio State Univ.
Canova, Marcello	The Ohio State Univ.
Serrani, Andrea	The Ohio State Univ.

15:10-15:30 FrB08.6

Tuning and Experimental Evaluation of a Likelihood-Based Engine Knock Controller (I), pp. 6849-6854.

Thomasson, Andreas — Linköping Univ.
Eriksson, Lars — Linkoping Univ.
Lindell, Tobias — Linköping Univ.
Peyton Jones, James — Villanova Univ.
Spelina, Jill — Villanova Univ.
Frey, Jesse — Villanova Univ.

FrB09 PA 2.3

Decentralized Dynamics and Optimization in Networks II (Invited Session)

Chair: Giua, Alessandro — Univ. of Cagliari, Italy / Aix-Marseille Univ. France
Co-Chair: Nedich, Angelia — Univ. of Illinois, Urbana-Champaign
Organizer: Lee, Soomin — Univ. of Illinois, Urbana-Champaign
Organizer: Nedich, Angelia — Univ. of Illinois, Urbana-Champaign
Organizer: Olshevsky, Alexander — Univ. of Illinois, Urbana-Champaign

13:30-13:50 FrB09.1

Distributed Optimization Over Time-Varying Directed Graphs (I), pp. 6855-6860.

Nedich, Angelia — Univ. of Illinois, Urbana-Champaign
Olshevsky, Alexander — Univ. of Illinois, Urbana-Champaign

13:50-14:10 FrB09.2

Convergence Analysis of Primal Solutions in Dual First-Order Methods (I), pp. 6861-6867.

Lu, Jie — KTH Royal Inst. of Tech.
Johansson, Mikael — KTH Royal Inst. of Tech.

14:10-14:30 FrB09.3

Optimal Scaling of the ADMM Algorithm for Distributed Quadratic Programming (I), pp. 6868-6873.

Teixeira, André — KTH Royal Inst. of Tech.
Ghadimi, Euhanna — KTH Royal Inst. of Tech.
Shames, Iman — The Univ. of Melbroune
Sandberg, Henrik — KTH Royal Inst. of Tech.
Johansson, Mikael — KTH Royal Inst. of Tech.

14:30-14:50 FrB09.4

Gossip-Based Random Projection Algorithm for Distributed Optimization: Error Bound (I), pp. 6874-6879.

Lee, Soomin — Univ. of Illinois, Urbana-Champaign
Nedich, Angelia — Univ. of Illinois, Urbana-Champaign

14:50-15:10 FrB09.5

Structured-LMI Conditions for Stabilizing Network-Decentralized Control, pp. 6880-6885.

Blanchini, Franco — Univ. degli Studi di Udine
Franco, Elisa — Univ. of California at Riverside
Giordano, Giulia — Univ. degli Studi di Udine

15:10-15:30 FrB09.6

An Optimal Control Approach to the Multi-Agent Persistent Monitoring Problem in Two-Dimensional Spaces, pp. 6886-6891.

Lin, Xuchao — Boston Univ.
Cassandras, Christos G. — Boston Univ.

FrB10 PA 2.4

Adaptive Control III (Regular Session)

Chair: Manzie, Chris — The Univ. of Melbourne
Co-Chair: Sun, Hui — Univ. of Illinois, Urbana-Champaign

13:30-13:50 FrB10.1

Adaptive Nonlinear Control of Braking in Railway Vehicles, pp. 6892-6897.

Caporale, Danilo — Pol. di Milano
Colaneri, Patrizio — Pol. di Milano
Astolfi, Alessandro — Imperial Coll. & Univ. of Rome

13:50-14:10 FrB10.2

Semi-Global Stability Analysis of a Discrete-Time Extremum-Seeking Scheme Using LDI Methods, pp. 6898-6903.

Shekhar, Rohan C. — The Univ. of Melbourne
Moase, William — The Univ. of Melbourne
Manzie, Chris — The Univ. of Melbourne

14:10-14:30 FrB10.3

Some Considerations about Discrete-Time AFC Controllers, pp. 6904-6909.

Orellana, Marcos — Univ. Pol. de Catalunya
Griño, Robert — Univ. Pol. de Catalunya

14:30-14:50 FrB10.4

Unfalsified Adaptive Control: Finding the Best Controller among Candidate Controllers, pp. 6910-6915.

Cheong, Seunggyun — Univ. of Sydney

14:50-15:10 FrB10.5

Robust Stability and Performance of Adaptive Jitter Supression in Laser Beam Pointing, pp. 6916-6921.

Jafari, Saeid — Univ. of Southern California
Ioannou, Petros A. — Univ. of Southern California
Fitzpatrick, Ben — Loyola Marymount Univ.
Wang, Yun — Tempest Tech.

15:10-15:30 FrB10.6

Consensus of Networked Mechanical Systems with Time Delays: A Unified Framework, pp. 6922-6927.

Wang, Hanlei — Beijing Inst. of Control Engineering

FrB11	PA 2.5
Smart Grid: Distribution Systems and Demand Side Management (Invited Session)	
Chair: Stoustrup, Jakob	Aalborg Univ.
Co-Chair: Annaswamy, Anuradha	Massachusetts Inst. of Tech.
Organizer: Stoustrup, Jakob	Aalborg Univ.
Organizer: Annaswamy, Anuradha	Massachusetts Inst. of Tech.
13:30-13:50	FrB11.1
Voltage Robust Stability in Microgrid Power Management (I), pp. 6928-6933.	
Wang, Le Yi	Wayne State Univ.
Polis, Michael P.	Oakland Univ.
Wang, Caisheng	Wayne State Univ.
Lin, Feng	Wayne State Univ.
Yin, George	Wayne State Univ.
13:50-14:10	FrB11.2
A Decentralized Control Method for Direct Smart Grid Control of Refrigeration Systems (I), pp. 6934-6939.	
Shafiei, Seyed Ehsan	Aalborg Univ.
Izadi-Zamanabadi, Roozbeh	Danfoss A/S
Rasmussen, Henrik	Aalborg Univ.
Stoustrup, Jakob	Aalborg Univ.
14:10-14:30	FrB11.3
Enhancing Distribution Networks to Evolve Toward Smart Grids: The Voltage Control Problem (I), pp. 6940-6945.	
Di Fazio, Anna Rita	Univ. of Cassino
Fusco, Giuseppe	Univ. of Cassino
Russo, Mario	Univ. of Cassino
14:30-14:50	FrB11.4
Ancillary Service to the Grid from Deferrable Loads: The Case for Intelligent Pool Pumps in Florida (I), pp. 6946-6953.	
Meyn, Sean	Univ. of Florida
Barooah, Prabir	Univ. of Florida
Busic, Ana	INRIA and École Normale Supérieure
Ehren, Jordan	Univ. of Florida
14:50-15:10	FrB11.5
Voltage and Reactive Power Control Using Approximate Stochastic Annealing (I), pp. 6954-6959.	
Feinberg, Eugene A.	SUNY at Stony Brook
Hu, Jiaqiao	SUNY at Stony Brook
Yuan, Eting	SUNY at Stony Brook
15:10-15:30	FrB11.6
Alternating Direction Method of Multipliers for Decentralized Electric Vehicle Charging Control (I), pp. 6960-6965.	
Rivera, Jose	Tech. Univ. München
Wolfrum, Philipp	Siemens AG
Hirche, Sandra	Tech. Univ. München
Goebel, Christoph	Tech. Univ. München
Jacobsen, Hans-Arno	Tech. Univ. München

FrB12	VV G.1
Discrete-Event Systems (Regular Session)	
Chair: Gong, Weibo	Univ. of Massachusetts at Amherst
Co-Chair: Rudie, Karen	Queen's Univ.
13:30-13:50	FrB12.1
Efficient Computation of Sensor Activation Decisions in Discrete-Event Systems, pp. 6966-6971.	
Sears, David	Queen's Univ.
Rudie, Karen	Queen's Univ.
13:50-14:10	FrB12.2
Computing Sensor Activation Decisions from State Equivalence Classes in Discrete-Event Systems, pp. 6972-6977.	
Sears, David	Queen's Univ.
Rudie, Karen	Queen's Univ.
14:10-14:30	FrB12.3
Transient Response Functions for Graph Structure Addressable Memory, pp. 6978-6985.	
Gong, Weibo	Univ. of Massachusetts at Amherst
14:30-14:50	FrB12.4
Synthesis of Control Protocols for Multi-Agent Systems with Similar Actions, pp. 6986-6991.	
Su, Rong	Nanyang Tech. Univ.
Lin, Liyong	Nanyang Tech. Univ.
14:50-15:10	FrB12.5
Some Results on the Feedback Control of Max-Plus Linear Systems under State Constrains, pp. 6992-6997.	
Maia, Carlos Andrey	Univ. Federal de Minas Gerais
Hardouin, Laurent	Univ. of Angers
Cury, Jose E. R.	Univ. Fed. S. Catarina
15:10-15:30	FrB12.6
Event-Based State Estimation Algorithm Using Markov Chain Approximation, pp. 6998-7003.	
Lee, Sangjin	Purdue Univ.
Liu, Weiyi	Purdue Univ.
Hwang, Inseok	Purdue Univ.

FrB13	VV G.2
Estimation V (Regular Session)	
Chair: Verriest, Erik I.	Georgia Inst. of Tech.
Co-Chair: Rudolph, Joachim	Saarland Univ.
13:30-13:50	FrB13.1
Infinite Horizon Control and Minimax Observer Design for Linear DAEs, pp. 7004-7009.	
Zhuk, Sergiy	IBM Res.
Petreczky, Mihaly	Ec. des Mines de Douai
13:50-14:10	FrB13.2
Parametrization of Algebraic Numerical Differentiators to Achieve Desired Filter Characteristics, pp. 7010-7015.	
Kiltz, Lothar	Saarland Univ.
Rudolph, Joachim	Saarland Univ.

14:10-14:30	FrB13.3
Partial State Estimation for Electricity Grids, pp. 7016-7021.	
Garcia, Manuel	Univ. of California at Berkeley
Giani, Annarita	Los Alamos National Lab.
Poolla, Kameshwar	Univ. of California at Berkeley
14:30-14:50	FrB13.4
Characterizing and Resolving Unobservability in Run-To-Run Control of High Mix Semiconductor Manufacturing, pp. 7022-7027.	
Harirchi, Farshad	Colorado School of Mines
Vincent, Tyrone L.	Colorado School of Mines
Subramanian, Anand	Univ. of California at Berkeley
Poolla, Kameshwar	Univ. of California at Berkeley
Stirton, Broc	GLOBALFOUNDIRES
14:50-15:10	FrB13.5
Hawkes-Laguerre Dynamic Index Models for Point Processes, pp. 7028-7033.	
Pasha, Syed Ahmed	The Univ. of Sydney
Solo, Victor	Univ. of New South Wales

FrB14	VV G.3
Filtering I (Regular Session)	
Chair: Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign
Co-Chair: Germani, Alfredo	Univ. dell'Aquila
13:30-13:50	FrB14.1
Simultaneous Input and State Estimation for Linear Discrete-Time Stochastic Systems with Direct Feedthrough, pp. 7034-7039.	
Yong, Sze Zheng	Massachusetts Inst. of Tech.
Zhu, Minghui	Pennsylvania State Univ.
Frazzoli, Emilio	Massachusetts Inst. of Tech.
13:50-14:10	FrB14.2
Improved Auxiliary and Unscented Particle Filter Variants, pp. 7040-7046.	
Charalampidis, Alexandros	Swiss Federal Inst. of Tech. in Lausanne (EPFL)
Papavassilopoulos, George P.	National Tech. Univ. of Athens
14:10-14:30	FrB14.3
Convergence of Bayesian Histogram Filters for Location Estimation, pp. 7047-7053.	
De, Avik	Univ. of Pennsylvania
Ribeiro, Alejandro	Univ. of Pennsylvania
Moran, William	Univ. of Melbourne
Koditschek, Daniel E.	Univ. of Pennsylvania
14:30-14:50	FrB14.4
Nonlinear Compressive Particle Filtering, pp. 7054-7059.	
Ohlsson, Henrik	Linköping Univ.
Verhaegen, Michel	Delft Univ. of Tech.
Sastry, Shankar	Univ. of California at Berkeley
14:50-15:10	FrB14.5
Filtering with Dissipativity for T-S Fuzzy Systems with Time-Varying Delay: Reciprocally Convex Approach, pp. 7060-7064.	
Su, Xiaojie	Harbin Insitute of Tech.
Shi, Peng	Univ. of Glamorgan
Wu, Ligang	Harbin Insitute of Tech.
Karimi, Hamid Reza	Univ. of Agder
15:10-15:30	FrB14.6
Interacting Multiple Model-Feedback Particle Filter for Stochastic Hybrid Systems, pp. 7065-7070.	
Yang, Tao	Univ. of Illinois at Urbana-Champaign
Blom, Henk A.P.	National Aerospace Lab. NLR & Delft Univ.
Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign

FrB15	VV 2.1
Predictive Control for Linear Systems III (Regular Session)	
Chair: Allgower, Frank	Univ. of Stuttgart
Co-Chair: Franze', Giuseppe	Univ. Degli Studi della Calabria
13:30-13:50	FrB15.1
Constrained Model Predictive Control Based on Reduced-Order Models, pp. 7071-7076.	
Sopasakis, Pantelis	IMT Inst. for Advanced Studies Lucca
Bernardini, Daniele	IMT Inst. for Advanced Studies Lucca
Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca
13:50-14:10	FrB15.2
Obtaining and Employing State Dependent Parametrizations of Prespecified Complexity in Constrained MPC, pp. 7077-7082.	
Goebel, Gregor	Univ. of Stuttgart
Allgöwer, Frank	Univ. of Stuttgart
14:10-14:30	FrB15.3
Towards a Standardized Building Assessment for Demand Response, pp. 7083-7088.	
Oldewurtel, Frauke	ETH Zurich
Sturzenegger, David	ETH Zurich
Andersson, Goran	ETH Zurich
Morari, Manfred	ETH Zurich
Smith, Roy S.	ETH Zurich
14:30-14:50	FrB15.4
Nearly-Optimal Simple Explicit MPC Regulators with Recursive Feasibility Guarantees, pp. 7089-7094.	
Takács, Bálint	Slovak Univ. of Tech. in Bratislava
Holaza, Juraj	Slovak Univ. of Tech. in Bratislava
Kvasnica, Michal	Slovak Univ. of Tech. in Bratislava
Di Cairano, Stefano	Mitsubishi Electric Res. Lab.
14:50-15:10	FrB15.5
Multi-Layer Model Predictive Control of Regional Water Networks: Application to the Catalunya Case Study, pp. 7095-7100.	
Sun, Cong Cong	Inst. of Robotics, Tech. Univ. of Catalonia
Cembrano, Gabriela	UPC-CSIC
Puig, Vicenc	Univ. Pol. de Catalunya
15:10-15:30	FrB15.6
Soft-Constrained Lasso-MPC for Robust LTI Tracking: Enlarged Feasible Region and an ISS Gain Estimate, pp. 7101-7106.	
Gallieri, Marco	Univ. of Cambridge
Maciejowski, Jan M.	Univ. of Cambridge

FrB16	VV 2.2
Optimal Control VI (Regular Session)	
Chair: Korda, Milan	EPFL Lausanne
Co-Chair: Acikmese, Behcet	The Univ. of Texas at Austin
13:30-13:50	FrB16.1
Convex Computation of the Maximum Controlled Invariant Set for Discrete-Time Polynomial Control Systems, pp. 7107-7112.	
Korda, Milan	EPFL Lausanne
Henrion, Didier	LAAS-CNRS
Jones, Colin N.	EPFL Lausanne
13:50-14:10	FrB16.2
Lossless Convexification for a Class of Optimal Control Problems with Linear State Constraints, pp. 7113-7118.	
Harris, Matthew	Univ. of Texas at Austin
Acikmese, Behcet	Univ. of Texas at Austin
14:10-14:30	FrB16.3
Solvers Chaining in the IDOS Server for Dynamic Optimization, pp. 7119-7124.	
Pytlak, Radoslaw	Warsaw Univ. of Tech.
Blaszczyk, Jacek	Res. and Acad. Computer Network (NASK)
Karbowski, Andrzej	Warsaw Univ. of Tech.
Krawczyk, Kamil	Res. and Acad. Computer Network (NASK)
Tarnawski, Tomasz	Warsaw Univ. of Tech.
14:30-14:50	FrB16.4
Micro-Grid Energy Management: A Computational Approach Based on Simulation and Approximate Discrete Abstraction, pp. 7125-7130.	
Borghesan, Francesco	Pol. di Milano
Vignali, Riccardo	Pol. di Milano
Piroddi, Luigi	Pol. di Milano
Strelec, Martin	Honeywell Prague Lab.
Prandini, Maria	Pol. di Milano
14:50-15:10	FrB16.5
Robust Distributed Averaging on Networks with Adversarial Intervention, pp. 7131-7136.	
Khanafer, Ali	Univ. of Illinois, Urbana-Champaign
Touri, Behrouz	Georgia Tech. Univ.
Basar, Tamer	Univ. of Illinois, Urbana-Champaign
15:10-15:30	FrB16.6
Analytical and Numerical Solutions for Energy Minimization of Road Vehicles with the Existence of Multiple Traffic Lights, pp. 7137-7142.	
Ozatay, Engin	The Ohio State Univ.
Ozguner, Umit	The Ohio State Univ.
Filev, Dimitre P.	Ford Motor Company
Michelini, John	Ford Motor Company

FrB17	VV 2.3
System Identification V (Regular Session)	
Chair: Enqvist, Martin	Linköping Univ.
Co-Chair: Olofsson, Erik	Columbia Univ. (offsite)
13:30-13:50	FrB17.1
Estimating Models of Inverse Systems, pp. 7143-7148.	
Jung, Ylva	Linköping Univ.
Enqvist, Martin	Linköping Univ.
13:50-14:10	FrB17.2
Global Identifiability of a Simple Linear Model for Gene Expression Analysis, pp. 7149-7154.	
Helmke, Uwe R.	Univ. of Wuerzburg
Hueper, Knut	NICTA
Khammash, Mustafa H.	ETH Zurich
14:10-14:30	FrB17.3
On the Multivariate Circulant Rational Covariance Extension Problem, pp. 7155-7161.	
Lindquist, Anders G.	KTH Royal Inst. of Tech.
Masiero, Chiara	Univ. di Padova
Picci, Giorgio	Univ. di Padova
14:30-14:50	FrB17.4
Guaranteed Non-Asymptotic Confidence Ellipsoids for FIR Systems, pp. 7162-7167.	
Weyer, Erik	Univ. of Melbourne
Csáji, Balázs Csanád	MTA SZTAKI: Inst. for Computer Science and Control, Hungaria
Campi, M. C.	Univ. di Brescia
14:50-15:10	FrB17.5
Extended Benchmark Results for Impulse Response Estimation, pp. 7168-7173.	
Olofsson, Erik	KTH Royal Inst. of Tech.
15:10-15:30	FrB17.6
On Optimal Input Design for Feed-Forward Control, pp. 7174-7180.	
Hägg, Per	KTH Royal Inst. of Tech.
Wahlberg, Bo	KTH Royal Inst. of Tech.

FrB18	Auditorium
An Introduction to Simulation and Performance Evaluation for Feedback-Based Stock Trading (Tutorial Session)	
Chair: Barmish, B. Ross	Univ. of Wisconsin
Co-Chair: Primbs, James A.	Univ. of Texas at Dallas
Organizer: Barmish, B. Ross	Univ. of Wisconsin
13:30-13:50	FrB18.1
On the Basics for Simulation of Feedback-Based Stock Trading Strategies: An Invited Tutorial Session (I), pp. 7181-7186.	
Barmish, B. Ross	Univ. of Wisconsin
Primbs, James A.	Univ. of Texas at Dallas
Malekpour, Shirzad	Univ. of Wisconsin-Madison
Warnick, Sean	Brigham Young Univ.
13:50-14:10	FrB18.2
*On Performance Metrics for Feedback-Based Stock Trading Simulations (I)**.	
Malekpour, Shirzad	Univ. of Wisconsin-Madison

14:10-14:30	FrB18.3
*On Backtesting Pure Gain and Proportional-Integral Stock-Trading Controllers (I)**.	
Primbs, James A.	Univ. of Texas at Dallas
14:30-14:50	FrB18.4
*On Stock Trading Controllers: Exploratory Simulation before Theorem Proving (I)**.	
Barmish, B. Ross	Univ. of Wisconsin
14:50-15:10	FrB18.5
*On Practical Portfolio Balancing Considerations Via Feedback Theory (I)**.	
Primbs, James A.	Univ. of Texas at Dallas
15:10-15:30	FrB18.6
*On Trading Competitions: Their Role in Control Education and Research (I)**.	
Warnick, Sean	Brigham Young Univ.

FrC01	PA B.1
Cellular Dynamics (Regular Session)	
Chair: Singh, Abhyudai	Univ. of Delaware
Co-Chair: Antunes, Duarte	Eindhoven Univ. of Tech.
16:00-16:20	FrC01.1
System Identification of the Fluorescence Recovery after Photobleaching in Gap Junctional Intracellular Communications, pp. 7187-7192.	
Tylcz, Jean-Baptiste	Univ. de Lorraine
Abbaci, Muriel	Inst. de Cancérologie Gustave Roussy
Bastogne, Thierry	Univ. Henri Poincaré - Nancy
Blondel, Walter	Univ. de Lorraine, CRAN
Dumas, Dominique	Univ. de Lorraine, PTIBC
Barberi-Heyob, Muriel	Univ. de Lorraine, CRAN
16:20-16:40	FrC01.2
Conditions for Invasion of Synapse-Forming HIV Variants, pp. 7193-7198.	
Vargas-Garcia, Cesar A.	Univ. of Delaware
Zurakowski, Ryan	Univ. of Delaware
Singh, Abhyudai	Univ. of Delaware
16:40-17:00	FrC01.3
Computing Mrna and Protein Statistical Moments for a Renewal Model of Stochastic Gene-Expression, pp. 7199-7204.	
Antunes, Duarte	Eindhoven Univ. of Tech.
Singh, Abhyudai	Univ. of Delaware
17:00-17:20	FrC01.4
Identification of a Branching Process Model for Adaptive Immune Response, pp. 7205-7210.	
Boianelli, Alessandro	Univ. of Siena
Pettini, Elena	Univ. of Siena
Prota, Gennaro	Univ. of Siena
Medaglini, Donata	Univ. of Siena
Vicino, Antonio	Univ. of Siena
17:20-17:40	FrC01.5
Controllability of Probabilistic Boolean Control Networks with Time-Variant Delays in States, pp. 7211-7216.	
Zhang, Kuize	Harbin Engineering Univ.
Zhang, Lijun	Tsinghua Univ.
17:40-18:00	FrC01.6
Stochastic Analysis of Genetic Promoter Architectures with Memory, pp. 7217-7222.	
Singh, Abhyudai	Univ. of Delaware
Vargas-Garcia, Cesar A.	Univ. of Delaware
Karmakar, Rajesh	AKPC Mahavidyalaya

FrC02	PA G.1
Networked Control VI (Regular Session)	
Chair: Chen, Xiang	Univ. of Windsor
Co-Chair: Chopra, Nikhil	Univ. of Maryland, Coll. Park
16:00-16:20	FrC02.1
Feedback Properties of Gaussian Channels with Feedback, pp. 7223-7228.	
Freudenberg, James S.	Univ. of Michigan
Middleton, Richard H.	The Univ. of Newcastle
Wagner, Aaron	Cornell Univ.
16:20-16:40	FrC02.2
Quantized State Feedback Control for Multiple-Input Systems Subject to Signal-To-Noise Ratio Constraints, pp. 7229-7234.	
Feng, Yu	Zhejiang Univ. of Tech.
Chen, Xiang	Univ. of Windsor
Gu, Guoxiang	Louisiana State Univ.
16:40-17:00	FrC02.3
Stabilization of Networked Multi-Input Systems Over a Shared Bus with Scheduling/Control Co-Design, pp. 7235-7240.	
Chen, Wei	Hong Kong Univ. of Sci. and Tech.
Yao, Jing	Tongji Univ.
Qiu, Li	Hong Kong Univ. of Sci. and Tech.
17:00-17:20	FrC02.4
Mean Square Performance Analysis for Torus-Networked Distributed Consensus under Stochastic Disturbances, pp. 7241-7246.	
Ma, Xu	Iowa State Univ.
Elia, Nicola	Iowa State Univ.
17:20-17:40	FrC02.5
New Convergence and Exact Performance Results for Linear Consensus Algorithms Using Relative Entropy and Lossless Passivity Properties, pp. 7247-7252.	
Mangesius, Herbert	TU Muenchen
17:40-18:00	FrC02.6
Protocol Sequence-Based Control of Networked Systems, pp. 7253-7258.	
Wen, Shixi	Dalian Maritime Univ.
Guo, Ge	Dalian Univ. of Tech.
Yang, Guoqing	School of Control and Mechanical Engineering, Tianjin Inst.
Yue, Wei	Dalian Maritime Univ.

FrC03	PA 1.1
Supervisory Control (Regular Session)	
Chair: Kosmatopoulos, Elias	ITI/CERTH
Co-Chair: Marchand, Herve	INRIA Rennes - Bretagne Atlantique
16:00-16:20	FrC03.1
Semiglobal Stabilization of Nonlinear Uncertain Systems Via a Lyapunov-Based Switching Logic, pp. 7259-7264.	
Baldi, Simone	Univ. di Firenze
Kosmatopoulos, Elias	ITI/CERTH
Ioannou, Petros A.	Univ. of Southern California
16:20-16:40	FrC03.2
Reinforcement Learning for Sequential Composition Control, pp. 7265-7270.	
Najafi, Esmaeil	Delft Univ. of Tech. and Univ. of Tehran
Lopes, Gabriel	Delft Univ. of Tech.
Babuska, R.	Delft Univ. of Tech.
16:40-17:00	FrC03.3
Runtime Enforcement of K-Step Opacity, pp. 7271-7278.	
Falcone, Yliès	Univ. of Grenoble
Marchand, Herve	INRIA Rennes - Bretagne Atlantique
17:00-17:20	FrC03.4
Compact and Decentralized Supervisors for General Constraint Enforcement in Petri Net Models, pp. 7279-7284.	
Basile, Francesco	Univ. degli Studi di Salerno
Piroddi, Luigi	Pol. di Milano
Cordone, Roberto	Univ. degli Studi di Milano
17:20-17:40	FrC03.5
On Relative Observability of Discrete-Event Systems, pp. 7285-7290.	
Cai, Kai	Univ. of Toronto
Zhang, Renyuan	Xi'an Jiaotong Univ. China
Wonham, W. Murray	Univ. of Toronto
17:40-18:00	FrC03.6
Consistent Abstractions for the Purpose of Supervisory Control, pp. 7291-7296.	
Moor, Thomas	Friedrich-Alexander Univ. Erlangen-Nürnberg
Baier, Christine	Friedrich-Alexander Univ. Erlangen-Nürnberg
Wittmann, Thomas	Univ. Erlangen-Nürnberg

FrC04	PA 1.2
Iterative Learning Control II (Regular Session)	
Chair: Guth, Mickaël	Tech. Univ. Berlin
Co-Chair: Bolder, Joost	Eindhoven Univ. of Tech.
16:00-16:20	FrC04.1
Norm Optimal Iterative Learning Control Based on a Multiple Model Switched Adaptive Framework, pp. 7297-7302.	
Brend, Oliver	Univ. of Southampton
Freeman, Christopher T.	Univ. of Southampton
French, Mark	Univ. of Southampton
16:20-16:40	FrC04.2
Monte-Carlo Utility Estimates for Bayesian Reinforcement Learning, pp. 7303-7308.	
Dimitrakakis, Christos	EPFL
16:40-17:00	FrC04.3
Multi-Armed Bandits in the Presence of Side Observations in Social Networks, pp. 7309-7314.	
Buccapatnam, Swapna	The Ohio State Univ.
Eryilmaz, Atilla	The Ohio State Univ.
Shroff, Ness B.	The Ohio State Univ.
17:00-17:20	FrC04.4
Optimal Adversarial Strategies in Learning with Expert Advice, pp. 7315-7320.	
Truong, Anh	Univ. of Illinois, Urbana-Champaign
Kiyavash, Negar	Univ. of Illinois, Urbana-Champaign
17:20-17:40	FrC04.5
Exploiting Rational Basis Functions in Iterative Learning Control, pp. 7321-7326.	
Bolder, Joost	Eindhoven Univ. of Tech.
Oomen, Tom	Eindhoven Univ. of Tech.
Steinbuch, Maarten	Eindhoven Univ. of Tech.
17:40-18:00	FrC04.6
An Information-Theoretic Analysis of Distributed Resource Allocation, pp. 7327-7332.	
Alpcan, Tansu	The Univ. of Melbourne
Dey, Subhrakanti	Uppsala Univ.

FrC05	PA 1.3
Cooperative Control IV (Regular Session)	
Chair: Busoniu, Lucian	Tech. Univ. of Cluj-Napoca
Co-Chair: Preciado, Victor M.	Univ. of Pennsylvania
16:00-16:20	FrC05.1
Discontinuous Cooperative Control for Consensus of Multiagent Systems with Switching Topologies and Time-Delays, pp. 7333-7338.	
Wang, Jing	Bethune-Cookman Univ.
Obeng, Morrison	Bethune-Cookman Univ.
Qu, Zhihua	Univ. of Central Florida
Yang, Thomas	Embry-Riddle Aeronautical Univ.
Staskevich, Gennady	AFRL/RISC
Abbe, Brian	AFRL/RISC
16:20-16:40	FrC05.2
Local Formation Control Strategies with Undetermined and Determined Formation Scales for Co-Leader Vehicle Networks, pp. 7339-7344.	
Han, Zhimin	Zhejiang Univ.
Wang, Lili	Zhejiang Univ.
Lin, Zhiyun	Zhejiang Univ.
16:40-17:00	FrC05.3
Consensus Control on System with Constraint - the Scalar Case, pp. 7345-7350.	
Sun, Chang	National Univ. of Singapore
Ong, Chong-Jin	National Univ. of Singapore
White, Jacob	MIT

17:00-17:20	FrC05.4
Synchronization for Homogeneous Networks of Non-Introspective, Non-Right-Invertible, Discrete-Time Agents with Uniform Constant Communication Delay, pp. 7351-7357.	
Wang, Xu	New York Univ.
Saberi, Ali	Washington State Univ.
Stoorvogel, Anton A.	Univ. of Twente
Grip, Håvard Fjær	Norwegian Univ. of Sci. and Tech.
Yang, Tao	Royal Inst. of Tech.
17:20-17:40	FrC05.5
Learning to Coordinate in a Beauty Contest Game, pp. 7358-7363.	
Molavi, Pooya	Univ. of Pennsylvania
Eksin, Ceyhun	Univ. of Pennsylvania
Ribeiro, Alejandro	Univ. of Pennsylvania
Jadbabaie, Ali	Univ. of Pennsylvania
17:40-18:00	FrC05.6
Detection and Isolation of Link Failures under the Agreement Protocol, pp. 7364-7369.	
Rahimian, Mohammad Amin	Univ. of Pennsylvania
Preciado, Victor M.	Univ. of Pennsylvania

FrC06	PA 1.4
Event-Triggered and Self-Triggered Control (Invited Session)	
Chair: Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
Co-Chair: Hirche, Sandra	Tech. Univ. München
Organizer: Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
Organizer: Hirche, Sandra	Tech. Univ. München
Organizer: Johansson, Karl H.	Royal Inst. of Tech.
16:00-16:20	FrC06.1
On Minimum Inter-Event Times in Event-Triggered Control (I), pp. 7370-7375.	
Borgers, Dominicus Paulus	Eindhoven Univ. of Tech.
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
16:20-16:40	FrC06.2
Distributed Event-Based Control of Physically Interconnected Systems (I), pp. 7376-7383.	
Stoecker, Christian	Univ. of Bochum, Germany
Lunze, Jan	Ruhr-Univ. Bochum
16:40-17:00	FrC06.3
A Self-Triggered Model Predictive Control Framework for the Cooperation of Distributed Nonholonomic Agents (I), pp. 7384-7389.	
Eqtami, Alina	National Tech. Univ. of Athens
Heshmati-alamdari, Shahab	National Tech. Univ. of Athens
Dimarogonas, Dimos V.	Royal Inst. of Tech.
Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens
17:00-17:20	FrC06.4
Stability Analysis of Stochastic Prioritized Dynamic Scheduling for Resource-Aware Heterogeneous Multi-Loop Control Systems (I), pp. 7390-7396.	
Mamduhi, Mohammad Hossein	Tech. Univ. München
Molin, Adam	Tech. Univ. München
Hirche, Sandra	Tech. Univ. München
17:20-17:40	FrC06.5
Periodic Event-Triggered Control for Nonlinear Systems (I), pp. 7397-7402.	
Postoyan, Romain	CNRS-CRAN
Anta, Adolfo	General Electric Global Res. Europe
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
Tabuada, Paulo	Univ. of California at Los Angeles
Nesic, Dragan	Univ. of Melbourne
17:40-18:00	FrC06.6
Self-Triggered Rendezvous of Gossiping Second-Order Agents (I), pp. 7403-7408.	
De Persis, Claudio	Univ. of Groningen
Frasca, Paolo	Univ. of Twente
Hendrickx, Julien M.	Univ. Catholique de Louvain

FrC07	PA 2.1
Fuzzy Systems (Regular Session)	
Chair: Coutinho, Daniel	Univ. Federal de Santa Catarina
Co-Chair: Chen, Ying-Jen	The Univ. of Electro-Communications
16:00-16:20	FrC07.1
Generalized Tagaki-Sugeno Fuzzy Rules Based Prediction Model with Application to Power Plant Pulverizing System, pp. 7409-7414.	
Cao, Hui	Xi'an Jiaotong Univ.
Wang, Yanxia	Xi'an Jiaotong Univ.
Jia, Lixin	Xi'an Jiaotong Univ.
Si, Gangquan	Xi'an Jiaotong Univ.
Zhang, Yanbin	Xi'an Jiaotong Univ.
16:20-16:40	FrC07.2
Nonconvex Stabilization Criterion for Polynomial Fuzzy Systems, pp. 7415-7419.	
Chen, Ying-Jen	Univ. of Electro-Communications
Tanaka, Motoyasu	Univ. of Electro-Communications
Tanaka, Kazuo	Univ. of Electro-Communications
Wang, Hua O.	Boston Univ.
16:40-17:00	FrC07.3
Observer Based Controller for Single Track Vehicles, pp. 7420-7425.	
Dabladji, Mohammed El-Habib	Univ. d'Evry Val d'Essonne
Ichalal, Dalil	Univ. d'Evry Val d'Essonne
Arioui, Hichem	Univ. d'Evry Val d'Essonne
Mammar, Said	Univ. d'Evry Val d'Essonne
17:00-17:20	FrC07.4
Control of Nonlinear Discrete-Time Systems Subject to Energy Bounded Disturbances Using Local T-S Fuzzy Models, pp. 7426-7431.	
Klug, Michael	Univ. Federal de Santa Catarina
Castelan, Eugenio B.	Univ. Federal de Santa Catarina
Coutinho, Daniel	Univ. Federal de Santa Catarina
17:20-17:40	FrC07.5
Enhancing Decision Support for Pattern Classification Via Fuzzy Entropy Based Fuzzy C-Means Clustering, pp. 7432-7436.	
Ye, Zhengmao	Southern Univ.
Mohamadian, Habib	Southern Univ.

17:40-18:00	FrC07.6
An Automatic Tuning Procedure for an Event-Based PI Controller (I), pp. 7437-7442.	
Beschi, Manuel	Univ. of Brescia
Dormido, Sebastián	UNED
Sánchez Moreno, José	UNED
Visioli, Antonio	Univ. of Brescia

FrC08	PA 2.2
Electrical Machine Control (Regular Session)	
Chair: Ohta, Yoshito	Kyoto Univ.
Co-Chair: Alexandridis, Antonis	Univ. of Patras
16:00-16:20	FrC08.1
Flatness-Based Tracking Control of Nonlinear Differential Algebraic Systems with Geometric Index One, pp. 7443-7448.	
Sato, Kazuhiro	Kyoto Univ.
16:20-16:40	FrC08.2
Active Magnetic Bearing: A New Step for Model-Free Control, pp. 7449-7454.	
De Miras, Jérôme	Univ. de Tech. de Compiègne
Join, Cedric	Univ. Henri Poincare, Nancy 1
Fliess, Michel	Ec. Pol.
Riachy, Samer	ENSEA
Bonnet, Stéphane	Univ. de Tech. de Compiegne
16:40-17:00	FrC08.3
Nonlinear H2 Control for Position Tracking of Permanent Magnet Stepper Motors, pp. 7455-7460.	
Lee, Youngwoo	Hanyang Univ.
Lee, Seung Hi	Hanyang Univ.
Kim, Wonhee	Hanyang Univ.
Shin, Donghoon	Hanyang Univ.
Chung, Chung Choo	Hanyang Univ.
17:00-17:20	FrC08.4
An Alternative Modeling and Controller Design Guaranteeing Power Stability for DFIG Wind Systems, pp. 7461-7466.	
Bourdoulis, Michael	Univ. of Patras
Alexandridis, Antonis	Univ. of Patras
17:20-17:40	FrC08.5
Optimal Control of a Switched Reluctance Drive by a Direct Method Using a Discrete Variational Principle, pp. 7467-7473.	
Flaßkamp, Kathrin	Univ. of Paderborn
Ober-Blöbaum, Sina	Univ. of Paderborn
Schneider, Tobias	Volkswagen AG
Böcker, Joachim	Univ. of Paderborn
17:40-18:00	FrC08.6
Latching Control of Wave Energy Converters Using Derivative-Free Optimization, pp. 7474-7479.	
Feng, Zhe	Imperial Coll. London
Kerrigan, Eric C.	Imperial Coll. London

FrC09	PA 2.3
Decentralized Dynamics and Optimization in Networks III (Invited Session)	
Chair: Nedich, Angelia	Univ. of Illinois, Urbana-Champaign
Co-Chair: Olshevsky, Alexander	Univ. of Illinois, Urbana-Champaign
Organizer: Lee, Soomin	Univ. of Illinois, Urbana-Champaign
Organizer: Nedich, Angelia	Univ. of Illinois, Urbana-Champaign
Organizer: Olshevsky, Alexander	Univ. of Illinois, Urbana-Champaign
16:00-16:20	FrC09.1
Integral Input-To-State Stable Saddle-Point Dynamics for Distributed Linear Programming (I), pp. 7480-7485.	
Richert, Dean	Univ. of California, San Diego
Cortes, Jorge	Univ. of California, San Diego
16:20-16:40	FrC09.2
Optimal Vaccine Allocation to Control Epidemic Outbreaks in Arbitrary Networks (I), pp. 7486-7491.	
Preciado, Victor M.	Univ. of Pennsylvania
Zargham, Michael	Univ. of Pennsylvania
Enyioha, Chinwendu	Univ. of Pennsylvania
Jadbabaie, Ali	Univ. of Pennsylvania
Pappas, George J.	Univ. of Pennsylvania
16:40-17:00	FrC09.3
Cooperative Learning in Multi-Agent Systems from Intermittent Measurements (I), pp. 7492-7497.	
Leonard, Naomi Ehrich	Princeton Univ.
Olshevsky, Alexander	Univ. of Illinois at Urbana-Champaign
17:00-17:20	FrC09.4
Decentralized Degree Regularization for Multi-Agent Networks (I), pp. 7498-7503.	
Yazicioglu, A. Yasin	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
Shamma, Jeff S.	Georgia Inst. of Tech.
17:20-17:40	FrC09.5
On Resilience of Distributed Routing in Networks under Cascade Dynamics (I), pp. 7504-7509.	
Savla, Ketan	Univ. of Southern California
Como, Giacomo	Lund Univ.
Dahleh, Munther A.	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.
17:40-18:00	FrC09.6
Information Centrality and Optimal Leader Selection in Noisy Networks (I), pp. 7510-7515.	
Fitch, Katherine E.	Princeton Univ.
Leonard, Naomi Ehrich	Princeton Univ.

FrC10 PA 2.4

Robust Adaptive Control (Regular Session)

Chair: Tomei, Patrizio — Univ. of Roma Tor Vergata
Co-Chair: Kim, Dohee — Hyundai Motor Company

16:00-16:20 FrC10.1

Robust Adaptive Fuzzy Disturbance Accommodation Control for a Class of Uncertain Nonlinear System, pp. 7516-7521.
Kim, Dohee — Hyundai Motor Company

16:20-16:40 FrC10.2

Robust Optimal Iterative Learning Control with Model Uncertainty, pp. 7522-7527.
Son, Tong Duy — Katholieke Univ. Leuven
Pipeleers, Goele — Katholieke Univ. Leuven
Swevers, Jan — Katholieke Univ. Leuven

16:40-17:00 FrC10.3

Robust Adaptive Compensation of Periodic Disturbances with Unknown Frequency, pp. 7528-7533.
Marino, Riccardo — Univ. di Roma Tor Vergata
Tomei, Patrizio — Univ. of Roma Tor Vergata

17:00-17:20 FrC10.4

Regulation of Discrete Time Linear Systems with Uncertain Exosystems from Noisy Measurements, pp. 7534-7539.
Marino, Riccardo — Univ. di Roma Tor Vergata
Santosuosso, Giovanni L. — Univ. di Roma Tor Vergata

17:20-17:40 FrC10.5

H-Infinity Gain-Scheduled Controller Design for Rejection of Time-Varying Disturbances with Application to an Active Suspension System, pp. 7540-7545.
Karimi, Alireza — EPFL
Emedi, Zlatko — EPFL

17:40-18:00 FrC10.6

Reference Tracking of Uncertain Nonlinear Multi-Input Multi-Output Quantized Systems Using L1 Adaptive Control, pp. 7546-7551.
Sun, Hui — Univ. of Illinois, Urbana-Champaign
Hovakimyan, Naira — Univ. of Illinois, Urbana-Champaign
Basar, Tamer — Univ. of Illinois, Urbana-Champaign

FrC11 PA 2.5

Control and Optimization for Smart Grid (Invited Session)

Chair: Lavaei, Javad — Columbia Univ.
Co-Chair: Bullo, Francesco — Univ. California at Santa Barbara
Organizer: Lavaei, Javad — Columbia Univ.

16:00-16:20 FrC11.1

Convexification of Generalized Network Flow Problem with Application to Power Systems (I), pp. 7552-7559.
Sojoudi, Somayeh — California Inst. of Tech.
Lavaei, Javad — Columbia Univ.

16:20-16:40 FrC11.2

Temperature-Based Model-Predictive Cascade Mitigation in Electric Power Systems (I), pp. 7560-7567.
Almassalkhi, Mads — Univ. of Michigan
Hiskens, Ian A. — Univ. of Michigan

16:40-17:00 FrC11.3

Risk Limiting Dispatch in Congested Networks (I), pp. 7568-7575.
Zhang, Baosen — Stanford Univ.
Rajagopal, Ram — Stanford Univ.
Tse, David N. — Univ. of California at Berkeley

17:00-17:20 FrC11.4

On Optimal Operation of Storage Devices under Stochastic Market Prices (I), pp. 7576-7581.
Kefayati, Mahdi — Univ. of Texas, Austin
Baldick, Ross — Univ. of Texas, Austin

17:20-17:40 FrC11.5

Voltage Stabilization in Microgrids Via Quadratic Droop Control (I), pp. 7582-7589.
Simpson-Porco, John W. — Univ. of California, Santa Barbara
Dörfler, Florian — Univ. of California, Los Angeles
Bullo, Francesco — Univ. of California, Santa Barbara

17:40-18:00 FrC11.6

On the Distribution of Energy Storage in Electricity Grids (I), pp. 7590-7596.
Thrampoulidis, Christos — California Inst. of Tech.
Bose, Subhonmesh — California Inst. of Tech.
Hassibi, Babak — California Inst. of Tech.

FrC12 VV G.1

Integrating Behavioral and Performance Control in Discrete-Event System Theory (Invited Session)

Chair: Reveliotis, Spyros — Georgia Inst. of Tech.
Co-Chair: Su, Rong — Nanyang Tech. Univ.
Organizer: Reveliotis, Spyros — Georgia Inst. of Tech.
Organizer: Su, Rong — Nanyang Tech. Univ.

16:00-16:20 FrC12.1

Performance Optimization for a Class of Generalized Stochastic Petri Nets (I), pp. 7597-7602.
Li, Ran — ISyE, Georgia Inst. of Tech.
Reveliotis, Spyros — Georgia Inst. of Tech.

16:20-16:40 FrC12.2

Approximate IPA: Trading Unbiasedness for Simplicity (I), pp. 7603-7608.
Wardi, Yorai — Georgia Inst. of Tech.
Cassandras, Christos G. — Boston Univ.

16:40-17:00 FrC12.3

Optimal Control for Timed Event Graphs under Partial Synchronization (I), pp. 7609-7614.
David-Henriet, Xavier — Tech. Univ. Berlin
Hardouin, Laurent — Univ. of Angers
Raisch, Joerg — Tech. Univ. Berlin
Cottenceau, Bertrand — Univ. of Angers

17:00-17:20 FrC12.4

Towards Optimal Supervisory Controller Synthesis of Stochastic Nondeterministic Discrete-Event Systems (I), pp. 7615-7620.
Markovski, Jasen — Eindhoven Univ. of Tech.
Su, Rong — Nanyang Tech. Univ.

17:20-17:40	FrC12.5
Optimal Configuration Changes for Reconfigurable Manufacturing Systems (I), pp. 7621-7626.	
Schmidt, Klaus Werner	Cankaya Univ.
17:40-18:00	FrC12.6
Integrated OR/CP Optimization for Discrete Event Systems with Nonlinear Cost (I), pp. 7627-7633.	
Wigström, Oskar	Chalmers Univ. of Tech.
Lennartson, Bengt	Chalmers Univ. of Tech.

FrC13	VV G.2
Visual Servo Estimation and Control (Regular Session)	
Chair: Fujita, Masayuki	Tokyo Inst. of Tech.
Co-Chair: Robuffo Giordano, Paolo	Centre National de la Recherche Scientifique (CNRS)
16:00-16:20	FrC13.1
Game Theoretic Cooperative Control of PTZ Visual Sensor Networks for Environmental Change Monitoring, pp. 7634-7640.	
Hatanaka, Takeshi	Tokyo Inst. of Tech.
Wasa, Yasuaki	Tokyo Inst. of Tech.
Fujita, Masayuki	Tokyo Inst. of Tech.
16:20-16:40	FrC13.2
A Port-Hamiltonian Approach to Formation Control Using Bearing Measurements and Range Observers, pp. 7641-7646.	
Stacey, Geoff	Australian National Univ.
Mahony, Robert	Australian National Univ.
16:40-17:00	FrC13.3
A Framework for Active Estimation: Application to Structure from Motion, pp. 7647-7653.	
Spica, Riccardo	Irisa - Inria Rennes
Robuffo Giordano, Paolo	Centre National de la Recherche Scientifique (CNRS)
17:00-17:20	FrC13.4
On Multi-Rate Control of Fast-Rate Beam Steering System Using Slow-Rate Image Sensor Feedback, pp. 7654-7659.	
Tani, Jacopo	Rensselaer Pol. Inst.
Mishra, Sandipan	Rensselaer Pol. Inst.
Wen, John T.	Rensselaer Pol. Inst.
17:20-17:40	FrC13.5
Passivity-Based Discrete Visual Motion Observer Taking Account of Camera Frame Rates, pp. 7660-7665.	
Ibuki, Tatsuya	Tokyo Inst. of Tech.
Namba, Yuto	Tokyo Inst. of Tech.
Hatanaka, Takeshi	Tokyo Inst. of Tech.
Fujita, Masayuki	Tokyo Inst. of Tech.
17:40-18:00	FrC13.6
Dynamic Image-Based Tracking Control for VTOL UAVs, pp. 7666-7671.	
Abdessameud, Abdelkader	Univ. of Western Ontarion
Janabi-Sharifi, Farrokh	Ryerson Univ.

FrC14	VV G.3
Filtering II (Regular Session)	
Chair: Krener, Arthur J	Naval Postgraduate School
Co-Chair: Papavassilopoulos, George P.	National Tech. Univ. of Athens
16:00-16:20	FrC14.1
A Kalman Filter Approach for Denoising and Deblurring 3-D Images by Multi-View Data, pp. 7672-7677.	
Conte, Francesco	Univ. di Genova
Germani, Alfredo	Univ. dell'Aquila
Iannello, Giulio	Univ. Campus Biomedico di Roma
16:20-16:40	FrC14.2
Filtering of Nonlinear Systems with Sampled Noisy Data by Output Injection, pp. 7678-7683.	
Cacace, Filippo	Univ. Campus Biomedico di Roma
Conte, Francesco	Univ. di Genova
Germani, Alfredo	Univ. dell'Aquila
Palombo, Giovanni	Univ. dell'Aquila
16:40-17:00	FrC14.3
Filtering Boundary Value Discrete Time Linear Systems, pp. 7684-7689.	
Krener, Arthur J	Naval Postgraduate School
17:00-17:20	FrC14.4
Agile Bayesian Filtering, pp. 7690-7695.	
Fang, Huazhen	Univ. of California, San Diego
de Callafon, Raymond A.	Univ. of California, San Diego
Zhao, Xin	Univ. of California, San Diego
17:20-17:40	FrC14.5
Distributed H infinity Consensus Filtering of Stochastic Systems with Markovian Coupling Intercommunication Delays, pp. 7696-7701.	
Ge, Xiaohua	Central Queensland Univ.
Han, Qing-Long	Central Queensland Univ.
Jiang, Xiefu	Hangzhou Dianzi Univ.
17:40-18:00	FrC14.6
Automated Controller Tuning for Atomic Force Microscopes Using Estimation Based Multiple Model Switched Adaptive Control, pp. 7702-7708.	
Khan, Umar Abdul Ahad	Univ. of Southampton
Chong, Harold M. H.	Univ. of Southampton
French, Mark	Univ. of Southampton

FrC15	VV 2.1
Predictive Control for Linear Systems IV (Regular Session)	
Chair: Jorgensen, John Bagterp	Tech. Univ. of Denmark
Co-Chair: Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca
16:00-16:20	FrC15.1
Optimal Control of Multi-Vehicle Systems with LTL Specifications, pp. 7709-7714.	
Kobayashi, Koichi	Japan Adv Inst. of Sci & Tech.
Nagami, Takuro	Japan Adv Inst. of Sci & Tech.
Hiraishi, Kunihiko	Japan Adv Inst. of Sci & Tech.

16:20-16:40 FrC15.2

A Fast Condensing Method for Solving Linear-Quadratic Control Problems, pp. 7715-7720.

Frison, Gianluca — Tech. Univ. of Denmark
Jorgensen, John Bagterp — Tech. Univ. of Denmark

16:40-17:00 FrC15.3

An Explicit Solution to Constrained Stabilization Via Polytopic Tubes, pp. 7721-7727.

Brunner, Florian David — Univ. of Stuttgart
Lazar, Mircea — Eindhoven Univ. of Tech.
Allgower, Frank — Univ. of Stuttgart

17:00-17:20 FrC15.4

Linear Model Predictive Control Based on Approximate Optimal Control Inputs and Constraint Tightening, pp. 7728-7733.

Necoara, Ion — Pol. Univ. Bucharest
Nedelcu, Valentin — Pol. Univ. Bucharest
Keviczky, Tamas — Delft Univ. of Tech.
Doan, Minh Dang — Cantho Univ. of Tech.
De Schutter, Bart — Delft Univ. of Tech.

17:20-17:40 FrC15.5

A Probabilistic Approach to Model Predictive Control, pp. 7734-7739.

Farina, Marcello — Pol. di Milano
Giulioni, Luca — Pol. di Milano
Magni, Lalo — Univ. di Pavia
Scattolini, Riccardo — Pol. di Milano

17:40-18:00 FrC15.6

Stochastic Model Predictive Control Using a Combination of Randomized and Robust Optimization, pp. 7740-7745.

Zhang, Xiaojing — ETH Zurich
Margellos, Kostas — ETH Zurich
Goulart, Paul J. — ETH Zurich
Lygeros, John — ETH Zurich

FrC16 VV 2.2

Optimal Control VII (Regular Session)

Chair: Khanafer, Ali — Univ. of Illinois at Urbana-Champaign
Co-Chair: Ntogramatzidis, Lorenzo — Curtin Univ.

16:00-16:20 FrC16.1

Optimal Distributed Controllers Realizable Over Any Arbitrary Delay Networks, pp. 7746-7751.

Andalam, Satya Mohan Vamsi — Iowa State Univ.
Elia, Nicola — Iowa State Univ.

16:20-16:40 FrC16.2

Stochastic Stability and Optimal Control for a Class of Continuous-Time Markov Jump Linear Systems with Horizon Defined by a Stopping Time, pp. 7752-7758.

Nespoli, Cristiane — Univ. Estadual Paulista Unesp
Caceres, Yusef — UNICAMP

16:40-17:00 FrC16.3

A Positive Definiteness Preserving Discretization Method for Lyapunov Differential Equations, pp. 7759-7764.

Gillis, Joris — Katholieke Univ. Leuven
Diehl, Moritz — Katholieke Univ. Leuven

17:00-17:20 FrC16.4

Time Varying Nonlinear Policy Gradients, pp. 7765-7770.

Theodorou, Evangelos — Georgia Inst. of Tech.
Dvijotham, Krishnamurthy — Univ. of Washington
Todorov, Emanuel — Univ. of Washington

17:20-17:40 FrC16.5

Optimal Stochastic Control for Parking Systems: Occupancy-Driven Parking Pricing, pp. 7771-7776.

Qian, Zhen (Sean) — Stanford Univ.
Rajagopal, Ram — Stanford Univ.

17:40-18:00 FrC16.6

A Projected Lagrange-D'alembert Principle for Forced Nonsmooth Mechanics and Optimal Control, pp. 7777-7784.

Pekarek, David — Northwestern Univ.
Murphey, Todd — Northwestern Univ.

FrC17 VV 2.3

Kalman Filtering (Regular Session)

Chair: Onori, Simona — Clemson Univ.
Co-Chair: Rohr, Eduardo Rath — Univ. of Newcastle

16:00-16:20 FrC17.1

Square-Root Accurate Continuous-Discrete Extended Kalman Filter for Target Tracking, pp. 7785-7790.

Kulikova, Maria V. — Inst. Superior Tecnico, Univ. Tecnica de Lisboa
Kulikov, Gennady Yu. — Inst. Superior Tecnico, TU Lisbon

16:20-16:40 FrC17.2

Model-Based State of Charge Estimation and Observability Analysis of a Composite Electrode Lithium-Ion Battery (I), pp. 7791-7796.

Bartlett, Alexander — The Ohio State Univ.
Marcicki, James — Ford Motor Company
Onori, Simona — Clemson Univ.
Rizzoni, Giorgio — The Ohio State Univ.
Yang, Xiao Guang — Ford Motor Company
Miller, Ted — Ford Motor Company

16:40-17:00 FrC17.3

A Novel Cubature Kalman Filter for Nonlinear State Estimation, pp. 7797-7802.

Zhang, Xin-Chun — Univ. of Electronic Science and Tech. of China

17:00-17:20 FrC17.4

Robustifying Kalman Filter to Rapidly Adapt to Significant Changes in System Model Parameters of State-Space Models, pp. 7803-7808.

Murata, Masaya — NTT Communication Science Lab. NTT Corp.
Nagano, Hidehisa — NTT Communication Science Lab. NTT Corp.
Kashino, Kunio — NTT Communication Science Lab. NTT Corp.

17:20-17:40 FrC17.5

Stability of Kalman Filters Subject to Intermittent Observations, pp. 7809-7814.

Rohr, Eduardo Rath — Univ. of Newcastle
Marelli, Damian — Univ. of Newcastle
Fu, Minyue — Univ. of Newcastle

17:40-18:00	FrC17.6
PHD Filter for Multi-Target Tracking by Variational Bayesian Approximation, pp. 7815-7820.	
Li, Wenling	Beihang Univ.
Jia, Yingmin	Beihang Univ.
Du, Junping	Beijing Univ. of Posts and Telecommunications
Zhang, Jun	Beihang Univ.

FrC18	Auditorium
Developments in Stochastic Systems, Control and Their Applications (Invited Session)	
Chair: Pasik-Duncan, Bozenna	Univ. of Kansas
Co-Chair: Prandini, Maria	Pol. di Milano
Organizer: Pasik-Duncan, Bozenna	Univ. of Kansas
Organizer: Prandini, Maria	Pol. di Milano
16:00-16:20	FrC18.1
Asymptotic Consensus Solutions in Non-Linear Delayed Distributed Algorithms under Deterministic & Stochastic Perturbations (I), pp. 7821-7826.	
Somarakis, Christoforos	Univ. of Maryland
Baras, John S.	Univ. of Maryland
16:20-16:40	FrC18.2
Trend-Following Trading Using Recursive Stochastic Optimization Algorithms (I), pp. 7827-7832.	
Nguyen, Duy	Univ. of Georgia
Yin, George	Wayne State Univ.
Zhang, Qing	Univ. of Georgia
16:40-17:00	FrC18.3
A Solvable Stochastic Differential Game in the Two-Sphere (I), pp. 7833-7837.	
Duncan, Tyrone E.	Univ. of Kansas
Pasik-Duncan, Bozenna	Univ. of Kansas
17:00-17:20	FrC18.4
Pathwise Performance of Debt Based Policies for Wireless Networks with Hard Delay Constraints (I), pp. 7838-7843.	
Singh, Rahul	Texas A&M Univ.
Hou, I-Hong	Texas A&M Univ.
Kumar, P. R.	Texas A&M Univ.
17:20-17:40	FrC18.5
A Mean Field Games Formulation of Network Based Auction Dynamics (I), pp. 7844-7849.	
Jia, Peng	Univ. of California at Santa Barbara
Caines, Peter E.	McGill Univ.
17:40-18:00	FrC18.6
Stabilization of Brockett Integrator Using Sussmann-Type Artificial Wiener Processes, pp. 7850-7855.	
Nishimura, Yuki	Kagoshima Univ.