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## Content List of 51st IEEE Conference on Decision and Control

### Technical Program for Monday December 10, 2012

<b>MoPL</b>	Haleakala Ballroom
<b>The Grid with Intelligent Periphery</b> (Plenary Session)	
Chair: Farrell, Jay A.	Univ. of California Riverside
Co-Chair: Valcher, M. Elena	Univ. di Padova
08:30-09:30	MoPL.1
<i>The Grid with Intelligent Periphery*</i> .	
Poola, Kameshwar	Univ. of California at Berkeley
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<b>MoA01</b>	Hibiscus 1
<b>Networked Control Systems I</b> (Regular Session)	
Chair: Franze', Giuseppe	Univ. degli Studi della Calabria
Co-Chair: Philipp, Peter	Tech. Univ. München
10:00-10:20	MoA01.1
<i>Distributed Event-Triggered Control with Network Delays and Packet Losses</i> , pp. 1-6.	
Guinaldo, Maria	UNED
Lehmann, Daniel	KTH Royal Inst. of Tech.
Sánchez Moreno, José	UNED
Dormido, Sebastián	UNED
Johansson, Karl H.	KTH Royal Inst. of Tech.
10:20-10:40	MoA01.2
<i>Sequence-Based Control for Networked Control Systems Based on Virtual Control Inputs (I)</i> , pp. 7-13.	
Hekler, Achim	Karlsruhe Inst. of Tech.
Fischer, Jörg	Karlsruhe Inst. of Tech.
Hanebeck, Uwe D.	Karlsruhe Inst. of Tech.
10:40-11:00	MoA01.3
<i>Ensuring Stability in Networked Systems with Nonlinear MPC for Continuous Time Systems (I)</i> , pp. 14-19.	
Gruene, Lars	Univ. of Bayreuth
Pannek, Juergen	Univ. of the Federal Armed Forces Munich
Worthmann, Karl	Univ. of Bayreuth
11:00-11:20	MoA01.4
<i>A Randomized Linear Algorithm for Clock Synchronization in Multi-Agent Systems</i> , pp. 20-25.	
Bolognani, Saverio	Univ. of Padova
Carli, Ruggero	Univ. of Padova
Lovisari, Enrico	Univ. of Padova
Zampieri, Sandro	Univ. di Padova
11:20-11:40	MoA01.5
<i>Necessary and Sufficient Conditions for Mean Square Stabilization Over MIMO SNR-Constrained Channels</i> , pp. 26-31.	
Vargas, Francisco J.	Univ. Técnica Federico Santa María
Chen, Jie	City Univ. of Hong Kong
Silva, Eduardo I.	Univ. Técnica Federico Santa María

11:40-12:00	MoA01.6
<i>Tree Codes Improve Convergence Rate of Consensus Over Erasure Channels</i> , pp. 32-37.	
Sukhavasi, Ravi Teja	California Inst. of Tech.
Hassibi, Babak	California Inst. of Tech.
12:00-12:20	MoA01.7
<i>Networked Control Systems with State, Input and Communication Constraints: A Nonlinear Approach</i> , pp. 38-43.	
Famularo, Domenico	Univ. degli Studi della Calabria
Franze', Giuseppe	Univ. degli Studi della Calabria
Lucia, Walter	Univ. degli Studi della Calabria
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<b>MoA02</b>	Hibiscus 2
<b>Dynamics on Networks</b> (Invited Session)	
Chair: Nedich, Angelia	Univ. of Illinois, Urbana-Champaign
Co-Chair: Touri, Behrouz	Univ. of Illinois, Urbana-Champaign
Organizer: Javidi, Tara	Univ. of California, San Diego
Organizer: Nedich, Angelia	Univ. of Illinois, Urbana-Champaign
Organizer: Touri, Behrouz	Univ. of Illinois, Urbana-Champaign
10:00-10:20	MoA02.1
<i>Network Structure and Efficiency of Observational Social Learning (I)</i> , pp. 44-49.	
Molavi, Pooya	Univ. of Pennsylvania
Jadbabaie, Ali	Univ. of Pennsylvania
10:20-10:40	MoA02.2
<i>Sustaining Cooperation in Social Exchange Networks with Incomplete Global Information (I)</i> , pp. 50-55.	
Xu, Jie	Univ. of California, Los Angeles
van der Schaar, Mihaela	Univ. of California, Los Angeles
10:40-11:00	MoA02.3
<i>Efficiently Reaching Consensus on the Largest Entries of a Vector (I)</i> , pp. 56-61.	
Ustebay, Deniz	McGill Univ.
Rabbat, Michael	McGill Univ.
11:00-11:20	MoA02.4
<i>On Averaging Dynamics in General State Spaces (I)</i> , pp. 62-67.	
Touri, Behrouz	Univ. of Illinois, Urbana-Champaign
Basar, Tamer	Univ. of Illinois, Urbana-Champaign
Nedich, Angelia	Univ. of Illinois, Urbana-Champaign
11:20-11:40	MoA02.5
<i>Multi-Dimensional Hegselmann-Krause Dynamics (I)</i> , pp. 68-73.	
Nedich, Angelia	Univ. of Illinois, Urbana-Champaign
Touri, Behrouz	Univ. of Illinois, Urbana-Champaign

11:40-12:00	MoA02.6
<i>Game Theoretic Analysis of a Strategic Model of Competitive Contagion and Product Adoption in Social Networks (I)</i> , pp. 74-79.	
Fazeli, Arastoo	Univ. of Pennsylvania
Jadbabaie, Ali	Univ. of Pennsylvania

12:00-12:20	MoA02.7
<i>On the Controllability and Observability of Cartesian Product Networks (I)</i> , pp. 80-85.	
Chapman, Airlie	Univ. of Washington
Nabi-Abdolyousefi, Marzieh	Univ. of Washington
Mesbahi, Mehran	Univ. of Washington

<b>MoA03</b>	Hibiscus 3
<b>Agents and Autonomous Systems I (Regular Session)</b>	
Chair: Martinez, Sonia	Univ. of California at San Diego
Co-Chair: Hadjicostis, Christoforos	Univ. of Cyprus

10:00-10:20	MoA03.1
<i>On Leader Selection for Performance and Controllability in Multi-Agent Systems</i> , pp. 86-93.	
Clark, Andrew	Univ. of Washington, Seattle
Bushnell, Linda	Univ. of Washington, Seattle
Poovendran, Radha	Univ. of Washington, Seattle

10:20-10:40	MoA03.2
<i>Multi-Agent Consensus under Communication-Broadcast Mixed Environment</i> , pp. 94-99.	
Azuma, Shun-ichi	Kyoto Univ.
Tanaka, Yosuke	Kyoto Univ.
Sugie, Toshiharu	Kyoto Univ.

10:40-11:00	MoA03.3
<i>Opinion Consensus of Modified Hegselmann-Krause Models</i> , pp. 100-105.	
Yang, Yuecheng	KTH Royal Inst. of Tech.
Dimarogonas, Dimos V.	KTH Royal Inst. of Tech.
Hu, Xiaoming	KTH Royal Inst. of Tech.

11:00-11:20	MoA03.4
<i>Resilient Average Consensus in the Presence of Heterogeneous Packet Dropping Links</i> , pp. 106-111.	
Hadjicostis, Christoforos	Univ. of Cyprus
Dominguez-Garcia, Alejandro	Univ. of Illinois at Urbana-Champaign
Vaidya, Nitin	Univ. of Illinois at Urbana-Champaign

11:20-11:40	MoA03.5
<i>Coverage Control in Constant Flow Environments Based on a Mixed Energy-Time Metric</i> , pp. 112-117.	
Ru, Yu	Univ. of California, San Diego
Martinez, Sonia	Univ. of California, San Diego

11:40-12:00	MoA03.6
<i>Detectability of Multiple Link Failures in Multi-Agent Systems under the Agreement Protocol</i> , pp. 118-123.	
Rahimian, Mohammad Amin	Concordia Univ.
Ajorlou, Amir	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.

12:00-12:20	MoA03.7
<i>Belief Convergence to Facilitate Cooperative Behaviors</i> , pp. 124-129.	
Overstreet, Jamahl	Pol. Inst. of NYU
Khorrani, Farshad	Pol. Inst. of NYU
Krishnamurthy, Prashanth	FarCo Tech. Inc.

<b>MoA04</b>	Plumeria 1
<b>Stochastic Optimal Control I (Regular Session)</b>	
Chair: Fagiano, Lorenzo	Pol. di Torino/Univ. California at Santa Barbara
Co-Chair: Milutinovic, Dejan	Univ. of California at Santa Cruz

10:00-10:20	MoA04.1
<i>The Markov-Dubins Problem in the Presence of a Stochastic Drift Field</i> , pp. 130-135.	
Anderson, Ross	Univ. of California, Santa Cruz
Bakolas, Efstathios	Georgia Inst. of Tech.
Milutinovic, Dejan	Univ. of California, Santa Cruz
Tsiotras, Panagiotis	Georgia Inst. of Tech.

10:20-10:40	MoA04.2
<i>Robust Optimal Decision Policies for Servicing Targets in Acyclic Digraphs</i> , pp. 136-141.	
Nowzari, Cameron	Univ. of California, San Diego
Cortes, Jorge	Univ. of California, San Diego

10:40-11:00	MoA04.3
<i>Nonlinear Stochastic Model Predictive Control Via Regularized Polynomial Chaos Expansions</i> , pp. 142-147.	
Fagiano, Lorenzo	Pol. di Torino/Univ. California at Santa Barbara
Khammash, Mustafa H.	ETH Zurich

11:00-11:20	MoA04.4
<i>Optimal Constant Splitting for Efficient Routing Over Unreliable Networks</i> , pp. 148-153.	
Li, Bin	Ohio State Univ.
Eryilmaz, Atilla	Ohio State Univ.

11:20-11:40	MoA04.5
<i>An Optimizer's Approach to Stochastic Control Problems with Nonclassical Information Structures</i> , pp. 154-159.	
Kulkarni, Ankur A.	Univ. of Illinois, Urbana-Champaign
Coleman, Todd	Univ. of California, San Diego

11:40-12:00	MoA04.6
<i>Dynamic Portfolio Choice with Bayesian Regret</i> , pp. 160-165.	
Chen, Shea	Univ. of California, Berkeley
Lim, Andrew E.B.	Univ. of California, Berkeley

12:00-12:20	MoA04.7
<i>Bayesian Quickest Detection with Observation-Changepoint Feedback</i> , pp. 166-171.	
Ludkovski, Mike	Univ. of California Santa Barbara

<b>MoA05</b>	Plumeria 2
<b>System Identification I (Regular Session)</b>	
Chair: Dabbene, Fabrizio	CNR-IEIIT
Co-Chair: Wahlberg, Bo	KTH Royal Inst. of Tech.

10:00-10:20	MoA05.1
<i>Discrete-To-Continuous Dynamics Reconstruction for Bilinear Systems</i> , pp. 172-177.	
Rumschinski, Philipp	OVG Univ. Magdeburg
Laila, Dina Shona	Univ. of Southampton
Findeisen, Rolf	OVG Univ. Magdeburg

10:20-10:40	MoA05.2
<i>On Asymptotic Frequency Response Variance Expressions for Estimated Output Error Models</i> , pp. 178-183.	
Wahlberg, Bo	KTH Royal Inst. of Tech.
Rojas, Cristian R.	KTH Royal Inst. of Tech.

10:40-11:00	MoA05.3
<i>Identifiability of Regular and Singular Multivariate Autoregressive Models from Mixed Frequency Data (I)</i> , pp. 184-189.	
Anderson, Brian D.O.	Australian National Univ.
Deistler, Manfred	Tech. Univ. of Vienna
Felsenstein, Elisabeth	Tech. Univ. of Vienna
Funovits, Bernd	Tech. Univ. of Vienna
Zadrozny, Peter	Bureau of Labor Statistics
Eichler, Michael	Maastricht Univ.
Chen, Wei-tian	Univ. of Windsor
Zamani, Mohsen	Australian National Univ.

11:00-11:20	MoA05.4
<i>A Probabilistic Approach to Optimal Estimation - Part I: Problem Formulation and Methodology</i> , pp. 190-195.	
Dabbene, Fabrizio	CNR-IEIIT
Sznaier, Mario	Northeastern Univ.
Tempo, Roberto	CNR-IEIIT, Pol. di Torino

11:20-11:40	MoA05.5
<i>A Probabilistic Approach to Optimal Estimation - Part II: Algorithms and Applications</i> , pp. 196-201.	
Dabbene, Fabrizio	CNR-IEIIT
Sznaier, Mario	Northeastern Univ.
Tempo, Roberto	CNR-IEIIT, Pol. di Torino

11:40-12:00	MoA05.6
<i>A Chernoff Relaxation on the Problem of Application-Oriented Finite Sample Experiment Design</i> , pp. 202-207.	
Katselis, Dimitrios	ACCESS Linnaeus Center, KTH
Rojas, Cristian R.	KTH Royal Inst. of Tech.
Hjalmarsson, Håkan	KTH Royal Inst. of Tech.
Bengtsson, Mats	KTH Royal Inst. of Tech.

12:00-12:20	MoA05.7
<i>Bias Analysis of Continuous-Time Model Identification from Filtered Sample Output Data</i> , pp. 208-213.	
Hu, Xiao-Li	Univ. of Newcastle
Welsh, James S.	Univ. of Newcastle

<b>MoA06</b>	Plumeria 3
<b>Robust Control I (Regular Session)</b>	
Chair: Vidyasagar, Mathukumalli	Univ. of Texas at Dallas
Co-Chair: Cantoni, Michael	Univ. of Melbourne

10:00-10:20	MoA06.1
<i>On the Metric Property of an LTV Generalisation of the Nu-Gap</i> , pp. 214-219.	
Khong, Sei Zhen	Univ. of Melbourne
Cantoni, Michael	Univ. of Melbourne

10:20-10:40	MoA06.2
<i>The General (J, J')-Lossless Factorization for Descriptor Discrete--Time Systems</i> , pp. 220-225.	
Oara, Cristian	Univ. Pol. Bucharest
Marinica, Raluca Mihaela	Delft Univ. of Tech.

10:40-11:00	MoA06.3
<i>The Generalized Nyquist Criterion and Robustness Margins with Applications</i> , pp. 226-231.	
Emami-Naeini, Abbas	SC Solutions, Inc.
Kosut, Robert L.	SC Solutions, Inc.

11:00-11:20	MoA06.4
<i>Convergence and Compactness of Families of Proper Plants in the Graph Topology</i> , pp. 232-239.	
Vidyasagar, Mathukumalli	The Univ. of Texas at Dallas
Yamamoto, Yutaka	Kyoto Univ.

11:20-11:40	MoA06.5
<i>Robust Stability Analysis Based on Noncausal LPTV FIR Scaling: Explicit Procedure and Relationship with Causal LTI FIR Scaling</i> , pp. 240-247.	
Hosoe, Yohei	Kyoto Univ.
Hagiwara, Tomomichi	Kyoto Univ.

11:40-12:00	MoA06.6
<i>Robust MPC for Linear Systems with Bounded Multiplicative Uncertainty</i> , pp. 248-253.	
Evans, Martin A.	Univ. of Oxford
Cannon, Mark	Univ. of Oxford
Kouvaritakis, Basil	Univ. of Oxford

12:00-12:20	MoA06.7
<i>Determination of All Stabilizing Fractional-Order PID Controllers That Satisfy a Weighted Sensitivity Constraint</i> , pp. 254-259.	
Lee, Yung K	Wichita State Univ.
Watkins, John	Wichita State Univ.

<b>MoA07</b>	Maile 1
<b>Distributed Control I (Regular Session)</b>	
Chair: Zampieri, Sandro	Univ. di Padova
Co-Chair: Egerstedt, Magnus	Georgia Inst. of Tech.

10:00-10:20	MoA07.1
<i>Robust Synchronization of Networks of Heterogeneous Double-Integrators</i> , pp. 260-265.	
Lovisari, Enrico	Univ. of Padova
Carli, Ruggero	Univ. of Padova

10:20-10:40	MoA07.2
<i>Distributed Economic Model Predictive Control of Networks in Competitive Environments</i> , pp. 266-271.	
Driessen, Peter	Eindhoven Univ. of Tech.
Hermans, R.M.	Eindhoven Univ. of Tech.
van den Bosch, P. P. J.	Eindhoven Univ. of Tech.

10:40-11:00	MoA07.3
<i>Optimizing Positively Dominated Systems (I)</i> , pp. 272-277.	
Rantzer, Anders	Lund Univ.
11:00-11:20	MoA07.4
<i>Desynchronization of Thermally-Coupled First-Order Systems Using Economic Model Predictive Control</i> , pp. 278-283.	
Ma, Wann-Jiun	Univ. of Notre Dame
Gupta, Vijay	Univ. of Notre Dame
11:20-11:40	MoA07.5
<i>A Parallel Distributed Coordination-By-Constraint Strategy for Multi-Agent Networked Systems</i> , pp. 284-289.	
Tedesco, Francesco	Univ. Della Calabria
Casavola, Alessandro	Univ. Della Calabria
Garone, Emanuele	Univ. Libre de Bruxelles
11:40-12:00	MoA07.6
<i>Distribution of Agents with Multiple Capabilities in Heterogeneous Multiagent Networks – a Graph Theoretic View</i> , pp. 290-295.	
Abbas, Waseem	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
12:00-12:20	MoA07.7
<i>Performance Analysis of a Distributed Algorithm for Dynamic Reactive Power Compensation</i> , pp. 296-301.	
Bolognani, Saverio	Univ. of Padova
Cavraro, Guido	Univ. of Padova
Zampieri, Sandro	Univ. di Padova

<b>MoA08</b>	Maile 2
<b>Nonlinear Systems I (Regular Session)</b>	
Chair: Muller, Matthias A.	Univ. of Stuttgart
Co-Chair: Spurgeon, Sarah K.	Univ. of Kent
10:00-10:20	MoA08.1
<i>Generalized Passivity in Discrete-Time Switched Nonlinear Systems</i> , pp. 302-307.	
Wang, Yue	Clemson Univ.
Gupta, Vijay	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame
10:20-10:40	MoA08.2
<i>Generalized Homogeneity with Monotone Degree and Smooth Stabilization for a Class of Feedforward Systems</i> , pp. 308-313.	
Zhang, Chuanlin	Southeast Univ.
Qian, Chunjiang	Univ. of Texas at San Antonio
Li, Shihua	Southeast Univ.
10:40-11:00	MoA08.3
<i>Relaxed Conditions for Norm-Controllability of Nonlinear Systems</i> , pp. 314-319.	
Muller, Matthias A.	Univ. of Stuttgart
Liberzon, Daniel	Univ. of Illinois, Urbana-Champaign
Allgower, Frank	Univ. of Stuttgart

11:00-11:20	MoA08.4
<i>Nonlinear Adaptive Observers with Finite-Time Convergence for a Class of Lipschitz Nonlinear Systems</i> , pp. 320-325.	
Shen, Yanjun	China Three Gorges Univ.
Xia, Xiaohua	Univ. of Pretoria
11:20-11:40	MoA08.5
<i>Performance Recovery under Output Feedback for Input Nonaffine Nonlinear Systems</i> , pp. 326-331.	
Lee, Joonho	Michigan State Univ.
Mukherjee, Ranjan	Michigan State Univ.
Khalil, Hassan K.	Michigan State Univ.
11:40-12:00	MoA08.6
<i>Decentralised Variable Structure Observers for Nonlinear Time Delay Systems with Unknown Interconnections</i> , pp. 332-337.	
Yan, Xing-Gang	Univ. of Kent
Spurgeon, Sarah K.	Univ. of Kent
Shi, Peng	Univ. of Glamorgan
Fridman, Leonid M.	National Autonomous Univ. of Mexico
12:00-12:20	MoA08.7
<i>Geometric Characterization of Reduced-Order Dynamic Observer Error Linearization for Uncontrolled Multi-Output Systems</i> , pp. 338-343.	
Cho, Hansung	Seoul National Univ.
Yang, Jongwook	Seoul National Univ.
Seo, Jin H.	Seoul National Univ.

<b>MoA09</b>	Maile 3
<b>Biomedical and Biomolecular Systems (Regular Session)</b>	
Chair: Salapaka, Murti V.	Univ. of Minnesota, Minneapolis
Co-Chair: Medvedev, Alexander V.	Uppsala Univ.
10:00-10:20	MoA09.1
<i>Time-Varying Force Tracking in Impedance Control</i> , pp. 344-349.	
Xu, Wenkang	Nanjing Univ. of Science and Tech.
Cai, Chenxiao	Nanjing Univ. of Science and Tech.
Yin, Minghui	Nanjing Univ. of Science and Tech.
Zou, Yun	Nanjing Univ. of Science and Tech.
10:20-10:40	MoA09.2
<i>Model-Based Control of Cancer Progression Subject to Drug-Resistance</i> , pp. 350-355.	
Hadjiandreou, Marios Michael	Univ. of Cyprus
Mitsis, Georgios D.	Univ. of Cyprus

10:40-11:00	MoA09.3
<i>Simulated Mid-Ranging Control of Propofol and Remifentanyl Using EEG-Measured Hypnotic Depth of Anesthesia</i> , pp. 356-361.	
Soltesz, Kristian	Lund Univ.
Dumont, Guy A.	Univ. of British Columbia
van Heusden, Klaske	Univ. of British Columbia
Hagglund, Tore	Lund Univ.
Ansermino, John Mark	Univ. of British Columbia
11:00-11:20	MoA09.4
<i>Analysis of a Pulse-Modulated Model of Endocrine Regulation with Time-Delay</i> , pp. 362-367.	
Churilov, Alexander	St.Petersburg State Marine Tech. Univ.
Medvedev, Alexander V.	Uppsala Univ.
Mattsson, Per	Uppsala Univ.
11:20-11:40	MoA09.5
<i>Exactly Linearizing Adaptive Control of Propofol and Remifentanyl Using a Reduced Wiener Model for the Depth of Anesthesia</i> , pp. 368-373.	
Silva, Margarida M.	Uppsala Univ.
Wigren, Torbjorn	Uppsala Univ.
Mendonça, Teresa	Univ. do Porto
11:40-12:00	MoA09.6
<i>Modeling and Role of Feedback Controlled Stochastic Ratchets in Cellular Transport</i> , pp. 374-379.	
Salapaka, Srinivasa	Univ. of Illinois
Roychowdhury, Subhrajit	Univ. of Minnesota
Salapaka, Murti V.	Univ. of Minnesota
12:00-12:20	MoA09.7
<i>Systematically Manipulating T-Cell Signaling Dynamics Via Multiple Model Informed Open-Loop Controller Design</i> , pp. 380-385.	
Perley, Jeffrey P	Purdue Univ.
Mikolajczak, Judith	Purdue Univ.
Dinh, Vu	Purdue Univ.
Harrison, Marietta L.	Purdue Univ.
Buzzard, Gregory	Purdue Univ.
Rundell, Ann E.	Purdue Univ.

<b>MoA10</b>	Pikake 1
<b>Emerging Control Applications (Regular Session)</b>	
Chair: Leva, Alberto	Pol. di Milano
Co-Chair: Cenedese, Angelo	Univ. of Padova
10:00-10:20	MoA10.1
<i>Sliding Mode Control of a Tokamak Transformer (I)</i> , pp. 386-393.	
Romero, Jesús Antonio	Lab. Nacional de Fusión, Ciemat
Coda, Stefano	EPFL
Felici, Federico	Eindhoven Univ. of Tech.
Moret, Jean-Marc	EPFL
Paley, James I.	EPFL
Sevillano, Goretti	Univ. of the Basque Country
Garrido, Izaskun	Univ. of the Basque Country
LE, Hoang Bao	CRPP-EPFL

10:20-10:40	MoA10.2
<i>Photoelectrothermal Model Predictive Control for Light Emitting Diodes</i> , pp. 394-399.	
Baccari, Silvio	Univ. of Sannio
Tipaldi, Massimo	Univ. of Sannio
Iannelli, Luigi	Univ. of Sannio
Vasca, Francesco	Univ. of Sannio
10:40-11:00	MoA10.3
<i>Assessment of the Diagnostics for Shape Control in Fusion Machines (I)</i> , pp. 400-405.	
Cenedese, Angelo	Univ. of Padova
Bettini, Paolo	Univ. of Padova
11:00-11:20	MoA10.4
<i>Using Economic Model Predictive Control to Design Sustainable Policies for Mitigating Climate Change</i> , pp. 406-411.	
Chu, Bing	Univ. of Southampton
Duncan, Stephen	Univ. of Oxford
Papachristodoulou, Antonis	Univ. of Oxford
Hepburn, Cameron	London School of Ec.
11:20-11:40	MoA10.5
<i>Sliding Mode Observer-Based Stabilization of Interconnected Fractional Order Systems</i> , pp. 412-417.	
Lee, Sang-Chul	Gwangju Inst. of Science and Tech. (GIST)
Ahn, Hyo-Sung	Gwangju Inst. of Science and Tech. (GIST)
11:40-12:00	MoA10.6
<i>Autotuning Control Structures for Reliability-Driven Dynamic Binding</i> , pp. 418-423.	
Filieri, Antonio	Pol. di Milano
Ghezzi, Carlo	Pol. di Milano
Leva, Alberto	Pol. di Milano
Maggio, Martina	Lund Univ.
12:00-12:20	MoA10.7
<i>Energy-Efficient Community Cloud for Real-Time Stream Mining</i> , pp. 424-429.	
Ren, Shaolei	Florida International Univ.
van der Schaar, Mihaela	Univ. of California Los Angeles

<b>MoA11</b>	Pikake 2
<b>Electrical Power Systems I (Regular Session)</b>	
Chair: Chakraborty, Aranya	North Carolina State Univ.
Co-Chair: Topcu, Ufuk	California Inst. of Tech.
10:00-10:20	MoA11.1
<i>Distributed Algorithms for Optimal Power Flow Problem</i> , pp. 430-437.	
Lam, Albert Y.S.	Hong Kong Baptist Univ.
Zhang, Baosen	Univ. of California, Berkeley
Tse, David N.	Univ. of California, Berkeley
10:20-10:40	MoA11.2
<i>Graph-Theoretic Model Reduction of Oscillation Propagation in Spatially Distributed Power System Networks</i> , pp. 438-443.	
Chakraborty, Aranya	North Carolina State Univ.
Khan, T.	Univ. of Southern California

10:40-11:00 MoA11.3

*Distributed Hierarchical Control of Multi-Area Power Systems with Improved Primary Frequency Regulation*, pp. 444-449.

Lian, Jianming Pacific Northwest National Lab.  
Marinovici, Laurentiu Dan Pacific Northwest National Lab.  
Kalsi, Karanjit Pacific Northwest National Lab.  
Du, Pengwei Pacific Northwest National Lab.  
Elizondo, Marcelo Anibal Pacific Northwest National Lab.

11:00-11:20 MoA11.4

*Optimal Power and Reserve Capacity Procurement Policies with Deferrable Loads*, pp. 450-456.

Subramanian, Anand Univ. of California, Berkeley  
Taylor, Joshua Univ. of California, Berkeley  
Bitar, Eilyan Cornell Univ.  
Callaway, Duncan Univ. of California, Berkeley  
Poolla, Kameshwar Univ. of California, Berkeley  
Varaiya, Pravin P. Univ. of California, Berkeley

11:20-11:40 MoA11.5

*Pricing of Fluctuations in Electricity Markets*, pp. 457-464.

Tsitsiklis, John Massachusetts Inst. of Tech.  
Xu, Yunjian Massachusetts Inst. of Tech.

11:40-12:00 MoA11.6

*On the Exactness of Convex Relaxation for Optimal Power Flow in Tree Networks (I)*, pp. 465-471.

Gan, Lingwen California Inst. of Tech.  
Li, Na California Inst. of Tech.  
Topcu, Ufuk California Inst. of Tech.  
Low, Steven California Inst. of Tech.

12:00-12:20 MoA11.7

*On Nash Equilibria in Duopolistic Power Markets subject to Make-Whole Uplift*, pp. 472-477.

Wang, Gui Univ. of Illinois at Urbana-Champaign  
Shanbhag, Uday V. Univ. of Illinois, Urbana-Champaign  
Meyn, Sean Univ. of Florida

**MoA12** Pikake 3  
**Aerospace I (Regular Session)**

Chair: M'Closkey, Robert Univ. of California, Los Angeles  
Co-Chair: Devasia, Santosh Univ. of Washington

10:00-10:20 MoA12.1

*Application of Provably-Safe Conflict Resolution for Air Traffic Control*, pp. 478-483.

Yoo, Jeff Univ. of Washington  
Devasia, Santosh Univ. of Washington

10:20-10:40 MoA12.2

*A Novel Missile Warhead Tracking Algorithm Based on Geometric Data Association*, pp. 484-489.

Han, Seul-Ki Yonsei Univ.  
Ra, Won-Sang Agency for Defense Development  
Park, Jin Bae Yonsei Univ.

10:40-11:00 MoA12.3

*Output Feedback Control of Satellite Attitude Using a Single Vector Measurement*, pp. 490-495.

Namvar, Mehrzad Sharif Univ. of Tech.  
Safaei, Fatemeh Sharif Univ. of Tech.

11:00-11:20 MoA12.4

*A Landmark-Based Controller for Global Asymptotic Stabilization on SE(3)*, pp. 496-501.

Casau, Pedro Inst. Superior Tecnico  
Sanfelice, Ricardo G. Univ. of Arizona  
Cunha, Rita Inst. Superior Técnico  
Silvestre, Carlos University of Macau

11:20-11:40 MoA12.5

*Identification and Control of Nonlinear Harmonic Coupling for Pulsed Jet Injection*, pp. 502-507.

Hendrickson, Cory Univ. of California, Los Angeles  
M'Closkey, Robert Univ. of California, Los Angeles

11:40-12:00 MoA12.6

*Approximating the Likelihood of Historical Airline Actions to Evaluate Airline Delay Cost Functions*, pp. 508-513.

Bloem, Michael NASA Ames Res. Center  
Huang, Haiyun Delft Univ. of Tech.  
Bambos, Nicholas Stanford Univ.

12:00-12:20 MoA12.7

*Approaches for Stochastic Safety Analysis Arising in ATM Application*, pp. 514-519.

AL-Basman, Muna Purdue Univ.  
Hu, Jianghai Purdue Univ.

**MoA13** Ilima 1  
**Robotics I (Regular Session)**

Chair: Pettersen, Kristin Y. Norwegian Univ. of Science and Tech.  
Co-Chair: Nakamura, Hisakazu Tokyo Univ. of Science

10:00-10:20 MoA13.1

*Path Planning for Optimal Classification*, pp. 520-527.

Faied, Mariam Univ. of Michigan  
Kabamba, Pierre T. Univ. of Michigan  
Hyun, Baro Univ. of Michigan  
Girard, Anouck Univ. of Michigan

10:20-10:40 MoA13.2

*Path Following of Underactuated Autonomous Underwater Vehicles in the Presence of Ocean Currents*, pp. 528-535.

Caharija, Walter Norwegian Univ. of Science and Tech.  
Pettersen, Kristin Y. Norwegian Univ. of Science and Tech.  
Gravdahl, Jan Tommy Norwegian Univ. of Science and Tech.  
Børhaug, Even Norwegian Univ. of Science and Tech.

10:40-11:00	MoA13.3
<i>A Trajectory Tracking Control Scheme Design for Nonholonomic Wheeled Mobile Robots with Low-Level Control Systems</i> , pp. 536-543.	
Low, Chang Boon	DSO National Lab.
11:00-11:20	MoA13.4
<i>Iterative Feedback Tuning for the Joint Controllers of a 7-DOF Whole Arm Manipulator</i> , pp. 544-549.	
Pineda Rico, Zaira	Univ. of Leicester
Lecchini Visintini, Andrea	Univ. of Leicester
Quian Quiroga, Rodrigo	Univ. of Leicester
11:20-11:40	MoA13.5
<i>High Precision Control of Robot Manipulators Via Finite-Time P-PI Control</i> , pp. 550-555.	
Nakamura, Hisakazu	Tokyo Univ. of Science
Nishida, Naoki	Nara Inst. of Science and Tech.
Nakamura, Nami	
11:40-12:00	MoA13.6
<i>Augmented Imaged Based Visual Servoing Controller for a 6 DOF Manipulator Using Acceleration Command</i> , pp. 556-561.	
Keshmiri, Mohammad	Concordia Univ.
Xie, Wenfang	Concordia Univ.
12:00-12:20	MoA13.7
<i>Target-Point Based Path Following Controller for Car-Type Vehicle Using Bounded Feedback</i> , pp. 562-567.	
Laghrouche, Salah	UTBM
Harmouche, Mohamed	UTBM
Chitour, Yacine	Univ. Paris-Sud, CNRS, Supelec
<b>MoA14</b>	Ilina 2
<b>Fault Detection I (Regular Session)</b>	
Chair: Brás, Sérgio	IST-ID
Co-Chair: Zhang, Xiaodong	Wright State Univ.
10:00-10:20	MoA14.1
<i>Fault Detection for Switched Systems Based on a Deterministic Method</i> , pp. 568-573.	
Abdo, Ali	Univ. of Duisburg - Essen
Ding, Steven X.	Univ. of Duisburg - Essen
Saijai, Jedsada	Univ. of Duisburg - Essen
Damlakhi, Waseem	Univ. of Duisburg - Essen
10:20-10:40	MoA14.2
<i>Statistical Properties of Exponentially Weighted Moving Average Algorithm for Change Detection</i> , pp. 574-578.	
Chitraganti, Shaikshavali	Univ. de Lorraine
Aberkane, Samir	UHP, NANCY 1
Aubrun, Christophe	Univ. de Lorraine
10:40-11:00	MoA14.3
<i>Fault Detection Using Marginalized Likelihood Ratio and Uniform Priors: Justifications and Challenges</i> , pp. 579-585.	
Kiasi, Fariborz	Univ. of Alberta
Prakash, Jagadeesan	Anna University
Shah, Sirish L.	Univ. of Alberta

11:00-11:20	MoA14.4
<i>A Distributed Detection Scheme for Process Faults and Sensor Faults in a Class of Interconnected Nonlinear Uncertain Systems</i> , pp. 586-591.	
Zhang, Qi	Wright State Univ.
Zhang, Xiaodong	Wright State Univ.
11:20-11:40	MoA14.5
<i>A Novel Distributed Robust Fault Detection and Isolation Filter Design for a Network of Nonhomogeneous Multi-Agent Systems</i> , pp. 592-599.	
Davoodi, Mohammadreza	Tarbiat Modares Univ.
Khorasani, Khashayar	Concordia Univ.
Talebi, H.A.	Amirkabir Univ.
Momeni, Hamidreza	Tarbiat Modares Univ.
11:40-12:00	MoA14.6
<i>Fault Detection and Isolation for Inertial Measurement Units</i> , pp. 600-605.	
Brás, Sérgio	Inst. Superior Técnico
Rosa, Paulo Andre Nobre	Inst. Superior Técnico
Silvestre, Carlos	Inst. Superior Técnico
Oliveira, Paulo Jorge	Inst. Superior Técnico
<b>MoA15</b>	Ilina 3
<b>Computational Methods (Regular Session)</b>	
Chair: McEneaney, William	Univ. of California, San Diego
Co-Chair: Ostertag, Eric	Univ. of Strasbourg
10:00-10:20	MoA15.1
<i>A Novel Algorithm to Solve the Robust DMZ Equation in Real Time</i> , pp. 606-611.	
Luo, Xue	Univ. of Illinois at Chicago
Yau, Stephen S.-T.	Tsinghua Univ.
10:20-10:40	MoA15.2
<i>Approximation of Nonlinear L2-Gain Bounds Via a Max-Plus Method</i> , pp. 612-617.	
Zhang, Huan	Univ. of Melbourne
Dower, Peter M.	Univ. of Melbourne
10:40-11:00	MoA15.3
<i>A Max-Plus Method for Optimal Control of a Diffusion Equation</i> , pp. 618-623.	
Dower, Peter M.	Univ. of Melbourne
McEneaney, William	Univ. of California, San Diego
11:00-11:20	MoA15.4
<i>Fractional Order Differentiation by Integration with Jacobi Polynomials</i> , pp. 624-629.	
Liu, Da-yan	King Abdullah Univ. of Science and Tech.
Gibaru, Olivier	Arts et Metiers ParisTech
Perruquetti, Wilfrid	Ec. Centrale de Lille
Laleg, Taous Meriem	King Abdullah Univ. of Science and Tech. (KAUST)



11:20-11:40	MoA15.5
<i>Consistent Approximation of an Optimal Search Problem</i> , pp. 630-637.	
Phelps, Chris	Univ. of California, Santa Cruz
Gong, Qi	Univ. of California, Santa Cruz
Royset, Johannes	Univ. of California, Berkeley
Kaminer, Isaac	Naval Postgraduate School
11:40-12:00	MoA15.6
<i>A Cooperative Conjugate Gradient Method for Linear Systems Permitting Multithread Implementation of Low Complexity</i> , pp. 638-643.	
Bhaya, Amit	Federal Univ. of Rio De Janeiro
Bliman, Pierre-Alexandre J	INRIA - Rocquencourt
Niedu, Guilherme	Federal Univ. of Rio De Janeiro
Pazos, Fernando Agustin	Federal Univ. of Rio De Janeiro
12:00-12:20	MoA15.7
<i>Pah-Following H2/Hinf Design of Dynamic Output-Feedback Controllers Via LMI's</i> , pp. 644-649.	
Ostertag, Eric	Univ. of Strasbourg

**MoA16** Haleakala Ballroom 3  
**Embedded Optimization for Control and Estimation (Invited Session)**

Chair: Kerrigan, Eric C.	Imperial Coll. London
Co-Chair: Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca
Organizer: Kerrigan, Eric C.	Imperial Coll. London
10:00-10:20	MoA16.1
<i>Iteration Complexity of an Inexact Augmented Lagrangian Method for Constrained MPC (I)</i> , pp. 650-655.	
Nedelcu, Andrei Valentin	Pol. Univ. Bucharest
Necoara, Ion	Pol. Univ. Bucharest
10:20-10:40	MoA16.2
<i>Piecewise Affine Direct Virtual Sensors with Reduced Complexity (I)</i> , pp. 656-661.	
Rubagotti, Matteo	Nazarbayev Univ.
Poggi, Tomaso	ESS-Bilbao
Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca
Storace, Marco	Univ. of Genoa
10:40-11:00	MoA16.3
<i>An Accelerated Dual Gradient-Projection Algorithm for Linear Model Predictive Control (I)</i> , pp. 662-667.	
Patrinos, Panagiotis	IMT Inst. for Advanced Studies Lucca
Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca
11:00-11:20	MoA16.4
<i>Efficient Interior Point Methods for Multistage Problems Arising in Receding Horizon Control (I)</i> , pp. 668-674.	
Domahidi, Alexander	ETH Zurich
Zraggen, Aldo Urban	ETH Zurich
Zeilinger, Melanie N.	École Pol. Fédérale de Lausanne (EPFL)
Morari, Manfred	ETH Zurich
Jones, Colin Neil	École Pol. Fédérale de Lausanne (EPFL)

11:20-11:40	MoA16.5
<i>Towards a Fixed Point QP Solver for Predictive Control (I)</i> , pp. 675-680.	
Jerez, Juan Luis	Imperial Coll. London
Constantinides, George A.	Imperial Coll. London
Kerrigan, Eric C.	Imperial Coll. London
11:40-12:00	MoA16.6
<i>Dynamic Optimization with CasADi (I)</i> , pp. 681-686.	
Andersson, Joel	Katholieke Univ. Leuven
Akesson, Johan	Lund Univ.
Diehl, Moritz	Katholieke Univ. Leuven
12:00-12:20	MoA16.7
<i>High-Speed Moving Horizon Estimation Based on Automatic Code Generation (I)</i> , pp. 687-692.	
Ferreau, Hans Joachim	Katholieke Univ. Leuven
Kraus, Tom	Katholieke Univ. Leuven
Vukov, Milan	Katholieke Univ. Leuven
Saeyns, Wouter	Katholieke Univ. Leuven
Diehl, Moritz	Katholieke Univ. Leuven

**MoA17** Haleakala Ballroom 5  
**Switched Systems I (Regular Session)**

Chair: Parrilo, Pablo A.	Massachusetts Inst. of Tech.
Co-Chair: Egerstedt, Magnus	Georgia Inst. of Tech.
10:00-10:20	MoA17.1
<i>Nice-Reachability Results for Discrete-Time Linear Switched Systems with Applications to Stability under Arbitrary Switching Laws (I)</i> , pp. 693-698.	
Monovich Wahrmann, Tal	IAI - MLM Div.
Margaliot, Michael	Tel Aviv Univ.
10:20-10:40	MoA17.2
<i>Projection-Based Switched System Optimization: Absolute Continuity of the Line Search</i> , pp. 699-706.	
Caldwell, Timothy	Northwestern Univ.
Murphey, Todd	Northwestern Univ.
10:40-11:00	MoA17.3
<i>Switching Time Optimization in Discretized Hybrid Dynamical Systems</i> , pp. 707-712.	
Flabkamp, Kathrin	Univ. of Paderborn
Murphey, Todd	Northwestern Univ.
Ober-Blöbaum, Sina	Univ. of Paderborn
11:00-11:20	MoA17.4
<i>A Controlled-Precision Algorithm for Mode-Switching Optimization</i> , pp. 713-718.	
Wardi, Yorai	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
Twu, Phillip	Georgia Inst. of Tech.
11:20-11:40	MoA17.5
<i>Trade-Offs between Control and Mode-Observability Properties for Switching Linear Systems</i> , pp. 719-724.	
Baglietto, Marco	Univ. of Genova
Battistelli, Giorgio	Univ. of Florence
Tesi, Pietro	Univ. of Genova

11:40-12:00 MoA17.6

*$l_2$ -Induced Norm of Discrete-Time Switched Linear Systems: Solutions and Algorithms*, pp. 725-730.

Shi, Dawei Univ. of Alberta  
Chen, Tongwen Univ. of Alberta

12:00-12:20 MoA17.7

*Joint Spectral Radius of Rank One Matrices and the Maximum Cycle Mean Problem*, pp. 731-733.

Ahmadi, Amir Ali Massachusetts Inst. of Tech.  
Parrilo, Pablo A. Massachusetts Inst. of Tech.

**MoB01** Hibiscus 1  
**Networked Control Systems II** (Regular Session)

Chair: Zampieri, Sandro Univ. di Padova  
Co-Chair: Lin, Fu Univ. of Minnesota

14:00-14:20 MoB01.1

*Performance of Leader-Follower Networks in Directed Trees and Lattices*, pp. 734-739.

Lin, Fu Univ. of Minnesota  
Fardad, Makan Syracuse Univ.  
Jovanovic, Mihailo Univ. of Minnesota

14:20-14:40 MoB01.2

*Emulation-Based Tracking Solutions for Nonlinear Networked Control Systems*, pp. 740-745.

Postoyan, Romain CNRS-CRAN  
Van De Wouw, Nathan Eindhoven Univ. of Tech.  
Nesic, Dragan Univ. of Melbourne  
Heemels, W.P.M.H. Eindhoven Univ. of Tech.

14:40-15:00 MoB01.3

*Stabilizing a Random Dynamics Network with a Random Communications Network*, pp. 746-751.

Manaffam, Saeed Univ. of Rochester  
Razeghi-Jahromi, Mohammad Univ. of Rochester  
Seyedi, Alireza Univ. of Central Florida

15:00-15:20 MoB01.4

*Semiglobal Practical Stability of a Class of Parameterized Networked Control Systems*, pp. 752-756.

Wang, Bin Univ. of Melbourne  
Nesic, Dragan Univ. of Melbourne

15:20-15:40 MoB01.5

*Disturbance Propagation in Strings of Vehicles with Limited Leader Information*, pp. 757-762.

Zhao, Yingbo Univ. of Notre Dame  
Minero, Paolo Univ. of Notre Dame  
Gupta, Vijay Univ. of Notre Dame

15:40-16:00 MoB01.6

*Moving Horizon Estimation for Networked Systems with Packet Dropouts*, pp. 763-768.

Liu, Andong Zhejiang Univ. of Tech.  
Yu, Li Zhejiang Univ. of Tech.  
Zhang, Wenan Zhejiang Univ. of Tech.

**MoB02** Hibiscus 2  
**Sensor Networks I** (Regular Session)

Chair: Battistelli, Giorgio Univ. di Firenze  
Co-Chair: Chisci, Luigi Univ. di Firenze

14:00-14:20 MoB02.1

*Event-Triggered Filtering with Application to Target Tracking in Binary Sensor Networks*, pp. 769-774.

Lee, Sangjin Purdue Univ.  
Liu, Weiyi Purdue Univ.  
Hwang, Inseok Purdue Univ.

14:20-14:40 MoB02.2

*A Distributed Estimation Method for Sensor Networks Based on Pareto Optimization*, pp. 775-781.

Boem, Francesca Univ. of Trieste  
Xu, Yuzhe KTH Royal Inst. of Tech.  
Fischione, Carlo KTH Royal Inst. of Tech.  
Parisini, Thomas Imperial Coll. & Univ. of Trieste

14:40-15:00 MoB02.3

*Distributed Input and State Estimation for Linear Discrete-Time Systems*, pp. 782-787.

Esna Ashari, Alireza INRIA - Grenoble  
Kibangou, Alain Univ. Joseph Fourier-CNRS  
Garin, Federica INRIA

15:00-15:20 MoB02.4

*Simultaneous Scan-Based Emitter Passive Localization and Receiver Trajectory Optimization*, pp. 788-793.

Liang, Yueqian Beihang Univ. (BUAA)  
Jia, Yingmin Beihang Univ. (BUAA)  
Du, Junping Beijing Univ. of Posts and Telecommunications  
Zhang, Jun Beihang Univ. (BUAA)

15:20-15:40 MoB02.5

*Consensus-Based Algorithms for Distributed Filtering*, pp. 794-799.

Battistelli, Giorgio Univ. di Firenze  
Chisci, Luigi Univ. di Firenze  
Mugnai, Giovanni Univ. di Firenze  
Farina, Alfonso Selex - Sistemi Integrati  
Graziano, Antonio SELEX Sistemi Integrati

15:40-16:00 MoB02.6

*Data-Driven Strategies for Selective Data Transmission in Sensor Networks*, pp. 800-805.

Battistelli, Giorgio Univ. di Firenze  
Benavoli, Alessio SUPSI  
Chisci, Luigi Univ. di Firenze

**MoB03** Hibiscus 3  
**Agents and Autonomous Systems II** (Regular Session)

Chair: Mathew, George United Tech. Res. Center, Inc.,  
Co-Chair: Morbidi, Fabio Johannes Kepler Univ. Linz

14:00-14:20	MoB03.1
<i>A Static Coverage Algorithm for Locational Optimization</i> , pp. 806-811.	
Mathew, George	United Tech. Res. Center, Inc.
Surana, Amit	United Tech. Res. Center, Inc.
14:20-14:40	MoB03.2
<i>On the Properties of the Deformed Consensus Protocol</i> , pp. 812-817.	
Morbidi, Fabio	Johannes Kepler Univ. Linz
14:40-15:00	MoB03.3
<i>Leader Selection in Multi-Agent Systems for Smooth Convergence Via Fast Mixing</i> , pp. 818-824.	
Clark, Andrew	Univ. of Washington
Alomair, Basel	King Abdulaziz City for Science and Tech.
Bushnell, Linda	Univ. of Washington
Poovendran, Radha	Univ. of Washington
15:00-15:20	MoB03.4
<i>Consensus Algorithms Design for Constrained Heterogeneous Multi-Agent Systems</i> , pp. 825-830.	
Abdessameud, Abdelkader	Univ. of Western Ontario
Tayebi, Abdelhamid	Lakehead Univ.
Polushin, Ilia G.	Western Univ.
15:20-15:40	MoB03.5
<i>Optimal Leader Allocation in UAV Formation Pairs under Costly Switching</i> , pp. 831-836.	
Richert, Dean	Univ. of California, San Diego
Cortes, Jorge	Univ. of California, San Diego
15:40-16:00	MoB03.6
<i>Cooperative Control of Uncertain Multivehicle Systems</i> , pp. 837-842.	
Yucelen, Tansel	Georgia Inst. of Tech.
Johnson, Eric N.	Georgia Inst. of Tech.

**MoB04** Plumeria 1  
**Stochastic Optimal Control II** (Regular Session)

Chair: Johansson, Karl H.	KTH Royal Inst. of Tech.
Co-Chair: Baczynski, Jack	LNCC
14:00-14:20	MoB04.1
<i>Communication Scheduling and Remote Estimation with Energy Harvesting Sensor</i> , pp. 843-848.	
Nayyar, Ashutosh	Univ. of Illinois, Urbana-Champaign
Basar, Tamer	Univ. of Illinois, Urbana-Champaign
Teneketzis, Demosthenis	Univ. of Michigan
Veeravalli, Venugopal V.	Univ. of Illinois, Urbana-Champaign
14:20-14:40	MoB04.2
<i>Analysis of Non-Linear Behavior - a Sensitivity-Based Approach</i> , pp. 849-854.	
Cao, Xi-Ren	Shanghai Jiao Tong Univ.
Wan, Xiangwei	Shanghai Jiao Tong Univ.

14:40-15:00	MoB04.3
<i>Limited Model Information Control Design for Linear Discrete-Time Systems with Stochastic Parameters</i> , pp. 855-861.	
Farokhi, Farhad	KTH Royal Inst. of Tech.
Johansson, Karl H.	KTH Royal Inst. of Tech.
15:00-15:20	MoB04.4
<i>A Risk Sensitive Performance Index for Control Problems with a View to Markov Jump Systems</i> , pp. 862-869.	
Baczynski, Jack	LNCC
15:20-15:40	MoB04.5
<i>Parameterized Penalties in the Dual Representation of Markov Decision Processes</i> , pp. 870-876.	
Ye, Fan	Univ. of Illinois at Urbana-Champaign
Zhou, Enlu	Univ. of Illinois at Urbana-Champaign
15:40-16:00	MoB04.6
<i>Optimality of Myopic Policy for a Class of Monotone Affine Restless Multi-Armed Bandits</i> , pp. 877-882.	
Mansourifard, Parisa	Univ. of Southern California
Javidi, Tara	Univ. of California, San Diego
Krishnamachari, Bhaskar	Univ. of Southern California

**MoB05** Plumeria 2  
**System Identification II** (Regular Session)

Chair: Gevers, Michel	EC Louvain and Vrije Univ. Brussels
Co-Chair: Van den Hof, Paul M.J.	Eindhoven Univ. of Tech.
14:00-14:20	MoB05.1
<i>Bias Reduction in Transfer Function Identification (I)</i> , pp. 883-888.	
Anderson, Brian D.O.	Australian National Univ.
Gevers, Michel	UC Louvain and Vrije Univ. Brussels
14:20-14:40	MoB05.2
<i>New Approach to Noncausal Identification of Nonstationary Stochastic Systems Subject to Both Smooth and Abrupt Parameter Changes</i> , pp. 889-894.	
Niedzwiecki, Maciej	Tech. Univ. of Gdansk
Gackowski, Szymon	Tech. Univ. of Gdansk
14:40-15:00	MoB05.3
<i>Identification in Dynamic Networks with Known Interconnection Topology</i> , pp. 895-900.	
Van den Hof, Paul M.J.	Eindhoven Univ. of Tech.
Dankers, Arne	Delft Univ. of Tech.
Heuberger, Peter S.C.	Delft Univ. of Tech.
Bombois, Xavier	Delft Univ. of Tech.
15:00-15:20	MoB05.4
<i>Dynamic Network Identification Using the Direct Prediction-Error Method</i> , pp. 901-906.	
Dankers, Arne	Delft Univ. of Tech.
Van den Hof, Paul M.J.	Eindhoven Univ. of Tech.
Heuberger, Peter S.C.	Eindhoven Univ. of Tech.
Bombois, Xavier	Delft Univ. of Tech.

15:20-15:40	MoB05.5
<i>Adaptive Experiment Design for ARMAX Systems</i> , pp. 907-912.	
Huang, Lirong	KTH Royal Inst. of Tech.
Hjalmarsson, Håkan	KTH Royal Inst. of Tech.
Gerencsér, László	MTA SZTAKI

15:40-16:00	MoB05.6
<i>On the Identification of Fast Dynamics Using Slow Rate Camera Measurements</i> , pp. 913-918.	
Tani, Jacopo	Rensselaer Pol. Inst.
Mishra, Sandipan	Rensselaer Pol. Inst.
Wen, John T.	Rensselaer Pol. Inst.

<b>MoB06</b>	Plumeria 3
<b>Robust Control II</b> (Regular Session)	
Chair: Scherer, Carsten W.	Univ. of Stuttgart
Co-Chair: MacKunis, William	Embry-Riddle Aeronautical Univ.

14:00-14:20	MoB06.1
<i>Robust High Order Augmented Observer Based Control for Nonlinear Systems</i> , pp. 919-924.	
Kim, Wonhee	Hanyang Univ.
Chung, Chung Choo	Hanyang Univ.

14:20-14:40	MoB06.2
<i>Robust and Resilient Finite-Time Bounded Observer for a Class of Discrete-Time Nonlinear Systems with Nonlinear Measurements</i> , pp. 925-930.	
EiBsat, Mohammad	Marquette Univ.
Yaz, Edwin	Marquette Univ.

14:40-15:00	MoB06.3
<i>Uncertainty Modeling and Robust Stability Analysis of a Synchrotron Electron Beam Stabilisation Control System</i> , pp. 931-936.	
Gayadeen, Sandira	Univ. of Oxford
Duncan, Stephen	Univ. of Oxford

15:00-15:20	MoB06.4
<i>Robust Attitude Tracking Control of a Quadrotor Helicopter in the Presence of Uncertainty</i> , pp. 937-942.	
Ton, Chau	Embry-Riddle Aeronautical Univ.
MacKunis, William	Embry-Riddle Aeronautical Univ.

15:20-15:40	MoB06.5
<i>A Note on Disturbance Observer with Unknown Relative Degree of the Plant</i> , pp. 943-948.	
Jo, Nam H.	Soongsil Univ.
Joo, Young Jun	Seoul National Univ.
Shim, Hyungbo	Seoul National Univ.
Son, Young Ik	Myongji Univ.

15:40-16:00	MoB06.6
<i>Rejection of Polynomial-In-Time Disturbances Via Disturbance Observer with Guaranteed Robust Stability</i> , pp. 949-954.	
Park, Gyunghoon	Seoul National Univ.
Joo, Young Jun	Seoul National Univ.
Shim, Hyungbo	Seoul National Univ.
Back, Juhoon	Kwangwoon Univ.

<b>MoB07</b>	Maile 1
<b>Distributed Parameter Systems I</b> (Invited Session)	
Chair: Demetriou, Michael A.	Worcester Pol. Inst.
Co-Chair: Djouadi, Seddik, M.	Univ. of Tennessee
Organizer: Demetriou, Michael A.	Worcester Pol. Inst.
Organizer: Fahroo, Fariba	AFOSR

14:00-14:20	MoB07.1
<i>Estimation of Spatial Fields Using Asymptotic Embedding Methods and Lagrangian Sensing (I)</i> , pp. 955-960.	
Demetriou, Michael A.	Worcester Pol. Inst.
Fahroo, Fariba	AFOSR

14:20-14:40	MoB07.2
<i>Reduced Order Modeling for Fluid Flows Subject to Quadratic Type Nonlinearities (I)</i> , pp. 961-966.	
Sahyoun, Samir	Univ. of Tennessee
Dong, Jin	Univ. of Tennessee
Djouadi, Seddik, M.	Univ. of Tennessee

14:40-15:00	MoB07.3
<i>Control and Sensitivity Reduction for a Viscous Burgers' Equation (I)</i> , pp. 967-972.	
Burns, John A	Virginia Tech.
Allen, Edward	Texas Tech. Univ.
Gilliam, David S.	Texas Tech. Univ.

15:00-15:20	MoB07.4
<i>On Optimal Sensor Placement for Spatio-Temporal Temperature Estimation in Large Battery Packs (I)</i> , pp. 973-978.	
Wolf, Philipp	Univ. of Stuttgart
Moura, Scott	Univ. of California, San Diego
Krstic, Miroslav	Univ. of California, San Diego

15:20-15:40	MoB07.5
<i>Sliding Mode and Active Disturbance Rejection Control to Stabilization of One-Dimensional Anti-Stable Wave Equations Subject to Disturbance in Boundary Input (I)</i> , pp. 979-984.	
Guo, Bao-Zhu	Chinese Acad. of Sciences
Jin, Feng-Fei	Univ. of the Witwatersrand
Yao, Cui-Zhen	Beijing Inst. of Tech.

15:40-16:00	MoB07.6
<i>Sliding Mode Control Based on an Inverse Compensator Design for Hysteretic Smart Systems (I)</i> , pp. 985-990.	
McMahan, Jerry	North Carolina State Univ.
Smith, Ralph C.	North Carolina State Univ.

<b>MoB08</b>	Maile 2
<b>Nonlinear Systems II</b> (Regular Session)	
Chair: Guay, Martin	Queen's Univ.
Co-Chair: Morin, Pascal	UPMC

14:00-14:20	MoB08.1
<i>Motion Planning by the Homotopy Continuation Method for Control-Affine Systems: Sublinear Growth Conditions</i> , pp. 991-996.	
Amiss, Scott	Queen's Univ.
Guay, Martin	Queen's Univ.

14:20-14:40	MoB08.2
<i>Control of Nonlinear Systems with Symmetries Using Chaos</i> , pp. 997-1002.	
Reist, Philipp	ETH Zurich
D'Andrea, Raffaello	ETH Zurich
14:40-15:00	MoB08.3
<i>Feedback Control of the General Two-Trailers System with the Transverse Function Approach</i> , pp. 1003-1010.	
Morin, Pascal	UPMC
Samson, Claude	INRIA Sophia-Antipolis
15:00-15:20	MoB08.4
<i>Robustness of Steady-State Optimality in Economic Model Predictive Control</i> , pp. 1011-1016.	
Muller, Matthias A.	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart
15:20-15:40	MoB08.5
<i>MIMO Conditional Servo-Compensator for a Class of Nonlinear Systems</i> , pp. 1017-1022.	
Nguyen, Van Cuong	IBISC - Univ. d'Evry
Damm, Gilney	Evry Univ.
15:40-16:00	MoB08.6
<i>Mixed Linear Complementarity Problems for the Analysis of Limit Cycles in Piecewise Linear Systems</i> , pp. 1023-1028.	
Sessa, Valentina	Univ. of Sannio
Iannelli, Luigi	Univ. of Sannio
Vasca, Francesco	Univ. of Sannio

<b>MoB09</b>	Maile 3
<b>Biological Systems I (Regular Session)</b>	
Chair: Hara, Shinji	Univ. of Tokyo
Co-Chair: Klein, Daniel J.	Intellectual Ventures Lab.
14:00-14:20	MoB09.1
<i>Synchronization of a Budding Yeast Cell Culture by Manipulating Inner Cell Cycle Concentrations</i> , pp. 1029-1034.	
Wegerhoff, Sven	TU Dortmund
Neymann, Tobias Claus	TU Dortmund
Engell, Sebastian	TU Dortmund
14:20-14:40	MoB09.2
<i>Data-Driven Graph Reconstruction Using Compressive Sensing</i> , pp. 1035-1040.	
Chang, Young Hwan	Univ. of California, Berkeley
Tomlin, Claire J.	Univ. of California, Berkeley
14:40-15:00	MoB09.3
<i>Relationship Formation and Flow Control Algorithms for Generating Age-Structured Networks in HIV Modeling</i> , pp. 1041-1046.	
Klein, Daniel J.	Intellectual Ventures Lab.

15:00-15:20	MoB09.4
<i>Analytic Computation of the Integrated Response in Nonlinear Reaction-Diffusion Systems</i> , pp. 1047-1052.	
López-Caamal, Fernando	National Univ. of Ireland, Maynooth
Garcia, Miriam R.	National Univ. of Ireland, Maynooth
Oyarzun, Diego A.	Imperial Coll. London
Middleton, Richard H.	Univ. of Newcastle
15:20-15:40	MoB09.5
<i>Noise-Induced Spatial Pattern Formation in Stochastic Reaction-Diffusion Systems</i> , pp. 1053-1058.	
Hori, Yutaka	Univ. of Tokyo
Hara, Shinji	Univ. of Tokyo
15:40-16:00	MoB09.6
<i>Synchronization of Biological Neural Network Systems with Stochastic Perturbations and Time Delays</i> , pp. 1059-1064.	
Zeng, Xianlin	Texas Tech. Univ.
Hui, Qing	Texas Tech. Univ.
Haddad, Wassim M.	Georgia Inst. of Tech.
Hayakawa, Tomohisa	Tokyo Inst. of Tech.
Bailey, James M.	Northeast Georgia Medical Center

<b>MoB10</b>	Pikake 1
<b>Quantum Information and Control I (Regular Session)</b>	
Chair: Maalouf, Aline I.	Univ. of New South Wales at ADFA
Co-Chair: Petersen, Ian R.	Univ. of New South Wales at ADFA
14:00-14:20	MoB10.1
<i>Time-Optimal Frictionless Atom Cooling in Harmonic Traps (I)</i> , pp. 1065-1071.	
Stefanatos, Dionisis	.
Schaettler, Heinz M.	Washington Univ.
Li, Jr-Shin	Washington Univ.
14:20-14:40	MoB10.2
<i>Quantum State Preparation by Controlled Dissipation in Finite Time: From Classical to Quantum Controllers</i> , pp. 1072-1077.	
Baggio, Giacomo	Univ. of Padova
Ticozzi, Francesco	Univ. di Padova
Viola, Lorenza	Dartmouth Coll.
14:40-15:00	MoB10.3
<i>Robust Stability of Quantum Systems with a Nonlinear Coupling Operator</i> , pp. 1078-1082.	
Petersen, Ian R.	Univ. of New South Wales at ADFA
Ugrinovskii, Valery	Univ. of New South Wales
James, Matthew R.	Australian National Univ.
15:00-15:20	MoB10.4
<i>Small Time Reachable Set of Bilinear Quantum Systems</i> , pp. 1083-1087.	
Boussaïd, Nabile	Univ. de Franche-Comté
Caponigro, Marco	Rutgers Univ.
Chambrion, Thomas	Univ. de Lorraine

15:20-15:40	MoB10.5
<i>On the Physical Realizability of a Class of Nonlinear Quantum Systems</i> , pp. 1088-1092.	
Maalouf, Aline I.	Univ. of New South Wales at ADFA
Petersen, Ian R.	Univ. of New South Wales at the Australian Defence Force Acad.

15:40-16:00	MoB10.6
<i>Synthesis and Structure of Mixed Quantum-Classical Linear Systems</i> , pp. 1093-1098.	
Wang, Shi	Australian National Univ.
Nurdin, Hendra Ishwara	Univ. of New South Wales
Zhang, Guofeng	The Hong Kong Pol. Univ.
James, Matthew R.	Australian National Univ.

<b>MoB11</b>	Pikake 2
<b>Electrical Power Systems II (Regular Session)</b>	
Chair: Xu, Huan	California Inst. of Tech.
Co-Chair: Goulart, Paul J.	ETH Zurich

14:00-14:20	MoB11.1
<i>Dynamic Pricing of Power in Smart-Grid Networks</i> , pp. 1099-1104.	
Wang, Qingsi	Univ. of Michigan
Liu, Mingyan	Univ. of Michigan
Jain, Rahul	Univ. of Southern California

14:20-14:40	MoB11.2
<i>On Power Sharing and Stability in Autonomous Inverter-Based Microgrids</i> , pp. 1105-1110.	
Schiffer, Johannes	Tech. Univ. Berlin
Anta, Adolfo	Tech. Univ. Berlin
Trung, Truong Duc	Tech. Univ. Berlin
Raisch, Joerg	Tech. Univ. Berlin
Sezi, Tevfik	Siemens AG

14:40-15:00	MoB11.3
<i>Robust Reserve Operation in Power Systems Using Affine Policies</i> , pp. 1111-1117.	
Warrington, Joseph	ETH Zurich
Goulart, Paul J.	ETH Zurich
Mariethoz, Sebastien	ETH Zurich
Morari, Manfred	ETH Zurich

15:00-15:20	MoB11.4
<i>Distributed Multi-Hop Reactive Power Compensation in Smart Micro-Grids Subject to Saturation Constraints (I)</i> , pp. 1118-1123.	
Bolognani, Saverio	Univ. of Padova
Carron, Andrea	Univ. of Padova
Di Vittorio, Alberto	Univ. of Padova
Romeres, Diego	Univ. of Padova
Schenato, Luca	Univ. of Padova
Zampieri, Sandro	Univ. di Padova

15:20-15:40	MoB11.5
<i>A Case Study on Reactive Protocols for Aircraft Electric Power Distribution</i> , pp. 1124-1129.	
Xu, Huan	California Inst. of Tech.
Topcu, Ufuk	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.

15:40-16:00	MoB11.6
<i>Scheduling Heterogeneous Delay Tolerant Tasks in Smart Grid with Renewable Energy</i> , pp. 1130-1135.	
Chen, Shengbo	Ohio State Univ.
Sinha, Prasun	Ohio State Univ.
Shroff, Ness B.	Ohio State Univ.

<b>MoB12</b>	Pikake 3
<b>Aerospace II (Regular Session)</b>	
Chair: Serrani, Andrea	Ohio State Univ.
Co-Chair: Gros, Sebastien	KU Leuven

14:00-14:20	MoB12.1
<i>Analysis of Linear L1 Adaptive Control Architectures for Aerospace Applications</i> , pp. 1136-1141.	
Petersson, Anders	SAAB
Astrom, Karl J.	Lund Univ.
Robertsson, Anders	Lund Univ.
Johansson, Rolf	Lund Univ.

14:20-14:40	MoB12.2
<i>Aircraft Control Based on Fast Non-Linear MPC &amp; Multiple-Shooting</i> , pp. 1142-1147.	
Gros, Sebastien	KU Leuven
Quirynen, Rien	KU Leuven
Diehl, Moritz	KU Leuven

14:40-15:00	MoB12.3
<i>Visual Servo Aircraft Control for Tracking Parallel Curves</i> , pp. 1148-1153.	
Serra, Pedro	Inst. Superior Técnico
Cunha, Rita	Inst. Superior Técnico
Silvestre, Carlos	University of Macau
Hamel, Tarek	Univ. de Nice Sophia Antipolis

15:00-15:20	MoB12.4
<i>Bifurcation Analysis of the Attitude Dynamics for a Magnetically Controlled Spacecraft</i> , pp. 1154-1159.	
Della Rossa, Fabio	Pol. di Milano
Bergamasco, Marco	Pol. di Milano
Lovera, Marco	Pol. di Milano

15:20-15:40	MoB12.5
<i>Control of Modular Aerial Robots: Combining under and Fully-Actuated Behaviors</i> , pp. 1160-1165.	
Forte, Francesco	Univ. di Bologna
Naldi, Roberto	Univ. di Bologna
Serrani, Andrea	Ohio State Univ.
Marconi, Lorenzo	Univ. di Bologna

15:40-16:00	MoB12.6
<i>A Travelling Salesman Problem for a Class of Heterogeneous Multi-Vehicle Systems</i> , pp. 1166-1171.	
Garone, Emanuele	Univ. Libre de Bruxelles
Determe, Jean-François	Univ. Libre de Bruxelles
Naldi, Roberto	Univ. di Bologna

<b>MoB13</b>	Ilima 1
<b>Robotics II (Regular Session)</b>	
Chair: Tedrake, Russ	MIT
Co-Chair: Parra-Vega, Vicente	CINVESTAV
14:00-14:20	MoB13.1
<i>Dynamic Self-Tuning PD Control for Tracking of Robot Manipulators</i> , pp. 1172-1179.	
Armendariz, Jorge	Ritsumeikan Univ.
Parra-Vega, Vicente	CINVESTAV
Garcia Rodriguez, Rodolfo	Univ. de los Andes
Hirai, Shinichi	Ritsumeikan Univ.
14:20-14:40	MoB13.2
<i>A Unified Bayesian Approach for Prediction and Detection Using Mobile Sensor Networks</i> , pp. 1180-1185.	
Xu, Yunfei	Michigan State Univ.
Choi, Jongeun	Michigan State Univ.
Dass, Sarat	Michigan State Univ.
Maiti, Taps	Michigan State Univ.
14:40-15:00	MoB13.3
<i>Extension of Zeheb-Walach Absolute Stability Criteria for Robot-Human Interactions</i> , pp. 1186-1191.	
Razi, Kamran	Queen's Univ.
Hashtrudi-Zaad, Keyvan	Queen's Univ.
15:00-15:20	MoB13.4
<i>Design of Robust Nonlinear Force and Stiffness Controller for Pneumatic Actuators</i> , pp. 1192-1198.	
Taheri, Behzad	SMU
Case, David	SMU
Richer, Edmond	SMU
15:20-15:40	MoB13.5
<i>Optimal Control for Maximizing Potential Energy in Variable Stiffness Joints</i> , pp. 1199-1206.	
Haddadin, Sami	German Aerospace Center
Özparpucu, Mehmet Can	TU Darmstadt, Robotics and Mechatronics Center, DLR
Albu-Schaeffer, Alin	German Aerospace Center
15:40-16:00	MoB13.6
<i>Optimizing Robust Limit Cycles for Legged Locomotion on Unknown Terrain</i> , pp. 1207-1213.	
Dai, Hongkai	Massachusetts Inst. of Tech.
Tedrake, Russ	Massachusetts Inst. of Tech.

<b>MoB14</b>	Ilima 2
<b>Fault Detection II (Regular Session)</b>	
Chair: Corradini, Maria Letizia	Univ. di Camerino
Co-Chair: Speyer, Jason L.	Univ. of California at Los Angeles
14:00-14:20	MoB14.1
<i>A Hierarchical Design Methodology for Implementing Safety-Critical Constrained Controllers with Guaranteed Stability and Failure Detection</i> , pp. 1214-1219.	
Kvasnica, Michal	Slovak Univ. of Tech. in Bratislava
Gondhalekar, Ravi	Univ. of California, Santa Barbara
Fikar, Miroslav	Slovak Univ. of Tech. in Bratislava

14:20-14:40	MoB14.2
<i>Robust FDI Filters and Fault Sensitivity Analysis in Continuous-Time Descriptor Systems</i> , pp. 1220-1225.	
Corradini, Maria Letizia	Univ. di Camerino
Cristofaro, Andrea	Univ. of Camerino
Pettinari, Silvia	Univ. of Camerino
14:40-15:00	MoB14.3
<i>Fault Isolation for Linear Non-Minimum Phase Systems Using Dynamically Extended Observers</i> , pp. 1226-1232.	
Wahrburg, Arne	Tech. Univ. Darmstadt
Adamy, Jürgen	Tech. Univ. Darmstadt
15:00-15:20	MoB14.4
<i>The Asymptotic Game Theoretic Multiple-Fault Detection Filter</i> , pp. 1233-1238.	
Murray, Emmanuell A.	Univ. of California at Los Angeles
Speyer, Jason L.	Univ. of California at Los Angeles
15:20-15:40	MoB14.5
<i>Data-Driven Quality Monitoring and Fault Detection for Multimode Nonlinear Processes</i> , pp. 1239-1244.	
Haghani Abandan Sari, Adel	Univ. of Duisburg-Essen
Ding, Steven X.	Univ. of Duisburg-Essen
Esch, Jonas	Univ. of Duisburg-Essen
Hao, Haiyang	Univ. of Duisburg-Essen
15:40-16:00	MoB14.6
<i>MPCA Based Phase Identification Method and Its Application to Process Monitoring</i> , pp. 1245-1252.	
Chang, Yuqing	Northeastern Univ.
Wang, Shu	Northeastern Univ.
Tan, Shuai	Northeastern Univ.
Wang, Fuli	Northeastern Univ.
Mao, Zhi-zhong	Northeastern Univ.

<b>MoB15</b>	Ilima 3
<b>Algebraic/Geometric Methods I (Regular Session)</b>	
Chair: Duffaut Espinosa, Luis Augusto	Univ. of New South Wales at ADFA
Co-Chair: Zenkov, Dmitry	North Carolina State Univ.
14:00-14:20	MoB15.1
<i>Practical Polynomial Formulas in MIMO Nonlinear Realization Problem</i> , pp. 1253-1258.	
Belikov, Juri	Tallinn Univ. of Tech.
Kotta, Palle	Tallinn Univ. of Tech.
Kotta, Ülle	Tallinn Univ. of Tech.
Tonso, Maris	Tallinn Univ. of Tech.
14:20-14:40	MoB15.2
<i>Cascaded Analytic Nonlinear Systems Driven by Rough Paths</i> , pp. 1259-1264.	
Duffaut Espinosa, Luis Augusto	Univ. of New South Wales at ADFA
Gray, W. Steven	Old Dominion Univ.
Thitsa, Makhin	Old Dominion Univ.

14:40-15:00 MoB15.3

*Stochastic Stability of an Attitude Estimation Algorithm on SO(3)*, pp. 1265-1270.

Solo, Victor Univ. of New South Wales

15:00-15:20 MoB15.4

*Quotient Method for Stabilising a Ball-On-A-Wheel System – Experimental Results*, pp. 1271-1278.

Sudarsandhari Shibani, Ec. Pol. Federale de Lausanne  
Willson

Daly, Killian Liebherr

Muellhaupt, Philippe Ec. Pol. Federale de Lausanne

Bonvin, Dominique Ec. Pol. Federale de Lausanne

15:20-15:40 MoB15.5

*Switching Surfaces and Null-Controllable Region of a Class of LTI Systems Using Grobner Basis*, pp. 1279-1284.

Patil, Deepak Indian Inst. of Tech. Bombay

Chakraborty, Debraj Indian Inst. of Tech. Bombay

15:40-16:00 MoB15.6

*Controlled Lagrangians and Stabilization of Discrete Spacecraft with Rotor (I)*, pp. 1285-1290.

Peng, Yuanyuan Claflin Univ.

Huynh, Syrena North Carolina State Univ.

Zenkov, Dmitry North Carolina State Univ.

Bloch, Anthony M. Univ. of Michigan

**MoB16** Haleakala Ballroom 3

**Information Structures in Optimal Decentralized Control** (Tutorial Session)

Chair: Martins, Nuno C. Univ. of Maryland

Co-Chair: Rotkowitz, Michael C. Univ. of Maryland

Organizer: Martins, Nuno C. Univ. of Maryland

Organizer: Rotkowitz, Michael C. Univ. of Maryland

Organizer: Yuksel, Serdar Queen's Univ.

Organizer: Mahajan, Aditya McGill Univ.

14:00-14:05 MoB16.1

*Information Structures in Optimal Decentralized Control (I)*, pp. 1291-1306.

Mahajan, Aditya McGill Univ.

Martins, Nuno C. Univ. of Maryland

Rotkowitz, Michael C. Univ. of Maryland

Yuksel, Serdar Queen's Univ.

14:05-15:00 MoB16.2

*Team Decision Theory: Characterization of Information Structures, Basic Concepts and Solution Methods (I)\**.  $\triangleright$   $\boxplus$   $\boxminus$

Mahajan, Aditya McGill Univ.

Yuksel, Serdar Queen's Univ.

15:00-16:00 MoB16.3

*Decentralized Control: Stabilizability, Invariance Principles and Parametrizations for Norm-Optimal Design (I)\**.  $\triangleright$   $\boxplus$   $\boxminus$

Martins, Nuno C. Univ. of Maryland

Rotkowitz, Michael C. Univ. of Maryland

**MoB17** Haleakala Ballroom 5

**Switched Systems II** (Regular Session)

Chair: Fragoso, Marcelo LNCC / MCT

Co-Chair: Jungers, Raphaël Univ. of Louvain  
M.

14:00-14:20 MoB17.1

*Asynchronous Output-Feedback Stabilization of Discrete-Time Markovian Jump Linear Systems*, pp. 1307-1312.

Shu, Zhan Univ. of Southampton

Lam, James Univ. of Hong Kong

Xiong, Junlin Univ. of Science and Tech. of  
China

14:20-14:40 MoB17.2

*Equivalent LMI Constraints: Applications to Discrete-Time MJLS and Switched Systems*, pp. 1313-1318.

Fioravanti, Andre R. UNICAMP

Gonçalves, Alim P. C. UNICAMP

Deaecto, Grace S. UNICAMP

Geromel, Jose C. UNICAMP

14:40-15:00 MoB17.3

*Stochastic Properties of Switched Riccati Differential Equations*, pp. 1319-1324.

Ogura, Masaki Texas Tech. Univ.

Martin, Clyde F. Texas Tech. Univ.

15:00-15:20 MoB17.4

*Feedback Stabilization of Dynamical Systems with Switched Delays*, pp. 1325-1330.

Jungers, Raphaël M. Univ. of Louvain

D'Innocenzo, Alessandro Univ. of L'Aquila

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

15:20-15:40 MoB17.5

*New Results on the Robustness of Discrete-Time Markov Jump Linear Systems*, pp. 1331-1336.

Todorov, Marcos LNCC

Fragoso, Marcelo LNCC / MCT

15:40-16:00 MoB17.6

*Invariance Principles for Switched Systems with Restrictions (I)*, pp. 1337-1342.

Mancilla-Aguilar, J. L. Inst. Tecnológico de Buenos Aires

Garcia, Rafael A. Inst. Tecnológico de Buenos Aires

**MoC01** Hibiscus 1

**Networked Control Systems III** (Regular Session)

Chair: Pola, Giordano Univ. of L'Aquila

Co-Chair: Nair, Girish N. Univ. of Melbourne

16:30-16:50 MoC01.1

*A Nonstochastic Information Theory for Feedback*, pp. 1343-1348.

Nair, Girish N. Univ. of Melbourne

16:50-17:10 MoC01.2

*Observability of Nonlinear NCS with Unsynchronized Sensor Clocks*, pp. 1349-1355.

Philipp, Peter Tech. Univ. München



17:10-17:30	MoC01.3
<i>Consensus Control and Communication Graph Co-Design for MIMO Discrete-Time Multi-Agent Systems</i> , pp. 1356-1361.	
Liu, Fei	Jiangnan Univ.
Gu, Guoxiang	Louisiana State Univ.
Chen, Xiang	Univ. of Windsor

17:30-17:50	MoC01.4
<i>Packetized Predictive Control for Rate-Limited Networks Via Sparse Representation (I)</i> , pp. 1362-1367.	
Nagahara, Masaaki	Kyoto Univ.
Quevedo, Daniel E.	Univ. of Newcastle
Ostergaard, Jan	Aalborg Univ.

17:50-18:10	MoC01.5
<i>Is It Worth to Retransmit Lost Packets in Networked Control Systems?</i> , pp. 1368-1373.	
Blind, Rainer	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart

18:10-18:30	MoC01.6
<i>Integrated Symbolic Design of Unstable Nonlinear Networked Control Systems</i> , pp. 1374-1379.	
Borri, Alessandro	Univ. of L'Aquila
Pola, Giordano	Univ. of L'Aquila
Di Benedetto, M. Domenica	Univ. of L'Aquila

<b>MoC02</b>	Hibiscus 2
<b>Sensor Networks II (Regular Session)</b>	
Chair: Johansson, Karl H.	KTH Royal Inst. of Tech.
Co-Chair: Freris, Nikolaos	IBM Res. - Zurich

16:30-16:50	MoC02.1
<i>Distributed Calibration for Sensor Networks under Communication Errors and Measurement Noise</i> , pp. 1380-1385.	
Stankovic, Milos S.	KTH Royal Inst. of Tech.
Stankovic, Srdjan S.	Univ. of Belgrade
Johansson, Karl H.	KTH Royal Inst. of Tech.

16:50-17:10	MoC02.2
<i>Coverage-Aware Distributed Target Tracking for Mobile Sensor Networks</i> , pp. 1386-1391.	
Giannini, Silvia	Pol. di Bari
Di Paola, Donato	National Res. Council (CNR)
Rizzo, Alessandro	Pol. di Bari

17:10-17:30	MoC02.3
<i>Distributed Transmit Beamforming Via Feedback-Based Inter-Cluster Synchronization</i> , pp. 1392-1397.	
Hou, Jian	Zhejiang Univ.
Yan, Gangfeng	Zhejiang Univ.
Lin, Zhiyun	Zhejiang Univ.
Xu, Wenyuan	Univ. of South Carolina

17:30-17:50	MoC02.4
<i>Asynchronous Distributed Principal Component Analysis Using Stochastic Approximation</i> , pp. 1398-1403.	
Morral, Gemma	Telecom ParisTech
Bianchi, Pascal	Telecom ParisTech - CNRS/LTCI
Jakubowicz, Jérémie	Telecom SudParis – CNRS

17:50-18:10	MoC02.5
<i>Maximum Lifetime Strategy for Target Monitoring in a Mobile Sensor Network with Obstacles</i> , pp. 1404-1410.	
Masoudimansour, Walid	Concordia Univ.
Mahboubi, Hamid	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.
Sayrafian-Pour, Kamran	National Inst. of Standard & Tech.

18:10-18:30	MoC02.6
<i>Fast Distributed Smoothing of Relative Measurements (I)</i> , pp. 1411-1416.	
Freris, Nikolaos	EPFL
Zouzias, Anastasios	Univ. of Toronto

<b>MoC03</b>	Hibiscus 3
<b>Agents and Autonomous Systems III (Regular Session)</b>	
Chair: Yu, Changbin (Brad)	Australian National Univ.
Co-Chair: Cao, Ming	Univ. of Groningen

16:30-16:50	MoC03.1
<i>A Novel Result on Cluster Consensus Control of Multiple Generic Linear Agents</i> , pp. 1417-1422.	
Yu, Changbin (Brad)	Australian National Univ.
Qin, Jiahua	Australian National Univ.

16:50-17:10	MoC03.2
<i>Modified Gradient Control for Acyclic Minimally Persistent Formations to Escape from Collinear Position</i> , pp. 1423-1427.	
Park, Myoung-Chul	Gwangju Inst. of Science and Tech. (GIST)
Ahn, Hyo-Sung	Gwangju Inst. of Science and Tech. (GIST)
Oh, Kwang-Kyo	Gwangju Inst. of Science and Tech. (GIST)

17:10-17:30	MoC03.3
<i>Formation Control of Mobile Agents without an Initial Common Sense of Orientation</i> , pp. 1428-1432.	
Oh, Kwang-Kyo	Gwangju Inst. of Science and Tech. (GIST)
Ahn, Hyo-Sung	Gwangju Inst. of Science and Tech. (GIST)

17:30-17:50	MoC03.4
<i>Circle Formation for Anonymous Mobile Robots with Order Preservation</i> , pp. 1433-1438.	
Wang, Chen	Peking Univ.
Xie, Guangming	Peking Univ.
Cao, Ming	Univ. of Groningen
Wang, Long	Peking Univ.

17:50-18:10	MoC03.5
<i>Adaptive Docking Using Range Measurements</i> , pp. 1439-1444.	
Fidan, Baris	Univ. of Waterloo
Dasgupta, Soura	Univ. of Iowa
Anderson, Brian D.O.	Australian National Univ.

18:10-18:30	MoC03.6
<i>Robustness Issues with Undirected Formations</i> , pp. 1445-1450.	
Belabbas, Mohamed Ali	Harvard
Mou, Shaoshuai	Yale Univ.
Morse, A. Stephen	Yale Univ.
Anderson, Brian D.O.	Australian National Univ.

<b>MoC04</b>	Plumeria 1
<b>Stochastic Optimal Control III (Regular Session)</b>	
Chair: Kushner, Harold J.	Brown Univ.
Co-Chair: Lindquist, Anders G.	KTH Royal Inst. of Tech.
16:30-16:50	MoC04.1
<i>Modeling and Approximations for Stochastic Systems with State-Dependent Singular Controls and Wide-Band Noise</i> , pp. 1451-1458.	
Kushner, Harold J.	Brown Univ.
16:50-17:10	MoC04.2
<i>Revisiting the Separation Principle in Stochastic Control</i> , pp. 1459-1465.	
Georgiou, Tryphon T.	Univ. of Minnesota
Lindquist, Anders G.	Shanghai Jiao Tong Univ.
17:10-17:30	MoC04.3
<i>Relative Entropy and Free Energy Dualities: Connections to Path Integral and KL Control</i> , pp. 1466-1473.	
Theodorou, Evangelos	Univ. of Washington
Todorov, Emanuel	Univ. of Washington
17:30-17:50	MoC04.4
<i>Multi-Objective Optimal Control of Stochastic Hybrid Systems</i> , pp. 1474-1479.	
Summers, Sean	ETH Zurich
Lygeros, John	ETH Zurich
17:50-18:10	MoC04.5
<i>Quickest Detection of Market Shocks in Agent Based Models of the Order Book</i> , pp. 1480-1485.	
Krishnamurthy, Vikram	Univ. of British Columbia
Aryan, Anup	Univ. of British Columbia
18:10-18:30	MoC04.6
<i>Probabilistically-Sound and Asymptotically-Optimal Algorithm for Stochastic Control with Trajectory Constraints</i> , pp. 1486-1493.	
Huynh, Vu	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.

<b>MoC05</b>	Plumeria 2
<b>System Identification III (Regular Session)</b>	
Chair: Chiuso, Alessandro	Univ. di Padova
Co-Chair: van Wingerden, Jan-Willem	Delft Univ. of Tech.
16:30-16:50	MoC05.1
<i>Measurement Noise Distribution As a Metric for Parameter Estimation in Dynamical Systems</i> , pp. 1494-1499.	
Lillacci, Gabriele	Univ. of California at Santa Barbara
Khammash, Mustafa H.	ETH Zurich

16:50-17:10	MoC05.2
<i>Sparse Multiple Kernels for Impulse Response Estimation with Majorization Minimization Algorithms (I)</i> , pp. 1500-1505.	
Chen, Tianshi	Linköping Univ.
Ljung, Lennart	Linköping Univ.
Andersen, Martin	Linköping Univ.
Chiuso, Alessandro	Univ. di Padova
Carli, Francesca, P	Univ. of Padova
Pillonetto, Gianluigi	Univ. of Padova
17:10-17:30	MoC05.3
<i>Convergence Analysis of an Online Approach to Parameter Estimation Problems Based on Binary Noisy Observations</i> , pp. 1506-1511.	
Bourgeois, Laurent	SUPELEC
Juillard, Jerome	SUPELEC
17:30-17:50	MoC05.4
<i>Bayesian Learning of Probability Density Functions: A Markov Chain Monte Carlo Approach</i> , pp. 1512-1517.	
Del Favero, Simone	Univ. of Padova
Varagnolo, Damiano	KTH Royal Inst. of Tech.
Pillonetto, Gianluigi	Univ. of Padova
17:50-18:10	MoC05.5
<i>Topology Identification of a Sparse Dynamic Network</i> , pp. 1518-1523.	
Seneviratne, Akila	Univ. of New South Wales
Solo, Victor	Univ. of New South Wales

<b>MoC06</b>	Plumeria 3
<b>Robust Control III (Regular Session)</b>	
Chair: Wang, Sheng-Guo	Univ. of North Carolina at Charlotte
Co-Chair: Gonçalves, Eduardo Nunes	Centro Federal de Educação Tecnológica de Minas Gerais
16:30-16:50	MoC06.1
<i>Robust Gain-Scheduled Controller Synthesis Is Convex for Systems without Control Channel Uncertainties</i> , pp. 1524-1529.	
Veenman, Joost	Univ. of Stuttgart
Scherer, Carsten W.	Univ. of Stuttgart
16:50-17:10	MoC06.2
<i>Robust Decoupling PI Controllers for Multi-Loop Control</i> , pp. 1530-1535.	
Gonçalves, Bruno M.	Federal Univ. of Minas Gerais
Gonçalves, Eduardo Nunes	Federal Univ. of Minas Gerais
Palhares, Reinaldo Martinez	Federal Univ. of Minas Gerais
Takahashi, Ricardo H. C.	Federal Univ. of Minas Gerais
17:10-17:30	MoC06.3
<i>Flexible Robust Sliding Mode Control for Uncertain Stochastic Systems with Time-Varying Delay and Structural Uncertainties</i> , pp. 1536-1541.	
Wang, Sheng-Guo	Univ. of North Carolina at Charlotte
Bai, Libin	Univ. of North Carolina at Charlotte

17:30-17:50 MoC06.4

*Revisiting Robust Stabilization of Coprime Factors: The General Case*, pp. 1542-1547.

Engelken, Sönke Enercon GmbH  
Lanzon, Alexander Univ. of Manchester

17:50-18:10 MoC06.5

*Distributed Robust Stability Analysis of Interconnected Uncertain Systems*, pp. 1548-1553.

Andersen, Martin Linköping Univ.  
Hansson, Anders Linköping Univ.  
Khoshfetratpakazad, sina Linköping Univ.  
Rantzer, Anders Lund Univ.

18:10-18:30 MoC06.6

*Stabilizing Any SISO LTI Plant with an Arbitrarily Large Uncertain Gain and Delay*, pp. 1554-1559.

Miller, Daniel E. Univ. of Waterloo  
Gaudette, Darrell L. Univ. of Waterloo

**MoC07** Maile 1

**Distributed Parameter Systems II** (Invited Session)

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

16:30-16:50 MoC07.1

*Wellposedness and Stabilization of a Class of Infinite Dimensional Bilinear Control Systems (I)*, pp. 1560-1565.

Daafouz, Jamal CRAN, UMR CNRS - Nancy Univ.  
Tucsnak, M. Univ. of Nancy  
Valein, Julie Univ. of Nancy

16:50-17:10 MoC07.2

*Feedforward Output Regulation for Distributed Parameter Systems with Infinite-Dimensional Exosystems (I)*, pp. 1566-1571.

Paunonen, Lassi Tampere Univ. of Tech.  
Pohjolainen, Seppo Tampere Univ. of Tech.

17:10-17:30 MoC07.3

*Motion Planning for the 2D Stokes Equations (I)*, pp. 1572-1577.

Meurer, Thomas Vienna Univ. of Tech.  
Saidani, Mourad Vienna Univ. of Tech.

17:30-17:50 MoC07.4

*An Example of Thermal Regulation of a Two Dimensional Non-Isothermal Incompressible Flow (I)*, pp. 1578-1583.

Aulisa, Eugenio Texas Tech. Univ.  
Burns, John A Virginia Tech.  
Gilliam, David S. Texas Tech. Univ.

17:50-18:10 MoC07.5

*Tangential Nevanlinna-Pick Interpolation for Strong Stabilization of MIMO Distributed Parameter Systems (I)*, pp. 1584-1590.

Wakaiki, Masashi Kyoto Univ.  
Yamamoto, Yutaka Kyoto Univ.  
Ozbay, Hitay Bilkent Univ.

**MoC08** Maile 2

**Nonlinear Systems III** (Regular Session)

Chair: Bayrak, Alper Izmir Inst. of Tech.  
Co-Chair: Li, Shihua Southeast Univ.

16:30-16:50 MoC08.1

*Online Time Delay Identification and Control for General Classes of Nonlinear Systems*, pp. 1591-1596.

Bayrak, Alper Izmir Inst. of Tech.  
Tatlicioglu, Enver Izmir Inst. of Tech.

16:50-17:10 MoC08.2

*Inverse Compensation Error of the Prandtl-Ishlinskii Model*, pp. 1597-1602.

Al Janaideh, Mohammad Univ. of Jordan  
Su, Chun-Yi Concordia Univ.  
Rakheja, Subhash Concordia Univ.

17:10-17:30 MoC08.3

*Extremum-Seeking Control for Periodic Steady-State Response Optimization*, pp. 1603-1608.

Van De Wouw, Nathan Eindhoven Univ. of Tech.  
Haring, Mark Norwegian Univ. of Science and Tech.

Nesic, Dragan Univ. of Melbourne

17:30-17:50 MoC08.4

*Dynamic Generalized Controllability and Observability Functions with Applications to Model Reduction*, pp. 1609-1614.

Sassano, Mario Imperial Coll. London  
Astolfi, Alessandro Imperial Coll. & Univ. of Rome

17:50-18:10 MoC08.5

*On a Shubert Algorithm-Based Global Extremum Seeking Scheme*, pp. 1615-1620.

Nesic, Dragan Univ. of Melbourne  
Nguyen, Thang Univ. of Leicester  
Tan, Ying Univ. of Melbourne  
Manzie, Chris Univ. of Melbourne

18:10-18:30 MoC08.6

*Smooth Global Stabilization for a Class of Nonlinear Systems by Using the Methodology of Homogeneous with Monotone Degrees*, pp. 1621-1626.

Tian, Weisong Univ. of Texas at San Antonio  
Qian, Chunjiang Univ. of Texas at San Antonio  
Zhang, Chuanlin Southeast Univ.  
Li, Shihua Southeast Univ.

**MoC09** Maile 3

**Biological Systems II** (Regular Session)

Chair: Baheti, Radhakisan National Science Foundation  
Co-Chair: Hayakawa, Tokyo Inst. of Tech.  
Tomohisa

16:30-16:50 MoC09.1

*The Collective Oscillation Period of Inter-Coupled Goodwin Oscillators*, pp. 1627-1632.

Wang, Yongqiang Univ. of California, Santa Barbara  
Hori, Yutaka Univ. of Tokyo  
Hara, Shinji Univ. of Tokyo  
Doyle, Francis Univ. of California, Santa Barbara

16:50-17:10	MoC09.2
<i>New Architecture for Patterning Gene Expression Using Zinc Finger Proteins and Small RNAs</i> , pp. 1633-1638.	
Hsia, Justin	Univ. of California, Berkeley
Holtz, William Joseph	Univ. of California, Berkeley
Maharbiz, Michel	Univ. of California, Berkeley
Arcak, Murat	Univ. of California, Berkeley

17:10-17:30	MoC09.3
<i>A Stochastic Mean Field Model for an Excitatory and Inhibitory Synaptic Drive Cortical Neuronal Network</i> , pp. 1639-1644.	
Hui, Qing	Texas Tech. Univ.
Haddad, Wassim M.	Georgia Inst. of Tech.
Bailey, James M.	Northeast Georgia Medical Center
Hayakawa, Tomohisa	Tokyo Inst. of Tech.

17:30-17:50	MoC09.4
<i>A Point Process Model-Based Framework Reveals Reinforcement Mechanisms in Striatum During High Frequency STN DBS</i> , pp. 1645-1650.	
SANTANIELLO, SABATO	Johns Hopkins Univ.
Gale, John T.	Massachusetts General Hospital/Harvard Medical School
Montgomery, Erwin	Univ. of Alabama Birmingham
Sarma, Sri devi	Johns Hopkins Univ.

17:50-18:10	MoC09.5
<i>Charge-Balanced Time-Optimal Control for Spiking Neuron Oscillators</i> , pp. 1651-1656.	
Dasanayake, Isuru Sammana	Washington Univ. in St. Louis
Li, Jr-Shin	Washington Univ. in St. Louis

18:10-18:30	MoC09.6
<i>Optimal Information Dissemination in Epidemic Networks</i> , pp. 1657-1662.	
Darabi Sahnesh, Faryad	Kansas State Univ.
Scoglio, Caterina	Kansas State Univ.

<b>MoC10</b>	Pikake 1
<b>Quantum Information and Control II (Regular Session)</b>	
Chair: Ticozzi, Francesco	Univ. di Padova
Co-Chair: Dong, Daoyi	Univ. of New South Wales

16:30-16:50	MoC10.1
<i>Control through Operators for Quantum Chemistry</i> , pp. 1663-1667.	
Salomon, Julien	Univ. Paris-Dauphine
Turinici, Gabriel	Univ. Paris Dauphine
Rabitz, Herschel	Princeton Univ.
Laurent, Philippe	IRCCyN, Ec. des Mines de NANTES

16:50-17:10	MoC10.2
<i>Sampled-Data Design for Robust Decoherence Control of a Single Qubit</i> , pp. 1668-1673.	
Dong, Daoyi	Univ. of New South Wales
Petersen, Ian R.	Univ. of New South Wales at ADFA
Rabitz, Herschel	Princeton Univ.

17:10-17:30	MoC10.3
<i>Estimation of Quantum Channels: Identifiability and ML Methods</i> , pp. 1674-1679.	
Zorzi, Mattia	Univ. di Padova
Ticozzi, Francesco	Univ. di Padova
Ferrante, Augusto	Univ. di Padova

17:30-17:50	MoC10.4
<i>Quantum Observer for Linear Quantum Stochastic Systems</i> , pp. 1680-1684.	
Miao, Zibo	Australian National University
James, Matthew R.	Australian National University

17:50-18:10	MoC10.5
<i>Development of a Large Scanning-Range Atomic Force Microscope with Adaptive Complementary Sliding Mode Controller</i> , pp. 1685-1690.	
Huang, Kuan-Chia	National Taiwan Univ.
Wu, Jim Wei	National Taiwan Univ.
Chen, Jyun-Jhih	National Taiwan Univ.
Chen, Chih Lih	National Taiwan Univ.
Chen, Mei-Yung	National Taiwan Univ.
Fu, Li-Chen	National Taiwan Univ.

18:10-18:30	MoC10.6
<i>Characterization and Moment Stability Analysis of Quasilinear Quantum Stochastic Systems with Quadratic Coupling to External Fields</i> , pp. 1691-1696.	
Vladimirov, Igor G.	Univ. of New South Wales at ADFA
Petersen, Ian R.	Univ. of New South Wales at ADFA

<b>MoC11</b>	Pikake 2
<b>Electrical Power Systems III (Regular Session)</b>	
Chair: Chung, Chung Choo	Hanyang Univ.
Co-Chair: lung, Claude	Inst. National Pol. de Lorraine

16:30-16:50	MoC11.1
<i>Linear and Impulse Control Systems for Plasma Unstable Vertical Position in Elongated Tokamak (I)</i> , pp. 1697-1702.	
Mitrishkin, Yuri	V.A. Trapeznikov Inst. of Control Sciences
Zenckov, Semjon	V.A. Trapeznikov Inst. of Control Sciences Russian Acad.
Kartsev, Nikolai	Bauman Moscow State Tech. Univ.
Efremov, Alexander	V.A. Trapeznikov Inst. of Control Sciences Russian Acad.
Dokuka, Vladimir	Troitsk Inst. for Innovation & Fusion Res.
Khayrutdinov, Rustam	Troitsk Inst. for Innovation & Fusion Res.

16:50-17:10	MoC11.2
<i>A Solution to the Problem of Transient Stability of Multimachine Power Systems</i> , pp. 1703-1708.	
Casagrande, Daniele	Univ. of Udine
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome
Ortega, Romeo	LSS-SUPELEC
Langarica Cordoba, Diego	LSS-SUPELEC

17:10-17:30	MoC11.3
<i>Predictive Control of Coal Mills for Improving Supercritical Power Generation Process Dynamic Responses (I)</i> , pp. 1709-1714.	
Mohamed, Omar	Univ. of Birmingham
Wang, Jihong	Univ. of Warwick
Al-Duri, Bushra	Univ. of Birmingham
Lu, Junfu	Tsinghua Univ.
Gao, Qirui	Tsinghua Univ.
Xue, Yali	Tsinghua Univ.
Liu, Xiangjie	North China Electric Power Univ.

17:30-17:50	MoC11.4
<i>Passivity-Based Control with Nonlinear Damping for STATCOM System</i> , pp. 1715-1720.	
Gui, Yonghao	Hanyang Univ.
Lee, Young Ok	Hanyang Univ.
Han, Youngseong	Hanyang Univ. Hyosung Co.
Kim, Wonhee	Hanyang Univ.
Chung, Chung Choo	Hanyang Univ.

17:50-18:10	MoC11.5
<i>Explicit Model Predictive Control for Reduction of Wind Turbine Structural Loads</i> , pp. 1721-1726.	
Spudic, Vedrana	Univ. of Zagreb
Jelavic, Mate	Koncar - Electrical Engineering Inst.
Baotic, Mato	Univ. of Zagreb

18:10-18:30	MoC11.6
<i>Observer-Based Output-Feedback of a Multicellular Converter: Control Lyapunov Function -- Sliding Mode Approach</i> , pp. 1727-1732.	
Hauroigné, Pascal	CRAN, Nancy Univ.
Riedinger, Pierre	CRAN
lung, Claude	Inst. National Pol. de Lorraine

<b>MoC12</b>	Pikake 3
<b>Aerospace III (Regular Session)</b>	
Chair: Gros, Sebastien	KU Leuven
Co-Chair: Soler Arnedo, Manuel	Univ. Rey Juan Carlos

16:30-16:50	MoC12.1
<i>Attitude Control of Spacecraft by NMPC with Consideration of Singularity Avoidance of CMG</i> , pp. 1733-1739.	
Ikeda, Yuichi	Shinshu Univ.
Nakajima, Takashi	Shinshu Univ.
Chida, Yuichi	Shinshu Univ.

16:50-17:10	MoC12.2
<i>Multiphase Mixed-Integer Optimal Control Framework for Aircraft Conflict Avoidance</i> , pp. 1740-1745.	
Soler Arnedo, Manuel	Univ. Rey Juan Carlos
Kamgarpour, Maryam	Swiss Federal Inst. of Tech.
Tomlin, Claire J.	UC Berkeley
Staffetti, Ernesto	Univ. Rey Juan Carlos

17:10-17:30	MoC12.3
<i>Discrete-Time Adaptive Control of a Nonlinear Aircraft Flight Dynamic System (NASA GTM) with Damage</i> , pp. 1746-1751.	
Guo, Jiaying	Univ. of Virginia
Tao, Gang	Univ. of Virginia

17:30-17:50	MoC12.4
<i>Forward-Integration Riccati-Based Feedback Control for Spacecraft Rendezvous Maneuvers on Elliptic Orbits</i> , pp. 1752-1757.	
Weiss, Avishai	Univ. of Michigan
Kolmanovsky, Ilya V.	Univ. of Michigan
Baldwin, Morgan	Air Force Res. Lab.
Erwin, Richard Scott	Air Force Res. Lab.
Bernstein, Dennis S.	Univ. of Michigan

17:50-18:10	MoC12.5
<i>Attitude Estimation Based on Inertial and Position Measurements</i> , pp. 1758-1763.	
Gros, Sebastien	KU Leuven
Diehl, Moritz	KU Leuven

18:10-18:30	MoC12.6
<i>Space Debris Trajectory Estimation During Atmospheric Reentry Using Moving Horizon Estimator</i> , pp. 1764-1769.	
Suwantong, Rata	ONERA
Bertrand, Sylvain	ONERA
Dumur, Didier	Ec. Superieure D'Electricite
Beauvois, Dominique	Ec. Superieure D'Electricite

<b>MoC13</b>	Ilima 1
<b>Autonomous Robots (Regular Session)</b>	
Chair: Khorrami, Farshad	Pol. Inst. of NYU
Co-Chair: Loria, Antonio	CNRS

16:30-16:50	MoC13.1
<i>Multi-Ordered Short-Range Mover Prediction Models for Tracking and Avoidance</i> , pp. 1770-1775.	
Overstreet, Jamahl	Pol. Inst. of NYU
Khorrami, Farshad	Pol. Inst. of NYU

16:50-17:10	MoC13.2
<i>A Lyapunov-Based Approach for Time-Coordinated 3D Path-Following of Multiple Quadrotors</i> , pp. 1776-1781.	
Cichella, Venanzio	Univ. of Illinois, Urbana-Champaign
Kaminer, Isaac	Naval Postgraduate School
Xargay, Enric	Univ. of Illinois, Urbana-Champaign
Dobrokhodov, Vladimir	Naval Postgraduate School
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
Aguiar, A. Pedro	Inst. Superior Tecnico
Pascoal, Antonio Manuel	Inst. Superior Tecnico

17:10-17:30	MoC13.3
<i>Model Predictive Obstacle Avoidance Control for Leg/Wheel Mobile Robots with Optimized Articulated Leg Configuration</i> , pp. 1782-1789.	
Takahashi, Naoki	Tokyo City Univ.
Nonaka, Kenichiro	Tokyo City Univ.

17:30-17:50	MoC13.4
<i>Control of Flapping-Wing Rectifier Systems in Natural Oscillation</i> , pp. 1790-1795.	
Zhu, Lijun	Univ. of Newcastle
Chen, Zhiyong	Univ. of Newcastle
17:50-18:10	MoC13.5
<i>A Simple One-To-One Communication Algorithm for Formation-Tracking Control of Mobile Robots</i> , pp. 1796-1801.	
Kuvulmaz, Janset	Yildiz Tech. Univ.
Loria, Antonio	CNRS
18:10-18:30	MoC13.6
<i>Toward Force Control of a Quadrotor UAV in <math>SO(3)</math></i> , pp. 1802-1809.	
Parra-Vega, Vicente	CINVESTAV
Sanchez, Anand	CINVESTAV
Izaguirre-Espinosa, Carlos	CINVESTAV

<b>MoC14</b>	Ilima 2
<b>Fault Tolerant Systems (Regular Session)</b>	

Chair: Franze', Giuseppe	Univ. Degli Studi della Calabria
Co-Chair: Edwards, Christopher	Univ. of Leicester

16:30-16:50	MoC14.1
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*An Adaptive Actuator Failure Compensation Scheme for Spacecraft with Unknown Inertia Parameters*, pp. 1810-1815.

Yao, Xuelian	Nanjing Univ. of Aeronautics and Astronautics
Tao, Gang	Univ. of Virginia
Ma, Yajie	Nanjing Univ. of Aeronautics and Astronautics
Qi, Ruiyun	Nanjing Univ. of Aeronautics and Astronautics

16:50-17:10	MoC14.2
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*Developing Proof Carrying Code to Formally Assure Termination in Fault Tolerant Distributed Control Systems*, pp. 1816-1821.

Neogi, Natasha A.	Univ. of Illinois
Herencia-Zapana, Heber	National Inst. of Aerospace
Jobredeaux, Romain Julien	Georgia Tech.
Feron, Eric	Georgia Tech.

17:10-17:30	MoC14.3
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*Actuator Fault Tolerant Control: A Set-Theoretic Approach*, pp. 1822-1827.

Franze', Giuseppe	Univ. degli Studi della Calabria
Tedesco, Francesco	Univ. degli Studi della Calabria
Famularo, Domenico	Univ. degli Studi della Calabria

17:30-17:50	MoC14.4
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*Sensor Fault Tolerant Control Using a Robust LPV Based Sliding Mode Observer*, pp. 1828-1833.

Alwi, Halim	Univ. of Leicester
Edwards, Christopher	Univ. of Exeter
Prathyush, Purushothama Menon	Univ. of Exeter

17:50-18:10	MoC14.5
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*Fault-Tolerant Sensor Network Based on Fault Evaluation Matrix and Compensation for Intermittent Observation*, pp. 1834-1839.

Kosugi, Kazuya	Keio Univ.
Tokumoto, Shinichiro	Keio Univ.
Namerikawa, Toru	Keio Univ.

18:10-18:30	MoC14.6
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*An LPV Fault Tolerant Control Scheme Using Integral Sliding Modes*, pp. 1840-1845.

Hamayun, Mirza Tariq	Univ. of Leicester
Alwi, Halim	Univ. of Leicester
Edwards, Christopher	Univ. of Exeter

<b>MoC15</b>	Ilima 3
<b>Algebraic/Geometric Methods II (Regular Session)</b>	

Chair: Aguilar, Cesar O	Naval Postgraduate School
Co-Chair: Carravetta, Francesco	IASI-CNR

16:30-16:50	MoC15.1
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*Dual Algebraic Framework for Discrete-Time Nonlinear Control Systems*, pp. 1846-1851.

Bartosiewicz, Zbigniew	Bialystok Univ. of Tech.
Kotta, Ülle	Inst. of Cybernetics at Tallinn Univ. of Tech
Moog, Claude	CNRS
Mullari, Tanel	Inst. of Cybernetics at Tallinn Univ. of Tech.
Pawluszewicz, Ewa	Bialystok Tech. Univ.

16:50-17:10	MoC15.2
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*Estimating and Enlarging the Domain of Attraction in IDA-PBC*, pp. 1852-1858.

Kloiber, Tobias	TU München
Kotyczka, Paul	TU München

17:10-17:30	MoC15.3
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*Some Results on the Problem of Global Exact Bilinearization for Nonlinear Delay Systems*, pp. 1859-1864.

Carravetta, Francesco	IASI-CNR
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17:30-17:50	MoC15.4
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*Nonholonomic Regulators (I)*, pp. 1865-1870.

Brockett, Roger	Harvard Univ.
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17:50-18:10	MoC15.5
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*Selecting a Monomial Basis for Sums of Squares Programming Over a Quotient Ring*, pp. 1871-1876.

Permenter, Frank	Massachusetts Inst. of Tech.
Parrilo, Pablo A.	Massachusetts Inst. of Tech.

18:10-18:30	MoC15.6
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*Local Controllability of Control-Affine Systems with Quadratic Drift and Constant Control-Input Vector Fields*, pp. 1877-1882.

Aguilar, Cesar O	Naval Postgraduate School
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<b>MoC16</b>	Haleakala Ballroom 3
<b>Dynamic Programming, Optimization, and Learning (Regular Session)</b>	

Chair: Lewis, Frank L.	Univ. of Texas at Arlington
Co-Chair: Parisini, Thomas	Imperial Coll. & Univ. of Trieste

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16:30-16:50 MoC16.1

*Online Learning Algorithm for Stackelberg Games in Problems with Hierarchy (I)*, pp. 1883-1889.

Vamvoudakis, Kyriakos Univ. of California, Santa Barbara  
Lewis, Frank L. Univ. of Texas, Arlington  
Johnson, Marcus Univ. of Florida  
Dixon, Warren E. Univ. of Florida

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16:50-17:10 MoC16.2

*On Subspace Decompositions of Finite Horizon Dynamic Programming Problems*, pp. 1890-1895.

Tsakiris, Manolis Johns Hopkins Univ.  
Tarraf, Danielle C. Johns Hopkins Univ.

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17:10-17:30 MoC16.3

*Robust Adaptive Dynamic Programming for Nonlinear Control Design (I)*, pp. 1896-1901.

Jiang, Yu Pol. Inst. of New York Univ.  
Jiang, Zhong-Ping Pol. Inst. of New York Univ.

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17:30-17:50 MoC16.4

*Approximation Structures with Moderate Complexity in Functional Optimization and Dynamic Programming (I)*, pp. 1902-1908.

Gaggero, Mauro National Res. Council of Italy  
Gnecco, Giorgio Univ. di Genova  
Parisini, Thomas Imperial Coll. & Univ. of Trieste  
Sanguineti, Marcello Univ. di Genova  
Zoppoli, Riccardo Univ. di Genova

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17:50-18:10 MoC16.5

*Dynamic Programming with Total Variational Distance Uncertainty*, pp. 1909-1914.

Charalambous, Charalambos Univ. of Cyprus  
D.  
Tzortzis, Ioannis Univ. of Cyprus  
Charalambous, Themistoklis KTH Royal Inst. of Tech.

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18:10-18:30 MoC16.6

*Joint Chance-Constrained Dynamic Programming*, pp. 1915-1922.

Ono, Masahiro Keio Univ.  
Kuwata, Yoshiaki Jet Propulsion Lab.  
Balaram, J Jet Propulsion Lab.

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**MoC17** Haleakala Ballroom 5

**Switched Systems III (Regular Session)**

Chair: Baglietto, Marco Univ. of Genova  
Co-Chair: Almer, Stefan ETH Zuerich

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16:30-16:50 MoC17.1

*Switching Rule Design for Affine Switched Systems with H-Infinity Performance*, pp. 1923-1928.

Trofino, Alexandre Univ. Federal de Santa Catarina  
Cataldo Scharlau, Cesar Univ. Federal de Santa Catarina  
Dezuo, Tiago J.M. Univ. Federal de Santa Catarina  
de Oliveira, Mauricio C. Univ. of California, San Diego

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16:50-17:10 MoC17.2

*On Second-Order Sliding Mode Observers with Residuals' Projection for Switched Systems*, pp. 1929-1934.

Mincarelli, Diego INRIA  
Floquet, Thierry CNRS

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17:10-17:30 MoC17.3

*Quadratic Stabilizability and H-Infinity Disturbance Attenuation of Switched Linear Systems Via State and Output Feedback*, pp. 1935-1940.

Zhai, Guisheng Shibaura Inst. of Tech.

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17:30-17:50 MoC17.4

*Mode-Observability Conditions for Linear and Nonlinear Systems*, pp. 1941-1947.

Baglietto, Marco Univ. di Genova  
Battistelli, Giorgio Univ. di Firenze  
Hultmann Ayala, Helon Univ. di Genova  
Vicente  
Tesi, Pietro Univ. di Genova

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17:50-18:10 MoC17.5

*Real-Time Solution of Mixed-Integer Quadratic Programs for Hybrid Control of Power Converters*, pp. 1948-1953.

Almer, Stefan ETH Zurich  
Mariethoz, Sebastien ETH Zurich  
Morari, Manfred ETH Zurich

**Technical Program for Tuesday December 11, 2012**

<b>TuSP1</b>	Haleakala Ballroom 2-3
<b>Estimation and Identification of Population Systems (Semiplenary Session)</b>	
Chair: Valcher, Maria Elena	Univ. di Padova
Co-Chair: Parisini, Thomas	Imperial Coll. & Univ. of Trieste
08:30-09:30	TuSP1.1
<i>Estimation and Identification of Population Systems*</i> . $\triangleright$ <del>DE</del>	
Lygeros, John	ETH Zurich
<b>TuSP2</b>	Haleakala Ballroom 4-5
<b>Control of Multi-Robot Systems: From Formations to Human-Swarm Interactions (Semiplenary Session)</b>	
Chair: Farrell, Jay A.	Univ. of California, Riverside
Co-Chair: Teel, Andrew R.	Univ. of California, Santa Barbara
08:30-09:30	TuSP2.1
<i>Control of Multi-Robot Systems: From Formations to Human-Swarm Interactions*</i> . $\triangleright$ <del>DE</del>	
Egerstedt, Magnus	Georgia Inst. of Tech.
<b>TuA01</b>	Hibiscus 1
<b>Networked Control Systems IV (Regular Session)</b>	
Chair: Altafani, Claudio	SISSA International School For Advanced Studies
Co-Chair: D'Innocenzo, Alessandro	Univ. dell'Aquila
10:00-10:20	TuA01.1
<i>On the Efficiency-Vs-Security Tradeoff in the Smart Grid</i> , pp. 1954-1959.	
Abdallah, Yara	Ohio State Univ.
Zheng, Zizhan	Ohio State Univ.
Shroff, Ness B.	Ohio State Univ.
El Gamal, Hesham	Ohio State Univ.
10:20-10:40	TuA01.2
<i>Optimal Co-Design of Control, Scheduling and Routing in Multi-Hop Control Networks</i> , pp. 1960-1965.	
Smarra, Francesco	Univ. dell'Aquila
D'Innocenzo, Alessandro	Univ. dell'Aquila
Di Benedetto, M. Domenica	Univ. dell'Aquila
10:40-11:00	TuA01.3
<i>Achieving Consensus on Networks with Antagonistic Interactions</i> , pp. 1966-1971.	
Altafani, Claudio	SISSA International School For Advanced Studies
11:00-11:20	TuA01.4
<i>Social Learning in Networks with Time-Varying Topologies</i> , pp. 1972-1977.	
Liu, Qipeng	Shanghai Jiao Tong Univ.
Wang, Xiaofan	Shanghai Jiao Tong Univ.

11:20-11:40	TuA01.5
<i>A Tight Lower Bound on the Controllability of Networks with Multiple Leaders</i> , pp. 1978-1983.	
Yazicioglu, Ahmet Yasin	Georgia Inst. of Tech.
Abbas, Waseem	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
11:40-12:00	TuA01.6
<i>Controlling Groups of Mobile Beamformers</i> , pp. 1984-1989.	
Chatzipanagiotis, Nikolaos	Duke Univ.
Liu, Yupeng	Rutgers Univ.
Petropulu, Athina	Rutgers Univ.
Zavlanos, Michael M.	Duke Univ.
12:00-12:20	TuA01.7
<i>Performance Limitations for SISO LTI Plants Controlled Over SNR Constrained Channels</i> , pp. 1990-1995.	
Silva, Eduardo I.	Univ. Tecnica Federico Santa Maria
Pulgar, Sebastián A.	Univ. Técnica Federico Santa María
<b>TuA02</b>	Hibiscus 2
<b>Kalman Filtering (Regular Session)</b>	
Chair: Germani, Alfredo	Univ. dell'Aquila
Co-Chair: Verriest, Erik I.	Georgia Inst. of Tech.
10:00-10:20	TuA02.1
<i>Robust Least Squares Algorithm Based Position and Heading Estimator by Using Range Difference Measurement and Heading Sensor</i> , pp. 1996-2001.	
Choi, Ka Hyung	Yonsei Univ.
Kim, Yong Hwi	Yonsei Univ.
Yoon, Tae-Sung	Changwon National Univ.
Park, Jin Bae	Yonsei Univ.
10:20-10:40	TuA02.2
<i>State Estimation Over a Lossy Network Using Linear Temporal Coding</i> , pp. 2002-2007.	
HE, Lidong	Shanghai Jiao Tong Univ.
Han, Dongfang	Hong Kong Univ. of Science and Tech.
Wang, Xiaofan	Shanghai Jiao Tong Univ.
Shi, Ling	Hong Kong Univ. of Science and Tech.
10:40-11:00	TuA02.3
<i>Reduced-Order Quadratic Kalman-Like Filtering for Non-Gaussian Systems</i> , pp. 2008-2015.	
Fasano, Antonio	Univ. Campus Bio-Medico di Roma
Germani, Alfredo	Univ. dell'Aquila
Monteriù, Andrea	Univ. Pol. delle Marche
11:00-11:20	TuA02.4
<i>Relationship between Time-Invariant and Time-Variant Filtering Algorithms for a Class of Problems of Navigation Data Processing</i> , pp. 2016-2021.	
Stepanov, Oleg A.	CSRI Elektropribor
Loparev, Alexei	CSRI Elektropribor
Chelpanov, Igor B.	CSRI Elektropribor



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11:20-11:40 TuA02.5

*Parallelization of the Kalman Filter for Banded Systems on Multicore Computational Platforms*, pp. 2022-2027.

Rosén, Olov Uppsala Univ.  
Medvedev, Alexander V. Uppsala Univ.

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11:40-12:00 TuA02.6

*A Kalman Filter Approach for the Synchronization of Motion Capture Systems*, pp. 2028-2033.

Masiero, Andrea Univ. di Padova  
Cenedese, Angelo Univ. of Padova

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12:00-12:20 TuA02.7

*Suboptimal Multi-Mode State Estimation and Mode Detection*, pp. 2034-2039.

Memon, Abdul Basit Georgia Inst. of Tech.  
Verriest, Erik I. Georgia Inst. of Tech.

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**TuA03** Hibiscus 3  
**Agents and Autonomous Systems IV (Regular Session)**

Chair: Fanti, Maria Pia Pol. of Bari  
Co-Chair: Azuma, Shun-ichi Kyoto Univ.

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10:00-10:20 TuA03.1

*A Quantized Consensus Algorithm for Distributed Task Assignment*, pp. 2040-2045.

Fanti, Maria Pia Pol. of Bari  
Mangini, Agostino Marcello Pol. di Bari  
Ukovich, Walter Univ. of Trieste

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10:20-10:40 TuA03.2

*Persistent Graphs and Consensus Convergence*, pp. 2046-2051.

Shi, Guodong Royal Inst. of Tech.  
Johansson, Karl H. Royal Inst. of Tech.

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10:40-11:00 TuA03.3

*Intrinsic Consensus on  $SO(3)$  with Almost-Global Convergence*, pp. 2052-2058.

Tron, Roberto Johns Hopkins Univ.  
Afsari, Bijan Johns Hopkins Univ.  
Vidal, Rene Johns Hopkins Univ.

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11:00-11:20 TuA03.4

*Broadcast Control of Group of Markov Chains*, pp. 2059-2064.

Azuma, Shun-ichi Kyoto Univ.  
Baba, Ichiro Kyoto Univ.  
Sugie, Toshiharu Kyoto Univ.

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11:20-11:40 TuA03.5

*Mixed-Initiative Nested Classification for  $N$  Team Members*, pp. 2065-2070.

Hyun, Baro Univ. of Michigan  
Faied, Mariam Univ. of Michigan  
Kabamba, Pierre T. Univ. of Michigan  
Girard, Anouck Univ. of Michigan

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11:40-12:00 TuA03.6

*Decentralized Centroid Estimation for Multi-Agent Systems in Absence of a Common Reference Frame: A Convergence Analysis*, pp. 2071-2076.

Franceschelli, Mauro Univ. of Cagliari  
Gasparri, Andrea Univ. of "Roma Tre"

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12:00-12:20 TuA03.7

*Distributed Integral Action: Stability Analysis and Frequency Control of Power Systems*, pp. 2077-2083.

Andreasson, Martin KTH Royal Inst. of Tech.  
Sandberg, Henrik KTH Royal Inst. of Tech.  
Dimarogonas, Dimos V. KTH Royal Inst. of Tech.  
Johansson, Karl H. KTH Royal Inst. of Tech.

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**TuA04** Plumeria 1  
**Stochastic Optimal Control IV (Regular Session)**

Chair: Prandini, Maria Pol. di Milano  
Co-Chair: Langbort, Cedric Univ. of Illinois, Urbana-Champaign

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10:00-10:20 TuA04.1

*Dynamic Pricing of Preemptive Service for Elastic Demand*, pp. 2084-2089.

Turhan, Aylin Boston Univ.  
Alanyali, Murat Boston Univ.  
Starobinski, David Boston Univ.

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10:20-10:40 TuA04.2

*epsilon-Nash Mean Field Game Theory for Nonlinear Stochastic Dynamical Systems with Mixed Agents (I)*, pp. 2090-2095.

Nourian, Mojtaba McGill Univ.  
Caines, Peter E. McGill Univ.

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10:40-11:00 TuA04.3

*A Self-Recovery Approach to the Probabilistic Invariance Problem for Stochastic Hybrid Systems*, pp. 2096-2101.

Prandini, Maria Pol. di Milano  
Piroddi, Luigi Pol. di Milano

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11:00-11:20 TuA04.4

*A Risk-Constrained Multi-Stage Decision Making Approach to the Architectural Analysis of Planetary Missions*, pp. 2102-2109.

Kuwata, Yoshiaki Jet Propulsion Lab.  
Pavone, Marco Stanford Univ.  
Balaram, J. Jet Propulsion Lab.

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11:20-11:40 TuA04.5

*How Useful Are Mean-Variance Considerations in Stock Trading Via Feedback Control?*, pp. 2110-2115.

Malekpour, Shirzad Univ. of Wisconsin-Madison  
Barmish, B. Ross Univ. of Wisconsin

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11:40-12:00 TuA04.6

*A Team Theoretic Approach to Decentralized Control of Systems with Stochastic Parameters*, pp. 2116-2121.

Mishra, Anshuman Univ. of Illinois, Urbana-Champaign  
Langbort, Cedric Univ. of Illinois, Urbana-Champaign  
Dullerud, Geir E. Univ. of Illinois, Urbana-Champaign

12:00-12:20	TuA04.7
<i>Adapted and Casual Maximum Principle and Analytical Solution to Optimal Control for Stochastic Multiply-Noise Systems with Multiple Input-Delays</i> , pp. 2122-2127.	
Zhang, Huanshui	Shan Dong Univ.
Wang, Hongxia	Harbin Inst. of Tech. Shenzhen graduate school
Li, Lin	Shan Dong Univ.

<b>TuA05</b>	Plumeria 2
<b>Identification for Control (Regular Session)</b>	
Chair: Novara, Carlo	Pol. di Torino
Co-Chair: Roy, Sandip	Washington State Univ.

10:00-10:20	TuA05.1
<i>Cramer-Rao Bounds on Eigenvalue Estimates from Impulse Response Data: The Multi-Observation Case</i> , pp. 2128-2133.	
Abad Torres, Jackeline	Washington State Univ.
Roy, Sandip	Washington State Univ.

10:20-10:40	TuA05.2
<i>Combined Procedure with Randomized Controls for the Parameters' Confidence Region of Linear Plant under External Arbitrary Noise</i> , pp. 2134-2139.	
Granichina, Olga	Saint-Petersburg State Univ.
Amelina, Natalia	Saint-Petersburg State Univ.
Amelin, Konstantin	Saint-Petersburg State Univ.
Granichin, Oleg N.	Saint-Petersburg State Univ.

10:40-11:00	TuA05.3
<i>DFK Control Design for Nonlinear Systems</i> , pp. 2140-2145.	
Novara, Carlo	Pol. di Torino
Fagiano, Lorenzo	Pol. di Torino/Univ. California at Santa Barbara
Milanese, Mario	Modelway srl

11:00-11:20	TuA05.4
<i>A New Method for Stabilizing Unstable Periodic Orbits of Continuous-Time Systems. Application to Control of Chaos</i> , pp. 2146-2151.	
Chagas, Thiago Pereira	Inst. Tecnológico de Aeronáutica
Bliman, Pierre-Alexandre J	INRIA-Rocquencourt
Kienitz, Karl Heinz	Inst. Tecnológico de Aeronáutica

11:20-11:40	TuA05.5
<i>A Unified Experiment Design Framework for Detection and Identification in Closed-Loop Performance Diagnosis</i> , pp. 2152-2157.	
Mesbah, Ali	Massachusetts Inst. of Tech.
Bombois, Xavier	Delft Univ. of Tech.
Forgione, Marco	Delft Univ. of Tech.
Ludlage, Jobert	Delft Univ. of Tech.
Moden, Per Erik	ABB Industrial Systems
Hjalmarsson, Håkan	KTH Royal Inst. of Tech.
Van den Hof, Paul M.J.	Eindhoven Univ. of Tech.

11:40-12:00	TuA05.6
<i>On Dual Control for Buildings Using Persistent Excitation Condition</i> , pp. 2158-2163.	
Zacekova, Eva	Czech Tech. Univ. in Prague
Privara, Samuel	Czech Tech. Univ. in Prague
Komarek, Josef	Technofiber

12:00-12:20	TuA05.7
<i>Force-Based Stiffness Estimation for Robotic Tasks</i> , pp. 2164-2170.	
Coutinho, Fernanda	Univ. of Coimbra
Cortesaio, Rui	Univ. of Coimbra

<b>TuA06</b>	Plumeria 3
<b>Uncertain Systems I (Regular Session)</b>	
Chair: Vaidya, Umesh	Iowa State Univ.
Co-Chair: Kishida, Masako	Univ. of Tokyo

10:00-10:20	TuA06.1
<i>Infinite-Horizon Performance Bounds for Constrained Stochastic Systems</i> , pp. 2171-2176.	
Van Parys, Bart Paul Gerard	ETH Zürich
Goulart, Paul J.	ETH Zürich
Morari, Manfred	ETH Zürich

10:20-10:40	TuA06.2
<i>A Hybrid Method for Chance Constrained Control in Uncertain Environments</i> , pp. 2177-2182.	
Vitus, Michael P.	UC Berkeley
Tomlin, Claire J.	UC Berkeley

10:40-11:00	TuA06.3
<i>Uncertainty Quantification in Hybrid Dynamical Systems Using Wavelet Expansions</i> , pp. 2183-2188.	
Sahai, Tuhin	United Tech. Res. Center
Pasini, Jose Miguel	United Tech. Res. Center

11:00-11:20	TuA06.4
<i>Characterization of Strong Structural Controllability of Uncertain Linear Time-Varying Discrete-Time Systems</i> , pp. 2189-2194.	
Hartung, Christoph	Univ. of the German Armed Forces Munich
Reissig, Gunther	Univ. of the Federal Armed Forces Munich
Svaricek, Ferdinand	Univ. of the German Armed Forces Munich

11:20-11:40	TuA06.5
<i>A Generalized Hertz-Type Approach to the Eigenvalue Bounds of Complex Interval Matrices</i> , pp. 2195-2200.	
Matcovschi, Mihaela-Hanako	Tech. Univ. "Gheorghe Asachi" of Iasi
Pastravanu, Octavian C.	Romania Tech. Univ.

11:40-12:00	TuA06.6
<i>Identification of Critical Interactions in Uncertain Network Systems with Complex Dynamics</i> , pp. 2201-2206.	
Dasgupta, Sambarta	Iowa State Univ.
Vaidya, Umesh	Iowa State Univ.

12:00-12:20 TuA06.7  
*Adaptive Controller Design and Disturbance Attenuation for a Class of MIMO Linear Systems under Noisy Output Measurement*, pp. 2207-2212.  
 Zeng, Sheng CareFusion Corp.

**TuA07** Maile 1  
**Distributed Control II** (Regular Session)  
 Chair: De Santis, Elena Univ. of L'Aquila  
 Co-Chair: Ren, Wei Univ. of California, Riverside

10:00-10:20 TuA07.1  
*On the Cost of Deciding Consensus*, pp. 2213-2218.  
 Blondel, Vincent MIT  
 Olshevsky, Alexander Univ. of Illinois at Urbana-Champaign

10:20-10:40 TuA07.2  
*Multi-Agent Average Consensus Control with Prescribed Performance Guarantees*, pp. 2219-2225.  
 Karayiannidis, Yiannis KTH Royal Inst. of Tech.  
 Dimarogonas, Dimos V. KTH Royal Inst. of Tech.  
 Kragic, Danica KTH Royal Inst. of Tech.

10:40-11:00 TuA07.3  
*On Distributed Mode-Observability of Multimodal Systems*, pp. 2226-2231.  
 Caravani, Paolo Univ. of L'Aquila  
 De Santis, Elena Univ. of L'Aquila

11:00-11:20 TuA07.4  
*Optimal Distributed Controller Design with Communication Delays: Application to Vehicle Formations*, pp. 2232-2237.  
 Feyzmahdavian, Hamid Reza KTH Royal Inst. of Tech.  
 Alam, Assad Al KTH Royal Inst. of Tech.  
 Gattami, Ather KTH Royal Inst. of Tech.

11:20-11:40 TuA07.5  
*Distributed Constrained Consensus in the Presence of Unbalanced Switching Graphs and Communication Delays*, pp. 2238-2243.  
 Lin, Peng Univ. of Electronic Science and Tech. of China  
 Ren, Wei Univ. of California, Riverside

11:40-12:00 TuA07.6  
*Optimal Distributed Consensus on Unknown Undirected Graphs*, pp. 2244-2249.  
 Ghosh, Supratim Pennsylvania State Univ.  
 Lee, Ji-Woong Pennsylvania State Univ.

12:00-12:20 TuA07.7  
*It May Be "easier to Approximate" Decentralized Infinite-Horizon LQG Problems*, pp. 2250-2255.  
 Park, Se Yong Univ. of California, Berkeley  
 Sahai, Anant Univ. of California, Berkeley

**TuA08** Maile 2  
**Stability of Nonlinear Systems I** (Regular Session)  
 Chair: Carrasco, Joaquin Univ. of Manchester  
 Co-Chair: Hu, Xiaoming KTH Royal Inst. of Tech.

10:00-10:20 TuA08.1  
*Strong IISS: Combination of IISS and ISS with Respect to Small Inputs*, pp. 2256-2261.  
 Chaillet, Antoine Univ. Paris Sud 11  
 Angeli, David Imperial Coll.  
 Ito, Hiroshi Kyushu Inst. of Tech.

10:20-10:40 TuA08.2  
*Equivalence between Classes of Multipliers for Slope-Restricted Nonlinearities*, pp. 2262-2267.  
 Carrasco, Joaquin Univ. of Manchester  
 Heath, William Paul Univ. of Manchester  
 Lanzon, Alexander Univ. of Manchester

10:40-11:00 TuA08.3  
*Revisited Jury-Lee Criterion for Multivariable Discrete-Time Lur'e Systems: Convex LMI Search*, pp. 2268-2273.  
 Ahmad, Nur Syazreen Univ. of Manchester  
 Carrasco, Joaquin Univ. of Manchester  
 Heath, William Paul Univ. of Manchester

11:00-11:20 TuA08.4  
*Exact Solutions to the Closed Loop Kinematics of an Almost Globally Stabilizing Feedback Law on  $SO(3)$* , pp. 2274-2279.  
 Markdahl, Johan KTH Royal Inst. of Tech.  
 Hoppe, Jens KTH Royal Inst. of Tech.  
 Wang, Lin Shanghai Jiao Tong Univ.  
 Hu, Xiaoming KTH Royal Inst. of Tech.

11:20-11:40 TuA08.5  
*Extended Kalman-Yakubovich-Popov Conditions and Stability of Feedback Interconnections for Dissipative Discontinuous Dynamical Systems*, pp. 2280-2285.  
 Haddad, Wassim M. Georgia Inst. of Tech.  
 Sadikhov, Teymur Georgia Inst. of Tech.

11:40-12:00 TuA08.6  
*A Weak  $L_2$ -Gain Property for Nonlinear Systems*, pp. 2286-2291.  
 Dower, Peter M. Univ. of Melbourne  
 Kellett, Christopher M. Univ. of Newcastle  
 Zhang, Huan Univ. of Melbourne

12:00-12:20 TuA08.7  
*Designing Polynomial State Feedback Controllers to Enlarge the Domain of Attraction in Non-Polynomial Systems Using a Multidimensional Gridding Approach*, pp. 2292-2297.  
 Saleme, Ahmed Univ. of Wuppertal  
 Tibken, Bernd Univ. of Wuppertal

<b>TuA09</b>	Maile 3
<b>Biomolecular and Biological Systems (Regular Session)</b>	
Chair: Dunbar, William B.	Univ. of California, Santa Cruz
Co-Chair: Paschalidis, Ioannis	Boston Univ.
10:00-10:20	TuA09.1
<i>Infinite Horizon Linear Quadratic Gene Regulation in Fluctuating Environments</i> , pp. 2298-2303.	
R. Pour Safaei, Farshad	Univ. of California, Santa Barbara
Hespanha, Joao P.	Univ. of California, Santa Barbara
Proulx, Stephen Robert	UCSB
10:20-10:40	TuA09.2
<i>A Kalman Filter for Estimating Nanopore Channel Conductance in Voltage-Varying Experiments</i> , pp. 2304-2309.	
O'Donnell, Christopher Ryan	Univ. of California, Santa Cruz
Wiberg, Donald M.	Univ. of California, Santa Cruz
Dunbar, William B.	Univ. of California, Santa Cruz
10:40-11:00	TuA09.3
<i>A Message Passing Approach to Side Chain Positioning with Applications in Protein Docking Refinement</i> , pp. 2310-2315.	
Moghadasi, Mohammad	Boston Univ.
Kozakov, Dima	Boston Univ.
Mamonov, Artem	Boston Univ.
Vakili, Pirooz	Boston Univ.
Vajda, Sandor	Boston Univ.
Paschalidis, Ioannis	Boston Univ.
11:00-11:20	TuA09.4
<i>Validity of the Phase Approximation for Coupled Nonlinear Oscillators: A Case Study</i> , pp. 2316-2321.	
Franci, Alessio	Univ. Paris XI - Supélec
Pasillas-Lepine, William	CNRS, SUPELEC
Chaillet, Antoine	Univ. Paris Sud 11
11:20-11:40	TuA09.5
<i>Parameter and State Estimation for a Class of Neural Mass Models</i> , pp. 2322-2327.	
Postoyan, Romain	CNRS-CRAN
Chong, Michelle	Univ. of Melbourne
Nesic, Dragan	Univ. of Melbourne
Kuhlmann, Levin	Univ. of Melbourne
11:40-12:00	TuA09.6
<i>Validation of a Nonlinear Reactive Control Law for Three-Dimensional Particle Tracking in Confocal Microscopy</i> , pp. 2328-2333.	
Ashley, Trevor	Boston Univ.
Chan-Tse, Catherine	Boston Univ.
Andersson, Sean	Boston Univ.
12:00-12:20	TuA09.7
<i>Reconstruction of Arbitrary Biochemical Reaction Networks: A Compressive Sensing Approach</i> , pp. 2334-2339.	
Pan, Wei	Imperial Coll. London
Yuan, Ye	Univ. of Cambridge
Goncalves, Jorge M.	Univ. of Cambridge
Stan, Guy-Bart Vincent	Imperial Coll. London

<b>TuA10</b>	Pikake 1
<b>Delay Systems (Regular Session)</b>	
Chair: Franze, Giuseppe	Univ. degli Studi della Calabria
Co-Chair: Olgac, Nejat	Univ. of Connecticut
10:00-10:20	TuA10.1
<i>Exact Stability Analysis of Second-Order Leader-Follower Consensus Protocols with Multiple Time Delays</i> , pp. 2340-2345.	
Cepeda-Gomez, Rudy	Univ. Industrial de Santander
Olgac, Nejat	Univ. of Connecticut
10:20-10:40	TuA10.2
<i>Adaptive State Estimation for a Class of Uncertain Nonlinear Systems with Output Time-Delays</i> , pp. 2346-2351.	
Dimassi, Habib	CNRS
Loria, Antonio	CNRS
Belghith, Safya	ENIT
10:40-11:00	TuA10.3
<i>Controllability Analysis of Uncertain Polytopic Systems with Time-Varying State Delay</i> , pp. 2352-2357.	
Famularo, Domenico	Univ. degli Studi della Calabria
Franze, Giuseppe	Univ. degli Studi della Calabria
Tedesco, Francesco	Univ. degli Studi della Calabria
11:00-11:20	TuA10.4
<i>State-Dependent Sampling for Perturbed Time-Delay Systems</i> , pp. 2358-2363.	
Fiter, Christophe	CNRS - Région Nord-Pas de Calais, France
Hetel, Laurentiu	Ec. Centrale de Lille
Perruquetti, Wilfrid	Ec. Centrale de Lille
Richard, Jean-Pierre	Ec. Centrale de Lille
11:20-11:40	TuA10.5
<i>An Exponential Observer with Delay-Dependent Gain for a Class of Nonlinear Systems with Time-Varying Measurement Delay</i> , pp. 2364-2369.	
Cacace, Filippo	Univ. Campus Biomedico di Roma
Germani, Alfredo	Univ. dell'Aquila
Manes, Costanzo	Univ. dell'Aquila
11:40-12:00	TuA10.6
<i>Observer Based Output Feedback Control of Linear Systems with Multiple Input and Output Delays</i> , pp. 2370-2375.	
Zhou, Bin	Harbin Inst. of Tech.
Li, Zhao-Yan	Harbin Inst. of Tech.
Lin, Zongli	Univ. of Virginia
12:00-12:20	TuA10.7
<i>Unified Approach for Minimal Output Dead Time Compensation in MIMO Non-Square Processes</i> , pp. 2376-2381.	
Flesch, Rodolfo C. C.	Univ. Federal de Santa Catarina
Santos, Tito Luis	Univ. Federal da Bahia
Normey-Rico, Julio Elias	Univ. Federal de Santa Catarina

<b>TuA11</b>	Pikake 2
<b>Energy Systems I (Regular Session)</b>	
Chair: Garulli, Andrea	Univ. di Siena
Co-Chair: Bentsman, Joseph	Univ. of Illinois at Urbana-Champaign
10:00-10:20	TuA11.1
<i>Control of Energy Systems As Distributed Parameter Systems with Software Support by Virtual Software Environments (I)</i> , pp. 2382-2387.	
Hulko, Gabriel	Slovak Univ. of Tech. in Bratislava
Rohal-Ilkiv, Boris	Slovak Univ. of Tech. in Bratislava
Noga, Pavol	Slovak Univ. of Tech. in Bratislava
Lipar, Slavomir	Slovak Univ. of Tech. in Bratislava
10:20-10:40	TuA11.2
<i>Efficiency-Risk Tradeoffs in Dynamic Oligopoly Markets – with Application to Electricity Markets</i> , pp. 2388-2394.	
Huang, Qingqing	Massachusetts Inst. of Tech.
Roozbehani, Mardavij	Massachusetts Inst. of Tech.
Dahleh, Munther A.	Massachusetts Inst. of Tech.
10:40-11:00	TuA11.3
<i>Electric Load Forecasting in the Presence of Active Demand</i> , pp. 2395-2400.	
Paoletti, Simone	Univ. di Siena
Garulli, Andrea	Univ. di Siena
Vicino, Antonio	Univ. di Siena
11:00-11:20	TuA11.4
<i>On Energy Delivery to Delay-Averse Flexible Loads: Optimal Algorithm, Consumer Value and Network Level Impacts</i> , pp. 2401-2408.	
Kefayati, Mahdi	Univ. of Texas, Austin
Baldick, Ross	Univ. of Texas, Austin
11:20-11:40	TuA11.5
<i>Wavelet Multiresolution Model Based Generalized Predictive Control for Hybrid Combustion-Gasification Chemical Looping Process (I)</i> , pp. 2409-2414.	
Zhang, Shu	Univ. of Illinois at Urbana-Champaign
Bentsman, Joseph	Univ. of Illinois at Urbana-Champaign
Lou, Xinsheng	ALSTOM Power, Inc.
Neuschaefer, Carl	Alstom Power Inc
11:40-12:00	TuA11.6
<i>Optimal Active Control of a Wave Energy Converter (I)</i> , pp. 2415-2420.	
Abraham, Edo	Imperial Coll. London
Kerrigan, Eric C.	Imperial Coll. London
12:00-12:20	TuA11.7
<i>Power Optimization for Photovoltaic Micro-Converters Using Multivariable Newton-Based Extremum-Seeking</i> , pp. 2421-2426.	
Ghaffari, Azad	San Diego State Univ./ Univ. of California, San Diego
Krstic, Miroslav	Univ. of California, San Diego
Seshagiri, Sridhar	San Diego State Univ.

<b>TuA12</b>	Pikake 3
<b>Cooperative Control of Autonomous Vehicles (Regular Session)</b>	
Chair: Djapic, Vladimir	NURC
Co-Chair: Peymani Foroushani, Ehsan	Norwegian Univ. of Science and Tech.
10:00-10:20	TuA12.1
<i>A Rapid Incremental Motion Planner for Flexible Formation Control of Fixed-Wing UAVs</i> , pp. 2427-2432.	
Low, Chang Boon	DSO National Lab.
10:20-10:40	TuA12.2
<i>Distributed Estimation of Internal Wave Parameters Via Inter-Drogue Distances</i> , pp. 2433-2438.	
Ouimet, Michael	Univ. of California, San Diego
Cortes, Jorge	Univ. of California, San Diego
10:40-11:00	TuA12.3
<i>Nonholonomic Cooperative Manipulation of Polygonal Objects in the Plane</i> , pp. 2439-2446.	
Satici, Aykut C	Univ. of Texas, Dallas
Spong, Mark W.	Univ. of Texas, Dallas
11:00-11:20	TuA12.4
<i>Leader-Follower Formation of Marine Craft Using Constraint Forces and Lagrange Multipliers</i> , pp. 2447-2452.	
Peymani Foroushani, Ehsan	Norwegian Univ. of Science and Tech.
Fossen, Thor I.	Norwegian Univ. of Science and Tech.
11:20-11:40	TuA12.5
<i>Formation Control of Multiple Nonholonomic Unicycles Using Adaptive Perturbation Method</i> , pp. 2453-2458.	
Wang, Qin	Southeast Univ.
Tian, Yu-Ping	Southeast Univ.
11:40-12:00	TuA12.6
<i>String Stability of Interconnected Vehicles under Communication Constraints</i> , pp. 2459-2464.	
Oncu, Sinan	Eindhoven Univ. of Tech.
Van De Wouw, Nathan	Eindhoven Univ. of Tech.
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
Nijmeijer, Hendrik	Eindhoven Univ. of Tech.

<b>TuA13</b>	Ilina 1
<b>Control Applications I (Regular Session)</b>	
Chair: Corradini, Maria Letizia	Univ. di Camerino
Co-Chair: Smith, Malcolm C.	Univ. of Cambridge
10:00-10:20	TuA13.1
<i>LQ Optimal and Risk-Sensitive Control for Vehicle Suspensions</i> , pp. 2465-2470.	
Brezas, Panos	Univ. of Cambridge
Smith, Malcolm C.	Univ. of Cambridge
10:20-10:40	TuA13.2
<i>Resonant Controller for Fast Atomic Force Microscopy</i> , pp. 2471-2476.	
Das, Sajal	Univ. of New South Wales at ADFA
Pota, Hemanshu R.	Univ. of New South Wales
Petersen, Ian R.	Univ. of New South Wales at ADFA

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10:40-11:00 TuA13.3

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*Model Predictive Control of Atomic Force Microscope for Fast Image Scanning*, pp. 2477-2482.

Rana, Md. Sohel UNSW, Canberra  
Pota, Hemanshu R. Univ. of New South Wales  
Petersen, Ian R. Univ. of New South Wales at ADFA

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11:00-11:20 TuA13.4

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*An Aerodynamic Torque Observer for the Robust Control of Variable-Speed Wind Turbines (I)*, pp. 2483-2488.

Corradini, Maria Letizia Univ. di Camerino  
Ippoliti, Gianluca Univ. Pol. delle Marche  
Orlando, Giuseppe Univ. Pol. delle Marche

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11:20-11:40 TuA13.5

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*Dynamic Coupling between a Human User and Haptic Virtual Environment*, pp. 2489-2494.

Yu, Bo Univ. of Michigan  
Freudenberg, James S. Univ. of Michigan  
Gillespie, Brent Univ. of Michigan  
Cook, Jeffrey A. Univ. of Michigan

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11:40-12:00 TuA13.6

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*Scheduling for Charging Plug-In Hybrid Electric Vehicles*, pp. 2495-2501.

Xu, Yunjian Massachusetts Inst. of Tech.  
Pan, Feng Los Alamos National Lab.

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12:00-12:20 TuA13.7

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*Dynamics and Control of a Chain Pendulum on a Cart*, pp. 2502-2508.

Lee, Taeyoung George Washington Univ.  
Leok, Melvin Univ. of California, San Diego  
McClamroch, N. Harris Univ. of Michigan

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**TuA14** Ilima 2  
**Optimization I (Regular Session)**

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Chair: Jovanovic, Mihailo Univ. of Minnesota  
Co-Chair: Ebenbauer, Christian Univ. of Stuttgart

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10:00-10:20 TuA14.1

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*Continuous Piecewise Linear Programming Via Concave Optimization and Genetic Algorithm*, pp. 2509-2514.

Xi, Xiangming Tsinghua Univ.  
Xu, Jun Tsinghua Univ.  
Mu, Xiaomu Tsinghua Univ.  
Wang, Shuning Tsinghua Univ.

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10:20-10:40 TuA14.2

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*A Smooth Vector Field for Quadratic Programming*, pp. 2515-2520.

Dürr, Hans-Bernd Univ. of Stuttgart  
Saka, Erkin Univ. of Stuttgart  
Ebenbauer, Christian Univ. of Stuttgart

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10:40-11:00 TuA14.3

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*Improved Genetic Algorithm for Magnetic Material Two-Stage Multi-Product Production Scheduling: A Case Study*, pp. 2521-2526.

Liu, Yefeng Northeastern Univ.  
Chai, Tianyou Northeastern Univ.  
Qin, S. Joe Univ. of Southern California  
Pan, Quanke Northeastern Univ.  
Yang, Shengxiang Univ. of Leicester

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11:00-11:20 TuA14.4

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*Semidefinite Relaxations of Chance Constrained Algebraic Problems*, pp. 2527-2532.

Mohammadzadeh Jasour, Ashkan Pennsylvania State Univ.  
Lagoa, Constantino M. Pennsylvania State Univ.

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11:20-11:40 TuA14.5

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*Risk-Averse Shortest Path Problems*, pp. 2533-2538.

Gavriel, Christos Imperial Coll. London  
Hanasusanto, Grani Adiwena Imperial Coll. London  
Kuhn, Daniel Imperial Coll. London

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11:40-12:00 TuA14.6

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*On the Optimal Dissemination of Information in Social Networks*, pp. 2539-2544.

Fardad, Makan Syracuse Univ.  
Zhang, Xi Syracuse Univ.  
Lin, Fu Univ. of Minnesota  
Jovanovic, Mihailo Univ. of Minnesota

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12:00-12:20 TuA14.7

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*On the Mixing Time of Markov Chain Monte Carlo for Integer Least-Square Problems*, pp. 2545-2550.

Xu, Weiyu Univ. of Iowa  
Dimakis, Alexandros G. Univ. of Southern California  
Hassibi, Babak Caltech

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**TuA15** Ilima 3  
**Linear Systems I (Regular Session)**

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Chair: Valcher, Maria Elena Univ. di Padova  
Co-Chair: Bartosiewicz, Zbigniew Bialystok Univ. of Tech.

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10:00-10:20 TuA15.1

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*On Event-Triggered Control of Linear Systems under Periodic Denial-Of-Service Jamming Attacks*, pp. 2551-2556.

Shisheh Feroosh, Hamed Univ. of California, San Diego  
Martinez, Sonia Univ. of California, San Diego

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10:20-10:40 TuA15.2

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*Multi-Blade Coordinate and Direct Techniques for Asymptotic Disturbance Rejection in Wind Turbines (I)*, pp. 2557-2562.

Laks, Jason Univ. of Colorado, Boulder  
Pao, Lucy Y. Univ. of Colorado, Boulder  
Shajee, Shervin Univ. of Colorado, Boulder

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10:40-11:00	TuA15.3
<i>Observer Design for Discrete-Time Linear Systems with Unknown Disturbances</i> , pp. 2563-2568.	
Allahverdi Charandabi, Behnam	Univ. of Alberta
Marquez, Horacio J.	Univ. of Alberta
11:00-11:20	TuA15.4
<i>A Tighter Reachable Set Bound for Linear Systems Subject to Both Discrete and Distributed Delays</i> , pp. 2569-2573.	
Zuo, Zhiqiang	Tianjin Univ.
Fu, Youhua	Tianjin Univ.
Wang, Yijing	Tianjin Univ.
Li, Chanying	Chines Acad. of Sciences
Chen, Michael Z. Q.	Univ. of Hong Kong
11:20-11:40	TuA15.5
<i>Observability and Reconstructibility of Boolean Control Networks</i> , pp. 2574-2580.	
Fornasini, Ettore	Univ. di Padova
Valcher, Maria Elena	Univ. di Padova
11:40-12:00	TuA15.6
<i>Observability of Linear Positive Systems on Time Scales</i> , pp. 2581-2586.	
Bartosiewicz, Zbigniew	Bialystok Univ. of Tech.
12:00-12:20	TuA15.7
<i>Poincare Recurrence and Output Reversibility in Linear Dynamical Systems</i> , pp. 2587-2592.	
Nersesov, Sergey G.	Villanova Univ.
Haddad, Wassim M.	Georgia Inst. of Tech.
Bernstein, Dennis S.	Univ. of Michigan

**TuA16** Haleakala Ballroom 3  
**Nonlinear Model Predictive Control (Regular Session)**

Chair: Falugi, Paola Imperial Coll. London  
Co-Chair: Quevedo, Daniel E. Univ. of Newcastle

10:00-10:20	TuA16.1
<i>Hierarchical Nonlinear Model Predictive Control for Combined Cycle Start-Up Optimization (I)</i> , pp. 2593-2598.	
Tica, Adrian	SUPELEC / IETR
Gueguen, Herve	Supelec
Dumur, Didier	Ec. Superieure d'Electricite
Faille, Damien	Electricité de France
Davelaar, Frans	EDF

10:20-10:40	TuA16.2
<i>Input-To-State Stability for Model Predictive Control of Single Systems and Networks with Time-Delays</i> , pp. 2599-2604.	

Dashkovskiy, Sergey Univ. of Applied Sciences Erfurt  
Naujok, Lars Univ. of Bremen

10:40-11:00	TuA16.3
<i>Analysis of Unconstrained Nonlinear MPC Schemes with Time Varying Control Horizon (I)</i> , pp. 2605-2610.	

Gruene, Lars Univ. of Bayreuth  
Pannek, Juergen Univ. of the Federal Armed Forces Munich  
Seehafer, Martin Munich Reinsurance Company  
Worthmann, Karl Univ. of Bayreuth

11:00-11:20	TuA16.4
<i>Closed-Loop Chance-Constrained MPC with Probabilistic Resolvability</i> , pp. 2611-2618.	

Ono, Masahiro Keio Univ.

11:20-11:40	TuA16.5
<i>Stochastic Nonlinear Model Predictive Control Based on Progressive Density Simplification</i> , pp. 2619-2624.	

Chlebek, Christof Karlsruhe Inst. of Tech.  
Hekler, Achim Karlsruhe Inst. of Tech.  
Hanebeck, Uwe D. Karlsruhe Inst. of Tech.

11:40-12:00	TuA16.6
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*Improved Stability Conditions for Unconstrained Nonlinear Model Predictive Control by Using Additional Weighting Terms*, pp. 2625-2630.

Reble, Marcus Univ. of Stuttgart  
Quevedo, Daniel E. Univ. of Newcastle  
Allgower, Frank Univ. of Stuttgart

12:00-12:20	TuA16.7
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*Tracking Performance of Model Predictive Control*, pp. 2631-2636.

Falugi, Paola Imperial Coll. London  
Mayne, David Q. Imperial Coll. London

**TuA17** Haleakala Ballroom 5  
**Switched Systems IV (Regular Session)**

Chair: Santini, Stefania Univ. of Naples Federico II  
Co-Chair: Trenn, Stephan Univ. of Kaiserslautern

10:00-10:20	TuA17.1
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*Minimal Control Synthesis Adaptive Control of Continuous Bimodal Piecewise Affine Systems (I)*, pp. 2637-2642.

di Bernardo, Mario Univ. of Naples Federico II  
Montanaro, Umberto Univ. of Naples Federico II  
Santini, Stefania Univ. of Naples Federico II

10:20-10:40	TuA17.2
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*On Model Matching Problems of Input-Output Switching Systems*, pp. 2643-2647.

Naghnaeian, Mohammad Univ. of Illinois Urbana-Champaign  
Voulgaris, Petros G. Univ. of Illinois, Urbana-Champaign

10:40-11:00	TuA17.3
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*Observability of Switched Differential-Algebraic Equations for General Switching Signals*, pp. 2648-2653.

Tanwani, Aneel INRIA - Rhone Alpes  
Trenn, Stephan Univ. of Kaiserslautern

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11:00-11:20 TuA17.4  
*Receding-Horizon Control and Scheduling of Systems with Uncertain Computation and Communication Delays*, pp. 2654-2659.

Al-Areqi, Sanad Univ. of Kaiserslautern  
Görges, Daniel Univ. of Kaiserslautern  
Liu, Steven Univ. of Kaiserslautern

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11:20-11:40 TuA17.5  
*Extended Small Gain Theorem with Application to Time-Delay Switched Linear Systems*, pp. 2660-2665.

Deaecto, Grace S. UNICAMP  
Geromel, Jose C. UNICAMP  
Galbusera, Luca Consiglio Nazionale delle Ricerche  
Bolzern, Paolo Pol. di Milano

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11:40-12:00 TuA17.6  
*Linear Switched DAEs: Lyapunov Exponents, a Converse Lyapunov Theorem, and Barabanov Norms*, pp. 2666-2671.

Trenn, Stephan Univ. of Kaiserslautern  
Wirth, Fabian R. Univ. Würzburg

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**TuB01** Hibiscus 1  
**Games in Networks** (Invited Session)

Chair: Jadbabaie, Ali Univ. of Pennsylvania  
Co-Chair: Ozdaglar, Asu MIT  
Organizer: Jadbabaie, Ali Univ. of Pennsylvania  
Organizer: Ozdaglar, Asu MIT

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14:00-14:20 TuB01.1  
*On the Behavior of Threshold Models Over Finite Networks (I)*, pp. 2672-2677.

Adam, Elie M. Massachusetts Inst. of Tech.  
Dahleh, Munther A. Massachusetts Inst. of Tech.  
Ozdaglar, Asu Massachusetts Inst. of Tech.

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14:20-14:40 TuB01.2  
*Game Theoretic Analysis of Customer Subscription Decisions in Networks with Positive Externality (I)*, pp. 2678-2683.

Oh, Jaelynn Univ. of Pennsylvania  
Zargham, Michael Univ. of Pennsylvania  
Su, Xuanming Univ. of Pennsylvania  
Jadbabaie, Ali Univ. of Pennsylvania

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14:40-15:00 TuB01.3  
*Duopoly Pricing Game in Networks with Local Coordination Effects (I)*, pp. 2684-2689.

Fazeli, Arastoo Univ. of Pennsylvania  
Jadbabaie, Ali Univ. of Pennsylvania

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15:00-15:20 TuB01.4  
*Minimally Invasive Mechanism Design: Distributed Covering with Carefully Chosen Advice (I)*, pp. 2690-2695.

Shin, Jinwoo Georgia Inst. of Tech.  
Balcan, Maria Florina Georgia Inst. of Tech.  
Piliouras, Georgios Georgia Inst. of Tech.  
Krehbiel, Sara Georgia Inst. of Tech.

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15:20-15:40 TuB01.5  
*Social Networks Over Wireless Networks (I)*, pp. 2696-2703.

Stai, Eleni Univ. of Maryland  
Baras, John S. Univ. of Maryland  
Papavassiliou, Symeon Polytechnic. Univ.

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15:40-16:00 TuB01.6  
*Deceptive Routing Games*, pp. 2704-2711.

Zhu, Quanyan Univ. of Illinois, Urbana-Champaign  
Clark, Andrew Univ. of Washington, Seattle  
Poovendran, Radha Univ. of Washington, Seattle  
Basar, Tamer Univ. of Illinois, Urbana-Champaign

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**TuB02** Hibiscus 2  
**Sensor Networks III** (Regular Session)

Chair: Sinopoli, Bruno Carnegie Mellon Univ.  
Co-Chair: Fu, Minyue Univ. of Newcastle

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14:00-14:20 TuB02.1  
*Clock Synchronization for Random Mobile Sensor Networks*, pp. 2712-2717.

He, 84305 Zhejiang Univ.  
Cheng, Peng Zhengjiang Univ.  
Shi, Ling Hong Kong Univ. of Science and Tech.  
Chen, Jiming Zhejiang Univ.

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14:20-14:40 TuB02.2  
*Exact Rate for Convergence in Probability of Averaging Processes Via Generalized Min-Cut*, pp. 2718-2725.

Bajovic, Dragana Carnegie Mellon Univ.  
Xavier, Joao Inst. Superior Tecnico  
Moura, Jose' M. F. Carnegie Mellon Univ.  
Sinopoli, Bruno Carnegie Mellon Univ.

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14:40-15:00 TuB02.3  
*New Results on Node Localizable Conditions for Sensor Networks*, pp. 2726-2731.

Diao, Yingfei Shandong Univ.  
Fu, Minyue Univ. of Newcastle  
Zhang, Huanshui Shandong Univ.

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15:00-15:20 TuB02.4  
*Information Weighted Consensus*, pp. 2732-2737.

Kamal, Ahmed T. Univ. of California, Riverside  
Farrell, Jay A. Univ. of California, Riverside  
Roy-Chowdhury, Amit K. Univ. of California, Riverside

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15:20-15:40 TuB02.5  
*Diffusion and Topology: Large Densely Connected Networks*, pp. 2738-2743.

Almeida Santos, Augusto Carnegie Mellon Univ.  
Moura, Jose' M. F. Carnegie Mellon Univ.



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15:40-16:00 TuB02.6

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*Transient and Limit Performance of Distributed Relative Localization*, pp. 2744-2748.

Rossi, Wilbert Samuel Pol. di Torino  
Frasca, Paolo Pol. di Torino  
Fagnani, Fabio Pol. di Torino

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**TuB03** Hibiscus 3  
**Agents and Autonomous Systems V** (Regular Session)

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Chair: Franceschetti, Massimo Univ. of California, San Diego  
Co-Chair: Rodríguez-Seda, Erick J. Univ. of Texas, Dallas

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14:00-14:20 TuB03.1

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*Design of Sparse Relative Sensing Networks*, pp. 2749-2754.

Schuler, Simone Univ. of Stuttgart  
Zelazo, Daniel Univ. of Stuttgart  
Allgower, Frank Univ. of Stuttgart

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14:20-14:40 TuB03.2

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*Distributed Team Formation in Multi-Agent Systems: Stability and Approximation*, pp. 2755-2760.

Coviello, Lorenzo Univ. of California, San Diego  
Franceschetti, Massimo Univ. of California, San Diego

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14:40-15:00 TuB03.3

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*Robust Average Consensus Over Packet Dropping Links: Analysis Via Coefficients of Ergodicity*, pp. 2761-2766.

Vaidya, Nitin Univ. of Illinois at Urbana-Champaign  
Hadjicostis, Christoforos Univ. of Cyprus  
Dominguez-Garcia, Alejandro Univ. of Illinois at Urbana-Champaign

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15:00-15:20 TuB03.4

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*Optimal Follower Selection Strategy for Multi-Agent System with Single Leader*, pp. 2767-2772.

Yang, Wen East China Univ. of Science and Tech.  
Wang, Ying Shanghai Jiaotong Univ.  
Wang, Xiaofan Shanghai Jiaotong Univ.  
Shi, Hongbo East China Univ. of Science and Tech.  
Ou, Linlin Zhejiang Univ. of Tech.

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15:20-15:40 TuB03.5

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*Guaranteed Safe Motion of Multiple Lagrangian Systems with Limited Actuation*, pp. 2773-2780.

Rodríguez-Seda, Erick J. Univ. of Texas at Dallas  
Spong, Mark W. Univ. of Texas at Dallas

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15:40-16:00 TuB03.6

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*Containment Control for Multiple Quadrotors with Stationary Leaders under Directed Graphs*, pp. 2781-2786.

Wang, Yinqiu Beijing Inst. of Tech.  
Wu, Qinghe Beijing Inst. of Tech.  
Wang, Yao Beijing Inst. of Tech.

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**TuB04** Plumeria 1

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**Persistent Monitoring** (Invited Session)

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Chair: Schwager, Mac Boston Univ.  
Co-Chair: Cassandras, Christos G. Boston Univ.  
Organizer: Schwager, Mac Boston Univ.  
Organizer: Cassandras, Christos G. Boston Univ.

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14:00-14:20 TuB04.1

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*Non-Parametric Inference and Coordination for Distributed Robotics (I)*, pp. 2787-2794.

Julian, Brian MIT  
Angermann, Michael German Aerospace Center  
Rus, Daniela MIT

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14:20-14:40 TuB04.2

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*An Optimal Control Approach to the Multi-Agent Persistent Monitoring Problem (I)*, pp. 2795-2800.

Cassandras, Christos G. Boston Univ.  
Lin, Xuchao Boston Univ.  
Ding, Xu Chu United Tech. Res. Center

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14:40-15:00 TuB04.3

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*Multi-Agent Persistent Monitoring in Stochastic Environments with Temporal Logic Constraints (I)*, pp. 2801-2806.

Chen, Yushan Boston Univ.  
Deng, Kun Univ. of Illinois, Urbana-Champaign  
Belta, Calin Boston Univ.

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15:00-15:20 TuB04.4

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*A Decentralized Control Policy for Adaptive Information Gathering in Hazardous Environments (I)*, pp. 2807-2813.

Dames, Philip Univ. of Pennsylvania  
Schwager, Mac Boston Univ.  
Kumar, Vijay Univ. of Pennsylvania  
Rus, Daniela MIT

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15:20-15:40 TuB04.5

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*Coherent Steps of Mobile Sensing Agents in Gaussian Scalar Fields*, pp. 2814-2819.

Wu, Wencen Georgia Inst. of Tech.  
Zhang, Fumin Georgia Inst. of Tech.

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15:40-16:00 TuB04.6

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*Towards Optimization of a Human-Inspired Heuristic for Solving Explore-Exploit Problems*, pp. 2820-2825.

Reverdy, Paul Princeton Univ.  
Wilson, Robert C. Princeton Univ.  
Holmes, Philip Princeton Univ.  
Leonard, Naomi Ehrich Princeton Univ.

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**TuB05** Plumeria 2

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**System Identification IV** (Regular Session)

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Chair: Lyzell, Christian Linköpings Univ.  
Co-Chair: Li, Xiang Fudan Univ.

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14:00-14:20 TuB05.1

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*Sparse Coloured System Identification with Guaranteed Stability*, pp. 2826-2831.

Seneviratne, Akila Univ. of New South Wales  
Solo, Victor Univ. of New South Wales

14:20-14:40 TuB05.2

*Kernel-Based Non-Asymptotic Parameter Estimation of Continuous-Time Systems*, pp. 2832-2839.

Pin, Gilberto Danieli Automation S.p.A. (Italy)  
Assalone, Andrea Univ. of Trieste  
Lovera, Marco Pol. di Milano  
Parisini, Thomas Imperial Coll. & Univ. of Trieste

14:40-15:00 TuB05.3

*A Data-Driven Inference Algorithm for Epidemic Pathways Using Surveillance Reports in 2009 Outbreak of Influenza a (H1N1)*, pp. 2840-2845.

Li, Xun Fudan Univ.  
Li, Xiang Fudan Univ.  
Jin, Yu-Ying Shanghai Univ. of Finance ad Ec.

15:00-15:20 TuB05.4

*Sensor-To-Sensor Identification of Hammerstein Systems*, pp. 2846-2851.

Aljanaideh, Khaled Univ. of Michigan  
Ali, Asad Univ. of Michigan  
Holzel, Matthew Univ. of Michigan  
Kukreja, Sunil, L. NASA Dryden Flight Res. Center  
Bernstein, Dennis S. Univ. of Michigan

15:20-15:40 TuB05.5

*A Convex Relaxation of a Dimension Reduction Problem Using the Nuclear Norm*, pp. 2852-2857.

Lyzell, Christian Linköping Univ.  
Andersen, Martin Linköping Univ.  
Enqvist, Martin Linköping Univ.

15:40-16:00 TuB05.6

*Convergence Analysis and Experiments Using an RPEM Based on Nonlinear ODEs and Midpoint Integration*, pp. 2858-2865.

Tayamon, Soma Uppsala Univ.  
Wigren, Torbjorn Uppsala Univ.  
Schoukens, Johan Vrije Univ. Brussels

**TuB06** Plumeria 3

**Uncertain Systems II (Regular Session)**

Chair: Garone, Emanuele Univ. Libre de Bruxelles  
Co-Chair: Yucelen, Tansel Georgia Inst. of Tech.

14:00-14:20 TuB06.1

*Additive-Output-Decomposition-Based Dynamic Inversion Tracking Control for a Class of Uncertain Linear Time-Invariant Systems*, pp. 2866-2871.

Quan, Quan Beijing Univ. of Aeronautics and  
Astronautics  
Cai, Kai-Yuan Beijing Univ. of Aeronautics and  
Astronautics

14:20-14:40 TuB06.2

*Robust Stability of Linear Uncertain Systems through Piecewise Quadratic Lyapunov Functions Defined Over Conical Partitions*, pp. 2872-2877.

Ambrosino, Roberto Univ. di Napoli, Parthenope  
Garone, Emanuele Univ. Libre de Bruxelles

14:40-15:00 TuB06.3

*Robust Backstepping Control of Missile Lateral and Rolling Motions in the Presence of Unmatched Uncertainties*, pp. 2878-2883.

Mattei, Giovanni Univ. di Roma  
Monaco, Salvatore Univ. di Roma

15:00-15:20 TuB06.4

*A Robust Adaptive Control Architecture with  $L_\infty$  Transient and Steady-State Performance Guarantees*, pp. 2884-2889.

Yucelen, Tansel Georgia Inst. of Tech.  
Haddad, Wassim M. Georgia Inst. of Tech.

15:20-15:40 TuB06.5

*Design and Analysis of a Novel Command Governor Architecture for Shaping the Transient Response of Nonlinear Uncertain Dynamical Systems*, pp. 2890-2895.

Yucelen, Tansel Georgia Inst. of Tech.  
Johnson, Eric N. Georgia Inst. of Tech.

15:40-16:00 TuB06.6

*Continuous and Discrete-Time D-Stability, Joint D-Stability, and Their Applications:  $\mu$  Theory and Diagonal Stability Approaches*, pp. 2896-2901.

Kim, Kwang-Ki UIUC/MIT  
Braatz, Richard D. Massachusetts Inst. of Tech.

**TuB07** Maile 1

**Distributed Parameter Systems III (Invited Session)**

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

14:00-14:20 TuB07.1

*Robust Stabilization of an Uncertain Diffusion Process with Boundary Control and Sensing (I)*, pp. 2902-2907.

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

14:20-14:40 TuB07.2

*A Predictor-Corrector Approach for Multi-Rate Sampled-Data Control of Spatially Distributed Systems (I)*, pp. 2908-2913.

Yao, Zhiyuan Univ. of California, Davis  
El-Farra, Nael H. Univ. of California, Davis

14:40-15:00 TuB07.3

*Stabilization of a Linear Hyperbolic System with One Boundary Controlled Transport PDE Coupled with  $n$  Counterconvecting PDEs (I)*, pp. 2914-2919.

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

15:00-15:20 TuB07.4

*Spceding Horizon Control with Numerical Solution for Spatiotemporal Dynamic Systems (I)*, pp. 2920-2925.

Hashimoto, Tomoaki Osaka Univ.  
Yoshioka, Yusuke Osaka Univ.  
Ohtsuka, Toshiyuki Osaka Univ.

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15:20-15:40 TuB07.5  
*Optimization-Based Estimation of Random Distributed Parameters in Elliptic Partial Differential Equations (I)*, pp. 2926-2933.

Borggaard, Jeff Virginia Tech.  
van Wyk, Hans-Werner Virginia Tech.

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15:40-16:00 TuB07.6  
*Asymptotic Stability of Forced Equilibria for Distributed Port-Hamiltonian Systems*, pp. 2934-2939.  
Macchelli, Alessandro Univ. of Bologna

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**TuB08** Maile 2  
**Stability of Nonlinear Systems II (Regular Session)**

Chair: Michel, Anthony N. Univ. of Notre Dame  
Co-Chair: Ruffer, Björn Univ. of Paderborn  
Sebastian

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14:00-14:20 TuB08.1  
*Relaxation of Hypotheses in LaSalle-Krasovskii Type Invariance Results (I)*, pp. 2940-2945.

Michel, Anthony N. Univ. of Notre Dame  
Hou, Ling St. Cloud State Univ.

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14:20-14:40 TuB08.2  
*Stability of Non-Polynomial Systems Using Differential Inclusions and Polynomial Lyapunov Functions*, pp. 2946-2951.

Hexner, Gyorgy RAFAEL, Haifa

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14:40-15:00 TuB08.3  
*Dynamic Boundary Stabilization of Linear and Quasi-Linear Hyperbolic Systems*, pp. 2952-2957.

Castillo, Felipe Gipsa Lab.  
Witrant, Emmanuel Univ. Joseph Fourier  
Priour, Christophe CNRS  
Dugard, Luc CNRS-Grenoble INP

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15:00-15:20 TuB08.4  
*From Convergent Dynamics to Incremental Stability*, pp. 2958-2963.

Ruffer, Björn S. Univ. of Paderborn  
Van De Wouw, Nathan Eindhoven Univ. of Tech.  
Mueller, Markus Univ. of Exeter

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15:20-15:40 TuB08.5  
*Asymptotic Stabilization of Nonlinear Systems Via Sign-Indefinite Damping Injection*, pp. 2964-2969.

Sarras, Ioannis -  
Ortega, Romeo LSS-SUPELEC  
Panteley, Elena V. LSS, CNRS - SUPELEC

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15:40-16:00 TuB08.6  
*A Generalization of Input-To-State Stability*, pp. 2970-2975.

Kellett, Christopher M. Univ. of Newcastle  
Dower, Peter M. Univ. of Melbourne

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**TuB09** Maile 3  
**Control and Optimization Methods in Medicine and Biology (Invited Session)**

Chair: Paschalidis, Ioannis Boston Univ.  
Co-Chair: Vidyasagar, Mathukumalli Univ. of Texas, Dallas

Organizer: Paschalidis, Ioannis Boston Univ.

Organizer: Shi, Leyuan Univ. of Wisconsin, Madison

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14:00-14:20 TuB09.1

*A New Feature Selection Algorithm for Two-Class Classification Problems and Application to Endometrial Cancer (I)*, pp. 2976-2982.

Ahsen, Mehmet Eren Univ. of Texas, Dallas  
Singh, Nitin Univ. of Texas, Dallas  
Boren, Todd UT Southwestern Medical Center  
Vidyasagar, Mathukumalli Univ. of Texas, Dallas  
White, Michael A UT Southwestern Medical Center

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14:20-14:40 TuB09.2

*A New Approach to Rigid Body Minimization with Application to Molecular Docking (I)*, pp. 2983-2988.

Mirzaei, Hanieh Boston Univ.  
Kozakov, Dima Boston Univ.  
Beglov, Dmitri Boston Univ.  
Vajda, Sandor Boston Univ.  
Paschalidis, Ioannis Boston Univ.  
Vakili, Pirooz Boston Univ.

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14:40-15:00 TuB09.3

*Remarks on the Invalidation of Biological Models Using Monotone Systems Theory (I)*, pp. 2989-2994.

Angeli, David Imperial Coll.  
Sontag, Eduardo D. Rutgers Univ.

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15:00-15:20 TuB09.4

*Dynamic Edge Adaptation in Delayed Oscillator Networks (I)*, pp. 2995-3000.

Mason, Richard Paul Univ. of Oxford  
Papachristodoulou, Antonis Univ. of Oxford

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15:20-15:40 TuB09.5

*Finding Invariant Sets for Biological Systems Using Monomial Domination*, pp. 3001-3006.

August, Elias ETH Zurich  
Koepl, Heinz ETH Zurich  
Craciun, Gheorghe Univ. of Wisconsin, Madison

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15:40-16:00 TuB09.6

*Optimal Circadian Rhythm Control with Light Input for Rapid Entrainment and Improved Vigilance*, pp. 3007-3012.

Zhang, Jiaxiang Rensselaer Pol. Inst.  
Wen, John T. Rensselaer Pol. Inst.  
Julius, Agung Rensselaer Pol. Inst.

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<b>TuB10</b>	Pikake 1
<b>New Directions in Control Design for Quantum Systems I</b> (Invited Session)	
Chair: James, Matthew R.	Australian National Univ.
Co-Chair: Mason, Paolo	CNRS, Lab. des Signaux et Systèmes, Supélec
Organizer: Caponigro, Marco	Rutgers Univ.
Organizer: James, Matthew R.	Australian National Univ.
Organizer: Long, Ruixing	Princeton Univ.
Organizer: Mason, Paolo	CNRS, Lab. des Signaux et Systèmes, Supélec
14:00-14:20	TuB10.1
<i>Frequency-Domain Model of a Class of Open Quantum Control Systems (I)</i> , pp. 3013-3018.	
Wu, Rebing	Tsinghua Univ.
Zhang, Jing	Tsinghua Univ.
Li, Chunwen	Tsinghua Univ.
Tarn, Tzyh-Jong	Washington Univ.
14:20-14:40	TuB10.2
<i>Preservation of Commutation Relations and Physical Realizability of Open Two-Level Quantum Systems (I)</i> , pp. 3019-3023.	
Duffaut Espinosa, Luis Augusto	Univ. of New South Wales at ADFA
Miao, Zibo	Res. School of Engineering, Australian National University
Petersen, Ian R.	Univ. of New South Wales at ADFA
Ugrinovskii, Valery	Univ. of New South Wales
James, Matthew R.	Australian National Univ.
14:40-15:00	TuB10.3
<i>Approximate Controllability of the Schrödinger Equation with a Polarizability Term (I)</i> , pp. 3024-3029.	
Boussaïd, Nabile	Univ. de Franche-Comté
Caponigro, Marco	Rutgers Univ.
Chambrion, Thomas	Univ. de Lorraine
15:00-15:20	TuB10.4
<i>Indirect Controllability and Indirect Observability of Quantum Mechanical Systems (I)</i> , pp. 3030-3037.	
D'Alessandro, Domenico	Iowa State Univ.
Romano, Raffaele	Univ. of Trieste
15:20-15:40	TuB10.5
<i>Controllability of the Bilinear Schrödinger Equation with Several Controls and Application to a 3D Molecule (I)</i> , pp. 3038-3043.	
Boscain, Ugo V.	CNRS
Caponigro, Marco	Rutgers Univ.
Sigalotti, Mario	INRIA Saclay
15:40-16:00	TuB10.6
<i>Controllability of the Schroedinger Equation Via Adiabatic Methods and Conical Intersections of the Eigenvalues (I)</i> , pp. 3044-3049.	
Chittaro, Francesca	LSIS
Mason, Paolo	CNRS, Lab. des Signaux et Systèmes, Supélec
Boscain, Ugo V.	CNRS
Sigalotti, Mario	INRIA Saclay

<b>TuB11</b>	Pikake 2
<b>Energy Systems II</b> (Regular Session)	
Chair: Pao, Lucy Y.	Univ. of Colorado, Boulder
Co-Chair: Cigler, Jiri	Czech Tech. Univ. in Prague
14:00-14:20	TuB11.1
<i>Comparison of Feedforward and Model Predictive Control of Wind Turbines Using LIDAR</i> , pp. 3050-3055.	
Schlipf, David	Stuttgart Wind Energy, Univ. of Stuttgart
Pao, Lucy Y.	Univ. of Colorado Boulder
Cheng, Po Wen	Stuttgart Wind Energy, Univ. of Stuttgart
14:20-14:40	TuB11.2
<i>Optimization of Predicted Mean Vote Thermal Comfort Index within Model Predictive Control Framework</i> , pp. 3056-3061.	
Cigler, Jiri	Czech Tech. Univ. in Prague
Privara, Samuel	Czech Tech. Univ. in Prague
Vana, Zdenek	Czech Tech. Univ. in Prague
Komarkova, Dana	Masaryk Univ.
Sebek, Michael	Czech Tech. Univ. in Prague
14:40-15:00	TuB11.3
<i>Finite-Time Convergent Observer Design and Adaptive Control of a Nonlinear Boiler System (I)</i> , pp. 3062-3067.	
Votion, Johnathan	Univ. of Texas at San Antonio
Zhang, Chuanlin	Southeast Univ.
Qian, Chunjiang	Univ. of Texas at San Antonio
Li, Shihua	Southeast Univ.
15:00-15:20	TuB11.4
<i>Nonlinear Control of Dc-Dc Bidirectional Converters in Stand-Alone Dc Microgrids</i> , pp. 3068-3073.	
Pires Nóbrega Tahim, André	Federal Univ. of Santa Catarina
Pagano, Daniel Juan	Federal Univ. of Santa Catarina
Ponce, Enrique	E.S. Ingenieros Univ. Sevilla
15:20-15:40	TuB11.5
<i>An Electrochemical Model-Based Particle Filter Approach for Lithium-Ion Battery Estimation</i> , pp. 3074-3079.	
Samadi, Mohammad Foad	Simon Fraser Univ.
Alavi, S.M. Mahdi	Univ. of Windsor
Saif, Mehrdad	Univ. of Windsor
15:40-16:00	TuB11.6
<i>The Coordinated Control of Fossil-Fuel Power Plant Based on the Fuzzy PID Control</i> , pp. 3080-3085.	
Li, Xiao-Feng	Electric Power Res. Inst. of GuangdongPowerGroupCo.
Zhang, Weidong	Shanghai Jiaotong Univ.
<b>TuB12</b>	Pikake 3
<b>Unmanned Air Vehicles</b> (Regular Session)	
Chair: Capello, Elisa	DIMEAS
Co-Chair: Dai, Ran	Univ. of Washinton
14:00-14:20	TuB12.1
<i>A Simulation-Based Approach for Control Design of Uncertain UAVs</i> , pp. 3086-3091.	
Capello, Elisa	DIMEAS
Tempo, Roberto	CNR-IEIT, Pol. di Torino

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14:20-14:40 TuB12.2

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*UAV Search & Capture of a Moving Ground Target under Delayed Information (I)*, pp. 3092-3097.

Kalyanam, Krishnamoorthy Infoscitex Corp.  
Casbeer, David W. Air Force Res. Lab.  
Chandler, Phillip R. USAF  
Pachter, Meir AFIT/ENG  
Darbha, Swaroop Texas A & M Univ.

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14:40-15:00 TuB12.3

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*Navigation of UAVs for Tracking of Atmospheric Release of Radiation*, pp. 3098-3103.

Smidl, Vaclav UTIA, AV CR  
Hofman, Radek Inst. of Information Theory and Automation

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15:00-15:20 TuB12.4

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*Optimal Path Planning for Solar-Powered UAVs Based on Unit Quaternions*, pp. 3104-3109.

Dai, Ran Iowa State Univ.  
Lee, Unsik Univ. of Washington  
Hosseini, Saghar Univ. of Washington  
Mesbahi, Mehran Univ. of Washington

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15:20-15:40 TuB12.5

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*PID Switching Control for a Highway Estimation and Tracking Applied on a Convertible Mini-UAV*, pp. 3110-3115.

Flores, Gerardo Univ. of Tech. of Compiègne  
Garcia Carrillo, Luis Rodolfo Univ. of California, Santa Barbara  
Sanahuja, Guillaume Univ. de Tech. de Compiègne  
Lozano, Rogelio Univ. de Technologie

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15:40-16:00 TuB12.6

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*Synchronized Cross Coupled Sliding Mode Controllers for Cooperative UAVs with Communication Delays*, pp. 3116-3121.

Rezaee, Hamed Amirkabir Univ. of Tech.  
Abdollahi, Farzaneh Concordia Univ.

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**TuB13** Ilima 1  
**Control Applications II (Regular Session)**

Chair: Jovanovic, Mihailo Univ. of Minnesota  
Co-Chair: Yamamoto, Shigeru Kanazawa Univ.

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14:00-14:20 TuB13.1

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*Turbulent Drag Reduction by Streamwise Traveling Waves*, pp. 3122-3126.

Zare, Armin Univ. of Minnesota  
Lieu, Binh K. Univ. of Minnesota  
Jovanovic, Mihailo Univ. of Minnesota

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14:20-14:40 TuB13.2

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*Gain Scheduled Control Strategies for a Nonlinear Electrostatic Microgripper: Design and Real Time Implementation*, pp. 3127-3132.

Boudaoud, Mokrane Femto-ST Inst. Univ. of Franche-Comté  
Le Gorrec, Yann ENSMM, FEMTO-ST / AS2M  
Haddab, Yassine FEMTO-ST  
LUTZ, Philippe FEMTO-ST

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14:40-15:00 TuB13.3

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*A PID Tuning Method Based on Matching between One-Shot Experimental Data and Filtered Desired Closed-Loop Responses*, pp. 3133-3138.

Ikegami, Naoki Kanazawa Univ.  
Yamamoto, Shigeru Kanazawa Univ.  
Kaneko, Osamu Kanazawa Univ.

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15:00-15:20 TuB13.4

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*Tracking Error Analysis for Singularly Perturbed Systems Preceded by Piecewise Linear Hysteresis*, pp. 3139-3144.

Edardar, Mohamed Michigan State Univ.  
Tan, Xiaobo Michigan State Univ.  
Khalil, Hassan K. Michigan State Univ.

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15:20-15:40 TuB13.5

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*Deformation Control of a 1-Dimensional Microbeam with In-Domain Actuation*, pp. 3145-3150.

Badkoubeh, Amir Ec. Pol. de Montreal  
Zhu, Guchuan Ec. Pol. de Montreal

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15:40-16:00 TuB13.6

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*Integrated Solution to Quadrotor Stabilization and Attitude Estimation Using a Pan and Tilt Camera*, pp. 3151-3156.

Cabecinhas, David Inst. Superior Tecnico  
Brás, Sérgio Inst. Superior Técnico  
Silvestre, Carlos University of Macau  
Oliveira, Paulo Jorge Inst. Superior Técnico  
Cunha, Rita Inst. Superior Técnico

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**TuB14** Ilima 2

**Optimization II (Regular Session)**

Chair: Polyak, Boris T. Moscow Inst. of Control Sciences  
Co-Chair: Materassi, Donatello Massachusetts Inst. of Tech.

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14:00-14:20 TuB14.1

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*Optimal Trajectory Generation under Homology Class Constraints*, pp. 3157-3164.

Kim, Soonkyum Univ. of Pennsylvania  
Sreenath, Koushil Univ. of Pennsylvania  
Bhattacharya, Subhrajit Univ. of Pennsylvania  
Kumar, Vijay Univ. of Pennsylvania

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14:20-14:40 TuB14.2

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*Execution Time Certification for Gradient-Based Optimization in Model Predictive Control*, pp. 3165-3170.

Giselsson, Pontus Lund Univ.

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14:40-15:00 TuB14.3

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*Robust Eigenvector of a Stochastic Matrix with Application to PageRank*, pp. 3171-3176.

Juditsky, Anatoli UJF  
Polyak, Boris T. Moscow Inst. of Control Sciences

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15:00-15:20 TuB14.4

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*Moving Horizon Estimation for Staged QP Problems*, pp. 3177-3182.

Chu, Eric Yan Tin Stanford Univ.  
Keshavarz, Arezou Stanford Univ.  
Gorinevsky, Dimitry Stanford Univ.  
Boyd, Stephen P. Stanford Univ.

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15:20-15:40 TuB14.5

*Equilibrium Price Distributions in Energy Markets with Shiftable Demand*, pp. 3183-3188.

Materassi, Donatello Massachusetts Inst. of Tech.  
Roozbehani, Mardavij Massachusetts Inst. of Tech.  
Dahleh, Munther A. Massachusetts Inst. of Tech.

15:40-16:00 TuB14.6

*Automatic Seizure Onset Detection in Drug-Resistant Epilepsy: A Bayesian Optimal Solution*, pp. 3189-3194.

Santaniello, Sabato Johns Hopkins Univ.  
Burns, Samuel Johns Hopkins Univ.  
Sarma, Sridevi Johns Hopkins Univ.

**TuB15** Ilima 3  
**Linear Systems II (Regular Session)**

Chair: Bonilla, Moises E. CINVESTAV-IPN  
Co-Chair: Trenn, Stephan Univ. of Kaiserslautern

14:00-14:20 TuB15.1

*Dead-Beat Control of Two-Dimensional Behaviors*, pp. 3195-3202.

Bisiacco, Mauro Univ. di Padova  
Valcher, Maria Elena Univ. di Padova

14:20-14:40 TuB15.2

*Switched Behaviors with Impulses - a Unifying Framework*, pp. 3203-3208.

Trenn, Stephan Univ. of Kaiserslautern  
Willems, Jan C. K.U. Leuven

14:40-15:00 TuB15.3

*Description of Switched Systems by Implicit Representations*, pp. 3209-3214.

Bonilla, Moises E. CINVESTAV-IPN  
Malabre, Michel CNRS

15:00-15:20 TuB15.4

*Generalization of Proportional Adaptation Law for L1 Adaptive Controller*, pp. 3215-3220.

Vanness, Justin Univ. of Illinois, Urbana - Champaign  
Kharisov, Evgeny Univ. of Illinois, Urbana-Champaign  
Hovakimyan, Naira Univ. of Illinois, Urbana-Champaign

15:20-15:40 TuB15.5

*Back-And-Forth Operation of State Observers and Norm Estimation of Estimation Error*, pp. 3221-3226.

Shim, Hyungbo Seoul National Univ.  
Tanwani, Aneel INRIA - Rhone Alpes  
Ping, Zhaowu Seoul National Univ.

15:40-16:00 TuB15.6

*On the Decoupling Problem of Linear Multivariable Systems by Static State Feedback*, pp. 3227-3232.

Castañeda Toledo, Eduardo Centro de Investigación y de Estudios Avanzados del I.P.N.Unida  
Ruiz-Leon, Javier CINVESTAV-Guadalajara

**TuB16** Haleakala Ballroom 3  
**Constrained Control (Regular Session)**

Chair: Yu, Han Univ. of Notre Dame  
Co-Chair: Chen, Hong Jilin Univ. Campus NanLing

14:00-14:20 TuB16.1

*Model Predictive Control of Stochastic LPV Systems Via Random Convex Programs*, pp. 3233-3238.

Calafiore, Giuseppe Pol. di Torino  
Fagiano, Lorenzo Pol. di Torino/Univ. California at Santa Barbara

14:20-14:40 TuB16.2

*Control of State-Constrained Nonlinear Systems Using Integral Barrier Lyapunov Functionals*, pp. 3239-3244.

Tee, Keng Peng Inst. for Infocomm Res.  
Ge, Shuzhi Sam Univ. of Electronic Science and Tech. of China

14:40-15:00 TuB16.3

*Reduced Order Reference Governor*, pp. 3245-3251.

Kalabic, Uros V. Univ. of Michigan  
Kolmanovsky, Ilya V. Univ. of Michigan  
Buckland, Julia Ford Motor Company  
Gilbert, Elmer G. Univ. of Michigan

15:00-15:20 TuB16.4

*Unknown Delay*, pp. 3252-3257.

Wang, Xu New York Univ.  
Saber, Ali Washington State Univ.  
Stoorvogel, Anton A. Univ. of Twente

15:20-15:40 TuB16.5

*Model Predictive Control with Reduced Number of Variables for Linear Systems with Bounded Disturbances*, pp. 3258-3263.

Ong, Chong-Jin National Univ. of Singapore

15:40-16:00 TuB16.6

*Terminal Set of Min-Max Model Predictive Control with Guaranteed L2 Performance*, pp. 3264-3269.

Yu, Shuyou Jilin Univ.  
Maier, Christoph Univ. of Stuttgart  
Chen, Hong Jilin Univ.  
Allgower, Frank Univ. of Stuttgart

**TuB17** Haleakala Ballroom 5  
**Event-Triggered and Self-Triggered Control (Tutorial Session)**

Chair: Tabuada, Paulo Univ. of California at Los Angeles  
Co-Chair: Heemels, W.P.M.H. Eindhoven Univ. of Tech.  
Organizer: Tabuada, Paulo Univ. of California at Los Angeles  
Organizer: Heemels, W.P.M.H. Eindhoven Univ. of Tech.  
Organizer: Johansson, Karl H. KTH Royal Inst. of Tech.

14:00-14:40 TuB17.1

*An Introduction to Event-Triggered and Self-Triggered Control (I)*, pp. 3270-3285.

Heemels, W.P.M.H. Eindhoven Univ. of Tech.  
Johansson, Karl H. KTH Royal Inst. of Tech.  
Tabuada, Paulo Univ. of California at Los Angeles

14:40-15:20	TuB17.2
<i>Output-Based Event-Triggered Control (I)*</i> . $\text{P}\text{B}\text{E}$	
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.

15:20-16:00	TuB17.3
<i>Wireless Event-Triggered Control (I)*</i> . $\text{P}\text{B}\text{E}$	
Johansson, Karl H.	KTH Royal Inst. of Tech.

<b>TuC01</b>	Hibiscus 1
<b>Networked Systems: Sensing, Scheduling, Estimation, and Control Over Networks</b> (Invited Session)	

Chair: Qiu, Li	Hong Kong Univ. of Sci. & Tech.
Co-Chair: Johansson, Karl H.	KTH Royal Inst. of Tech.
Organizer: Shi, Ling	Hong Kong Univ. of Sci. & Tech.
Organizer: Qiu, Li	Hong Kong Univ. of Sci. & Tech.
Organizer: Johansson, Karl H.	KTH Royal Inst. of Tech.

16:30-16:50	TuC01.1
<i>Data Rate Limitations for Stabilization of Uncertain Systems (I)</i> , pp. 3286-3291.	
Okano, Kunihisa	Tokyo Inst. of Tech.
Ishii, Hideaki	Tokyo Inst. of Tech.

16:50-17:10	TuC01.2
<i>Distributed Formation Control of Networked Passive Systems with Event-Driven Communication (I)</i> , pp. 3292-3297.	
Yu, Han	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame

17:10-17:30	TuC01.3
<i>LQG Control of LTI Systems with Random Input and Output Gains (I)</i> , pp. 3298-3304.	
Chen, Wei	Hong Kong Univ. of Sci. & Tech.
Zheng, Jianying	Hong Kong Univ. of Sci. & Tech.
Qiu, Li	Hong Kong Univ. of Sci. & Tech.

17:30-17:50	TuC01.4
<i>An Improved Hybrid Sensor Schedule for Remote State Estimation under Limited Communication Resources (I)</i> , pp. 3305-3310.	
Wu, Junfeng	Hong Kong Univ. of Sci. & Tech.
Johansson, Karl H.	KTH Royal Inst. of Tech.
Shi, Ling	Hong Kong Univ. of Sci. & Tech.

17:50-18:10	TuC01.5
<i>Infinite Horizon LQG Control with Fixed-Rate Quantization (I)</i> , pp. 3311-3316.	
Fu, Minyue	Univ. of Newcastle
Chai, Li	Wuhan Univ. of Science and Tech.

18:10-18:30	TuC01.6
<i>Infinite-Horizon Sensor Scheduling for Estimation Over Lossy Networks (I)</i> , pp. 3317-3322.	
Mo, Yilin	Carnegie Mellon Univ.
Sinopoli, Bruno	Carnegie Mellon Univ.
Shi, Ling	Hong Kong Univ. of Sci. & Tech.
Garone, Emanuele	Univ. Libre de Bruxelles

<b>TuC02</b>	Hibiscus 2
<b>Sensor Networks IV</b> (Regular Session)	
Chair: Fierro, Rafael	Univ. of New Mexico
Co-Chair: Corless, Martin J.	Purdue Univ.

16:30-16:50	TuC02.1
<i>Stochastic Stabilization of Partially Observed and Multi-Sensor Systems Driven by Gaussian Noise under Fixed-Rate Information Constraints</i> , pp. 3323-3328.	
Johnston, Andrew Peter	Queen's Univ.
Yuksel, Serdar	Queen's Univ.

16:50-17:10	TuC02.2
<i>Optimizing Weighted Graph Topology for Robust Network Information Dissemination</i> , pp. 3329-3334.	
Liu, Zhenyi	Texas Tech. Univ.
Zhang, Haopeng	Texas Tech. Univ.
Smith, Philip	Texas Tech. Univ.
Hui, Qing	Texas Tech. Univ.

17:10-17:30	TuC02.3
<i>Power Allocation for Error Covariance Minimization in Kalman Filtering Over Packet Dropping Links</i> , pp. 3335-3340.	
Dey, Subhrakanti	Univ. of Melbourne
Leong, Alex	Univ. of Melbourne

17:30-17:50	TuC02.4
<i>Minimum-Energy Packet Forwarding Policies for Guaranteed LQG Performance in Wireless Control Systems</i> , pp. 3341-3346.	
Zou, Zhenhua	KTH Royal Inst. of Tech.
Demirel, Burak	KTH Royal Inst. of Tech.
Johansson, Mikael	KTH Royal Inst. of Tech.

17:50-18:10	TuC02.5
<i>A Decentralized Algorithm for Assigning the Weighting Parameters in a General Synchronous Consensus Network</i> , pp. 3347-3352.	
Corless, Martin J.	Purdue Univ.
Coduti, Leonardo	Purdue Univ.

18:10-18:30	TuC02.6
<i>A Binary Consensus Approach to Decentralized Coordination of Nonholonomic Sensor Networks</i> , pp. 3353-3359.	
Luna, Jose Marcio	Univ. of New Mexico
Fierro, Rafael	Univ. of New Mexico
Abdallah, Chaouki T.	Univ. of New Mexico
Lewis, Frank L.	Univ. of Texas, Arlington

<b>TuC03</b>	Hibiscus 3
<b>Autonomous Systems</b> (Regular Session)	
Chair: Sprinkle, Jonathan	Univ. of Arizona
Co-Chair: Paley, Derek A.	Univ. of Maryland

16:30-16:50	TuC03.1
<i>Mitigating Uncertainty in Stackelberg Games</i> , pp. 3360-3365.	
Parsaeefard, Saeedeh	Univ. of California, Los Angeles
van der Schaar, Mihaela	Univ. of California Los Angeles
Sharafat, A.	Tarbiat Modares Univ.

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16:50-17:10 TuC03.2

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*Terrain-Based Vehicle Localization from Real-Time Data Using Dynamical Models*, pp. 3366-3371.

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

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17:10-17:30 TuC03.3

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*Robust Control of Uncertain Markov Decision Processes with Temporal Logic Specifications*, pp. 3372-3379.

Wolff, Eric California Inst. of Tech.  
Topcu, Ufuk California Inst. of Tech.  
Murray, Richard M. California Inst. of Tech.

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17:30-17:50 TuC03.4

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*A Passenger Comfort Controller for an Autonomous Ground Vehicle*, pp. 3380-3385.

Whitsitt, Sean Univ. of Arizona  
Sprinkle, Jonathan Univ. of Arizona

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17:50-18:10 TuC03.5

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*Dual Quaternions, Rigid Body Mechanics, and Powered-Descent Guidance*, pp. 3386-3391.

Lee, Unsik Univ. of Washington  
Mesbahi, Mehran Univ. of Washington

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18:10-18:30 TuC03.6

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*Thermal Highs and Pitfall Lows - Notes on the Journey to the First Cooperative Autonomous Soaring Flight*, pp. 3392-3397.

Andersson, Klas NPS / KTH  
Jones, Kevin Naval Postgraduate School  
Dobrokhodov, Vladimir Naval Postgraduate School  
Kaminer, Isaac Naval Postgraduate School

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**TuC04** Plumeria 1

**Security and Privacy in Cyber-Physical Systems (Invited Session)**

Chair: Pasqualetti, Fabio Univ. of California, Santa Barbara  
Co-Chair: Mo, Yilin Carnegie Mellon Univ.  
Organizer: Pasqualetti, Fabio Univ. of California, Santa Barbara  
Organizer: Mo, Yilin Carnegie Mellon Univ.

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16:30-16:50 TuC04.1

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*Differentially Private Filtering (I)*, pp. 3398-3403.

Le Ny, Jerome Ec. Pol. de Montreal  
Pappas, George J. Univ. of Pennsylvania

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16:50-17:10 TuC04.2

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*Game-Theoretic Analysis of Node Capture and Cloning Attack with Multiple Attackers in Wireless Sensor Networks (I)*, pp. 3404-3411.

Zhu, Quanyan Univ. of Illinois, Urbana-Champaign  
Bushnell, Linda Univ. of Washington  
Basar, Tamer Univ. of Illinois, Urbana-Champaign

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17:10-17:30 TuC04.3

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*Security for Control Systems under Sensor and Actuator Attacks (I)*, pp. 3412-3417.

Fawzi, Hamza Univ. of California, Los Angeles  
Tabuada, Paulo Univ. of California, Los Angeles  
Diggavi, Suhas Univ. of California, Los Angeles

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17:30-17:50 TuC04.4

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*Cyber-Physical Security Via Geometric Control: Distributed Monitoring and Malicious Attacks (I)*, pp. 3418-3425.

Pasqualetti, Fabio Univ. of California, Santa Barbara  
Dörfler, Florian Univ. of California, Santa Barbara  
Bullo, Francesco Univ. of California, Santa Barbara

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17:50-18:10 TuC04.5

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*Robustness of Complex Networks with Implications for Consensus and Contagion (I)*, pp. 3426-3432.

Zhang, Haotian Univ. of Waterloo  
Sundaram, Shreyas Univ. of Waterloo

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18:10-18:30 TuC04.6

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*A Tractable Nonlinear Fault Detection and Isolation Technique with Application to the Cyber-Physical Security of Power Systems*, pp. 3433-3438.

Mohajerin Esfahani, Peyman ETH Zurich  
Vrakopoulou, Maria ETH Zurich  
Andersson, Goran ETH Zurich  
Lygeros, John ETH Zurich

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**TuC05** Plumeria 2

**Identification Techniques (Regular Session)**

Chair: Hansson, Anders Linköping Univ.  
Co-Chair: Oomen, Tom Eindhoven Univ. of Tech.

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16:30-16:50 TuC05.1

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*Subspace System Identification Via Weighted Nuclear Norm Optimization*, pp. 3439-3444.

Hansson, Anders Linköping Univ.  
Liu, Zhang Northrop Grumman Corp.  
Vandenbergh, Lieven Univ. of California at Los Angeles

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16:50-17:10 TuC05.2

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*Estimation of Cross-Power and Auto-Power Spectral Densities in Frequency Domain by Subspace Methods*, pp. 3445-3450.

Akca, Huseyin Anadolu Univ.

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17:10-17:30 TuC05.3

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*Bi-Orthonormal Basis Functions for Improved Frequency-Domain System Identification*, pp. 3451-3456.

van Herpen, Robbert Eindhoven Univ. of Tech.  
Oomen, Tom Eindhoven Univ. of Tech.  
Bosgra, Okko H. Delft Univ. of Tech.

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17:30-17:50 TuC05.4

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*Asymptotic Analysis of Vector ARMA Identification*, pp. 3457-3462.

Li, Quan Duke Univ.  
Scruggs, Jeff Univ. of Michigan

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17:50-18:10 TuC05.5

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*Filtered-Error-Based Control of a Class of Nonlinear Systems with Nonsmooth Nonlinearities*, pp. 3463-3468.

Jin, Ying Concordia Univ.  
Fu, Jun MIT  
Zhang, Lixian Harbin Inst. of Tech.  
Li, Zhijun Shanghai Jiao Tong Univ.

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18:10-18:30	TuC05.6
<i>An Algorithm for Fast Constrained Nuclear Norm Minimization and Applications to Systems Identification</i> , pp. 3469-3475.	
Ayazoglu, Mustafa	Northeastern Univ.
Sznaier, Mario	Northeastern Univ.

<b>TuC06</b>	Plumeria 3
<b>Uncertain Systems III (Regular Session)</b>	
Chair: Jones, Peter B.	MIT Lincoln Lab.
Co-Chair: Fischer, Nicholas	Univ. of Florida

16:30-16:50	TuC06.1
<i>Dynamical Trajectory Replanning for Uncertain Environments</i> , pp. 3476-3483.	
Revzen, Shai	Univ. of Michigan
Ilhan, Berkay Deniz	Univ. of Pennsylvania
Koditschek, Daniel E.	Univ. of Pennsylvania

16:50-17:10	TuC06.2
<i>Iterative Ensemble Control Synthesis for Bilinear Systems</i> , pp. 3484-3489.	
Zlotnik, Anatoly	Washington Univ. in St. Louis
Li, Jr-Shin	Washington Univ. in St. Louis

17:10-17:30	TuC06.3
<i>A Matrix Sign Function Framework for Robust Stability Analysis and Parameter-Dependent Lyapunov and Riccati Equalities</i> , pp. 3490-3495.	
Guerra, Jérémie	Ec. des Mines de Nantes (IRCCyN)
Yagoubi, Mohamed	Ec. des Mines de Nantes (IRCCyN)
Chevrel, Philippe	Ec. des Mines de Nantes (IRCCyN)

17:30-17:50	TuC06.4
<i>Bayesian Filtering without an Observation Model</i> , pp. 3496-3501.	
Jones, Peter B.	MIT Lincoln Lab.
Mitter, Sanjoy K.	Massachusetts Inst. of Tech.
Saligrama, Venkatesh	Boston Univ.

17:50-18:10	TuC06.5
<i>RISE-Based Control of an Uncertain Nonlinear System with Time-Varying State Delays</i> , pp. 3502-3507.	
Fischer, Nicholas	Univ. of Florida
Kamalapurkar, Rushikesh	Univ. of Florida
Sharma, Nitin	Univ. of Alberta
Dixon, Warren E.	Univ. of Florida

18:10-18:30	TuC06.6
<i>On Mixed-Integer Random Convex Programs</i> , pp. 3508-3513.	
Calafiore, Giuseppe	Pol. di Torino
Lyons, Daniel	Karlsruhe Inst. of Tech.
Fagiano, Lorenzo	Pol. di Torino/Univ. California at Santa Barbara

<b>TuC07</b>	Maile 1
<b>Distributed Parameter Systems IV (Regular Session)</b>	
Chair: Polis, Michael P.	Oakland Univ.
Co-Chair: Gao, Huijun	Harbin Inst. of Tech.

16:30-16:50	TuC07.1
<i>Robust Regulation of Distributed Parameter Systems with Infinite-Dimensional Exosystems (I)</i> , pp. 3514-3519.	
Hamalainen, Timo	Tampere Univ. of Tech.
Pohjolainen, Seppo	Tampere Univ. of Tech.

16:50-17:10	TuC07.2
<i>Filtering and Identification of Stochastic Diffusion Systems with Unknown Boundary Conditions</i> , pp. 3520-3525.	
Aihara, Shin Ichi	Tokyo Univ. of Science, Suwa
Bagchi, Arunabha	Univ. of Twente

17:10-17:30	TuC07.3
<i><math>H^\infty</math> Filtering for 2-D FM Systems: A Finite Frequency Approach</i> , pp. 3526-3530.	
Li, Xianwei	Harbin Inst. of Tech.
Gao, Huijun	Harbin Inst. of Tech.
Karimi, Hamid Reza	Univ. of Agder

17:30-17:50	TuC07.4
<i>Probabilistic Formulation of Estimation Problems for a Class of Hamilton-Jacobi Equations</i> , pp. 3531-3537.	
Hofleitner, Aude	UC Berkeley
Claudel, Christian	UC Berkeley
Bayen, Alexandre M.	UC Berkeley

17:50-18:10	TuC07.5
<i>Flatness-Based Trajectory Planning for Semilinear Parabolic PDEs</i> , pp. 3538-3543.	
Schörkhuber, Birgit	Vienna Univ. of Tech.
Meurer, Thomas	Vienna Univ. of Tech.
Jungel, Ansgar	Vienna Univ. of Tech.

<b>TuC08</b>	Maile 2
<b>Feedback Linearization (Regular Session)</b>	
Chair: Muellhaupt, Philippe	Ec. Pol. Fed. de Lausanne
Co-Chair: Sekiguchi, Kazuma	Tokyo Inst. of Tech.

16:30-16:50	TuC08.1
<i>A Continuous Extension of the LuGre Friction Model with Application to the Control of a Pneumatic Servo Positioner</i> , pp. 3544-3550.	
Sobczyk, Mario Roland	Univ. Federal do Rio grande do Sul
Perondi, Eduardo Andre	Univ. Federal do Rio grande do Sul
Cunha, Mauro A.B.	CEFET-RS

16:50-17:10	TuC08.2
<i>Path Following for a Quadrotor Using Dynamic Extension and Transverse Feedback Linearization</i> , pp. 3551-3556.	
Akhtar, Adeel	Univ. of Waterloo
Waslander, Steven L.	Univ. of Waterloo
Nielsen, Christopher	Univ. of Waterloo

17:10-17:30	TuC08.3
<i>Change of Controller Based on Partial Feedback Linearization with Time-Varying Function</i> , pp. 3557-3563.	
Sekiguchi, Kazuma	Tokyo Inst. of Tech.
Sampei, Mitsuji	Tokyo Inst. of Tech.

17:30-17:50	TuC08.4
<i>Robust Stabilization of an Airlaunch System after Launching Phase</i> , pp. 3564-3569.	
Nguyen, Van Cuong	Univ. d'Evry Val d'Essonne
Marino, Riccardo	Univ. di Roma Tor Vergata
Damm, Gilney	Univ. d'Evry

17:50-18:10	TuC08.5
<i>Application of Legendrian Foliations in Differential Flatness Problems</i> , pp. 3570-3575.	
Graf, Basile	Ec. Pol. Fédérale de Lausanne
Muellhaupt, Philippe	Ec. Pol. Fédérale de Lausanne

18:10-18:30	TuC08.6
<i>An Inner Convex Approximation Algorithm for BMI Optimization and Applications in Control</i> , pp. 3576-3581.	
Tran Dinh, Quoc	Katholieke Univ. Leuven
Michiels, Wim	Katholieke Univ. Leuven
Gros, Sebastien	Katholieke Univ. Leuven
Diehl, Moritz	Katholieke Univ. Leuven

<b>TuC09</b>	Maile 3
<b>Control Theory in Synthetic Biology</b> (Invited Session)	
Chair: Oyarzun, Diego A.	Imperial Coll. London
Co-Chair: STAN, Guy-Bart Vincent	Imperial Coll. London
Organizer: Oyarzun, Diego A.	Imperial Coll. London
Organizer: STAN, Guy-Bart Vincent	Imperial Coll. London

16:30-16:50	TuC09.1
<i>Computer Control of Gene Expression: Robust Setpoint Tracking of Protein Mean and Variance Using Integral Feedback (I)</i> , pp. 3582-3588.	
Briat, Corentin	ETH Zürich
Khammash, Mustafa H.	ETH Zurich

16:50-17:10	TuC09.2
<i>Characterization of a Biomolecular Fuel Delivery Device under Load (I)</i> , pp. 3589-3594.	
Bishop, Joshua	Univ. of Washington
Klavins, Eric	Univ. of Washington

17:10-17:30	TuC09.3
<i>Retroactivity to the Input in Complex Gene Transcription Networks (I)</i> , pp. 3595-3601.	
Gyorgy, Andras	Massachusetts Inst. of Tech.
Del Vecchio, Domitilla	Massachusetts Inst. of Tech.

17:30-17:50	TuC09.4
<i>On the Role of Ultrasensitivity in Biomolecular Control Systems (I)</i> , pp. 3602-3607.	
Montefusco, Francesco	Univ. of Exeter
Steinacher, Arno	Univ. of Exeter
Akman, Ozgur Ekim	Univ. of Exeter
Bates, Declan G.	Univ. of Exeter
Soyer, Orkun S	Univ. of Exeter

17:50-18:10	TuC09.5
<i>Design Constraints in an Operon Circuit for Engineered Control of Metabolic Networks (I)</i> , pp. 3608-3613.	
Oyarzun, Diego A.	Imperial Coll. London
Stan, Guy-Bart Vincent	Imperial Coll. London

18:10-18:30	TuC09.6
<i>A Loop Shaping Approach for Designing Biological Circuits (I)</i> , pp. 3614-3619.	
Dolan, James	Univ. of Oxford
Anderson, James	Univ. of Oxford
Papachristodoulou, Antonis	Univ. of Oxford

<b>TuC10</b>	Pikake 1
<b>New Directions in Control Design for Quantum Systems II</b> (Invited Session)	
Chair: James, Matthew R.	Australian National Univ.
Co-Chair: Mason, Paolo	CNRS, Lab. des Signaux et Systèmes, Supélec
Organizer: Caponigro, Marco	Rutgers Univ.
Organizer: James, Matthew R.	Australian National Univ.
Organizer: Long, Ruixing	Princeton Univ.
Organizer: Mason, Paolo	CNRS, Lab. des Signaux et Systèmes, Supélec

16:30-16:50	TuC10.1
<i>Environment-Assisted and Feedback-Assisted Stabilization of Quantum Stochastic Evolutions (I)</i> , pp. 3620-3625.	
Ticozzi, Francesco	Univ. di Padova
Nishio, Kazunori	Sumitomo Life Insurance Company
Altafini, Claudio	SISSA International School For Advanced Studies

16:50-17:10	TuC10.2
<i>Time Minimal Trajectories for Two-Level Quantum Systems with Two Bounded Controls (I)</i> , pp. 3626-3631.	
Boscain, Ugo V.	CNRS
Long, Ruixing	Princeton Univ.

17:10-17:30	TuC10.3
<i>LQG Measurement-Feedback Control of Distributed Entanglement Generation between Continuous-Mode Gaussian Fields (I)</i> , pp. 3632-3639.	
Nurdin, Hendra Ishwara	Univ. of New South Wales
Yamamoto, Naoki	Keio Univ.

17:30-17:50	TuC10.4
<i>Explicit Control Laws for the Periodic Motion Planning of Controllable Driftless Systems on <math>SU(n)</math> (I)</i> , pp. 3640-3645.	
Silveira, Hector Bessa	Federal Univ. of Santa Catarina
Pereira da Silva, Paulo Sergio	Univ. de Sao Paulo
Rouchon, Pierre	Mines ParisTech

17:50-18:10	TuC10.5
<i>Strong Measurement and Quantum Feedback for Persistent Rabi Oscillations in Circuit QED Experiments (I)</i> , pp. 3646-3651.	
Mirrahimi, Mazyar	INRIA Paris-Rocquencourt
Huard, Benjamin	Ec. Normale Supérieure, CNRS
Devoret, Michel	Yale Univ.

18:10-18:30	TuC10.6
<i>Time-Optimal Adiabatic-Like Expansion of Bose-Einstein Condensates (I)</i> , pp. 3652-3657.	
Stefanatos, Dionisis	
Li, Jr-Shin	Washington Univ. in St. Louis

<b>TuC11</b>	Pikake 2
<b>Information Based Real-Time-Energy-Management in Networks of Smart Appliances</b> (Invited Session)	
Chair: Caramanis, Michael C.	Boston Univ.
Co-Chair: Baillieul, John	Boston Univ.
Organizer: Zhang, Bowen	Boston Univ.
Organizer: Caramanis, Michael C.	Boston Univ.
Organizer: Baillieul, John	Boston Univ.
16:30-16:50	TuC11.1
<i>A Packetized Direct Load Control Mechanism for Demand Side Management (I)</i> , pp. 3658-3665.	
Zhang, Bowen	Boston Univ.
Baillieul, John	Boston Univ.
16:50-17:10	TuC11.2
<i>Grid Integration of Distributed Renewables through Coordinated Demand Response (I)</i> , pp. 3666-3671.	
Alizadeh, Mahnoosh	UC Davis
Chang, Tsung-Hui	National Taiwan Univ. of Science and Tech.
Scaglione, Anna	UC Davis
17:10-17:30	TuC11.3
<i>Branch Flow Model: Relaxations and Convexification (I)</i> , pp. 3672-3679.	
Farivar, Masoud	California Inst. of Tech.
Low, Steven	California Inst. of Tech.
17:30-17:50	TuC11.4
<i>Large Scale Real-Time Bidding in the Smart Grid: A Mean Field Framework (I)</i> , pp. 3680-3687.	
Kizilkale, Arman C.	McGill Univ.
Mannor, Shie	Technion
Caines, Peter E.	McGill Univ.
17:50-18:10	TuC11.5
<i>Decentralized Optimal Dispatch of Distributed Energy Resou (I)</i> , pp. 3688-3693.	
Dominguez-Garcia, Alejandro	Univ. of Illinois at Urbana-Champaign
Cady, Stanton	Univ. of Illinois at Urbana-Champaign
Hadjicostis, Christoforos	Univ. of Cyprus
18:10-18:30	TuC11.6
<i>Provision of Regulation Service Reserves by Flexible Distributed Loads (I)</i> , pp. 3694-3700.	
Caramanis, Michael C.	Boston Univ.
Paschalidis, Ioannis	Boston Univ.
Cassandras, Christos G.	Boston Univ.
Bilgin, Enes	Boston Univ.
Ntakou, Elli	Boston Univ.
<b>TuC12</b>	Pikake 3
<b>Animal-Inspired Flight Control</b> (Invited Session)	
Chair: Sebesta, Kenneth	Boston Univ.
Co-Chair: Baillieul, John	Boston Univ.
Organizer: Sebesta, Kenneth	Boston Univ.
Organizer: Baillieul, John	Boston Univ.

16:30-16:50	TuC12.1
<i>A H<math>\infty</math> Loopshaping Approach for Autonomous Bio-Inspired Visual Navigation in Three-Dimensional Urban Environments (I)</i> , pp. 3701-3706.	
Keshavan, Jishnu	Univ. of Maryland
Humbert, J. Sean	Univ. of Maryland
16:50-17:10	TuC12.2
<i>Control Synthesis and Verification for a Perching UAV Using LQR-Trees (I)</i> , pp. 3707-3714.	
Moore, Joseph	Massachusetts Inst. of Tech.
Tedrake, Russ	Massachusetts Inst. of Tech.
17:10-17:30	TuC12.3
<i>Autostabilizing Airframe Articulation: Animal Inspired Air Vehicle Control (I)</i> , pp. 3715-3720.	
Dyhr, Jonathan	Univ. of Washington
Cowan, Noah	Johns Hopkins Univ.
Colmenares, David	Univ. of Washington
Morgansen, Kristi A.	Univ. of Washington
Daniel, Thomas	Univ. of Washington
17:30-17:50	TuC12.4
<i>A Task-Level Model for Optomotor Yaw Regulation in Drosophila Melanogaster: A Frequency-Domain System Identification Approach (I)</i> , pp. 3721-3726.	
Roth, Eatai	Univ. of Washington
Reiser, Michael B.	Caltech
Dickinson, Michael H.	Caltech
Cowan, Noah	Johns Hopkins Univ.
17:50-18:10	TuC12.5
<i>Animal-Inspired Agile Flight Using Optical Flow Sensing (I)</i> , pp. 3727-3734.	
Sebesta, Kenneth	Boston Univ.
Baillieul, John	Boston Univ.
18:10-18:30	TuC12.6
<i>High-Speed Motion with Limited Sensing Range in a Poisson Forest (I)</i> , pp. 3735-3740.	
Karaman, Sertac	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.
<b>TuC13</b>	Ilima 1
<b>Advances in Powertrain Control</b> (Invited Session)	
Chair: Mohammadpour, Javad	Univ. of Michigan
Co-Chair: Di Cairano, Stefano	Mitsubishi Electric Res. Lab.
Organizer: Karnik, Amey	IIT Gandhinagar
Organizer: Mohammadpour, Javad	Univ. of Georgia
Organizer: Di Cairano, Stefano	Mitsubishi Electric Res. Lab.
16:30-16:50	TuC13.1
<i>Investigation of Time-Varying Internal Model Based Control for Camless Engine Valve Actuation (I)</i> , pp. 3741-3746.	
Gillella, Pradeep Kumar	Univ. of Minnesota, Twin Cities
Song, Xingyong	General Motors Res. Center
Sun, Zongxuan	Univ. of Minnesota

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16:50-17:10 TuC13.2

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*Reducing Cyclic Dispersion in Autoignition Combustion by Controlling Fuel Injection Timing (I)*, pp. 3747-3752.

Hellström, Erik	Univ. of Michigan
Stefanopoulou, Anna G.	Univ. of Michigan
Jiang, Li	Robert Bosch LLC

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17:10-17:30 TuC13.3

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*MPC-Based Control of Engine Deceleration with Open Torque Converter (I)*, pp. 3753-3758.

Di Cairano, Stefano	Mitsubishi Electric Res. Lab.
Doering, Jeff	Ford Motor Company
Kolmanovsky, Ilya V.	Univ. of Michigan
Hrovat, Davor	Ford Motor Company

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17:30-17:50 TuC13.4

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*PDE-Based Analysis and Control of the Oxygen Storage Level in Three-Way Catalytic Converters (I)*, pp. 3759-3764.

Bekiaris-Liberis, Nikolaos	Univ. of California, San Diego
Jankovic, Mrdjan	Ford Res. & Advanced Engineering
Krstic, Miroslav	Univ. of California, San Diego

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17:50-18:10 TuC13.5

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*Direct Data-Driven Control of Internal Combustion Engine Test Benches Using Closed-Loop Experiments*, pp. 3765-3770.

Passenbrunner, Thomas Ernst	Johannes Kepler Univ. Linz
Formentin, Simone	Pol. di Milano
Savaresi, Sergio M.	Pol. Di Milano
Del Re, Luigi	Johannes Kepler Univ. Linz

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18:10-18:30 TuC13.6

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*Predictive Control for High-EGR SI Engines without Misfire Via Flow-Based Design*, pp. 3771-3776.

Jimbo, Tomohiko	Toyota Central R&D Lab. Inc.
Tanaka, Satoru	Toyota Motor Corp.
Sata, Kota	Toyota Motor Corp.
Hibino, Ryouichi	Toyota Central R&D Lab. Inc.

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**TuC14** Ilima 2  
**Optimization III (Regular Session)**

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Chair: Chong, Edwin K. P.	Colorado State Univ.
Co-Chair: Quijano, Nicanor	Univ. de los Andes

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16:30-16:50 TuC14.1

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*Exact Convex Formulations of Network-Oriented Optimal Operator Placement*, pp. 3777-3782.

Carabelli, Ben William	Univ. of Stuttgart
Benzing, Andreas	Univ. of Stuttgart
Seyboth, Georg Sebastian	Univ. of Stuttgart
Blind, Rainer	Univ. of Stuttgart
Bürger, Mathias	Univ. of Stuttgart
Dürr, Frank	Univ. of Stuttgart
Koldehofe, Boris	Univ. of Stuttgart
Rothermel, Kurt	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart

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16:50-17:10 TuC14.2

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*Feedback Design for Multi-Agent Systems: A Saddle Point Approach*, pp. 3783-3789.

Brunner, Florian David	Univ. of Stuttgart
Dürr, Hans-Bernd	Univ. of Stuttgart
Ebenbauer, Christian	Univ. of Stuttgart

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17:10-17:30 TuC14.3

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*Distributed Optimization Using Population Dynamics with a Local Replicator Equation*, pp. 3790-3795.

Pantoja, Andrés	Univ. de Nariño
Quijano, Nicanor	Univ. de los Andes

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17:30-17:50 TuC14.4

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*Steady-State Performance Optimization for Variable-Gain Motion Control Using Extremum Seeking*, pp. 3796-3801.

Hunnekens, Bram	Eindhoven Univ. of Tech.
Haring, Mark	Norwegian Univ. of Science and Tech.
Van De Wouw, Nathan	Eindhoven Univ. of Tech.
Nijmeijer, Hendrik	Eindhoven Univ. of Tech.

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17:50-18:10 TuC14.5

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*Submodularity and Optimality of Fusion Rules in Balanced Binary Relay Trees*, pp. 3802-3807.

Zhang, Zhenliang	Colorado State Univ.
Chong, Edwin K. P.	Colorado State Univ.
Pezeshki, Ali	Colorado State Univ.
Moran, Bill	Univ. of Melbourne
Howard, Stephen David	Defence Science & Tech. Organisation

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18:10-18:30 TuC14.6

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*Cycles and Sparse Design of Consensus Networks*, pp. 3808-3813.

Zelazo, Daniel	Univ. of Stuttgart
Schuler, Simone	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart

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**TuC15** Ilima 3  
**Linear Systems III (Regular Session)**

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Chair: Krener, Arthur J	Naval Postgraduate School
Co-Chair: Schmid, Robert	Univ. of Melbourne

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16:30-16:50 TuC15.1

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*Filtering Boundary Value Continuous Time Invariant Linear Systems*, pp. 3814-3820.

Krener, Arthur J	Naval Postgraduate School
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16:50-17:10 TuC15.2

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*A Measurement Based Approach for Linear Circuit Modeling and Design*, pp. 3821-3826.

Layek, Ritwik	Texas A&M Univ.
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.

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17:10-17:30	TuC15.3
<i>Optimal Trajectory Generation for Linear Systems Based on Double Generating Functions</i> , pp. 3827-3832.	
HAO, ZHIWEI	Nagoya Univ.
Fujimoto, Kenji	Kyoto Univ.
Hayakawa, Yoshikazu	Nagoya Univ.

17:30-17:50	TuC15.4
<i>Nonovershooting and Nonundershooting Linear Multivariable State-Feedback Tracking Controllers for Discrete-Time Systems</i> , pp. 3833-3838.	
Schmid, Robert	Univ. of Melbourne

17:50-18:10	TuC15.5
<i>Optimal Right Inverse of Flat Rectangular MIMO System with Individual Channel Power Constraints</i> , pp. 3839-3844.	
Li, Shenpeng	Monash Univ.
Zhang, Jingxin	Monash Univ.

18:10-18:30	TuC15.6
<i>Realization of a Special Class of Admittances with One Damper and One Inerter</i> , pp. 3845-3850.	
Chen, Michael Z. Q.	Univ. of Hong Kong
Wang, Kai	Nanjing Univ. of Science and Tech.
Zou, Yun	Nanjing Univ. of Science and Tech.
Lam, James	Univ. of Hong Kong

<b>TuC16</b>	Haleakala Ballroom 3
<b>Fundamentals of Economic Model Predictive Control (Tutorial Session)</b>	
Chair: Rawlings, James B.	Univ. of Wisconsin, Madison
Co-Chair: Angeli, David	Imperial Coll.
Organizer: Rawlings, James B.	Univ. of Wisconsin, Madison
Organizer: Angeli, David	Imperial Coll.

16:30-16:35	TuC16.1
<i>Fundamentals of Economic Model Predictive Control (I)</i> , pp. 3851-3861.	
Rawlings, James B.	Univ. of Wisconsin, Madison
Angeli, David	Imperial Coll.
Bates, Cuyler	Univ. of Wisconsin, Madison

16:35-17:10	TuC16.2
<i>Introduction to Economic MPC: Average Performance, Stability, and Terminal Penalties (I)*</i> . <del>Ⓟ</del>	
Rawlings, James B.	Univ. of Wisconsin-Madison

17:10-18:10	TuC16.3
<i>Dissipativity, Periodic Terminal Constraints, and Average Constraints in Economic MPC (I)*</i> . <del>Ⓟ</del>	
Angeli, David	Imperial Coll.

18:10-18:30	TuC16.4
<i>Conclusions and Open Research Issues in Economic MPC (I)*</i> . <del>Ⓟ</del>	
Rawlings, James B.	Univ. of Wisconsin, Madison

<b>TuC17</b>	Haleakala Ballroom 5
<b>Nonlinear Time-Delay Systems: Theory and Applications (Invited Session)</b>	
Chair: Califano, Claudia	Univ. di Roma
Co-Chair: Moog, Claude	CNRS
Organizer: Califano, Claudia	Univ. di Roma
Organizer: Moog, Claude	CNRS

16:30-16:50	TuC17.1
<i>Canonical Forms of Time-Delay Systems (I)</i> , pp. 3862-3867.	
Califano, Claudia	Univ. di Roma
Moog, Claude	CNRS

16:50-17:10	TuC17.2
<i>Adaptive Stabilization of LTI Systems with Distributed Input Delay (I)</i> , pp. 3868-3873.	
Bekiaris-Liberis, Nikolaos	Univ. of California, San Diego
Krstic, Miroslav	Univ. of California, San Diego

17:10-17:30	TuC17.3
<i>Finite Spectrum Assignment for Nonlinear Time-Delay Systems Using Synchronization-Based Predictor (I)</i> , pp. 3874-3879.	
Oguchi, Toshiki	Tokyo Metro. Univ.

17:30-17:50	TuC17.4
<i>On the Input-To-State Practical Stabilization of Nonlinear Neutral Systems (I)</i> , pp. 3880-3885.	
Pepe, Pierdomenico	Univ. of L' Aquila

17:50-18:10	TuC17.5
<i>Network-Based Control Via a Novel Analysis of Hybrid Systems with Time-Varying Delays (I)</i> , pp. 3886-3891.	
Liu, Kun	Tel Aviv Univ.
Fridman, Emilia	Tel-Aviv Univ.
Hetel, Laurentiu	EC-LILLE

18:10-18:30	TuC17.6
<i>Stabilization for Feedforward Systems with Delay in the Input</i> , pp. 3892-3897.	
Mazenc, Frederic	EPI INRIA DISCO
Malisoff, Michael	Louisiana State Univ.

**Technical Program for Wednesday December 12, 2012**

<b>WeSP1</b>	Haleakala Ballroom 2-3
<b>Cyborg Cells: Feedback Control of Cell Populations</b> (Semiplenary Session)	
Chair: Valcher, Maria Elena	Univ. di Padova
Co-Chair: Teel, Andrew R.	Univ. of California, Santa Barbara
08:30-09:30	WeSP1.1
<i>Cyborg Cells: Feedback Control of Cell Populations*</i> . <del>BoE</del>	
Khammash, Mustafa H.	ETH Zurich
<b>WeSP2</b>	Haleakala Ballroom 4-5
<b>Taming the Upcoming Data Deluge: A Systems and Control Perspective</b> (Semiplenary Session)	
Chair: Farrell, Jay A.	Univ. of California, Riverside
Co-Chair: Parisini, Thomas	Imperial Coll. & Univ. of Trieste
08:30-09:30	WeSP2.1
<i>Taming the Upcoming Data Deluge: A Systems and Control Perspective*</i> . <del>BoE</del>	
Sznaier, Mario	Northeastern Univ.
<b>WeA01</b>	Hibiscus 1
<b>Network Analysis and Control</b> (Regular Session)	
Chair: Roy, Sandip	Washington State Univ.
Co-Chair: Wang, Yue	Clemson Univ.
10:00-10:20	WeA01.1
<i>On the Propagation of Instability in Interconnected Networks</i> , pp. 3898-3903.	
Koh, Amy	Univ. of Cambridge
Vinnicombe, Glenn	Univ. of Cambridge
10:20-10:40	WeA01.2
<i>A Novel Self-Triggered Sampling Scheme in Networked Control Systems</i> , pp. 3904-3909.	
Peng, Chen	Nanjing Normal Univ.
Han, Qing-Long	Central Queensland Univ.
10:40-11:00	WeA01.3
<i>Thermodynamics-Based Network Systems Control by Thermal Analogy</i> , pp. 3910-3915.	
Berg, Jordan M.	Texas Tech. Univ.
Maithripala, D. H. S.	Univ. of Peradeniya
Hui, Qing	Texas Tech. Univ.
Haddad, Wassim M.	Georgia Inst. of Tech.
11:00-11:20	WeA01.4
<i>Characterization of Security Levels for the Dynamics of Autonomous Vehicle Networks</i> , pp. 3916-3921.	
Xue, Mengran	Univ. of Michigan
Roy, Sandip	Washington State Univ.
11:20-11:40	WeA01.5
<i>Stability of a General Class of Distributed Algorithms for Power Control in Time-Dependent Wireless Networks</i> , pp. 3922-3927.	
Devane, Eoin	Univ. of Cambridge
Lestas, Ioannis	Univ. of Cambridge

11:40-12:00	WeA01.6
<i>Synchronization of Coupled Nonlinear Oscillators Via Regional Pole Placement Technique</i> , pp. 3928-3935.	
Takaba, Kiyotsugu	Ritsumeikan Univ.
Hibi, Atsuhiko	Kyoto Univ.
12:00-12:20	WeA01.7
<i>Optimal Balanced Coordinated Network Resource Allocation Using Swarm Optimization</i> , pp. 3936-3941.	
Hui, Qing	Texas Tech. Univ.
Zhang, Haopeng	Texas Tech. Univ.
<b>WeA02</b>	Hibiscus 2
<b>Iterative Learning Control I</b> (Regular Session)	
Chair: Del Re, Luigi	Johannes Kepler Univ. Linz
Co-Chair: Hoelzle, David	Univ. of California, Los Angeles
10:00-10:20	WeA02.1
<i>Iterative Learning Control for Systems with Nonparametric Uncertainties under Alignment Condition</i> , pp. 3942-3947.	
Jin, Xu	National Univ. of Singapore
Huang, Deqing	National Univ. of Singapore
Xu, Jian-Xin	National Univ. of Singapore
10:20-10:40	WeA02.2
<i>Computational Fluid Dynamics Based Iterative Learning Control of Peak Loads in Wind Turbines (I)</i> , pp. 3948-3953.	
Tutty, Owen	Univ. of Southampton
Blackwell, Mark William	Univ. of Southampton
Rogers, Eric	Univ. of Southampton
Sandberg, Richard David	Univ. of Southampton
10:40-11:00	WeA02.3
<i>Intermediate Point Norm Optimal Iterative Learning Control</i> , pp. 3954-3959.	
Owens, David H.	Univ. of Sheffield
Freeman, Christopher T.	Univ. of Southampton
Dinh, Thanh	Univ. of Southampton
11:00-11:20	WeA02.4
<i>Decentralized Learning for Multi-Player Multi-Armed Bandits</i> , pp. 3960-3965.	
Kalathil, Dileep	Univ. of Southern California
Jain, Rahul	Univ. of Southern California
Nayyar, Naumaan	Univ. of Southern California
11:20-11:40	WeA02.5
<i>A Norm Optimal Iterative Learning Control Based Train Trajectory Tracking Approach</i> , pp. 3966-3971.	
Sun, Heqing	Beijing Jiaotong Univ.
Hou, Zhongsheng	Beijing Jiaotong Univ.
Li, Dayou	Univ. Bedfordshire
11:40-12:00	WeA02.6
<i>On the Time Optimal Control for Nonlinear Saturated Systems</i> , pp. 3972-3977.	
Trogmann, Hannes	Johannes Kepler Univ. Linz
Del Re, Luigi	Johannes Kepler Univ. Linz

12:00-12:20	WeA02.7
<i>Flexible Iterative Learning Control Using a Library Based Interpolation Scheme</i> , pp. 3978-3984.	
Hoelzle, David	Univ. of California, Los Angeles
Barton, Kira	Univ. of Michigan, Ann Arbor

<b>WeA03</b>	Hibiscus 3
<b>Cooperative Control I (Regular Session)</b>	
Chair: Ajorlou, Amir	Concordia Univ.
Co-Chair: Yu, Jingjin	Univ. of Illinois, Urbana-Champaign

10:00-10:20	WeA03.1
<i>Revisiting Request-Based Gossiping: The Effects of Queue Updates on Convergence Time</i> , pp. 3985-3990.	
Liu, Ji	Yale Univ.
Morse, A. Stephen	Yale Univ.

10:20-10:40	WeA03.2
<i>Dynamic Threshold Models of Collective Action in Social Networks</i> , pp. 3991-3996.	
Liu, Ji	Yale Univ.
Hassanpour, Navid	Yale Univ.
Tatikonda, Sekhar	Yale Univ.
Morse, A. Stephen	Yale Univ.

10:40-11:00	WeA03.3
<i>The Proportion of Leaders Needed in the Consensus Decision-Making</i> , pp. 3997-4002.	
Liu, Zhi-Xin	Acad. of Mathematics and Systems Science, Chinese Academy of Sciences

11:00-11:20	WeA03.4
<i>A Bounded Connectivity Preserving Aggregation Strategy with Collision Avoidance Property for Single-Integrator Agents</i> , pp. 4003-4008.	
Ajorlou, Amir	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.

11:20-11:40	WeA03.5
<i>Flocking with Obstacle Avoidance and Connectivity Maintenance in Multi-Agent Systems</i> , pp. 4009-4014.	
Wang, Qiang	Beijing Inst. of Tech.
Fang, Hao	Beijing Inst. of Tech.
Chen, Jie	Beijing Inst. of Tech.
Mao, Yutian	Beijing Inst. of Tech.
Dou, Lihua	Beijing Inst. of Tech.

11:40-12:00	WeA03.6
<i>An Analytic Solution to the Optimal Design of Information Structure and Cooperative Control in Networked Systems</i> , pp. 4015-4022.	
Qu, Zhihua	Univ. of Central Florida
Simaan, Marwan A.	Univ. of Central Florida

12:00-12:20	WeA03.7
<i>Distance Optimal Formation Control on Graphs with a Tight Convergence Time Guarantee</i> , pp. 4023-4028.	
Yu, Jingjin	Univ. of Illinois, Urbana-Champaign
LaValle, Steven	Univ. of Illinois, Urbana-Champaign

<b>WeA04</b>	Plumeria 1
<b>Stochastic Systems I (Regular Session)</b>	
Chair: Hanebeck, Uwe D.	Karlsruhe Inst. of Tech.
Co-Chair: Hespanha, Joao P.	Univ. of California, Santa Barbara

10:00-10:20	WeA04.1
<i>On Stability and Dissipativity of Stochastic Nonlinear Systems</i> , pp. 4029-4034.	
Wu, Zhaojing	Yantai Univ.
Shi, Peng	Univ. of Glamorgan
Karimi, Hamid Reza	Univ. of Agder

10:20-10:40	WeA04.2
<i>Optimal Kalman Gains for Combined Stochastic and Set-Membership State Estimation</i> , pp. 4035-4040.	
Noack, Benjamin	Karlsruhe Inst. of Tech.
Pfaff, Florian	Karlsruhe Inst. of Tech.
Hanebeck, Uwe D.	Karlsruhe Inst. of Tech.

10:40-11:00	WeA04.3
<i>Stability Analysis for Uncertain Linear Systems with Random Parameters</i> , pp. 4041-4046.	
Li, Xiaoyang	National Univ. of Singapore
Lin, Hai	Univ. of Notre Dame
Lian, Jie	Dalian Univ. of Tech.
Chen, Ben M.	National Univ. of Singapore

11:00-11:20	WeA04.4
<i>Robust Controllability of Interval Fractional Order Linear Time Invariant Stochastic Systems</i> , pp. 4047-4050.	
Zeng, Caibin	South China Univ. of Tech.
Chen, YangQuan	Univ. of California, Merced
Yang, Qigui	South China Univ. of Tech.

11:20-11:40	WeA04.5
<i>Stochastic Difference Inclusions: Results on Recurrence and Asymptotic Stability in Probability</i> , pp. 4051-4056.	
Teel, Andrew R.	Univ. of California, Santa Barbara
Hespanha, Joao P.	Univ. of California, Santa Barbara
Subbaraman, Anantharaman	Univ. of California, Santa Barbara

11:40-12:00	WeA04.6
<i>Coordinated Vehicle Platoon Control: Weighted and Constrained Consensus and Communication Network Topologies (I)</i> , pp. 4057-4062.	
Wang, Le Yi	Wayne State Univ.
Syed, Ali	Wayne State Univ.
Yin, George	Wayne State Univ.
Pandya, Abhilash	Wayne State Univ.
Zhang, Hongwei	Wayne State Univ.

12:00-12:20	WeA04.7
<i>Multivariable Feedback Particle Filter</i> , pp. 4063-4070.	
Yang, Tao	Univ. of Illinois at Urbana-Champaign
Laugesen, Richard S.	Univ. of Illinois, Urbana-Champaign
Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign
Meyn, Sean	Univ. of Florida

<b>WeA05</b>	Plumeria 2
<b>Estimation Problems I (Regular Session)</b>	
Chair: Willett, Peter K.	Univ. of Connecticut
Co-Chair: Speyer, Jason L.	Univ. of California at Los Angeles
10:00-10:20	WeA05.1
<i>An Observer for the Synchronization of Chaotic Liouvillian Systems: A Real-Time Application to Chua's Oscillator</i> , pp. 4071-4076.	
Martinez-Guerra, Rafael	CINVESTAV-IPN
Mata, Juan Luis	IPN
10:20-10:40	WeA05.2
<i>UKF-Based Estimation of Indicated Torque for IC Engines Utilizing Nonlinear Two-Inertia Model</i> , pp. 4077-4082.	
Itoh, Yuzuru	Tokyo Denki Univ.
Higashi, Kouji	Tokyo Denki Univ.
Iwase, Masami	Tokyo Denki Univ.
10:40-11:00	WeA05.3
<i>Fusion Estimation for Two Sensors with Nonuniform Estimation Rates</i> , pp. 4083-4088.	
zhang, wenan	Zhejiang Univ. of Tech.
Liu, Steven	Univ. of Kaiserslautern
Chen, Michael Z. Q.	Univ. of Hong Kong
Yu, Li	Zhejiang Univ. of Tech.
11:00-11:20	WeA05.4
<i>Bias Elimination in Tracking with Converted Position and Doppler Measurements</i> , pp. 4089-4094.	
Bordonaro, Steven	Naval Undersea Warfare Center
Willett, Peter K.	Univ. of Connecticut
Bar-Shalom, Yaakov	Univ. of Connecticut
11:20-11:40	WeA05.5
<i>The High-Degree Cubature Kalman Filter</i> , pp. 4095-4100.	
Jia, Bin	Mississippi State Univ.
Xin, Ming	Mississippi State Univ.
Cheng, Yang	Mississippi State Univ.
11:40-12:00	WeA05.6
<i>Nonsmooth Regression and State Estimation Using Piecewise Quadratic Log-Concave Densities (I)</i> , pp. 4101-4106.	
Aravkin, Aleksandr Y.	Univ. of British Columbia
Burke, James V.	Univ. of Washington
Pillonetto, Gianluigi	Univ. of Padova
12:00-12:20	WeA05.7
<i>The Two-State Estimator for Linear Systems with Additive Measurement and Process Cauchy Noise</i> , pp. 4107-4114.	
Speyer, Jason L.	Univ. of California, Los Angeles
Idan, Moshe	Israel Institute of Tech.
Fernandez, Javier	Univ. of California, Los Angeles

<b>WeA06</b>	Plumeria 3
<b>Adaptive Control I (Regular Session)</b>	
Chair: Ulrich, Steve	Carleton Univ.
Co-Chair: Lin, Yan	Beijing Univ. of Aeronautics and Astronautics
10:00-10:20	WeA06.1
<i>Adaptive Output Tracking of MIMO Nonlinear Systems with Unknown Non-Symmetric Dead-Zone</i> , pp. 4115-4120.	
Wang, Chenliang	Beijing Univ. of Aeronautics and Astronautics
Lin, Yan	Beijing Univ. of Aeronautics and Astronautics
10:20-10:40	WeA06.2
<i>Adaptive Switching Controllers for Tracking with Hybrid Communication Protocols</i> , pp. 4121-4126.	
Voit, Harald	TU Munich
Annaswamy, Anuradha	Massachusetts Inst. of Tech.
Schneider, Reinhard	TU Munich
Goswami, Dip	TU Munich
Chakraborty, Samarjit	TU Munich
10:40-11:00	WeA06.3
<i>Optimal Adaptive Control of Nonlinear Continuous-Time Systems in Strict Feedback Form with Unknown Internal Dynamics</i> , pp. 4127-4132.	
Zargazadeh, Hassan	Missouri Univ. of Science & Tech.
Dierks, Travis	DRS Sustainment Systems, Inc.
Jagannathan, Sarangapani	Missouri Univ. of Science & Tech.
11:00-11:20	WeA06.4
<i>Adaptive Second Order Sliding Mode Control of PEM Fuel Cell Air Feed System</i> , pp. 4133-4138.	
Matraji, Imad	UTBM
Liu, Jianxing	UTBM
Laghrouche, Salah	UTBM
Wack, Maxime	UTBM
11:20-11:40	WeA06.5
<i>On a New Class of Direct Adaptive Output Feedback Controllers for Nonlinear Square Systems</i> , pp. 4139-4144.	
Ulrich, Steve	Carleton Univ.
Sasiadek, Jurek Z	Carleton Univ.
Barkana, Itzhak	BARKANA Consulting
11:40-12:00	WeA06.6
<i>Nonlinear Adaptive and Tracking Control of a Pneumatic Actuator Via Immersion and Invariance</i> , pp. 4145-4151.	
Rapp, Philipp	Univ. of Stuttgart
Klünder, Mario	Univ. of Stuttgart
Sawodny, Oliver	Univ. of Stuttgart
Tarin, Cristina	Univ. of Stuttgart
12:00-12:20	WeA06.7
<i>Certainty Equivalence M-MRAC for Systems with Unmatched Uncertainties</i> , pp. 4152-4157.	
Stepanyan, Vahram	NASA Ames Res. Center
Krishnakumar, Kalmanje	NASA Ames Res. Center



<b>WeA07</b>	Maile 1
<b>Large Scale Systems (Regular Session)</b>	
Chair: Ugrinovskii, Valery	Univ. of New South Wales
Co-Chair: Lazar, Mircea	Eindhoven Univ. of Tech.
10:00-10:20	WeA07.1
<i>A Cyclic Small-Gain Condition and an Equivalent Matrix-Like Criterion for Iiss Networks</i> , pp. 4158-4164.	
Ito, Hiroshi	Kyushu Inst. of Tech.
Jiang, Zhong-Ping	Pol. Inst. NYU
Dashkovskiy, Sergey	Univ. of Applied Sciences Erfurt
Rüffer, Björn S.	Univ. of Paderborn
10:20-10:40	WeA07.2
<i>Small Gain Theorems for Large Scale Systems and Construction of ISS Lyapunov Functions (I)</i> , pp. 4165-4170.	
Dashkovskiy, Sergey	Univ. of Applied Sciences Erfurt
Rüffer, Björn S.	Univ. of Paderborn
Wirth, Fabian R.	Univ. Würzburg
10:40-11:00	WeA07.3
<i>Conditions for Detectability in Distributed Consensus-Based Observer Networks</i> , pp. 4171-4174.	
Ugrinovskii, Valery	Univ. of New South Wales
11:00-11:20	WeA07.4
<i>Clustering-Based H2-State Aggregation of Positive Networks and Its Application to Reduction of Chemical Master Equations</i> , pp. 4175-4180.	
Ishizaki, Takayuki	Tokyo Inst. of Tech.
Kashima, Kenji	Osaka Univ.
Girard, Antoine	Univ. Joseph Fourier
Imura, Jun-ichi	Tokyo Inst. of Tech.
Chen, Luonan	Shanghai Univ.
Aihara, Kazuyuki	Univ. of Tokyo
11:20-11:40	WeA07.5
<i>Exact Constraint Aggregation with Applications to Smart Grids and Resource Distribution</i> , pp. 4181-4186.	
Trangbaek, Klaus	Aalborg Univ.
Bendtsen, Jan Dimon	Aalborg Univ.
11:40-12:00	WeA07.6
<i>Non-conservative Dissipativity and Small-gain Conditions for Stability Analysis of Interconnected Systems</i> , pp. 4187-4192.	
Gielen, Rob	Eindhoven Univ. of Tech.
Lazar, Mircea	Eindhoven Univ. of Tech.
12:00-12:20	WeA07.7
<i>Plug-And-Play Decentralized Model Predictive Control</i> , pp. 4193-4198.	
Riverso, Stefano	Univ. degli Studi di Pavia
Farina, Marcello	Pol. di Milano
Ferrari-Trecate, Giancarlo	Univ. degli Studi di Pavia

<b>WeA08</b>	Maile 2
<b>Hybrid Systems I (Regular Session)</b>	
Chair: Broucke, Mireille E.	Univ. of Toronto
Co-Chair: Prieur, Christophe	CNRS
10:00-10:20	WeA08.1
<i>Generalized Flow Conditions for Reach Control on Polytopes</i> , pp. 4199-4204.	
Helwa, Mohamed Khairy	Univ. of Toronto
Broucke, Mireille E.	Univ. of Toronto
10:20-10:40	WeA08.2
<i>Reach Control Problem: Well-Posedness and Structural Stability</i> , pp. 4205-4210.	
Broucke, Mireille E.	Univ. of Toronto
Semsar Kazerooni, Elham	Univ. of Toronto
10:40-11:00	WeA08.3
<i>Newton-Geodesic HMP Algorithms for the Optimization of Hybrid Systems and the Geometric Properties of Hybrid Value Functions</i> , pp. 4211-4216.	
Taringoo, Farzin	McGill Univ.
Caines, Peter E.	McGill Univ.
11:00-11:20	WeA08.4
<i>A Convex Hybrid H<sub>∞</sub> Synthesis with Guaranteed Convergence Rate</i> , pp. 4217-4222.	
Fichera, Francesco	LAAS-CNRS
Prieur, Christophe	CNRS
Tarbouriech, Sophie	LAAS-CNRS
Zaccarian, Luca	LAAS-CNRS
11:20-11:40	WeA08.5
<i>Tracking Control of Mechanical Systems with a Unilateral Position Constraint Inducing Dissipative Impacts</i> , pp. 4223-4228.	
Biamond, J. J. Benjamin	Eindhoven Univ. of Tech.
Van De Wouw, Nathan	Eindhoven Univ. of Tech.
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
Sanfelice, Ricardo G.	Univ. of Arizona
Nijmeijer, Hendrik	Eindhoven Univ. of Tech.
11:40-12:00	WeA08.6
<i>Robust Stability and Performance Analysis of Discrete-Time Piecewise Affine Systems with Disturbances</i> , pp. 4229-4234.	
Mirzazad Barijough, Sanam	Pennsylvania State Univ.
Lee, Ji-Woong	Pennsylvania State Univ.
12:00-12:20	WeA08.7
<i>Stability Analysis of Discrete-Time Piecewise-Affine Systems Over Non-Invariant Domains</i> , pp. 4235-4240.	
Rubagotti, Matteo	Nazarbayev Univ.
Zaccarian, Luca	LAAS-CNRS
Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca

<b>WeA09</b>	Maile 3
<b>H-Infinity Control (Regular Session)</b>	
Chair: Dambrine, Michel	Univ. de Valenciennes et du Hainaut-Cambrésis
Co-Chair: Shi, Yang	Univ. of Victoria
10:00-10:20	WeA09.1
<i>H-Infinity Control of Microgrids Involving Gas Turbine Engines and Batteries (I)</i> , pp. 4241-4246.	
Nagahara, Masaaki	Kyoto Univ.
Yamamoto, Yutaka	Kyoto Univ.
Miyazaki, Seiya	Panasonic Corp.
Kudoh, Takahiro	Panasonic Corp.
Hayashi, Naoki	Kyoto Univ.
10:20-10:40	WeA09.2
<i>Numerical Sensitivity of Linear Matrix Inequalities for Shorter Sampling Periods</i> , pp. 4247-4252.	
Lennartson, Bengt	Chalmers Univ. of Tech.
Middleton, Richard H.	The Univ. of Newcastle
10:40-11:00	WeA09.3
<i>Design of an Optimal and Robust Controller for a Free-Electron Laser Exploiting Symmetries of the RF-System</i> , pp. 4253-4258.	
Pfeiffer, Sven	DESY
Lichtenberg, Gerwald	Hamburg Univ. of Tech.
Schmidt, Christian	DESY
Schlarb, Holger	DESY
Werner, Herbert	Hamburg Univ. of Tech.
11:00-11:20	WeA09.4
<i>Observer Based <math>H_\infty</math> Controllers for a Class of Nonlinear Lipschitz Discrete-Time Systems</i> , pp. 4259-4264.	
Grandvallet, Bertrand	CRAN
Zemouche, Ali	Univ. de Lorraine
Souley Ali, Harouna	Univ. Henri Poincaré
Boutayeb, Mohamed	Univ. Henri Poincaré
11:20-11:40	WeA09.5
<i>Robust <math>H_\infty</math> Control Design for Switching Uncertain System: Application for Turbocharged Gasoline Air System Control</i> , pp. 4265-4270.	
Nguyen, Tran Anh Tu	Univ. de Valenciennes et du Hainaut-Cambrésis
Lauber, Jimmy	Univ. de Valenciennes et du Hainaut-Cambrésis
Dambrine, Michel	Univ. de Valenciennes et du Hainaut-Cambrésis
11:40-12:00	WeA09.6
<i>H-Infinity Output Feedback Control for Preview and Delayed Systems</i> , pp. 4271-4278.	
Kojima, Akira	Tokyo Metropolitan Univ.
12:00-12:20	WeA09.7
<i>Delay-Dependent State-Feedback <math>H_\infty</math> Control for Nonlinear Stochastic Systems with Time-Varying Delays</i> , pp. 4279-4284.	
Li, Huiping	Univ. of Victoria
Shi, Yang	Univ. of Victoria

<b>WeA10</b>	Pikake 1
<b>Model Reduction (Regular Session)</b>	
Chair: Fujimoto, Kenji	Nagoya Univ.
Co-Chair: Rantzer, Anders	Lund Univ.
10:00-10:20	WeA10.1
<i>Scalable Positivity Preserving Model Reduction Using Linear Energy Functions</i> , pp. 4285-4290.	
Sootla, Aivar	Imperial Coll. London
Rantzer, Anders	Lund Univ.
10:20-10:40	WeA10.2
<i>Parameterized Model Order Reduction Using Extended Balanced Truncation</i> , pp. 4291-4296.	
Sandberg, Henrik	KTH Royal Inst. of Tech.
10:40-11:00	WeA10.3
<i>A New Perspective on <math>H_2</math> Controller Reduction</i> , pp. 4297-4301.	
Kong, Lili	Louisiana State Univ.
Zhou, Kemin	Louisiana State Univ.
11:00-11:20	WeA10.4
<i>Dimension Reduction for Large-Scale Networked Systems</i> , pp. 4302-4307.	
Morarescu, Irinel Constantin	INPL
Postoyan, Romain	CNRS-CRAN
11:20-11:40	WeA10.5
<i>A Symmetry Approach for Balanced Truncation of Positive Linear Systems</i> , pp. 4308-4313.	
Grussler, Christian	Lund Univ.
Damm, Tobias	Univ. of Bayreuth
11:40-12:00	WeA10.6
<i>On Subspace Balanced Realization and Model Order Reduction for Nonlinear Interconnected Systems</i> , pp. 4314-4319.	
Fujimoto, Kenji	Kyoto Univ.
12:00-12:20	WeA10.7
<i>Geometric Multiscale Reduction for Autonomous and Controlled Nonlinear Systems</i> , pp. 4320-4327.	
Bouvier, Jake	Duke Univ.
Maggioni, Mauro	Duke Univ.
<b>WeA11</b>	Pikake 2
<b>Control of Tokamak Plasmas (Invited Session)</b>	
Chair: Pironti, Alfredo	Univ. degli Studi di Napoli Federico II
Co-Chair: Schuster, Eugenio	Lehigh Univ.
Organizer: Pironti, Alfredo	Univ. degli Studi di Napoli Federico II
Organizer: Schuster, Eugenio	Lehigh Univ.
10:00-10:20	WeA11.1
<i>Magnet System Optimization in Tokamak Engineering (I)</i> , pp. 4328-4334.	
Portone, Alfredo	Fusion For Energy

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10:20-10:40 WeA11.2

*Simultaneous Control of Modes with Multiple Toroidal Periodicity in Tokamak Plasmas (I)*, pp. 4335-4340.

Ariola, Marco	Univ. degli Studi di Napoli Parthenope
De Tommasi, Gianmaria	Univ. degli Studi di Napoli Federico II
Pironti, Alfredo	Univ. degli Studi di Napoli Federico II
Villone, Fabio	Univ. di Cassino

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10:40-11:00 WeA11.3

*Current Profile Tracking for the DIII-D Tokamak Via LQI Optimal Control (I)*, pp. 4341-4346.

Boyer, Mark D.	Lehigh Univ.
Barton, Justin	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
Walker, Michael L.	General Atomics
Luce, Timothy	General Atomics
Ferron, J. R.	General Atomics
Penaflo, Benjamin P.	General Atomics
Johnson, Robert D.	General Atomics
Humphreys, D.A.	General Atomics

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11:00-11:20 WeA11.4

*A Two-Time-Scale Model-Based Combined Magnetic and Kinetic Control System for Advanced Tokamak Scenarios on DIII-D (I)*, pp. 4347-4352.

Shi, Wenyu	Lehigh Univ.
Wehner, William	Lehigh Univ.
Barton, Justin	Lehigh Univ.
Boyer, Mark D.	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
Moreau, Didier	CEA
Luce, Timothy	General Atomics
Ferron, J. R.	General Atomics
Walker, Michael L.	General Atomics
Humphreys, D.A.	General Atomics
Penaflo, Benjamin P.	General Atomics
Johnson, Robert D.	General Atomics

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11:20-11:40 WeA11.5

*A Real-Time System for Data Acquisition, Elaboration and Actuator's Control for Magnetohydrodynamics Instabilities in the FTU Tokamak (I)*, pp. 4353-4358.

Sozzi, Carlo	CNR
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11:40-12:00 WeA11.6

*Bootstrap Current Optimization in Tokamaks Using Sum-Of-Squares Polynomials (I)*, pp. 4359-4365.

Gahlawat, Aditya	Illinois Inst. of Tech.
Witran, Emmanuel	Univ. Joseph Fourier
Peet, Matthew M.	Arizona State Univ.
Alamir, Mazen	CNRS

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**WeA12** Pikake 3

**Automotive Control I** (Regular Session)

Chair: Varrier, Sébastien	Gipsa-Lab.
Co-Chair: Smith, Malcolm C.	Univ. of Cambridge

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10:00-10:20 WeA12.1

*Robust Fault Detection for Vehicle Lateral Dynamics*, pp. 4366-4371.

Varrier, Sébastien	Grenoble-INP
Koenig, Damien	Grenoble-INP
Martinez Molina, John Jairo	Grenoble-INP

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10:20-10:40 WeA12.2

*Feedback Control for Steering Support System Based on Flatness and Quantum Particle Swarm Optimization*, pp. 4372-4377.

Kawanishi, Michihiro	Toyota Tech. Inst.
Narikiyo, Tatsuo	Toyota Tech. Inst.
Pei, Shi-Jia	Toyota Tech. Inst.
Kubota, Hayato	Toyota Tech. Inst.

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10:40-11:00 WeA12.3

*Transient Response of a Vibratory Roller During Compaction*, pp. 4378-4383.

Imran, Syed	Univ. of Oklahoma
Beainy, Fares	Univ. of Oklahoma
Commuri, Sesh	Univ. of Oklahoma
Musharraf, Zaman	Univ. of Oklahoma

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11:00-11:20 WeA12.4

*Performances Improvement through an LPV/Hinf Control Coordination Strategy Involving Braking, Semi-Active Suspension and Steering Systems*, pp. 4384-4389.

Fergani, Soheib	Grenoble Univ.
Sename, Olivier	Grenoble Inst. of Tech.
Dugard, Luc	CNRS-Grenoble INP

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11:20-11:40 WeA12.5

*Pitch Angle Reduction for Cars under Acceleration and Braking by Active Variable Geometry Suspension*, pp. 4390-4395.

Arana, Carlos	Imperial Coll. London
Evangelou, Simos Andreas	Imperial Coll. London
Dini, Daniele	Imperial Coll. London

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11:40-12:00 WeA12.6

*Power Absorption Invariance for Brownian Spring Forcing*, pp. 4396-4399.

Clark, John Martin C.	Imperial Coll. London
Smith, Malcolm C.	Univ. of Cambridge

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12:00-12:20 WeA12.7

*Preview Control of a Constrained Hydraulic Active Suspension System*, pp. 4400-4405.

De Bruyne, Stijn	LMS International
Van der Auweraer, Herman	LMS International
Anthonis, Jan	KU Leuven
De Smet, Wim	KU Leuven
Swevers, Jan	KU Leuven

<b>WeA13</b>		Ilima 1
<b>Control of Mechanical Systems</b> (Regular Session)		
Chair: Kelly, Scott	Univ. of North Carolina at Charlotte	
Co-Chair: Landau, Ioan Dore	GIPSA-Lab. Control Dept.	
10:00-10:20	WeA13.1	
<i>Optimal Trajectory Control of Flexible Two-Link Manipulator Based on PDE Model</i> , pp. 4406-4411.		
Zhang, Linjun	Beihang Univ.	
Liu, Jinkun	Beihang Univ.	
10:20-10:40	WeA13.2	
<i>Improving Adaptive Feedforward Vibration Compensation by Using Integral + Proportional Adaptation</i> , pp. 4412-4417.		
Landau, Ioan Dore	GIPSA-Lab. Univ. de Grenoble	
Airimitoaie, Tudor-Bogdan	GIPSA-Lab. Univ. de Grenoble	
10:40-11:00	WeA13.3	
<i>Adaptive Tracking Control of a Class of Mechanical Systems</i> , pp. 4418-4423.		
Jin, Ying	Concordia Univ.	
Fu, Jun	MIT	
11:00-11:20	WeA13.4	
<i>Robustifying Energy Shaping Control of Mechanical Systems</i> , pp. 4424-4429.		
Romero Velazquez, Jose	Lab. des Signaux et Systèmes, CNRS-SUPELEC	
Guadalupe	CNRS-SUPELEC	
Donaire, Alejandro	Univ. of Newcastle	
Ortega, Romeo	Lab. des Signaux et Systèmes, CNRS-SUPELEC	
11:20-11:40	WeA13.5	
<i>Self Recovery Phenomenon of Mechanical Systems with an Unactuated Cyclic Variable</i> , pp. 4430-4435.		
Chang, Dong Eui	Univ. of Waterloo	
Jeon, Soo	Univ. of Waterloo	
11:40-12:00	WeA13.6	
<i>Hamiltonian Mechanics and Nonlinear Dynamics of a Body Subject to Time-Varying Gyroscopic and Potential Forces</i> , pp. 4436-4441.		
Kelly, Scott	Univ. of North Carolina at Charlotte	
Vankerschaver, Joris	Ghent Univ.	
12:00-12:20	WeA13.7	
<i>PDE Boundary Control for Euler-Bernoulli Beam Using a Two Stage Perturbation Observer</i> , pp. 4442-4448.		
Paranjape, Aditya	Univ. of Illinois, Urbana-Champaign	
Guan, Jinyu	Univ. of Illinois, Urbana-Champaign	
Chung, Soon-Jo	Univ. of Illinois, Urbana-Champaign	
Krstic, Miroslav	Univ. of California, San Diego	

<b>WeA14</b>		Ilima 2
<b>Optimization Algorithms I</b> (Regular Session)		
Chair: Sznaier, Mario	Northeastern Univ.	
Co-Chair: Necoara, Ion	Univ. Pol. Bucharest	
10:00-10:20	WeA14.1	
<i>Newton-Based Stochastic Extremum Seeking</i> , pp. 4449-4454.		
Liu, Shu-Jun	Southeast Univ.	
Krstic, Miroslav	Univ. of California, San Diego	
10:20-10:40	WeA14.2	
<i>An Outer-Approximation Based Algorithm for Solving Integer Non-Linear Programming Problems for Optimal Sensor Placement</i> , pp. 4455-4461.		
Seenumani, Gayathri	Univ. of Michigan	
Dai, Dan	General Electric, Global Res.	
Lopez-Negrete, Rodrigo	General Electric, Global Res.	
Kumar, Aditya	General Electric, Global Res.	
Dokucu, Mustafa Tekin	General Electric, Global Res.	
Kumar, Rajeeva	General Electric, Global Res.	
10:40-11:00	WeA14.3	
<i>On the Convergence of Joint Schemes for Online Computation and Supervised Learning</i> , pp. 4462-4467.		
Shanbhag, Uday V.	Univ. of Illinois, Urbana-Champaign	
Jiang, Hao	UIUC	
11:00-11:20	WeA14.4	
<i>Accelerated Dual Coordinate Algorithms for Separable Convex Cost Network Flow Problems</i> , pp. 4468-4473.		
Castanon, David A.	Boston Univ.	
Bangla, Ajay Kumar	Boston Univ.	
11:20-11:40	WeA14.5	
<i>A Random Coordinate Descent Method for Large-Scale Resource Allocation Problems</i> , pp. 4474-4479.		
Necoara, Ion	Univ. Pol. Bucharest	
11:40-12:00	WeA14.6	
<i>Suboptimal Distributed MPC Based on a Block-Coordinate Descent Method with Feasibility and Stability Guarantees</i> , pp. 4480-4485.		
Necoara, Ion	Univ. Pol. Bucharest	
12:00-12:20	WeA14.7	
<i>An ADMM Algorithm for Solving <math>L_1</math> Regularized MPC</i> , pp. 4486-4491.		
Annergren, Mariette	KTH Royal Inst. of Tech.	
Hansson, Anders	Linköping Univ.	
Wahlberg, Bo	KTH Royal Inst. of Tech.	
<b>WeA15</b>		Ilima 3
<b>Linear Parameter-Varying Systems I</b> (Regular Session)		
Chair: Calafiore, Giuseppe	Pol. di Torino	
Co-Chair: Szabo, Zoltan	Hungarian Acad. of Sciences	

10:00-10:20	WeA15.1
<i>Low-Complexity LPV Input-Output Identification and Control of a Turbocharged Combustion Engine</i> , pp. 4492-4497.	
Kominek, Andreas Bernd	Germanischer Lloyd Industrial Services GmbH
Remolina Cano, Santiago	Hamburg Univ. of Tech.
Boonto, Sudchai	King Mongkut's Unniversity of Tech. Thonburi
Werner, Herbert	Hamburg Univ. of Tech.
Garwon, Maiko	IAV GmbH, Ingenieurgesellschaft Auto und Verkehr
Schultalbers, Matthias	IAV GmbH, Ingenieurgesellschaft Auto und Verkehr

10:20-10:40	WeA15.2
<i>Modal Observer Design for a Flexible Motion System with State Dependent Sensor Positions</i> , pp. 4498-4504.	
Verkerk, K.W.	Eindhoven Univ. of Tech.
Achterberg, Jaron	Eindhoven Univ. of Tech.
van Lierop, C.M.M.	Eindhoven Univ. of Tech.
Weiland, Siep	Eindhoven Univ. of Tech.

10:40-11:00	WeA15.3
<i>Nilpotent Semigroups for the Characterization of Flat Outputs of Discrete-Time Switched Linear and LPV Systems</i> , pp. 4505-4510.	
Parriaux, Jeremy	Lorraine Univ.
Millerioux, Gilles	Lorraine Univ.

11:00-11:20	WeA15.4
<i>Affine LPV Systems: Realization Theory, Input-Output Equations and Relationship with Linear Switched Systems</i> , pp. 4511-4516.	
Petreczky, Mihaly	Ec. des Mines de Douai
Mercère, Guillaume	Univ. of Poitiers

11:20-11:40	WeA15.5
<i>Fast Input-Free Observers for LPV Discrete-Time Systems</i> , pp. 4517-4522.	
Fiacchini, Mirko	CNRS
Millerioux, Gilles	Lorraine Univ.

11:40-12:00	WeA15.6
<i>Mobius Transform and Efficient LPV Synthesis</i> , pp. 4523-4528.	
Szabo, Zoltan	Hungarian Acad. of Sciences
Biró, Zsolt	Hungarian Acad. of Sciences
Bokor, Jozsef	Hungarian Acad. of Sciences

**WeA16** Haleakala Ballroom 3  
**Predictive Control of Linear Systems I** (Regular Session)

Chair: Szabo, Tomas	Univ. Ulm
Co-Chair: Kvasnica, Michal	Slovak Univ. of Tech. in Bratislava

10:00-10:20	WeA16.1
<i>Stochastic Model Predictive Control: Controlling the Average Number of Constraint Violations</i> , pp. 4529-4536.	
Korda, Milan	EPFL Lausanne
Gondhalekar, Ravi	Univ. of California Santa Barbara
Oldewurtel, Frauke	ETH Zurich
Jones, Colin Neil	EPFL Lausanne

10:20-10:40	WeA16.2
<i>Reducing the Memory Footprint of Explicit MPC Solutions by Partial Selection</i> , pp. 4537-4542.	
Kvasnica, Michal	Slovak Univ. of Tech. in Bratislava
Hledik, Juraj	Vienna Univ. of Ec. and Business
Fikar, Miroslav	Slovak Univ. of Tech. in Bratislava

10:40-11:00	WeA16.3
<i>Reference Tracking MPC Using Terminal Set Scaling</i> , pp. 4543-4548.	
Simon, Daniel	Linköping Univ.
Löfberg, Johan	Linköping Univ.
Glad, S. Torkel	Linköping Univ.

11:00-11:20	WeA16.4
<i>Model Predictive Control Applied to a River System with Two Reaches</i> , pp. 4549-4554.	
Breckpot, Maarten	Katholieke Univ. Leuven
Agudelo, Oscar Mauricio	Katholieke Univ. Leuven
De Moor, Bart L.R.	Katholieke Univ. Leuven

11:20-11:40	WeA16.5
<i>Model-Predictive Control of Powershifts of Heavy-Duty Trucks with Dual-Clutch Transmissions</i> , pp. 4555-4561.	
Szabo, Tomas	Univ. Ulm
Buchholz, Michael	Univ. Ulm
Dietmayer, Klaus Christian	Univ. Ulm
Jürgen	

11:40-12:00	WeA16.6
<i>Combinatorial Multi-Parametric Quadratic Programming with Saturation Matrix Based Pruning</i> , pp. 4562-4567.	
Feller, Christian	Univ. of Stuttgart
Johansen, Tor Arne	Norwegian Univ. of Science & Tech.
Olaru, Sorin	Supelec

12:00-12:20	WeA16.7
<i>A Service Reliability Model Predictive Control with Dynamic Safety Stocks and Actuators Health Monitoring for Drinking Water Networks</i> , pp. 4568-4573.	
Grosso, Juan	Univ. Pol. de Catalunya
Ocampo-Martinez, Carlos	Univ. Pol. de Catalunya
Puig, Vicenc	Univ. Pol. de Catalunya

**WeA17** Haleakala Ballroom 5

<b>Lyapunov Methods</b> (Regular Session)	
Chair: Dugard, Luc	CNRS-Grenoble INP
Co-Chair: Sloth, Christoffer	Aalborg Univ.

10:00-10:20	WeA17.1
<i>Settling Time Design for Nonlinear Finite-Time Control Systems</i> , pp. 4574-4579.	
Nakamura, Hisakazu	Tokyo Univ. of Science
Nakamura, Nami	
Fujii, Yasuhiro	Uzushio Electric Co., Ltd.

10:20-10:40	WeA17.2
<i>On the Existence of Compositional Barrier Certificates</i> , pp. 4580-4585.	
Sloth, Christoffer	Aalborg Univ.
Wisniewski, Rafal	Aalborg Univ.
Pappas, George J.	Univ. of Pennsylvania

10:40-11:00	WeA17.3
<i>A Weak Version of the Small-Gain Theorem</i> , pp. 4586-4590.	
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome
Praly, Laurent	MINES ParisTech
11:00-11:20	WeA17.4
<i>Continuous Congestion Control for Differentiated-Services Networks</i> , pp. 4591-4596.	
Subramanian, Sankriith	Univ. of Florida
Curtis, Jess	Air Force Res. Lab.
Pasiliao, Eduardo	Air Force Res. Lab.
Shea, John	Univ. of Florida
Dixon, Warren E.	Univ. of Florida
11:20-11:40	WeA17.5
<i>An Invariance Principle for Time-Varying Systems</i> , pp. 4597-4602.	
Hancock, Edward J.	Univ. of Oxford
Papachristodoulou, Antonis	Univ. of Oxford
11:40-12:00	WeA17.6
<i>Total Energy Shaping of a Class of Underactuated Port-Hamiltonian Systems Using a New Set of Closed-Loop Potential Shape Variables</i> , pp. 4603-4609.	
Renton, Christopher	Univ. of Newcastle
Teo, Yik Ren	Univ. of Newcastle
Perez, Tristan	Univ. of Newcastle
12:00-12:20	WeA17.7
<i>Robust Stability Analysis Using Lyapunov Density</i> , pp. 4610-4615.	
Rajaram, Rajeev	Kent State Univ.
Vaidya, Umesh	Iowa State Univ.

<b>WeB01</b>	Hibiscus 1
<b>Network Identification and Analysis</b> (Invited Session)	
Chair: Nabi-Abdolyousefi, Marzieh	Univ. of Washington
Co-Chair: Mesbahi, Mehran	Univ. of Washington
Organizer: Nabi-Abdolyousefi, Marzieh	Univ. of Washington
Organizer: Mesbahi, Mehran	Univ. of Washington
14:00-14:20	WeB01.1
<i>Robust Network Reconstruction in Polynomial Time (I)</i> , pp. 4616-4621.	
Hayden, David P.	Univ. of Cambridge
Yuan, Ye	Univ. of Cambridge
Goncalves, Jorge M.	Univ. of Cambridge
14:20-14:40	WeB01.2
<i>Responsiveness and Manipulability of Formations of Multi-Robot Networks (I)</i> , pp. 4622-4628.	
Kawashima, Hiroaki	Kyoto Univ. / Georgia Inst. of Tech.
Zhu, Guangwei	Purdue Univ.
Hu, Jianghai	Purdue Univ.
Egerstedt, Magnus	Georgia Inst. of Tech.

14:40-15:00	WeB01.3
<i>Network Reconstruction of Dynamical Polytrees with Unobserved Nodes (I)</i> , pp. 4629-4634.	
Materassi, Donatello	Massachusetts Inst. of Tech.
Salapaka, Murti V.	Univ. of Minnesota, Minneapolis
15:00-15:20	WeB01.4
<i>Dynamical Structure Function Identifiability Conditions Enabling Signal Structure Reconstruction (I)</i> , pp. 4635-4641.	
Adebayo, Julius	Brigham Young Univ.
Southwick, Taylor	Washington Univ. in St. Louis
Chetty, Vasu	Brigham Young Univ.
Yeung, Enoch	California Inst. of Tech.
Yuan, Ye	Univ. of Cambridge
Goncalves, Jorge M.	Univ. of Cambridge
Grose, Julianne	Brigham Young Univ.
Prince, John	Brigham Young Univ.
STAN, Guy-Bart Vincent	Imperial Coll. London
Warnick, Sean	Brigham Young Univ.
15:20-15:40	WeB01.5
<i>A Graph Realization Approach to Network Identification (I)</i> , pp. 4642-4647.	
Nabi-Abdolyousefi, Marzieh	Univ. of Washington
Fazel, Maryam	Univ. of Washington
Mesbahi, Mehran	Univ. of Washington
15:40-16:00	WeB01.6
<i>Node Certainty in Collective Decision Making</i> , pp. 4648-4653.	
Poulakakis, Ioannis	Univ. of Delaware
Scardovi, Luca	Univ. of Toronto
Leonard, Naomi Ehrich	Princeton Univ.

<b>WeB02</b>	Hibiscus 2
<b>Iterative Learning Control II</b> (Regular Session)	
Chair: Julius, Agung	Rensselaer Pol. Inst.
Co-Chair: Freeman, Christopher T.	Univ. of Southampton
14:00-14:20	WeB02.1
<i>Learning Potential Functions by Demonstration for Path Planning</i> , pp. 4654-4659.	
Winn, Andrew	Rensselaer Pol. Inst.
Gao, Xuemei	Rensselaer Pol. Inst.
Mishra, Sandipan	Rensselaer Pol. Inst.
Julius, Agung	Rensselaer Pol. Inst.
14:20-14:40	WeB02.2
<i>Output Feedback Adaptive Iterative Learning Control for Nonlinear Discrete-Time Systems with Unknown Control Directions</i> , pp. 4660-4665.	
Yu, Miao	Zhejiang Univ.
Wang, Jiasen	Zhejiang Univ.
Xin, Huanhai	Zhejiang Univ.
Qi, Donglian	Zhejiang Univ.

14:40-15:00	WeB02.3
<i>Consensus Control for Directed Networks with Multiple Higher-Order Discrete Dynamic Agents: An ILC-Based Approach</i> , pp. 4666-4671.	
Meng, Deyuan	Beihang Univ.
Jia, Yingmin	Beihang Univ.
Du, Junping	Beijing Univ. of Posts and Telecommunications
Yu, Fashan	Henan Pol. Univ.
15:00-15:20	WeB02.4
<i>Iterative Learning Control for Multi-Agent Systems Consensus Tracking</i> , pp. 4672-4677.	
Yang, Shiping	National Univ. of Singapore
Xu, Jian-Xin	National Univ. of Singapore
Huang, Deqing	National Univ. of Singapore
15:20-15:40	WeB02.5
<i>Convergence and Robustness of a Point-To-Point Iterative Learning Control Algorithm</i> , pp. 4678-4683.	
Dinh, Thanh	Univ. of Southampton
Freeman, Christopher T.	Univ. of Southampton
Lewin, Paul L.	Univ. of Southampton
Tan, Ying	Univ. of Melbourne
15:40-16:00	WeB02.6
<i>Periodic Adaptive Disturbance Observer for a Permanent Magnet Linear Synchronous Motor</i> , pp. 4684-4689.	
Cho, Kwanghyun	KAIST
Kim, Jinsung	KAIST
Park, Heeram	KAIST
Choi, Seibum Ben	KAIST

<b>WeB03</b>	Hibiscus 3
<b>Cooperative Control II (Regular Session)</b>	

Chair: Ren, Wei	Univ. of California, Riverside
Co-Chair: Chen, Mou	NUAA, China

14:00-14:20	WeB03.1
<i>Achieving Cluster Consensus in Continuous-Time Networks of Multi-Agents with Adapted Inputs</i> , pp. 4690-4695.	
Han, Yujuan	Fudan Univ.
Lu, Wenlian	Fudan Univ.
Chen, Tianping	Fudan Univ.

14:20-14:40	WeB03.2
<i>Distributed Shortest Distance Consensus Problem in Multi-Agent Systems</i> , pp. 4696-4701.	
Lin, Peng	Univ. of Electronic Science and Tech. of China
Ren, Wei	Univ. of California, Riverside

14:40-15:00	WeB03.3
<i>Allowing Non-Submodular Score Functions in Distributed Task Allocation</i> , pp. 4702-4708.	
Johnson, Luke	MIT
Choi, Han-Lim	KAIST
Ponda, Sameera	MIT
How, Jonathan P.	MIT

15:00-15:20	WeB03.4
<i>Passivity-Based Pose Synchronization Using Only Relative Pose Information under General Digraphs</i> , pp. 4709-4714.	
Ibuki, Tatsuya	Tokyo Inst. of Tech.
Hatanaka, Takeshi	Tokyo Inst. of Tech.
Fujita, Masayuki	Tokyo Inst. of Tech.

15:20-15:40	WeB03.5
<i>Eulerian Consensus Networks</i> , pp. 4715-4720.	
Zelazo, Daniel	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart

15:40-16:00	WeB03.6
<i>Consensus in Networks of Nonidentical Euler-Lagrange Systems with Variable Time-Delays</i> , pp. 4721-4726.	
Nuño, Emmanuel	Univ. of Guadalajara
Sarras, Ioannis	-
Panteley, Elena V.	Lab. des Signaux et Systemes, CNRS - SUPELEC
Basanez, Luis	Univ. Pol. de Catalunya

<b>WeB04</b>	Plumeria 1
<b>Stochastic Systems II (Regular Session)</b>	

Chair: Georgiou, Tryphon T.	Univ. of Minnesota
Co-Chair: Hadjiliadis, Olympia	City Univ. of New York

14:00-14:20	WeB04.1
<i>Metrics for Multivariate Power Spectra</i> , pp. 4727-4732.	
Ning, Lipeng	Univ. of Minnesota
Jiang, Xianhua	Univ. of Minnesota
Georgiou, Tryphon T.	Univ. of Minnesota

14:20-14:40	WeB04.2
<i>Almost Sure and Moment Stability for LTI Stochastic Dynamic Systems Driven by Fractional Brownian Motion</i> , pp. 4733-4736.	
Zeng, Caibin	South China Univ. of Tech.
Chen, YangQuan	Univ. of California, Merced
Yang, Qigui	South China Univ. of Tech.

14:40-15:00	WeB04.3
<i>A Class of Stochastic Hybrid Systems with State-Dependent Switching Noise</i> , pp. 4737-4744.	
Leth, John	Aalborg Univ.
Rasmussen, Jakob Gulddahl	Aalborg Univ.
Schioeler, Henrik	Aalborg Univ.
Wisniewski, Rafal	Aalborg Univ.

15:00-15:20	WeB04.4
<i>Stabilization of Continuous-Time Switched Linear Stochastic Systems</i> , pp. 4745-4750.	
Huang, Ran	Beihang Univ.
Lin, Yan	Beijing Univ. of Aeronautics and Astronautics
Lin, Zhongwei	North China Electric Power Univ.

15:20-15:40	WeB04.5
<i>Reachability Analysis for Linear Discrete Time Set-Dynamics Driven by Random Convex Compact Sets (I)</i> , pp. 4751-4756.	
Rakovic, Sasa V.	Oxford Univ.
Matei, Ion	Univ. of Maryland
Baras, John S.	Univ. of Maryland

15:40-16:00	WeB04.6
<i>Quickest Detection in a System with Correlated Noise</i> , pp. 4757-4763.	
Zhang, Hongzhong	Columbia Univ.
Hadjiliadis, Olympia	City Univ. of New York

<b>WeB05</b>	Plumeria 2
<b>Estimation Problems II (Regular Session)</b>	
Chair: Zemouche, Ali	Univ. de Lorraine
Co-Chair: Yang, Jongwook	Seoul National Univ.

14:00-14:20	WeB05.1
<i>Optimal Point Estimates for Multi-Target States Based on Kernel Distances</i> , pp. 4764-4769.	
Baum, Marcus	Karlsruhe Inst. of Tech. (KIT)
Ruoff, Patrick	Karlsruhe Inst. of Tech. (KIT)
Itte, Dominik	Karlsruhe Inst. of Tech. (KIT)
Hanebeck, Uwe D.	Karlsruhe Inst. of Tech. (KIT)

14:20-14:40	WeB05.2
<i>On the Robust Design of Unknown Inputs Takagi-Sugeno Observer</i> , pp. 4770-4773.	
Chadli, Mohammed	Univ. de Picardie Jules Verne
Karimi, Hamid Reza	Univ. of Agder

14:40-15:00	WeB05.3
<i>Observers for Continuous-Time Lipschitz Nonlinear Systems. Analysis and Comparisons</i> , pp. 4774-4779.	
Zemouche, Ali	Univ. de Lorraine
Boutayeb, Mohamed	Univ. of Henri Poincaré Nancy

15:00-15:20	WeB05.4
<i>Observers Design for Discrete-Time Lipschitz Nonlinear Systems. State of the Art and New Results</i> , pp. 4780-4785.	
Zemouche, Ali	Univ. de Lorraine
Boutayeb, Mohamed	Univ. of Henri Poincaré Nancy

15:20-15:40	WeB05.5
<i>Reduced-Order Dynamic Observer Error Linearization for Discrete-Time Systems</i> , pp. 4786-4791.	
Yun, Hyeonjun	Seoul National Univ.
Yang, Jongwook	Seoul National Univ.
Seo, Jin H.	Seoul National Univ.

15:40-16:00	WeB05.6
<i>Distributed Moving Horizon Estimation Via Dual Decomposition</i> , pp. 4792-4798.	
Philipp, Peter	Tech. Univ. München
Schmid-Zurek, Thomas	Tech. Univ. München

<b>WeB06</b>	Plumeria 3
<b>Adaptive Control II (Regular Session)</b>	
Chair: Bernstein, Dennis S.	Univ. of Michigan
Co-Chair: Niedzwiecki, Maciej	Tech. Univ. of Gdansk

14:00-14:20	WeB06.1
<i>Adaptive Detection of Terminal Voltage Collapses for Li-Ion Batteries</i> , pp. 4799-4804.	
Mukhopadhyay, Shayok	Georgia Inst. of Tech.
Zhang, Fumin	Georgia Inst. of Tech.

14:20-14:40	WeB06.2
<i>Robustification of the Self-Optimizing Narrowband Interference Canceler - Extremum Seeking in Complex Domain</i> , pp. 4805-4810.	
Meller, Michal Stanislaw	Tech. Univ. of Gdansk
Niedzwiecki, Maciej	Tech. Univ. of Gdansk

14:40-15:00	WeB06.3
<i>Adaptive Control of Uncertain Hammerstein Systems with Monotonic Input Nonlinearities Using Auxiliary Nonlinearities</i> , pp. 4811-4816.	
Yan, Jin	Univ. of Michigan
D'Amato, Anthony	Univ. of Michigan
Sumer, Dogan	Univ. of Michigan
Hoagg, Jesse B.	Univ. of Kentucky
Bernstein, Dennis S.	Univ. of Michigan

15:00-15:20	WeB06.4
<i>Controller Compact Form Dynamic Linearization Based Model Free Adaptive Control</i> , pp. 4817-4822.	
Zhu, Yuanming	Beijing jiaotong Univ.
Hou, Zhongsheng	Beijing Jiaotong Univ.

15:20-15:40	WeB06.5
<i>L1 Adaptive Control of System with Unmatched Disturbance by Using Eigenvalue Assignment Method</i> , pp. 4823-4828.	
Che, Jiaying	Univ. of Connecticut
Cao, Chengyu	Univ. of Connecticut

15:40-16:00	WeB06.6
<i>Adaptive Control of a Class of Multilinearly Parameterized Systems by Using Noncertainty Equivalence Control</i> , pp. 4829-4834.	
Netto, Mariana	IFSTTAR
Annaswamy, Anuradha	Massachusetts Inst. of Tech.

<b>WeB07</b>	Maile 1
<b>Distributed Optimization and Control I (Invited Session)</b>	
Chair: Ozdaglar, Asu	MIT
Co-Chair: Jadbabaie, Ali	Univ. of Pennsylvania
Organizer: Wei, Ermin	MIT
Organizer: Ozdaglar, Asu	MIT
Organizer: Jadbabaie, Ali	Univ. of Pennsylvania

14:00-14:20	WeB07.1
<i>A Large Scale Analysis of a Classification Algorithm Over Sensor Networks (I)</i> , pp. 4835-4839.	
Fagnani, Fabio	Pol. di Torino
Fosson, Sophie	Pol. di Torino
Ravazzi, Chiara	Pol. di Torino

14:20-14:40	WeB07.2
<i>A Gossip Algorithm for Aggregative Games on Graphs (I)</i> , pp. 4840-4845.	
Koshal, Jayash	Univ. of Illinois, Urbana-Champaign
Nedich, Angelia	Univ. of Illinois, Urbana-Champaign
Shanbhag, Uday V.	Univ. of Illinois, Urbana-Champaign



14:40-15:00	WeB07.3
<i>Randomized Gossiping with Unreliable Communication: Dependent or Independent Node Updates (I)</i> , pp. 4846-4851.	
Shi, Guodong	KTH Royal Inst. of Tech.
Johansson, Mikael	KTH Royal Inst. of Tech.
Johansson, Karl H.	KTH Royal Inst. of Tech.

15:00-15:20	WeB07.4
<i>Optimal Cooperative Control of Dynamically Decoupled Systems (I)</i> , pp. 4852-4857.	
Kim, Jong-Han	Stanford Univ.
Lall, Sanjay	Stanford Univ.
Ryoo, Chang-Kyung	Inha Univ.

15:20-15:40	WeB07.5
<i>On Distributed Equilibrium Seeking for Generalized Convex Games (I)</i> , pp. 4858-4863.	
Zhu, Minghui	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.

15:40-16:00	WeB07.6
<i>Accelerated Iterative Distributed Controller Synthesis with a Barzilai-Borwein Step Size</i> , pp. 4864-4870.	
Deroo, Frederik	Tech. Univ. München
Ulbrich, Michael	Tech. Univ. München
Anderson, Brian D.O.	Australian National Univ.
Hirche, Sandra	Tech. Univ. München

<b>WeB08</b>	Maile 2
<b>Design of Internal Models for Nonlinear and Hybrid Systems</b> (Invited Session)	
Chair: Isidori, Alberto	Univ. di Roma
Co-Chair: Marconi, Lorenzo	Univ. di Bologna
Organizer: Isidori, Alberto	Univ. di Roma
Organizer: Marconi, Lorenzo	Univ. di Bologna

14:00-14:20	WeB08.1
<i>Output Regulation for Over-Actuated Linear Systems Via Inverse Model Allocation (I)</i> , pp. 4871-4876.	
Serrani, Andrea	Ohio State Univ.

14:20-14:40	WeB08.2
<i>Hybrid Internal Models for Robust Spline Tracking (I)</i> , pp. 4877-4882.	
Cox, Nicholas	Univ. of California, Santa Barbara
Marconi, Lorenzo	Univ. di Bologna
Teel, Andrew R.	Univ. of California, Santa Barbara

14:40-15:00	WeB08.3
<i>Conditional Integrator for Non-Minimum Phase Nonlinear Systems (I)</i> , pp. 4883-4887.	
ranran, li	Northeastern Univ.
Khalil, Hassan K.	Michigan State Univ.

15:00-15:20	WeB08.4
<i>Antiwindup Regulation of Saturated Linear Systems (I)</i> , pp. 4888-4893.	
Forni, Fulvio	Univ. of Liège
Zaccarian, Luca	LAAS-CNRS
Sepulchre, Rodolphe J.	Univ. de Liege

15:20-15:40	WeB08.5
<i>On the Internal Model Principle in Formation Control and in Output Synchronization of Nonlinear Systems (I)</i> , pp. 4894-4899.	
De Persis, Claudio	Univ. of Groningen
Jayawardhana, Bayu	Univ. of Groningen

15:40-16:00	WeB08.6
<i>Shifting the Internal Model from Control Input to Controlled Output in Nonlinear Output Regulation (I)</i> , pp. 4900-4905.	
Isidori, Alberto	Univ. di Roma
Marconi, Lorenzo	Univ. di Bologna

<b>WeB09</b>	Maile 3
<b>Modeling and Control of Disease</b> (Invited Session)	
Chair: Singh, Abhyudai	Univ. of Delaware
Co-Chair: Zurakowski, Ryan	Univ. of Delaware
Organizer: Singh, Abhyudai	Univ. of Delaware
Organizer: Zurakowski, Ryan	Univ. of Delaware

14:00-14:20	WeB09.1
<i>Sub-Optimal Switching with Dwell Time Constraints for Control of Viral Mutation (I)</i> , pp. 4906-4911.	
Hernandez Vargas, Esteban	Helmholtz-Zentrum fuer Infektionsforschung
Colaneri, Patrizio	Pol. di Milano
Middleton, Richard H.	Univ. of Newcastle

14:20-14:40	WeB09.2
<i>A Control Systems Approach to HIV Prevention with Impulsive Control Input (I)</i> , pp. 4912-4917.	
Chang, H.J.	Imperial Coll. London
Moog, Claude	CNRS
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome

14:40-15:00	WeB09.3
<i>Stochastic Analysis of Genetic Feedback Circuit Controlling HIV Cell-Fate Decision (I)</i> , pp. 4918-4923.	
Singh, Abhyudai	Univ. of Delaware

15:00-15:20	WeB09.4
<i>A Compartment Based Model for the Formation of 2-LTR Circles after Raltegravir Intensification (I)</i> , pp. 4924-4929.	
Cardozo, E. Fabian	Univ. of Delaware
Vargas, Cesar A.	Univ. Industrial de Santander
Zurakowski, Ryan	Univ. of Delaware

15:20-15:40	WeB09.5
<i>Cost of Fairness in Disease Spread Control</i> , pp. 4930-4935.	
Vijayshankar, Arun	Washington State Univ.
Roy, Sandip	Washington State Univ.

15:40-16:00	WeB09.6
<i>Equilibrium and Stability Analysis of X-Chromosome Linked Recessive Diseases Model</i> , pp. 4936-4941.	
Del Vecchio, Carmen	Univ. del Sannio
Glielmo, Luigi	Univ. del Sannio
Corless, Martin J.	Purdue Univ.

**WeB10** Pikake 1  
**Model/Controller Reduction (Regular Session)**

Chair: Glover, Keith Univ. of Cambridge  
Co-Chair: Gugercin, Serkan Virginia Tech.

14:00-14:20 WeB10.1

*Balanced Realisations of All-Pass Systems Using Exact Arithmetic with Application to the Approximation of Delay Systems*, pp. 4942-4946.

Glover, Keith Univ. of Cambridge  
Yuan, Xiaochuan Univ. of Cambridge

14:20-14:40 WeB10.2

*Control-Oriented Physics-Based Modeling of Engine Speed Effects in HCCI*, pp. 4947-4952.

Ravi, Nikhil Robert Bosch LLC  
Chaturvedi, Nalin A. Robert Bosch LLC  
Oudart, Joel Robert Bosch LLC  
Cook, David James Robert Bosch LLC  
Doran, Eric Robert Bosch Res. and Tech. Center  
Pimpare, Michel Stanford Univ.  
Kojic, Aleksandar Robert Bosch Res. and Tech. Center

14:40-15:00 WeB10.3

*Realization-Independent H2-Approximation*, pp. 4953-4958.

Gugercin, Serkan Virginia Tech.  
Beattie, Christopher A. Virginia Tech.

15:00-15:20 WeB10.4

*Reduction of the Small Gain Condition*, pp. 4959-4964.

Dashkovskiy, Sergey Univ. of Applied Sciences Erfurt  
Kosmykov, Michael Univ. of Bremen

15:20-15:40 WeB10.5

*Optimal Mode Decomposition for High Dimensional Systems*, pp. 4965-4970.

Goulart, Paul J. ETH Zurich  
Wynn, Andrew Imperial Coll. London  
Pearson, David Imperial Coll. London

15:40-16:00 WeB10.6

*Existence and Design of Reduced-Order Stable Controllers for Two-Link Underactuated Planar Robots*, pp. 4971-4976.

Xin, Xin Okayama Prefectural Univ.  
Juuri, Kousuke Okayama Prefectural Univ.  
Liu, Yannian Okayama Univ.  
Sun, Changyin Southeast Univ.

**WeB11** Pikake 2  
**The Role of Systems and Control in Smart Grid I (Invited Session)**

Chair: Annaswamy, Anuradha Massachusetts Inst. of Tech.  
Co-Chair: Stoustrup, Jakob Aalborg Univ.  
Organizer: Annaswamy, Anuradha Massachusetts Inst. of Tech.  
Organizer: Meyn, Sean Univ. of Florida  
Organizer: Stoustrup, Jakob Aalborg Univ.  
Organizer: Barooah, Prabir Univ. of Florida  
Organizer: Kalsi, Karanjit Pacific Northwest National Lab.

14:00-14:20 WeB11.1

*Duality of Ancillary Services and Intermittent Suppliers (I)*, pp. 4977-4984.

Kizilkale, Arman C. McGill Univ.  
Mannor, Shie Technion

14:20-14:40 WeB11.2

*A Hierarchical Transactive Control Architecture for Renewables Integration in Smart Grids (I)*, pp. 4985-4990.

Kiani, Arman Tech. Univ. of Munich  
Annaswamy, Anuradha Massachusetts Inst. of Tech.

14:40-15:00 WeB11.3

*Deadline Differentiated Pricing of Deferrable Electric Power Service (I)*, pp. 4991-4997.

Bitar, Eilyan Cornell Univ.  
Low, Steven California Inst. of Tech.

15:00-15:20 WeB11.4

*Synchronization Assessment in Power Networks and Coupled Oscillators (I)*, pp. 4998-5003.

Dörfler, Florian Univ. of California, Santa Barbara  
Chertkov, Michael Los Alamos National Lab.  
Bullo, Francesco Univ. of California, Santa Barbara

15:20-15:40 WeB11.5

*Shaping Power System Inter-Area Oscillations through Control Loops of Grid Integrated Wind Farms (I)*, pp. 5004-5009.

Gayme, Dennice Johns Hopkins Univ.  
Chakraborty, Aranya North Carolina State Univ.

15:40-16:00 WeB11.6

*A Decentralized ID Algorithm for Detecting Slow-Fast Oscillations in Power Systems from Overwhelming Volumes of Phasor Data (I)*, pp. 5010-5015.

Chakraborty, Aranya North Carolina State Univ.  
Michailidis, George Univ. of Michigan  
Xin, Yufeng UNC-Chapel Hill

**WeB12** Pikake 3  
**Advanced Vehicle Dynamics and Control (Invited Session)**

Chair: Lu, Jianbo Ford Motor Company  
Co-Chair: Rajamani, Rajesh Univ. of Minnesota  
Organizer: Lu, Jianbo Ford Motor Company  
Organizer: Tsiotras, Panagiotis Georgia Inst. of Tech.  
Organizer: Rajamani, Rajesh Univ. of Minnesota  
Organizer: Di Cairano, Stefano Mitsubishi Electric Res. Lab.

14:00-14:20 WeB12.1

*Torque Vectoring for an Electric Vehicle Using an LPV Drive Controller and a Torque and Slip Limiter (I)*, pp. 5016-5021.

Kaiser, Gerd Intedis GmbH  
Liu, Qin Hamburg Univ. of Tech.  
Hoffmann, Christian Hamburg Univ. of Tech.  
Korte, Matthias Intedis GmbH  
Werner, Herbert Hamburg Univ. of Tech.

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14:20-14:40 WeB12.2

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*Design of a Supervisory Integrated Control for Driver Assistance Systems (I)*, pp. 5022-5027.

Gaspar, Peter Hungarian Acad. of Sciences  
Nemeth, Balazs Budapesti Muszaki es  
Gazdasagtudományi Egyetem  
Bokor, Jozsef Hungarian Acad. of Sciences

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14:40-15:00 WeB12.3

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*Time-Based Switched Sliding Mode Control for Yaw Rate Regulation in Two-Wheeled Vehicles (I)*, pp. 5028-5033.

Pisano, Alessandro Univ. of Cagliari  
Tanelli, Mara Pol. di Milano  
Ferrara, Antonella Univ. of Pavia

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15:00-15:20 WeB12.4

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*Adaptive Vehicle Planar Motion Control with Fast Parameter Estimation (I)*, pp. 5034-5039.

Huang, Xiaoyu Ohio State Univ.  
Wang, Junmin Ohio State Univ.

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15:20-15:40 WeB12.5

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*A Numerical Algorithm for Nonlinear L2-Gain Optimal Control with Application to Vehicle Yaw Stability Control (I)*, pp. 5040-5045.

Milic, Vladimir Univ. of Zagreb  
Di Cairano, Stefano Mitsubishi Electric Res. Lab.  
Kasac, Josip Univ. of Zagreb  
Bemporad, Alberto IMT Inst. for Advanced Studies  
Lucca  
Situm, Zeljko Univ. of Zagreb

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15:40-16:00 WeB12.6

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*New Paradigms for the Integration of Yaw Stability and Rollover Prevention Functions in Vehicle Stability Control (I)*, pp. 5046-5051.

Rajamani, Rajesh Univ. of Minnesota  
Piyabongkarn, Damrongrit Eaton Corp.

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**WeB13** Ilima 1  
**Control of Micro and Nano Systems (Invited Session)**

Chair: Leang, Kam K. Univ. of Nevada, Reno  
Co-Chair: Moheimani, S.O. Univ. of Newcastle  
Reza  
Organizer: Yong, Yuen Kuan Univ. of Newcastle  
Organizer: Leang, Kam K. Univ. of Nevada, Reno  
Organizer: Moheimani, S.O. Univ. of Newcastle  
Reza

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14:00-14:20 WeB13.1

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*Initial Resolution of Head Position and Skew Uncertainty in Control Systems for Flangeless Tape Drives (I)*, pp. 5052-5058.

Cherubini, Giovanni IBM  
Jelitto, Jens IBM  
Pantazi, Angeliki IBM

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14:20-14:40 WeB13.2

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*Improving Transient Performance of Signal Transformation Approach (I)*, pp. 5059-5064.

Bazaei, Ali Univ. of Newcastle  
Moheimani, S.O. Reza Univ. of Newcastle

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14:40-15:00 WeB13.3

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*Adaptive Control of a Nanopositioning Device (I)*, pp. 5065-5072.

Eielsen, Arnfinn Aas Norwegian Univ. of Science & Tech.  
Gravdahl, Jan Tommy Norwegian Univ. of Science & Tech.

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15:00-15:20 WeB13.4

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*Fast Scanning in AFM Using Non-Raster Sampling and Time-Optimal Trajectories (I)*, pp. 5073-5078.

Huang, Peng Boston Univ.  
Andersson, Sean Boston Univ.

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15:20-15:40 WeB13.5

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*A Dual-Stage Nanopositioning Approach to High-Speed Scanning Probe Microscopy (I)*, pp. 5079-5084.

Tuma, Tomas IBM Res.  
Haerberle, Walter IBM Res.  
Rothuizen, Hugo IBM Res.  
Lygeros, John ETH Zurich  
Pantazi, Angeliki IBM Res.  
Sebastian, Abu IBM Res.

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15:40-16:00 WeB13.6

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*Spatial-Temporal Control of Dual-Stage Nanopositioners (I)*, pp. 5085-5090.

Clayton, Garrett Villanova Univ.  
Leang, Kam K. Univ. of Nevada, Reno

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**WeB14** Ilima 2  
**Optimization Algorithms II (Regular Session)**

Chair: Cenedese, Angelo Univ. of Padova  
Co-Chair: Xavier, Joao Inst. Superior Tecnico

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14:00-14:20 WeB14.1

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*Optimal Contact Decisions for Ergodic Exploration*, pp. 5091-5097.

Miller, Lauren Northwestern Univ.  
Murphey, Todd Northwestern Univ.

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14:20-14:40 WeB14.2

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*The Convergence Rate of Newton-Raphson Consensus Optimization for Quadratic Cost Functions*, pp. 5098-5103.

Zanella, Filippo Univ. of Padova  
Varagnolo, Damiano KTH Royal Inst. of Tech.  
Cenedese, Angelo Univ. of Padova  
Pillonetto, Gianluigi Univ. of Padova  
Schenato, Luca Univ. of Padova

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14:40-15:00 WeB14.3

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*A Shahshahani Gradient Based Extremum Seeking Scheme*, pp. 5104-5109.

Poveda, Jorge Univ. de los Andes  
Quijano, Nicanor Univ. de los Andes

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15:00-15:20 WeB14.4

*Distributed ADMM for Model Predictive Control and Congestion Control*, pp. 5110-5115.

Mota, João	Inst. Superior Técnico / Carnegie Mellon Univ.
Xavier, Joao	Inst. Superior Técnico
Aguiar, Pedro	Inst. Superior Técnico
Püschel, Markus	ETH Zurich

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15:20-15:40 WeB14.5

*ADMM for Consensus on Colored Networks*, pp. 5116-5121.

Mota, João	Inst. Superior Técnico / Carnegie Mellon Univ.
Xavier, Joao	Inst. Sistemas e Robotica - Inst. Superior Tecnico
Aguiar, Pedro	Inst. Superior Tecnico
Püschel, Markus	ETH Zurich

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15:40-16:00 WeB14.6

*Motion Curve Optimization Algorithm Using Genetic Operations and Its Application to Bottling Machine*, pp. 5122-5127.

Kanazawa, Ken'ichi	Mie Univ.
Yano, Kenichi	Mie Univ.
Nakada, Tatsuhiko	Shibuya Kogyo Co., Ltd

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**WeB15** Ilima 3  
**Linear Parameter-Varying Systems II (Regular Session)**

Chair: Barbosa, Karina	Univ. de Santiago de Chile
Co-Chair: Naso, David	Pol. di Bari

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14:00-14:20 WeB15.1

*Output Synchronization of Linear Parameter-Varying Systems Via Dynamic Couplings*, pp. 5128-5133.

Seyboth, Georg Sebastian	Univ. of Stuttgart
Schmidt, Gerd Simon	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart

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14:20-14:40 WeB15.2

*Robust Stability of Discrete-Time Linear Descriptor Systems with Time-Varying Uncertainties Via Parametric Lyapunov Function*, pp. 5134-5139.

Barbosa, Karina A.	Univ. de Santiago de Chile
de Souza, Carlos E.	LNCC
Coutinho, Daniel	Univ. Federal de Santa Catarina

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14:40-15:00 WeB15.3

*Active Damping of Container Crane Load Swing by Hoisting Modulation — an LPV Approach*, pp. 5140-5145.

Hoffmann, Christian	Hamburg Univ. of Tech.
Radisch, Christian	Hamburg Univ. of Tech.
Werner, Herbert	Hamburg Univ. of Tech.

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15:00-15:20 WeB15.4

*Closed-Loop Stability and Performance Optimization in LPV Control Based on a Reduced Parameter Set*, pp. 5146-5151.

Hoffmann, Christian	Hamburg Univ. of Tech.
Hashemi, Seyed Mahdi	Hamburg Univ. of Tech.
Abbas, Hossam Seddik	Assiut Uinveristy
Werner, Herbert	Hamburg Univ. of Tech.

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15:20-15:40 WeB15.5

*Black-Box versus Grey-Box LPV Identification to Control a Mechanical System*, pp. 5152-5157.

Paraiso Salah El-Dine, Christian	Hamburg Univ. of Tech.
Hashemi, Seyed Mahdi	Hamburg Univ. of Tech.
Werner, Herbert	Hamburg Univ. of Tech.

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15:40-16:00 WeB15.6

*PID Control of Linear Systems with an Input Hysteresis Described by Prandtl-Ishlinskii Models*, pp. 5158-5163.

Riccardi, Leonardo	Pol. di Bari
Naso, David	Pol. di Bari
Turchiano, Biagio	Pol. di Bari
Janocha, Hartmut	Saarland Univ.
Schlueter, Kathrin	Tech. Univ. Braunschweig

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**WeB16** Haleakala Ballroom 3  
**Predictive Control of Linear Systems II (Regular Session)**

Chair: Borrelli, Francesco	University of California at Berkeley
Co-Chair: Maciejowski, Jan M.	Univ. of Cambridge

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14:00-14:20 WeB16.1

*Model Predictive Control for Linear Impulsive Systems*, pp. 5164-5169.

Sopasakis, Pantelis	National Tech. Univ. of Athens
Patrinos, Panagiotis	IMT Inst. for Advanced Studies Lucca
Sarimveis, Haralambos	National Tech. Univ. of Athens
Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca

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14:20-14:40 WeB16.2

*Optimal Constraint Tightening Policies for Robust Variable Horizon Model Predictive Control*, pp. 5170-5175.

Shekhar, Rohan C.	Univ. of Melbourne
Maciejowski, Jan M.	Univ. of Cambridge

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14:40-15:00 WeB16.3

*Offline Tube Design for Efficient Implementation of Parameterized Tube Model Predictive Control*, pp. 5176-5181.

Rakovic, Sasa V.	Oxford Univ.
Muñoz-Carpintero, Diego	Oxford Univ.
Cannon, Mark	Oxford Univ.
Kouvaritakis, Basil	Oxford Univ.

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15:00-15:20 WeB16.4

*An MPC Algorithm for Offset-Free Tracking of Constant Reference Signals*, pp. 5182-5187.

Betti, Giulio	Pol. Di Milano
Farina, Marcello	Pol. di Milano
Scattolini, Riccardo	Pol. di Milano

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15:20-15:40 WeB16.5

*Sufficient Conditions for Complexity Reduction in Min-Max Control of Constrained Uncertain Linear Systems*, pp. 5188-5193.

Chuang, Frank Fu-Han	UC Berkeley
Borrelli, Francesco	UC Berkeley

15:40-16:00	WeB16.6
<i>Scenario-Based Approach to Stochastic Linear Predictive Control</i> , pp. 5194-5199.	
Matusko, Jadranko	UC Berkeley
Borrelli, Francesco	UC Berkeley

<b>WeB17</b>	Haleakala Ballroom 5
<b>Control of Nonlinear Delay Systems</b> (Tutorial Session)	
Chair: Krstic, Miroslav	Univ. of California, San Diego
Co-Chair: Bekiaris-Liberis, Nikolaos	Univ. of California, San Diego
Organizer: Krstic, Miroslav	Univ. of California, San Diego
Organizer: Bekiaris-Liberis, Nikolaos	Univ. of California, San Diego

14:00-15:20	WeB17.1
<i>Control of Nonlinear Delay Systems: A Tutorial (I)</i> , pp. 5200-5214.	
Krstic, Miroslav	Univ. of California, San Diego
Bekiaris-Liberis, Nikolaos	Univ. of California, San Diego

15:20-16:00	WeB17.2
<i>Control of Nonlinear Systems with State Delays and Robustness to Delay Perturbations (I)*</i> . <del>PDF</del>	
Bekiaris-Liberis, Nikolaos	Univ. of California, San Diego

<b>WeC01</b>	Hibiscus 1
<b>Network Structure Identification</b> (Invited Session)	
Chair: Varagnolo, Damiano	Univ. of Padova
Co-Chair: Johansson, Karl H.	KTH Royal Inst. of Tech.
Organizer: Varagnolo, Damiano	KTH Royal Inst. of Tech.
Organizer: Johansson, Karl H.	KTH Royal Inst. of Tech.

16:30-16:50	WeC01.1
<i>Fast Distributed Computation of Distances in Networks (I)</i> , pp. 5215-5220.	
Baquero, Carlos	HASLab / INESC TEC, Univ. do Minho
Almeida, Paulo Sérgio	HASLab / INESC TEC, Univ. do Minho
Cunha, Alcino	HASLab / INESC TEC, Univ. do Minho

16:50-17:10	WeC01.2
<i>Distributed Size Estimation of Dynamic Anonymous Networks (I)</i> , pp. 5221-5227.	
Terelius, Håkan	KTH Royal Inst. of Tech.
Varagnolo, Damiano	KTH Royal Inst. of Tech.
Johansson, Karl H.	KTH Royal Inst. of Tech.

17:10-17:30	WeC01.3
<i>Identification of Distributed Systems with Logical Interaction Structure (I)</i> , pp. 5228-5233.	
Martini, Simone	Univ. di Pisa
Fagiolini, Adriano	Univ. di Pisa
Giarré, Laura	Univ. di Palermo
Bicchi, Antonio	Univ. di Pisa

17:30-17:50	WeC01.4
<i>On Size Estimation Protocols for Sensor Networks (I)</i> , pp. 5234-5239.	
Cichon, Jacek, Bronislaw	Wroclaw Univ. of Tech.
Lemiesz, Jakub	Wroclaw Univ. of Tech.
Zawada, Marcin	Wroclaw Univ. of Tech.

17:50-18:10	WeC01.5
<i>On the Estimation Accuracy of Degree Distributions from Graph Sampling (I)</i> , pp. 5240-5247.	
Ribeiro, Bruno	Univ. of Massachusetts, Amherst
Towsley, Don	Univ. of Massachusetts, Amherst

18:10-18:30	WeC01.6
<i>Clustering Large Networks of Parametric Dynamic Generative Models</i> , pp. 5248-5253.	
Xu, Yunwen	Univ. of Illinois at Urbana-Champaign
Kim, Sanggyun	Univ. of California, San Diego
Salapaka, Srinivasa	Univ. of Illinois, Urbana-Champaign
Beck, Carolyn L.	Univ. of Illinois, Urbana-Champaign
Coleman, Todd	Univ. of California, San Diego

<b>WeC02</b>	Hibiscus 2
<b>Machine Learning</b> (Regular Session)	
Chair: Johansson, Rolf	Lund Univ.
Co-Chair: Mcloone, Sean	Queen's Univ. of Belfast

16:30-16:50	WeC02.1
<i>Learning from Time Series: Supervised Aggregative Feature Extraction</i> , pp. 5254-5259.	
Schirru, Andrea	Univ. of Pavia
Susto, Gian Antonio	Univ. of Padova
Pampuri, Simone	Univ. of Pavia
Mcloone, Sean	Queen's Univ. of Belfast

16:50-17:10	WeC02.2
<i>On the Estimation of Hyperparameters for Bayesian System Identification with Exponentially Decaying Kernels</i> , pp. 5260-5265.	
Carli, Francesca, P	Univ. of Padova
Chen, Tianshi	Linköping Univ.
Chiuso, Alessandro	Univ. of Padova
Ljung, Lennart	Linköping Univ.
Pillonetto, Gianluigi	Univ. of Padova

17:10-17:30	WeC02.3
<i>Modelling and Control of Nonlinear Systems Using Gaussian Processes with Partial Model Information</i> , pp. 5266-5271.	
Hall, Joseph Alexander	Univ. of Cambridge
Rasmussen, Carl Edward	Univ. of Cambridge
Maciejowski, Jan M.	Univ. of Cambridge

17:30-17:50	WeC02.4
<i>Model Learning Actor-Critic Algorithms: Performance Evaluation in a Motion Control Task</i> , pp. 5272-5277.	
Grondman, Ivo	Delft Univ. of Tech.
Busoniu, Lucian	Univ. of Lorraine
Babuska, R.	Delft Univ. of Tech.

17:50-18:10	WeC02.5
<i>Receding Horizon Prediction by Bayesian Combination of Multiple Predictors</i> , pp. 5278-5285.	
Stahl, Fredrik	Lund Univ.
Johansson, Rolf	Lund Univ.

18:10-18:30	WeC02.6
<i>DrSVM: Distributed Random Projection Algorithms for SVMs</i> , pp. 5286-5291.	
Lee, Soomin	Univ. of Illinois, Urbana-Champaign
Nedich, Angelia	Univ. of Illinois, Urbana-Champaign

<b>WeC03</b>	Hibiscus 3
<b>Cooperative Control III (Regular Session)</b>	
Chair: Saberi, Ali	Washington State Univ.
Co-Chair: Gasparri, Andrea	Univ. "Roma Tre"

16:30-16:50	WeC03.1
<i>Formation Control of Directed Multi-Agent Networks Based on Complex Laplacian</i> , pp. 5292-5297.	
Wang, Lili	Zhejiang Univ.
Han, Zhimin	Zhejiang Univ.
Lin, Zhiyun	Zhejiang Univ.

16:50-17:10	WeC03.2
<i>Semi-Global Regulation of Output Synchronization for Heterogeneous Networks of Non-Introspective, Invertible Agents Subject to Actuator Saturation</i> , pp. 5298-5303.	
Yang, Tao	KTH Royal Inst. of Tech.
Stoorvogel, Anton A.	Univ. of Twente
Grip, Håvard Fjær	Washington State Univ.
Saberi, Ali	Washington State Univ.

17:10-17:30	WeC03.3
<i>Decentralized Estimation of the Minimum Strongly Connected Subdigraph for Robotic Networks with Limited Field of View</i> , pp. 5304-5309.	
Ardito, Cosimo Federico	Univ. "Roma Tre"
Di Paola, Donato	National Res.Council (CNR)
Gasparri, Andrea	Univ. "Roma Tre"

17:30-17:50	WeC03.4
<i>Decentralized Control of Parallel Rigid Formations with Direction Constraints and Bearing Measurements</i> , pp. 5310-5317.	
Franchi, Antonio	Max Planck Inst. for Biological Cybernetics
Robuffo Giordano, Paolo	Max Planck Inst. for Biological Cybernetics

17:50-18:10	WeC03.5
<i>Consensus in the Network with Uniform Constant Communication Delay</i> , pp. 5318-5323.	
Wang, Xu	New York Univ.
Saberi, Ali	Washington State Univ.
Stoorvogel, Anton A.	Univ. of Twente
Grip, Håvard Fjær	Washington State Univ.
Yang, Tao	Washington State Univ.

18:10-18:30	WeC03.6
<i>Consensus Tracking for General Linear Dynamical Target Via Periodic Sensing</i> , pp. 5324-5329.	
Zhang, Ya	Southeast Univ.
Tian, Yu-Ping	Southeast Univ.

<b>WeC04</b>	Plumeria 1
<b>Stochastic Analysis and Inference of Biochemical Processes (Invited Session)</b>	
Chair: Singh, Abhyudai	Univ. of Delaware
Co-Chair: Munsy, Brian	Los Alamos National Lab.
Organizer: Singh, Abhyudai	Univ. of Delaware
Organizer: Munsy, Brian	Los Alamos National Lab.

16:30-16:50	WeC04.1
<i>Measuring the Degree of Modularity in Gene Regulatory Networks from the Relaxation of Finite Perturbations (I)</i> , pp. 5330-5335.	
Kim, Kyung Hyuk	Univ. of Washington
Sauro, Herbert	Univ. of Washington

16:50-17:10	WeC04.2
<i>Optimal Variational Perturbations for the Inference of Stochastic Reaction Dynamics (I)</i> , pp. 5336-5341.	
Zechner, Christoph	ETH Zurich
Nandy, Preetam	ETH Zurich
Unger, Michael	ETH Zurich
Koepl, Heinz	ETH Zurich

17:10-17:30	WeC04.3
<i>Quantifying Stochasticity in Gene-Expression with Extrinsic Parameter Fluctuations (I)</i> , pp. 5342-5347.	
Singh, Abhyudai	Univ. of Delaware

17:30-17:50	WeC04.4
<i>A Non-Memoryless Stochastic Simulation Algorithm for Modeling Diffusion-Reactions on Biological Membranes (I)</i> , pp. 5348-5353.	
Chevalier, Michael	Univ. of California, San Francisco
El-samad, Hana	Univ. of California, San Francisco

17:50-18:10	WeC04.5
<i>A Spectral Methods-Based Solution of the Chemical Master Equation for Gene Regulatory Networks (I)</i> , pp. 5354-5360.	
Nip, Michael	Univ. of California, Santa Barbara
Hespanha, Joao P.	Univ. of California, Santa Barbara
Khammash, Mustafa H.	ETH Zurich

18:10-18:30	WeC04.6
<i>Adaptive Coarse-Graining for Transient and Quasi-Equilibrium Analyses of Stochastic Gene Regulation (I)</i> , pp. 5361-5366.	
Tapia, Jose Juan	Univ. of Pittsburgh
Faeder, James	Univ. of Pittsburgh
Munsy, Brian	Los Alamos National Lab.

<b>WeC05</b>	Plumeria 2
<b>Neural Networks: Theory and Applications (Regular Session)</b>	
Chair: Jagannathan, Sarangapani	Missouri Univ. of Science & Tech.
Co-Chair: Marconi, Lorenzo	Univ. di Bologna

16:30-16:50	WeC05.1
<i>Neural-Adaptive Control of Waste-To-Energy Boilers</i> , pp. 5367-5373.	
Mahmoodi Takaghaj, Sanaz	Univ. of Calgary
Macnab, Chris	Univ. of Calgary
Westwick, David	Univ. of Calgary
Boiko, Igor	Univ. of Calgary

16:50-17:10	WeC05.2
<i>Neural Network Based Adaptive Dynamic Surface Control for Flight Path Angle</i> , pp. 5374-5379.	
Guo, Yi	Beihang Univ.
Liu, Jinkun	Beihang Univ.

17:10-17:30	WeC05.3
<i>A Hybrid System for a Class of Hysteresis Nonlinearity: Modeling and Compensation</i> , pp. 5380-5385.	
Al Janaideh, Mohammad	Univ. of Jordan
Naldi, Roberto	Univ. di Bologna
Marconi, Lorenzo	Univ. di Bologna
Krejci, Pavel	Acad. of Sciences of the Czech Republic

17:30-17:50	WeC05.4
<i>A New Stability Criterion of Stochastic Neural Networks with Delays</i> , pp. 5386-5391.	
Chen, Yun	Hangzhou Dianzi Univ.
Zheng, Wei Xing	Univ. of Western Sydney

17:50-18:10	WeC05.5
<i>A Self-Tuning Optimal Controller for Affine Nonlinear Continuous-Time Systems with Unknown Internal Dynamics</i> , pp. 5392-5397.	
Dierks, Travis	DRS Sustainment Systems, Inc.
Jagannathan, Sarangapani	Missouri Univ. of Science & Tech.

18:10-18:30	WeC05.6
<i>Stable PID Control for Robot Manipulators with Neural Compensation</i> , pp. 5398-5403.	
Yu, Wen	CINVESTAV-IPN
Li, Xiaoou	CINVESTAV-IPN

<b>WeC06</b>	Plumeria 3
<b>Adaptive Control III (Regular Session)</b>	
Chair: Tomei, Patrizio	Univ. of Roma Tor Vergata
Co-Chair: Solo, Victor	Univ. of New South Wales

16:30-16:50	WeC06.1
<i>Output Regulation for Linear Systems with Unknown Exosystem Order</i> , pp. 5404-5409.	
Marino, Riccardo	Univ. of Roma Tor Vergata
Tomei, Patrizio	Univ. of Roma Tor Vergata

16:50-17:10	WeC06.2
<i>NN-Based Asymptotic Tracking Control for a Class of Strict-Feedback Uncertain Nonlinear Systems with Output Constraints</i> , pp. 5410-5415.	
Meng, Wenchao	Zhejiang Univ.
Yang, Qinmin	Zhejiang Univ.
Sun, Youxian	Zhejiang Univ.

17:10-17:30	WeC06.3
<i>Stability Margins in Adaptive Mixing Control Via a Lyapunov-Based Switching Criterion</i> , pp. 5416-5421.	
Baldi, Simone	Univ. di Firenze
Ioannou, Petros A.	Univ. of Southern California

17:30-17:50	WeC06.4
<i>Adaptive Control of Piecewise Linear Systems with Output Feedback for Output Tracking</i> , pp. 5422-5427.	
Sang, Qian	Univ. of Virginia
Tao, Gang	Univ. of Virginia

17:50-18:10	WeC06.5
<i>Adaptive Estimation of Stochastic Differential Games</i> , pp. 5428-5433.	
Solo, Victor	Univ. of New South Wales

18:10-18:30	WeC06.6
<i>Adaptive Predictive Control System Design with an Adaptive Output Estimator</i> , pp. 5434-5441.	
Mizumoto, Ikuro	Kumamoto Univ.
Fujimoto, Yotaro	Kumamoto Univ.

<b>WeC07</b>	Maile 1
<b>Distributed Optimization and Control II (Invited Session)</b>	
Chair: Ozdaglar, Asu	MIT
Co-Chair: Jadbabaie, Ali	Univ. of Pennsylvania
Organizer: Wei, Ermin	MIT
Organizer: Ozdaglar, Asu	MIT
Organizer: Jadbabaie, Ali	Univ. of Pennsylvania

16:30-16:50	WeC07.1
<i>Randomized Smoothing for (Parallel) Stochastic Optimization (I)</i> , pp. 5442-5444.	
Duchi, John	Univ. of California, Berkeley
Bartlett, Peter L.	Australian National Univ.
Wainwright, Martin	Univ. of California, Berkeley

16:50-17:10	WeC07.2
<i>Distributed Alternating Direction Method of Multipliers (I)</i> , pp. 5445-5450.	
Wei, Ermin	MIT
Ozdoglar, Asu	MIT

17:10-17:30	WeC07.3
<i>Distributed Delayed Stochastic Optimization (I)</i> , pp. 5451-5452.	
Agarwal, Alekh	Microsoft Res.
Duchi, John	Univ. of California, Berkeley

17:30-17:50	WeC07.4
<i>Push-Sum Distributed Dual Averaging for Convex Optimization (I)</i> , pp. 5453-5458.	
Tsianos, Konstantinos	McGill Univ.
Lawlor, Sean	McGill Univ.
Rabbat, Michael	McGill Univ.

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17:50-18:10 WeC07.5  
*Distributed Nesterov-Like Gradient Algorithms (I)*, pp. 5459-5464.

Jakovetic, Dusan Carnegie Mellon Univ./Inst. Superior Tecnico  
Moura, Jose' M. F. Carnegie Mellon Univ.  
Xavier, Joao Inst. Superior Tecnico

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18:10-18:30 WeC07.6  
*Parameterization of All Distributed Controllers Based on Gradient-Flow Method for Networked Multi-Agent Systems*, pp. 5465-5470.

Sakurama, Kazunori Tottori Univ.  
Azuma, Shun-ichi Kyoto Univ.  
Sugie, Toshiharu Kyoto Univ.

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**WeC08** Maile 2  
**Sliding Mode in Hybrid and Impulsive Systems (Invited Session)**

Chair: Spurgeon, Sarah K. Univ. of Kent  
Co-Chair: Pisano, Alessandro Univ. of Cagliari  
Organizer: Floquet, Thierry CNRS  
Organizer: Pisano, Alessandro Univ. of Cagliari

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16:30-16:50 WeC08.1  
*Finite Time Tracking of Unilaterally Constrained Planar Systems with Pre-Specified Settling Time: Second Order Sliding Mode Synthesis and Chattering-Free Digital Implementation (I)*, pp. 5471-5476.

Oza, Harshal Univ. of Kent  
Acary, Vincent INRIA Rhone-Alpes  
Orlov, Yury CICESE  
Spurgeon, Sarah K. Univ. of Kent  
Brogliato, Bernard INRIA

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16:50-17:10 WeC08.2  
*Lyapunov Stability of a Hybrid Impulsive-Sliding Mode Adaptive Controller for Second Order System (I)*, pp. 5477-5481.

Glumineau, Alain Ec. Centrale Nantes  
Shtessel, Yuri B. Univ. of Alabama, Huntsville  
Plestan, Franck Ec. Centrale de Nantes

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17:10-17:30 WeC08.3  
*Second Order Sliding Mode Output Feedback Control: Impulsive Gain and Extension with Adaptation (I)*, pp. 5482-5487.

Estrada, Antonio Ec. Centrale de Nantes  
Plestan, Franck Ec. Centrale de Nantes

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17:30-17:50 WeC08.4  
*A Switched Second-Order Sliding Mode Control Algorithm for Non-Affine Systems with Saturations (I)*, pp. 5488-5493.

Tanelli, Mara Pol. di Milano  
Punta, Elisabetta National Res. Council of Italy  
Ferrara, Antonella Univ. of Pavia

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17:50-18:10 WeC08.5  
*HOSM Control under Quantization and Saturation Constraints: Zig-Zag Design Solutions (I)*, pp. 5494-5498.

Amet, Leonardo ENSEA  
Ghanes, Malek ENSEA  
Barbot, Jean Pierre ENSEA

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18:10-18:30 WeC08.6  
*State Estimation for Linear Switched Systems with Unstable Invariant Zeros and Unknown Inputs (I)*, pp. 5499-5504.

Rios, Héctor National Autonomous Univ. of Mexico  
Davila, Jorge National Pol. Inst.  
Fridman, Leonid M. National Autonomous Univ. of Mexico  
Efimov, Denis INRIA - LNE

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**WeC09** Maile 3  
**Robustness and Adaptation in Biomolecular Networks (Invited Session)**

Chair: Franco, Elisa Univ. of California at Riverside  
Co-Chair: Hamadeh, Abdullah Univ. of Waterloo  
Omar  
Organizer: Franco, Elisa Univ. of California at Riverside  
Organizer: Hamadeh, Abdullah Univ. of Waterloo  
Omar

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16:30-16:50 WeC09.1  
*Determining the Structural Properties of a Class of Biological Models (I)*, pp. 5505-5510.

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

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16:50-17:10 WeC09.2  
*Exploring the Scale Invariance Property in Enzymatic Networks (I)*, pp. 5511-5516.

Skataric, Maja Rutgers Univ.  
Sontag, Eduardo D. Rutgers Univ.

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17:10-17:30 WeC09.3  
*Network-Level Dynamics of Diffusively Coupled Cells (I)*, pp. 5517-5522.

Waldherr, Steffen Univ. of Stuttgart  
Allgower, Frank Univ. of Stuttgart

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17:30-17:50 WeC09.4  
*Fold-Change Detection As a Chemotaxis Model Discrimination Tool (I)*, pp. 5523-5527.

Hamadeh, Abdullah Omar Univ. of Waterloo  
Ingalls, Brian P. Univ. of Waterloo  
Sontag, Eduardo D. Rutgers Univ.

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17:50-18:10 WeC09.5  
*Quantifying Crosstalk in Biochemical Systems (I)*, pp. 5528-5535.

Yeung, Enoch California Inst. of Tech.  
Kim, Jongmin California Inst. of Tech.  
Yuan, Ye Univ. of Cambridge  
Goncalves, Jorge M. Univ. of Cambridge  
Murray, Richard M. California Inst. of Tech.

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18:10-18:30 WeC09.6  
*Performance Metrics for a Biomolecular Step Response*, pp. 5536-5541.

Sen, Shaunak Indian Inst. of Tech. Delhi  
Murray, Richard M. California Inst. of Tech.



**WeC10** Pikake 1  
**Modeling (Regular Session)**

Chair: Bhattacharya, Raktim Texas A&M  
Co-Chair: Tabuada, Paulo Univ. of California at Los Angeles

16:30-16:50 WeC10.1

*Further Results on Probabilistic Model Validation in Wasserstein Metric*, pp. 5542-5547.

Halder, Abhishek Texas A&M Univ.  
Bhattacharya, Raktim Texas A&M Univ.

16:50-17:10 WeC10.2

*One-Dimensional Heat Diffusion Modelling and Random Walks on Non-Uniform Grids*, pp. 5548-5553.

Frannek, Lukas Tokyo Inst. of Tech.  
Hayakawa, Tomohisa Tokyo Inst. of Tech.  
Cetinkaya, Ahmet Tokyo Inst. of Tech.

17:10-17:30 WeC10.3

*Kron Reduction of Power Networks with Lossy and Dynamic Transmission Lines*, pp. 5554-5559.

Caliskan, Sina Yamac Univ. of California at Los Angeles  
Tabuada, Paulo Univ. of California at Los Angeles

17:30-17:50 WeC10.4

*Multiobjective Optimization of Hydrocarbon Biorefinery Supply Chain Designs under Uncertainty*, pp. 5560-5565.

Gebreslassie, Berhane Northwestern Univ.  
Yao, Yuan Northwestern Univ.  
You, Fengqi Northwestern Univ.

17:50-18:10 WeC10.5

*Pattern Recognition: An Alternative to Dynamics Description*, pp. 5566-5571.

Xu, Zhengguang Univ. of Science and Tech. Beijing  
Wu, Jinxia Univ. of Science and Tech. Beijing

18:10-18:30 WeC10.6

*Global Projections for Variational Nonsmooth Mechanics*, pp. 5572-5579.

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

**WeC11** Pikake 2

**The Role of Systems and Control in Smart Grid II (Invited Session)**

Chair: Annaswamy, Anuradha Massachusetts Inst. of Tech.  
Co-Chair: Stoustrup, Jakob Aalborg Univ.  
Organizer: Annaswamy, Anuradha Massachusetts Inst. of Tech.  
Organizer: Meyn, Sean Univ. of Florida  
Organizer: Stoustrup, Jakob Aalborg Univ.  
Organizer: Barooah, Prabir Univ. of Florida  
Organizer: Kalsi, Karanjit Pacific Northwest National Lab.

16:30-16:50 WeC11.1

*On Global Solution to a Class of Smart Building-Grid Energy Management Models (I)*, pp. 5580-5585.

Motto, Alexis L. Siemens Corp. Res.  
Sun, Yu Univ. of Illinois, Urbana-Champaign  
Chakraborty, Amit Siemens Corp. Res.

16:50-17:10 WeC11.2

*Evaluation of the Performance of Indirect Control of Many DSRs Using Hardware-In-The-Loop Simulations (I)*, pp. 5586-5591.

Sossan, Fabrizio DTU  
Bindner, Henrik DTU

17:10-17:30 WeC11.3

*Reduced-Order Modeling of Aggregated Thermostatic Loads with Demand Response (I)*, pp. 5592-5597.

Zhang, Wei Ohio State Univ.  
Lian, Jianming Pacific Northwest National Lab.  
Chang, Chin-Yao Ohio State Univ.  
Kalsi, Karanjit Pacific Northwest National Lab.  
Sun, Yannan Pacific Northwest National Lab.

17:30-17:50 WeC11.4

*Hysteresis-Based Charging Control of Plug-In Electric Vehicles (I)*, pp. 5598-5604.

Kundu, Soumya Univ. of Michigan  
Hiskens, Ian A. Univ. of Michigan

17:50-18:10 WeC11.5

*Optimal Placement of Energy Storage in the Grid (I)*, pp. 5605-5612.

Bose, Subhonmesh California Inst. of Tech.  
Gayme, Dennice Johns Hopkins Univ.  
Topcu, Ufuk California Inst. of Tech.  
Chandy, K. Mani California Inst. of Tech.

18:10-18:30 WeC11.6

*DistFlow ODE: Modeling, Analyzing and Controlling Long Distribution Feeder (I)*, pp. 5613-5618.

Wang, Danhua SMU  
Turitsyn, Konstantin Massachusetts Inst. of Tech.  
Chertkov, Michael Los Alamos National Lab.

**WeC12** Pikake 3

**Vehicle Motion: Estimation and Control (Regular Session)**

Chair: Maggiore, Manfredi Univ. of Toronto  
Co-Chair: Aguiar, A. Pedro Inst. Superior Tecnico

16:30-16:50 WeC12.1

*Hierarchical Control for Path Tracking of Autonomous Vehicles*, pp. 5619-5624.

Chen, Changfang Beihang Univ.  
Jia, Yingmin Beihang Univ.  
Du, Junping Beijing Univ. of Posts and Telecommunications  
Zhang, Jun Beihang Univ.

16:50-17:10 WeC12.2

*Trajectory Optimization for Vehicles in a Constrained Environment*, pp. 5625-5630.

Bayer, Florian Anton Univ. of Stuttgart  
Hauser, John Univ. of Colorado, Boulder

17:10-17:30 WeC12.3

*Position Control for a Class of Vehicles in SE(3)*, pp. 5631-5636.

Roza, Ashton Univ. of Toronto  
Maggiore, Manfredi Univ. of Toronto

17:30-17:50	WeC12.4
<i>Constrained Motion Planning for Multiple Vehicles on SE(3)</i> , pp. 5637-5642.	
Saccon, Alessandro	Inst. Superior Técnico
Aguiar, A. Pedro	Inst. Superior Técnico
Häusler, Andreas Johannes	Inst. Superior Técnico
Hauser, John	Univ. of Colorado at Boulder
Pascoal, Antonio Manuel	Inst. Superior Técnico

17:50-18:10	WeC12.5
<i>Extended Kalman Filter for Vehicle Tracking Using Road Surface Vibration Measurements</i> , pp. 5643-5648.	
Hostettler, Roland	Luleå Univ. of Tech.
Birk, Wolfgang	Luleå Univ. of Tech.
Lundberg, Magnus	Luleå Univ. of Tech.

18:10-18:30	WeC12.6
<i>Driver/vehicle Response Diagnostic System for Vehicle Following Based on Gaussian Mixture Model</i> , pp. 5649-5654.	
Butakov, Vadim	Univ. of Southern California
Ioannou, Petros A.	Univ. of Southern California
Tippelhofer, Mario	Volkswagen Group of America
Camhi, Jaime	Volkswagen Group of America

<b>WeC13</b>	Ilima 1
<b>Visual Servo Control (Regular Session)</b>	
Chair: Espinoza Quesada, Eduardo Steed	LAFMIA-UMI-CINVESTAV
Co-Chair: Hatanaka, Takeshi	Tokyo Inst. of Tech.

16:30-16:50	WeC13.1
<i>Passivity-Based Visual Pose Regulation for a Moving Target Object in Three Dimensions: Structure Design and Convergence Analysis</i> , pp. 5655-5660.	
Ibuki, Tatsuya	Tokyo Inst. of Tech.
Hatanaka, Takeshi	Tokyo Inst. of Tech.
Fujita, Masayuki	Tokyo Inst. of Tech.

16:50-17:10	WeC13.2
<i>A Port-Hamiltonian Approach to Visual Servo Control of a Pick and Place System</i> , pp. 5661-5666.	
Dirksz, Daniel A.	Eindhoven Univ. of Tech.
Scherpen, Jacquelin M.A.	Univ. of Groningen

17:10-17:30	WeC13.3
<i>Controller's Parameters Tuning in Presence of Time-Delay Measurements: An Application to Vision-Based Quad-Rotor Navigation</i> , pp. 5667-5672.	
Garcia Carrillo, Luis Rodolfo	Univ. of California, Santa Barbara
Espinoza Quesada, Eduardo Steed	LAFMIA-UMI-CINVESTAV
Mondié, Sabine	CINVESTAV-IPN

17:30-17:50	WeC13.4
<i>A Transformation of the Position Based Visual Servoing Problem into a Convex Optimization Problem</i> , pp. 5673-5678.	
Wang, Yuquan	KTH Royal Inst. of Tech.
Thunberg, Anders, Johan	KTH Royal Inst. of Tech.
Hu, Xiaoming	KTH Royal Inst. of Tech.

17:50-18:10	WeC13.5
<i>Kalman Filter-Based Tracking of Multiple Similar Objects from a Moving Camera Platform</i> , pp. 5679-5684.	
Miller, Cory	Univ. of Delaware
Allik, Bethany	Univ. of Delaware
Ilg, Mark	US Army Res. Lab.
Zurakowski, Ryan	Univ. of Delaware

18:10-18:30	WeC13.6
<i>Stability Analysis of Non-Vector Space Control Via Compressive Feedbacks</i> , pp. 5685-5690.	
Zhao, Jianguo	Michigan State Univ.
Xi, Ning	Michigan State Univ.
Sun, Liang	Michigan State Univ.
Song, Bo	Michigan State Univ.

<b>WeC14</b>	Ilima 2
<b>Optimization Algorithms III (Regular Session)</b>	
Chair: Giglio, Davide	Univ. of Genova
Co-Chair: Frazzoli, Emilio	Massachusetts Inst. of Tech.

16:30-16:50	WeC14.1
<i>Models and Efficient Algorithms for Pickup and Delivery Problems on Roadmaps</i> , pp. 5691-5698.	
Treleven, Kyle	Massachusetts Inst. of Tech.
Pavone, Marco	Stanford Univ.
Frazzoli, Emilio	Massachusetts Inst. of Tech.

16:50-17:10	WeC14.2
<i>Hybrid Multiagent Swarm Optimization: Algorithms, Evaluation, and Application</i> , pp. 5699-5704.	
Zhang, Haopeng	Texas Tech. Univ.
Hui, Qing	Texas Tech. Univ.

17:10-17:30	WeC14.3
<i>Model Predictive Control for Optimal Portfolios with Cointegrated Pairs of Stocks</i> , pp. 5705-5710.	
Yamada, Yuji	Univ. of Tsukuba
Primbs, James A.	Stanford Univ.

17:30-17:50	WeC14.4
<i>Solving Multiobjective Optimal Control Problems in Space Mission Design Using Discrete Mechanics and Reference Point Techniques</i> , pp. 5711-5716.	
Ober-Blöbaum, Sina	Univ. of Paderborn
Ringkamp, Maik	Univ. of Erlangen-Nuremberg
zum Felde, Garlef	Univ. of Paderborn

17:50-18:10	WeC14.5
<i>Finite-Horizon LQ Control for Unknown Discrete-Time Linear Systems Via Extremum Seeking</i> , pp. 5717-5722.	
Frihauf, Paul	Univ. of California, San Diego
Krstic, Miroslav	Univ. of California, San Diego
Basar, Tamer	Univ. of Illinois, Urbana-Champaign

18:10-18:30	WeC14.6
<i>A New Result to Generalize and Extend a Single Machine Scheduling Problem Solved by Dynamic Programming</i> , pp. 5723-5730.	
Giglio, Davide	Univ. of Genova

**WeC15** Ilima 3  
**Time-Varying Systems** (Regular Session)

Chair: Campbell, Stephen L North Carolina State Univ.  
Co-Chair: Bonilla, Moises E. CINVESTAV-IPN

16:30-16:50 WeC15.1

*Input-Output Finite-Time Stabilization with Constrained Control Inputs*, pp. 5731-5736.

Amato, Francesco Univ. Magna Graecia di Catanzaro  
Carannante, Giuseppe Univ. degli Studi di Napoli Federico II  
De Tommasi, Gianmaria Univ. degli Studi di Napoli Federico II  
Pironti, Alfredo Univ. degli Studi di Napoli Federico II

16:50-17:10 WeC15.2

*Stability Analysis for Distributed-Parameter Systems Interconnected Via Feedback Channels with Time-Varying Delay*, pp. 5737-5742.

Cantoni, Michael Univ. of Melbourne  
Kao, Chung-Yao National Sun Yat-Sen Univ.

17:10-17:30 WeC15.3

*Singularly Perturbed Implicit Control Law for Linear Time Varying MIMO Systems*, pp. 5743-5748.

Puga, S. A. Acad. de Sistemas, UPIITA-IPN.  
Bonilla, Moises E. CINVESTAV-IPN  
Malabre, Michel CNRS

17:30-17:50 WeC15.4

*Constructing Observers for Linear Time Varying DAEs*, pp. 5749-5754.

Bobinyec, Karen North Carolina State Univ.  
Campbell, Stephen L North Carolina State Univ.  
Kunkel, Peter Leipzig Univ.

17:50-18:10 WeC15.5

*Chang Transformation for Decoupling of Singularly Perturbed Linear Slowly Time-Varying Systems*, pp. 5755-5760.

Yang, Xiaojing Ohio Univ.  
Zhu, J. Jim Ohio Univ.

18:10-18:30 WeC15.6

*Stabilizing Controllers for Multi-Input, Singular Control Gain Systems*, pp. 5761-5767.

Srikant, Sukumar Indian Inst. of Tech. Bombay  
Akella, Maruthi Univ. of Texas, Austin

**WeC16** Haleakala Ballroom 3  
**Game Theoretic Coordination** (Invited Session)

Chair: Zhu, Minghui Massachusetts Inst. of Tech.  
Co-Chair: Savla, Ketan Massachusetts Inst. of Tech.  
Organizer: Zhu, Minghui Massachusetts Inst. of Tech.  
Organizer: Savla, Ketan Univ. of Southern California

16:30-16:50 WeC16.1

*Emergence of Coalitions in Mean Field Stochastic Systems (I)*, pp. 5768-5773.

Kizilkale, Arman C. McGill Univ.  
Caines, Peter E. McGill Univ.

16:50-17:10 WeC16.2

*Multi-Layer Hierarchical Approach to Double Sided Jamming Games among Teams of Mobile Agents (I)*, pp. 5774-5779.

Bhattacharya, Sourabh Univ. of Illinois, Urbana-Champaign  
Basar, Tamer Univ. of Illinois, Urbana-Champaign

17:10-17:30 WeC16.3

*Empirical Evidence Equilibria in Stochastic Games (I)*, pp. 5780-5785.

Dubout, Nicolas Georgia Inst. of Tech.  
Shamma, Jeff S. Georgia Inst. of Tech.

17:30-17:50 WeC16.4

*Distributed Convergence to Nash Equilibria by Adversarial Networks with Directed Topologies (I)*, pp. 5786-5791.

Gharesifard, Bahman Univ. of Illinois, Urbana-Champaign  
Cortes, Jorge Univ. of California, San Diego

17:50-18:10 WeC16.5

*Mean Field LQG Games with Mass Behavior Responsive to a Major Player (I)*, pp. 5792-5797.

Nguyen, Son Carleton Univ.  
Huang, Minyi Carleton Univ.

18:10-18:30 WeC16.6

*On Competitive Search Games for Multiple Vehicles (I)*, pp. 5798-5803.

Zhu, Minghui Massachusetts Inst. of Tech.  
Frazzoli, Emilio Massachusetts Inst. of Tech.

**WeC17** Haleakala Ballroom 5  
**Discrete Event Systems** (Regular Session)

Chair: van den Boom, Ton J. Delft Univ. of Tech. J.  
Co-Chair: Markovski, Jasen Eindhoven Univ. of Tech.

16:30-16:50 WeC17.1

*Process Theory for Supervisory Control with Partial Observation of Events and States*, pp. 5804-5809.

Markovski, Jasen Eindhoven Univ. of Tech.

16:50-17:10 WeC17.2

*On the Synchronization of Cyclic Discrete-Event Systems*, pp. 5810-5815.

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

17:10-17:30 WeC17.3

*Determination of Timed Transitions in Identified Discrete-Event Models for Fault Detection*, pp. 5816-5821.

Schneider, Stefan Univ. of Kaiserslautern  
Litz, Lothar Univ. of Kaiserslautern  
Lesage, Jean-jacques Ens Cachan

17:30-17:50 WeC17.4

*Supervisor Localization of Discrete-Event Systems Based on State Tree Structures*, pp. 5822-5827.

Cai, Kai Univ. of Toronto  
Wonham, W. Murray Univ. of Toronto

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17:50-18:10 WeC17.5

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*Bounded State Space Truncation and Censored Markov Chains*, pp. 5828-5833.

Busic, Ana INRIA and École normale supérieure

Djafri, Hilal ENS Cachan

Fourneau, Jean-Michel Univ. of Versailles

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18:10-18:30 WeC17.6

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*Distributed Frequency Control by Means of Responsive Wind Generation*, pp. 5834-5839.

Angeli, David Imperial Coll. London

De Paola, Antonio Imperial Coll. London

Strbac, Goran Imperial Coll. London

**Technical Program for Thursday December 13, 2012**

**ThPL** Haleakala Ballroom  
**Highly Agile and Robust Robotic Bipedal Locomotion through Nonlinear Geometric Control (Bode Lecture) (Plenary Session)**

Chair: Middleton, Richard H. Univ. of Newcastle  
 Co-Chair: Cassandras, Boston Univ.  
 Christos G.

08:30-09:30 ThPL.1

*Highly Agile and Robust Robotic Bipedal Locomotion through Nonlinear Geometric Control\**.  $\text{BDE}$

Grizzle, Jessie W. Univ. of Michigan

**ThA01** Hibiscus 1  
**Communication Networks (Regular Session)**

Chair: Altafini, Claudio SISSA International School For Advanced Studies  
 Co-Chair: Fischione, Carlo KTH Royal Inst. of Tech.

10:00-10:20 ThA01.1

*Approximate Augmented Lagrangians for Distributed Network Optimization*, pp. 5840-5845.

Chatzipanagiotis, Nikolaos Duke Univ.  
 Dentcheva, Darinka Stevens Inst. of Tech.  
 Zavlanos, Michael M. Duke Univ.

10:20-10:40 ThA01.2

*Electricity Markets Meet the Home through Demand Response*, pp. 5846-5851.

Gkatzikis, Lazaros Univ. of Thessaly, CERTH  
 Salonidis, Theodoros Tech. Paris Res. Lab.  
 Hegde, Nidhi Technicolor  
 Massoulie, Laurent Thomson Tech.

10:40-11:00 ThA01.3

*Delay-Aware BS-DTX Control and User Scheduling for Energy Harvesting Downlink Coordinated MIMO Systems*, pp. 5852-5857.

Cui, Ying Hong Kong Univ. of Science and Tech.  
 Lau, Vincent K. N. Hong Kong Univ. of Science and Tech.

11:00-11:20 ThA01.4

*Maximizing System Throughput Using Cooperative Sensing in Multi-Channel Cognitive Radio Networks*, pp. 5858-5863.

Li, Shuang Ohio State Univ.  
 Zheng, Zizhan Ohio State Univ.  
 Ekici, Eylem Ohio State Univ.  
 Shroff, Ness B. Ohio State Univ.

11:20-11:40 ThA01.5

*Delay Distribution Analysis of Wireless Personal Area Networks*, pp. 5864-5869.

Park, Pangun KTH Royal Inst. of Tech.  
 Di Marco, Piergiuseppe KTH Royal Inst. of Tech.  
 Fischione, Carlo KTH Royal Inst. of Tech.  
 Johansson, Karl H. KTH Royal Inst. of Tech.

11:40-12:00 ThA01.6

*Asynchronous Subgradient Methods with Unbounded Delays for Communication Networks*, pp. 5870-5875.

Gatsis, Nikolaos Univ. of Minnesota  
 Giannakis, Georgios B. Univ. of Minnesota

12:00-12:20 ThA01.7

*Dynamics of Opinion Forming in Structurally Balanced Social Networks*, pp. 5876-5881.

Altafini, Claudio SISSA International School For Advanced Studies

**ThA02** Hibiscus 2  
**Output Feedback and Observers I (Regular Session)**

Chair: Germani, Alfredo Univ. dell'Aquila  
 Co-Chair: Perruquetti, Wilfrid Ec. Centrale de Lille

10:00-10:20 ThA02.1

*State Reconstruction of Nonlinear Differential-Algebraic Systems with Unknown Inputs*, pp. 5882-5887.

Bejarano, Francisco Javier INRIA Lille-Nord  
 Perruquetti, Wilfrid Ec. Centrale de Lille  
 Floquet, Thierry CNRS  
 ZHENG, Gang INRIA

10:20-10:40 ThA02.2

*A Separation Theorem for a Class of MIMO Discrete-Time Nonlinear Systems*, pp. 5888-5893.

Conte, Francesco Univ. dell'Aquila  
 Cusimano, Valerio Univ. Campus Bio-Medico di Roma  
 Germani, Alfredo Univ. dell'Aquila

10:40-11:00 ThA02.3

*On the Robustness of Hysteretic Second-Order Systems with PID: Iiss Approach*, pp. 5894-5899.

Ouyang, Ruiyue Univ. of Groningen  
 Jayawardhana, Bayu Univ. of Groningen  
 Andrieu, Vincent Univ. de Lyon

11:00-11:20 ThA02.4

*Globally Convergent Nonlinear Observer for the Sensorless Control of Surface-Mount Permanent Magnet Synchronous Machines*, pp. 5900-5905.

Malaize, Jeremy IFP New Energy  
 Praly, Laurent Mines ParisTech  
 Henwood, Nicolas IFP Energies Nouvelles

11:20-11:40 ThA02.5

*Finite-Time Output Stabilization of the Double Integrator*, pp. 5906-5911.

Bernuau, Emmanuel Ec. Centrale de Lille  
 Perruquetti, Wilfrid Ec. Centrale de Lille  
 Efimov, Denis INRIA - LNE  
 Moulay, Emmanuel Univ. de Poitiers

11:40-12:00 ThA02.6

*Full-Order Extended High Gain Observers for a Class of Nonlinear Systems*, pp. 5912-5917.

Boker, Al-Muatazbellah M Michigan State Univ.  
 Khalil, Hassan K. Michigan State Univ.

12:00-12:20	ThA02.7
<i>Local Full-State Observers on Linear Lie Groups with Linear Error Dynamics</i> , pp. 5918-5923.	
Koldychev, Mikhail	Univ. of Waterloo
Nielsen, Christopher	Univ. of Waterloo

<b>ThA03</b>	Hibiscus 3
<b>Cooperative Control IV</b> (Regular Session)	
Chair: Polushin, Ilia G.	Western Univ.
Co-Chair: Iwasaki, Tetsuya	UCLA

10:00-10:20	ThA03.1
<i>On the Formation Patterns in Cyclic Pursuit of Double-Integrator Agents</i> , pp. 5924-5929.	
Juang, Jyh-Ching	National Cheng Kung Univ.

10:20-10:40	ThA03.2
<i>An <math>H_\infty/L_1</math> Approach to Cooperative Control of Multi-Agent Systems</i> , pp. 5930-5935.	
Pilz, Ulf	Hamburg Univ. of Tech.
Werner, Herbert	Hamburg Univ. of Tech.

10:40-11:00	ThA03.3
<i>Adaptive Synchronization of Networked Lagrangian Systems with Irregular Communication Delays</i> , pp. 5936-5941.	
Abdessameud, Abdelkader	Univ. of Western Ontario
Polushin, Ilia G.	Western Univ.
Tayebi, Abdelhamid	Lakehead Univ.

11:00-11:20	ThA03.4
<i>Orbital Stability Analysis of Coupled Harmonic Oscillators</i> , pp. 5942-5947.	
Liu, Xinmin	Univ. of California, Los Angeles
Iwasaki, Tetsuya	Univ. of California, Los Angeles

11:20-11:40	ThA03.5
<i>Consensus Output Regulation without State Estimation for a Class of Nonlinear Systems</i> , pp. 5948-5953.	
Ding, Zhengtao	Univ. of Manchester

11:40-12:00	ThA03.6
<i>Topological Heterogeneity and Optimality Analysis for Multi-Agent Formation</i> , pp. 5954-5959.	
Zhang, Haopeng	Texas Tech. Univ.
Hui, Qing	Texas Tech. Univ.

12:00-12:20	ThA03.7
<i>A Constructive Approach to Synchronization Using Relative Information</i> , pp. 5960-5965.	
Wu, Jingbo	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart

<b>ThA04</b>	Plumeria 1
<b>Markov Processes I</b> (Regular Session)	
Chair: Belta, Calin	Boston Univ.
Co-Chair: Yin, George	Wayne State Univ.

10:00-10:20	ThA04.1
<i>Approximate Markovian Abstractions for Linear Stochastic Systems</i> , pp. 5966-5971.	
Lahijanian, Morteza	Boston Univ.
Andersson, Sean	Boston Univ.
Belta, Calin	Boston Univ.

10:20-10:40	ThA04.2
<i>Sampling-Based Algorithm for Filtering Using Markov Chain Approximations</i> , pp. 5972-5978.	
Chaudhari, Pratik	Massachusetts Inst. of Tech.
Karaman, Sertac	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.

10:40-11:00	ThA04.3
<i>Stability of Jump Diffusions with Random Switching (I)</i> , pp. 5979-5984.	
Yin, George	Wayne State Univ.
Xi, Fubao	Beijing Inst. of Tech.

11:00-11:20	ThA04.4
<i>Large Deviations for Systems Driven by Two-Time-Scale Nonhomogeneous Markovian Chains and Applications to Optimal Control Problems (I)</i> , pp. 5985-5990.	
He, Qi	Wayne State Univ.
Yin, George	Wayne State Univ.
Zhang, Qing	Univ. of Georgia

11:20-11:40	ThA04.5
<i>Dominance-Constrained Markov Decision Processes</i> , pp. 5991-5996.	
Haskell, William	Univ. of Southern California
Jain, Rahul	Univ. of Southern California

11:40-12:00	ThA04.6
<i>The Complexity of Policy Iteration Is Exponential for Discounted Markov Decision Processes</i> , pp. 5997-6002.	
Hollanders, Romain	UC Louvain
Delvenne, Jean-Charles	UC Louvain
Jungers, Raphaël M.	UC Louvain

12:00-12:20	ThA04.7
<i>Static Output Feedback <math>H_2/H_\infty</math> Control of Infinite Horizon Markov Jump Linear Stochastic Systems with Multiple Decision Makers</i> , pp. 6003-6008.	
Mukaidani, Hiroaki	Hiroshima Univ.
Xu, Hua	Univ. of Tsukuba
Yamamoto, Toru	Hiroshima Univ.
Dragan, Vasile	Romanian Acad.

<b>ThA05</b>	Plumeria 2
<b>Filtering</b> (Regular Session)	
Chair: Blom, Henk A.P.	National Aerospace Lab. NLR & Delft Univ. of Tech.
Co-Chair: de Callafon, Raymond A.	Univ. of California, San Diego

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10:00-10:20 ThA05.1

*Min-Plus Techniques for Set-Valued State Estimation*, pp. 6009-6014.

Kallapur, Abhijit	Univ. of New South Wales at the ADFA
Sridharan, Srinivas	Univ. of California, San Diego
McEneaney, William	Univ. of California, San Diego
Petersen, Ian R.	Univ. of New South Wales at the ADFA

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10:20-10:40 ThA05.2

*The Continuous Time Roots of the Interacting Multiple Model Filter*, pp. 6015-6021.

Blom, Henk A.P.	National Aerospace Lab. NLR & Delft Univ. of Tech.
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10:40-11:00 ThA05.3

*Comparison of the Sparse-Grid Quadrature Rule and the Cubature Rule in the Nonlinear Filtering*, pp. 6022-6027.

Jia, Bin	Mississippi State Univ.
Xin, Ming	Mississippi State Univ.
Cheng, Yang	Mississippi State Univ.

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11:00-11:20 ThA05.4

*Observer Design for Stochastic Nonlinear Systems Using Contraction Analysis*, pp. 6028-6035.

Dani, Ashwin	Univ. of Illinois at Urbana-Champaign
Chung, Soon-Jo	Univ. of Illinois at Urbana-Champaign
Hutchinson, Seth	Univ. of Illinois at Urbana-Champaign

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11:20-11:40 ThA05.5

*Dynamical Filtering Equations for Stochastic Hybrid System State Estimation*, pp. 6036-6041.

Liu, Weiyi	Purdue Univ.
Hwang, Inseok	Purdue Univ.

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11:40-12:00 ThA05.6

*Nonlinear Gaussian Filtering Via Radial Basis Function Approximation*, pp. 6042-6047.

Fang, Huazhen	Univ. of California, San Diego
Wang, Jia	Dalian Univ. of Tech.
de Callafon, Raymond A.	Univ. of California, San Diego

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12:00-12:20 ThA05.7

*On Designing Event-Based  $H_\infty$  Filters for Sampled-Data Systems*, pp. 6048-6053.

ZHANG, XIANMING	Central Queensland Univ.
Han, Qing-Long	Central Queensland Univ.

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**ThA06** Plumeria 3  
**Adaptive Control IV** (Regular Session)

Chair: di Bernardo, Mario	Univ. of Naples Federico II
Co-Chair: Miyasato, Yoshihiko	Inst. of Statistical Mathematics

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10:00-10:20 ThA06.1

*Adaptive Backstepping Cancellation of Unmatched Unknown Sinusoidal Disturbances for Unknown LTI Systems by State Derivative Feedback*, pp. 6054-6059.

Basturk, Halil I.	Univ. of California, San Diego
Krstic, Miroslav	Univ. of California, San Diego

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10:20-10:40 ThA06.2

*Adaptive Pinning Control of Complex Networks of Lur'e Systems*, pp. 6060-6064.

De Lellis, Pietro	Univ. of Naples Federico II
di Bernardo, Mario	Univ. of Naples Federico II

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10:40-11:00 ThA06.3

*Extremum Seeking-Based Tracking for Unknown Systems with Unknown Control Directions*, pp. 6065-6070.

Scheinker, Alexander	UCSD, Los Alamos National Lab.
Krstic, Miroslav	Univ. of California, San Diego

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11:00-11:20 ThA06.4

*Adaptive  $H$ -Infinity Formation Control for Infinite-Dimensional Systems*, pp. 6071-6076.

Miyasato, Yoshihiko	Inst. of Statistical Mathematics
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11:20-11:40 ThA06.5

*Non-Local Stability of a Nash Equilibrium Seeking Scheme with Dither Re-Use*, pp. 6077-6082.

Kutadinata, Ronny	Univ. of Melbourne
Moase, William	Univ. of Melbourne
Manzie, Chris	Univ. of Melbourne

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11:40-12:00 ThA06.6

*Fast Adaptation for an Uncertain Nonlinear System Using Adaptive Feedback Linearization with Optimal Control Modification*, pp. 6083-6089.

Cho, Dongsoo	Seoul National Univ.
Kim, H. Jin	Seoul National Univ.

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12:00-12:20 ThA06.7

*Adaptive Sliding Mode Control Using Slack Variables for Affine Underactuated Systems*, pp. 6090-6095.

Kim, Mingu	Seoul National Univ.
Kim, Youdan	Seoul National Univ.
Jun, Jaiung	Seoul National Univ.

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**ThA07** Maile 1

**Quantized Systems** (Regular Session)

Chair: Coutinho, Daniel	Univ. Federal de Santa Catarina
Co-Chair: Tarraf, Danielle C.	The Johns Hopkins Univ.

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10:00-10:20 ThA07.1

*Stability Analysis of Input and Output Finite Level Quantized Discrete-Time Linear Control Systems*, pp. 6096-6101.

Maestrelli, Rafael	PUC-PR
Coutinho, Daniel	Univ. Federal de Santa Catarina
de Souza, Carlos E.	LNCC

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10:20-10:40 ThA07.2

*Input-Output Based  $\rho/\mu$  Approximations for Systems with No Exogenous Inputs*, pp. 6102-6106.

Tarraf, Danielle C.	Johns Hopkins Univ.
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10:40-11:00	ThA07.3
<i>Convergence of a PI Coordination Protocol in Networks with Switching Topology and Quantized Measurements</i> , pp. 6107-6112.	
Xargay, Enric	Univ. of Illinois, Urbana-Champaign
Choe, Ronald	Univ. of Illinois at Urbana-Champaign
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
Kaminer, Isaac	Naval Postgraduate School

11:00-11:20	ThA07.4
<i>A Mechanism Design Model in Robot-Service-Queue Control with Strategic Operators and Asymmetric Information</i> , pp. 6113-6119.	
Xu, Ying	Carnegie Mellon Univ.
Dai, Tinglong	Carnegie Mellon Univ.
Sycara, Katia	Carnegie Mellon Univ.
Lewis, Michael	Univ. of Pittsburgh

11:20-11:40	ThA07.5
<i>Automatic Control Software Synthesis for Quantized Discrete Time Hybrid Systems</i> , pp. 6120-6125.	
Alimguzhin, Vadim	Sapienza Univ. of Rome
Mari, Federico	Sapienza Univ. of Rome
Melatti, Igor	Sapienza Univ. of Rome
Salvo, Ivano	Sapienza Univ. of Rome
Tronci, Enrico	Sapienza Univ. of Rome

11:40-12:00	ThA07.6
<i>On Optimal Zero-Delay Quantization of Vector Markov Sources</i> , pp. 6126-6131.	
Yuksel, Serdar	Queen's Univ.
Linder, Tamas	Queen's Univ.

12:00-12:20	ThA07.7
<i>Optimal Adaptive Controller Scheme for Uncertain Quantized Linear Discrete-Time System</i> , pp. 6132-6137.	
Zhao, Qiming	Missouri Univ. of Science & Tech.
XU, HAO	Missouri Univ. of Science & Tech.
Jagannathan, Sarangapani	Missouri Univ. of Science & Tech.

<b>ThA08</b>	Maile 2
<b>Hybrid Systems II (Regular Session)</b>	

Chair: Menini, Laura	Univ. di Roma Tor Vergata
Co-Chair: Huang, Yuan Can	Beijing Inst. of Tech.

10:00-10:20	ThA08.1
<i>Guard Synthesis for Safety of Hybrid Systems Using Sum of Squares Programming</i> , pp. 6138-6143.	
Coogan, Samuel	Univ. of California, Berkeley
Arcak, Murat	Univ. of California, Berkeley

10:20-10:40	ThA08.2
<i>LQ-Based Optimization for Linear Impulsive Control Systems Mixed with Continuous-Time Controls and Fixed-Time Impulses</i> , pp. 6144-6150.	
Huang, Yuan Can	Beijing Inst. of Tech.
Zhang, Yiqun	Inst. of Electronic System Engineering
Xia, Hui	Inst. of Electronic System Engineering
Liang, Tong	Inst. of Electronic System Engineering
Cheng, Dongfang	Beijing Inst. of Tech.

10:40-11:00	ThA08.3
<i>Output Regulation for a Class of Linear Hybrid Systems. Part 1: Trajectory Generation</i> , pp. 6151-6156.	
Carnevale, Daniele	Univ. di Roma Tor Vergata
Galeani, Sergio	Univ. di Roma Tor Vergata
Menini, Laura	Univ. di Roma Tor Vergata

11:00-11:20	ThA08.4
<i>Output Regulation for a Class of Linear Hybrid Systems. Part 2: Stabilization</i> , pp. 6157-6162.	
Carnevale, Daniele	Univ. di Roma Tor Vergata
Galeani, Sergio	Univ. di Roma Tor Vergata
Menini, Laura	Univ. di Roma Tor Vergata

11:20-11:40	ThA08.5
<i>Timeout Control in Distributed Systems Using Perturbation Analysis: Multiple Communication Links</i> , pp. 6163-6168.	
Kebarighotbi, Ali	Boston Univ.
Cassandras, Christos G.	Boston Univ.

11:40-12:00	ThA08.6
<i>Generalized Solutions to Hybrid Systems with Delays</i> , pp. 6169-6174.	
Liu, Jun	Univ. of Sheffield
Teel, Andrew R.	Univ. of California, Santa Barbara

12:00-12:20	ThA08.7
<i>Hybrid High-Gain Observers without Peaking for Planar Nonlinear Systems</i> , pp. 6175-6180.	
Prieur, Christophe	CNRS
Tarbouriech, Sophie	LAAS-CNRS
Zaccarian, Luca	LAAS-CNRS

<b>ThA09</b>	Maile 3
<b>Fuzzy Systems (Regular Session)</b>	

Chair: Shi, Peng	Univ. of Glamorgan
Co-Chair: Tanaka, Kazuo	Univ. of Electro-Communications

10:00-10:20	ThA09.1
<i>Discrete-Time LTI Fuzzy Systems: Stability and Representation</i> , pp. 6181-6186.	
Oliva, Gabriele	Univ. Roma Tre
Setola, Roberto	Univ. Campus Biomedico
Panzieri, Stefano	Univ. Roma Tre

10:20-10:40	ThA09.2
<i>Domain of Attraction Analysis for Continuous-Time Takagi-Sugeno Fuzzy Systems: An LMI Approach</i> , pp. 6187-6192.	
Lee, DongHwan	Yonsei Univ.



10:40-11:00	ThA09.3
<i>Full and Reduced-Order Filter Design for Discrete-Time Takagi-Sugeno Fuzzy Systems with Time-Varying Delay</i> , pp. 6193-6198.	
Su, Xiaojie	Harbin Insitute of Tech.
Shi, Peng	Univ. of Glamorgan
Wu, Ligang	Harbin Institute of Tech.
Karimi, Hamid Reza	Univ. of Agder
Yang, Rongni	Univ. of Glamorgan

11:00-11:20	ThA09.4
<i>Induced <math>\ell_2</math> Control of Discrete-Time Takagi-Sugeno Fuzzy Systems with Time-Varying Delays Via Dynamic Output Feedback</i> , pp. 6199-6204.	
Su, Xiaojie	Harbin Insitute of Tech.
Shi, Peng	Univ. of Glamorgan
Wu, Ligang	Harbin Inst. of Tech.
Karimi, Hamid Reza	Univ. of Agder
Yang, Rongni	Univ. of Glamorgan

11:20-11:40	ThA09.5
<i>Using Information on Membership Function Shapes in Asymptotically Exact Triangulation Approaches</i> , pp. 6205-6210.	
Campos, Victor Costa da Silva	Federal Univ. of Minas Gerais
Torres, Leonardo A. B.	Federal Univ. of Minas Gerais
Palhares, Reinaldo Martinez	Federal Univ. of Minas Gerais

11:40-12:00	ThA09.6
<i>Unknown Input Observer for Vehicle Lateral Dynamics Based on a Takagi-Sugeno Model with Unmeasurable Premise Variables</i> , pp. 6211-6216.	
Yacine, Zadjiga	IBISC, Univ. d'Evry
lchalal, Dalil	IBISC, Univ. d'Evry
AIT OUFROUKH, NAIMA	IBISC, Univ. d'Evry
Mammar, Said	IBISC, Univ. d'Evry
DJENNOUNE, Said	Univ. of Mouloud Mammeri, Tizi-Ouzou

12:00-12:20	ThA09.7
<i>A Takagi-Sugeno Fuzzy Model Approach to Vision-Based Control of a Micro Helicopter</i> , pp. 6217-6222.	
Tanaka, Kazuo	Univ. of Electro-Communications
Ohtake, Hiroshi	Kyushu Inst. of Tech.
Tanaka, Motoyasu	Univ. of Electro-Communications
Wang, Hua O.	Boston Univ.

<b>ThA10</b>	Pikake 1
<b>Decentralized Control I (Regular Session)</b>	
Chair: Chen, YangQuan	Utah State Univ.
Co-Chair: Lessard, Laurent	Lund Univ.

10:00-10:20	ThA10.1
<i>Contraction Theory Approach to Generalized Decentralized Cyclic Algorithms for Global Formation Acquisition and Control</i> , pp. 6223-6228.	
Ramirez-Riberos, Jaime L	Aurora Flight Sciences Corp.
Slotine, Jean-Jacques E.	Massachusetts Inst. of Tech.

10:20-10:40	ThA10.2
<i>Set Theory Based Condition in LMI Form for Network Topology Preservation for Decentralized Control</i> , pp. 6229-6234.	
Fiacchini, Mirko	CNRS
Moraescu, Irinel Constantin	INPL

10:40-11:00	ThA10.3
<i>Decentralized Multi-Agent Control from Local LTL Specifications</i> , pp. 6235-6240.	
Filippidis, Ioannis	National Tech. Univ. of Athens
Dimarogonas, Dimos V.	KTH Royal Inst. of Tech.
Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens

11:00-11:20	ThA10.4
<i>Decentralized LQG Control of Systems with a Broadcast Architecture (I)</i> , pp. 6241-6246.	
Lessard, Laurent	Lund Univ.

11:20-11:40	ThA10.5
<i>Decentralized Control Based on Globally Optimal Estimation</i> , pp. 6247-6252.	
Reinhardt, Marc	Karlsruhe Inst. of Tech.
Noack, Benjamin	Karlsruhe Inst. of Tech.
Hanebeck, Uwe D.	Karlsruhe Inst. of Tech.

11:40-12:00	ThA10.6
<i>Design of Consensus Protocol for Nonholonomic Systems under Directed Communication Topology</i> , pp. 6253-6258.	
Xu, Yaojin	Southeast Univ.
Tian, Yu-Ping	Southeast Univ.
Chen, YangQuan	Univ. of California, Merced

12:00-12:20	ThA10.7
<i>Decentralized Computation for Robust Stability of Large-Scale Systems with Parameters on the Hypercube</i> , pp. 6259-6264.	
Kamyar, Reza	Arizona State Univ.
Peet, Matthew M.	Arizona State Univ.

<b>ThA11</b>	Pikake 2
<b>Convex Relaxation in Identification and Control (Invited Session)</b>	
Chair: Regruto, Diego	Pol. di Torino
Co-Chair: Tóth, Roland	Delft Univ. of Tech.
Organizer: Regruto, Diego	Pol. di Torino
Organizer: Molazem	Colorado School of Mines
Sanandaji, Borhan	
Organizer: Tóth, Roland	Delft Univ. of Tech.

10:00-10:20	ThA11.1
<i>Linear System Identification Via Atomic Norm Regularization (I)</i> , pp. 6265-6270.	
Shah, Parikshit	Massachusetts Inst. of Tech.
Bhaskar, Badri Narayan	Univ. of Wisconsin, Madison
Tang, Gongguo	Univ. of Wisconsin, Madison
Recht, Benjamin	Univ. of Wisconsin, Madison

10:20-10:40	ThA11.2
<i>Order and Structural Dependence Selection of LPV-ARX Models Revisited (I)</i> , pp. 6271-6276.	
Tóth, Roland	Eindhoven Univ. of Tech.
Hjalmarsson, Håkan	KTH Royal Inst. of Tech.
Rojas, Cristian R.	KTH Royal Inst. of Tech.

10:40-11:00 ThA11.3

*A Tutorial on Recovery Conditions for Compressive System Identification of Sparse Channels (I)*, pp. 6277-6283.

Sanandaji, Borhan M. Univ. of California, Berkeley  
Vincent, Tyrone L. Colorado School of Mines  
Poolla, Kameshwar Univ. of California at Berkeley  
Wakin, Michael Colorado School of Mines

11:00-11:20 ThA11.4

*A Convex Optimization Approach to Model (In)validation of Switched ARX Systems with Unknown Switches (I)*, pp. 6284-6290.

Cheng, Yongfang Northeastern Univ.  
Wang, Yin Northeastern Univ.  
Sznaier, Mario Northeastern Univ.  
Ozay, Necmiye California Inst. of Tech.  
Lagoa, Constantino M. Pennsylvania State Univ.

11:20-11:40 ThA11.5

*Joint Order and Dependency Reduction for LPV State-Space Models (I)*, pp. 6291-6296.

Siraj, Muhammad Mohsin Eindhoven Univ. of Tech.  
Tóth, Roland Eindhoven Univ. of Tech.  
Weiland, Siep Eindhoven Univ. of Tech.

11:40-12:00 ThA11.6

*Fixed Order LPV Controllers Design for LPV Models in Input-Output Form (I)*, pp. 6297-6302.

Cerone, Vito Pol. di Torino  
Piga, Dario Delft Univ. of Tech.  
Regruto, Diego Pol. di Torino  
Tóth, Roland Eindhoven Univ. of Tech.

12:00-12:20 ThA11.7

*Sampled-Data Control of LPV Systems Using Input Delay Approach (I)*, pp. 6303-6308.

Ramezanifar, Amin Univ. of Houston  
Mohammadpour, Javad Univ. of Georgia  
Grigoriadis, Karolos M. Univ. of Houston

**ThA12** Pikake 3  
**Automotive Control II (Regular Session)**

Chair: Falcone, Paolo Chalmers Univ. of Tech.  
Co-Chair: Evangelou, Simos Imperial Coll. London  
Andreas

10:00-10:20 ThA12.1

*Automatic Collision Avoidance Using Model-Predictive Online Optimization (I)*, pp. 6309-6314.

Werling, Moritz BMW  
Liccardo, Darren BMW Group

10:20-10:40 ThA12.2

*Threat Assessment Design under Driver Parameter Uncertainty (I)*, pp. 6315-6320.

Ali, Mohammad Volvo Car Corp.  
Falcone, Paolo Chalmers Univ. of Tech.  
Sjöberg, Jonas Chalmers Univ. of Tech.

10:40-11:00 ThA12.3

*Computing Minimum Lap-Time Trajectories for a Single-Track Car with Load Transfer*, pp. 6321-6326.

Rucco, Alessandro Univ. del Salento  
Notarstefano, Giuseppe Univ. del Salento  
Hauser, John Univ. of Colorado at Boulder

11:00-11:20 ThA12.4

*Efficiency Maximizing and Charge Sustaining Supervisory Control for Series Hybrid Electric Vehicles*, pp. 6327-6332.

Shabbir, Wassif Imperial Coll. London  
Evangelou, Simos Andreas Imperial Coll. London

11:20-11:40 ThA12.5

*Controlling an Active Suspension Using Methods of Optimal Control*, pp. 6333-6339.

Spirk, Sebastian Tech. Univ. München  
Lohmann, Boris Tech. Univ. München

11:40-12:00 ThA12.6

*A Real Time Implementation of MPC Based Motion Cueing Strategy for Driving Simulators*, pp. 6340-6345.

Maran, Fabio Univ. di Padova  
Beghi, Alessandro Univ. di Padova  
Bruschetta, Mattia Univ. of Padova

12:00-12:20 ThA12.7

*Dimensioning and Control of a Thermally Constrained Double Buffer Plug-In HEV Powertrain (I)*, pp. 6346-6351.

Murgovski, Nikolce Chalmers Univ. of Tech.  
Johannesson, Lars Chalmers Univ. of Tech.  
Grauers, Anders Chalmers Univ. of Tech.  
Sjöberg, Jonas Chalmers Univ. of Tech.

**ThA13** Ilima 1

**Process Control I (Regular Session)**

Chair: Simaan, Marwan A. Univ. of Central Florida  
Co-Chair: Forgiione, Marco Delft Univ. of Tech.

10:00-10:20 ThA13.1

*Thermodynamics Based Stabilization of CSTR Networks*, pp. 6352-6357.

Hoang, Ngoc Ha Univ. Claude Bernard Lyon 1  
Couenne, Françoise Univ. of Lyon  
Le Gorrec, Yann ENSMM, FEMTO-ST / AS2M  
Dochain, Denis Univ. Catholique de Louvain

10:20-10:40 ThA13.2

*Control of Tandem Hot Metal Strip Rolling Processes Using an Improvement to the State Dependent Riccati Equation Technique*, pp. 6358-6363.

Pittner, John Univ. of Pittsburgh  
Simaan, Marwan A. Univ. of Central Florida

10:40-11:00 ThA13.3

*Batch-To-Batch Strategies for Cooling Crystallization*, pp. 6364-6369.

Forgione, Marco Delft Univ. of Tech.  
Mesbah, Ali Massachusetts Inst. of Tech.  
Bombois, Xavier Delft Univ. of Tech.  
Van den Hof, Paul M.J. Eindhoven Univ. of Tech.

11:00-11:20	ThA13.4
<i>Real-Time Scheduling of Batch Processes Via Multi-Agent Based Modeling</i> , pp. 6370-6375.	
Chu, Yunfei	Northwestern Univ.
Wassick, John	Dow Chemical Company
You, Fengqi	Northwestern Univ.
11:20-11:40	ThA13.5
<i>Hierarchical Control of a Renewable Hybrid Energy System</i> , pp. 6376-6381.	
Trifkovic, Milana	Univ. of Minnesota
Sheikhzadeh, Mehdi	Lambton Coll.
Nigim, Khaled	Lambton Coll.
Daoutidis, Prodromos	Univ. of Minnesota
11:40-12:00	ThA13.6
<i>Feedback Control and Estimation of Crystal Size Distribution in a Cooling Batch Crystallizer Based on Reachability Analysis</i> , pp. 6382-6387.	
Zhang, Kun	Univ. Claude Bernard Lyon 1
Nadri, Madiha	Univ. Claude Bernard Lyon 1
XU, Chengzhong	Univ. Claude Bernard Lyon1
12:00-12:20	ThA13.7
<i>Graph Reduction for Hierarchical Control of Energy Integrated Process Networks</i> , pp. 6388-6393.	
Heo, Seongmin	Univ. of Minnesota
Jogwar, Sujit S.	Univ. of Minnesota
Rangarajan, Srinivas	Univ. of Minnesota
Daoutidis, Prodromos	Univ. of Minnesota
<b>ThA14</b>	Ilima 2
<b>Optimal Control I (Regular Session)</b>	
Chair: Pham, Van Thang	Gipsa-Lab.
Co-Chair: Pereira, Fernando Lobo	Porto Univ.
10:00-10:20	ThA14.1
<i>The Generalised Discrete Algebraic Riccati Equation Arising in LQ Optimal Control Problems: Part I</i> , pp. 6394-6399.	
Ferrante, Augusto	Univ. di Padova
Ntogramatzidis, Lorenzo	Curtin Univ.
10:20-10:40	ThA14.2
<i>The Generalised Discrete Algebraic Riccati Equation Arising in LQ Optimal Control Problems: Part II</i> , pp. 6400-6405.	
Ferrante, Augusto	Univ. di Padova
Ntogramatzidis, Lorenzo	Curtin Univ.
10:40-11:00	ThA14.3
<i>On the Extension of Classical Calculus of Variations and Optimal Control to Problems with Discontinuous Trajectories</i> , pp. 6406-6411.	
Arutyunov, Aram V.	Peoples Friendship Univ. Russia
Karamzin, Dmitry	Moscow State Univ.
Pereira, Fernando Lobo	Porto Univ.
11:00-11:20	ThA14.4
<i>Predictive Control with Terminal Constraint for 2x2 Hyperbolic Systems of Conservation Laws</i> , pp. 6412-6417.	
Pham, Van Thang	GIPSA-Lab. Grenoble INP
Georges, Didier	Grenoble Inst. of Tech.
Besancon, Gildas	GIPSA-Lab. Grenoble INP

11:20-11:40	ThA14.5
<i>A New Sufficient Condition for Optimal Impulsive Control Problems</i> , pp. 6418-6423.	
de Oliveira, Valeriano	State Univ. of São Paulo
Silva, Geraldo Nunes	Univ. Estadual Paulista
Pereira, Fernando Lobo	Porto Univ.
11:40-12:00	ThA14.6
<i>Discrete Clebsch Optimal Control (I)</i> , pp. 6424-6429.	
Nordkvist, Nikolaj	Leeward Community Coll.
Crouch, Peter	Univ. of Hawaii
Bloch, Anthony M.	Univ. of Michigan
12:00-12:20	ThA14.7
<i>Nonlinear Optimal Stabilizing Control under Sampling</i> , pp. 6430-6435.	
Tanasa, Valentin	Univ. Pol. Bucharest
Monaco, Salvatore	Univ. di Roma
Normand-Cyrot, Marie-Dorothee	CNRS-Supélec
<b>ThA15</b>	Ilima 3
<b>Sliding Mode Control I (Regular Session)</b>	
Chair: Chitour, Yacine	Univ. Paris-Sud, CNRS, Supelec
Co-Chair: Moreno, Jaime A.	Univ. Nacional Autonoma de Mexico-UNAM
10:00-10:20	ThA15.1
<i>Robust and Adaptive Higher Order Sliding Mode Controllers</i> , pp. 6436-6441.	
Harmouche, Mohamed	UTBM
Laghrouche, Salah	UTBM
Chitour, Yacine	Univ. Paris-Sud, CNRS, Supelec
10:20-10:40	ThA15.2
<i>Integral Sliding Mode Control for Linear Time-Invariant Implicit Descriptions</i> , pp. 6442-6447.	
Castaños, Fernando	CINVESTAV
Hernandez, Debbie	CINVESTAV-IPN
Fridman, Leonid M.	Univ. Nacional Autonoma de Mexico-UNAM
10:40-11:00	ThA15.3
<i>Lyapunov Function for Levant's Second Order Differentiator</i> , pp. 6448-6453.	
Moreno, Jaime A.	Univ. Nacional Autonoma de Mexico-UNAM
11:00-11:20	ThA15.4
<i>Construction of Lyapunov Functions for a Class of Higher Order Sliding Modes Algorithms</i> , pp. 6454-6459.	
Sanchez, Tonametl	Univ. Nacional Autonoma de Mexico-UNAM
Moreno, Jaime A.	Univ. Nacional Autonoma de Mexico-UNAM
11:20-11:40	ThA15.5
<i>Asymptotic Stabilization in Fixed Time Via Sliding Mode Control</i> , pp. 6460-6465.	
Cruz-Zavala, Emmanuel	Univ. Nacional Autonoma de Mexico
Moreno, Jaime A.	Univ. Nacional Autonoma de Mexico-UNAM
Fridman, Leonid M.	Univ. Nacional Autonoma de Mexico-UNAM

11:40-12:00	ThA15.6
<i>Second-Order Sliding Mode Control for Passive Ranging System in Missile Interception</i> , pp. 6466-6471.	
Wang, Ting-Kuo	National Taiwan Univ.
Fu, Li-Chen	National Taiwan Univ.
Jean, Jong-Hann	St. John's Univ.

12:00-12:20	ThA15.7
<i>Second Order Sliding Mode Control of a 3-Dimensional Overhead Crane</i> , pp. 6472-6476.	
Vazquez, Carlos	National Autonomous Univ. of Mexico
Fridman, Leonid M.	National Autonomous Univ. of Mexico
Collado, Joaquin	CINVESTAV

<b>ThA16</b>	Haleakala Ballroom 3
<b>Game Theory I (Regular Session)</b>	

Chair: Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
Co-Chair: Spieser, Kevin	Massachusetts Inst. of Tech.

10:00-10:20	ThA16.1
<i>A Dynamic Transmitter-Jammer Game with Asymmetric Information (I)</i> , pp. 6477-6482.	
Gupta, Abhishek	Univ. of Illinois at Urbana Champaign
Nayyar, Ashutosh	Univ. of California, Berkeley
Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
Basar, Tamer	Univ. of Illinois, Urbana-Champaign

10:20-10:40	ThA16.2
<i>A Full Characterization of the Set of Optimal Affine Solutions to the Reverse Stackelberg Game</i> , pp. 6483-6488.	
Groot, Noortje	Delft Univ. of Tech.
De Schutter, Bart	Delft Univ. of Tech.
Hellendoorn, Hans	Delft Univ. of Tech.

10:40-11:00	ThA16.3
<i>Approximate Solutions to a Class of Nonlinear Differential Games</i> , pp. 6489-6494.	
Mylvaganam, Thulasi	Imperial Coll. London
Sassano, Mario	Imperial Coll. London
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome

11:00-11:20	ThA16.4
<i>Characterization of Robust Feedback Nash Equilibrium for Multi-Channel Systems</i> , pp. 6495-6500.	
Befekadu, Getachew	Univ. of Notre Dame
Gupta, Vijay	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame

11:20-11:40	ThA16.5
<i>A General, Open-Loop Formulation for Reach-Avoid Games</i> , pp. 6501-6506.	
Zhou, Zhengyuan	UC Berkeley
Takei, Ryo	UC Los Angeles
Huang, Haomiao	Stanford Univ.
Tomlin, Claire J.	UC Berkeley

11:40-12:00	ThA16.6
<i>A Projection Framework for Near-Potential Polynomial Games</i> , pp. 6507-6512.	
Matni, Nikolai	California Inst. of Tech.

12:00-12:20	ThA16.7
<i>The Cow-Path Game: A Competitive Vehicle Routing Problem</i> , pp. 6513-6520.	
Spieser, Kevin	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.

<b>ThA17</b>	Haleakala Ballroom 5
<b>Stability of Linear Systems (Regular Session)</b>	

Chair: Ambrosino, Roberto	Univ. di Napoli, Parthenope
Co-Chair: Zhu, J. Jim	Ohio Univ.

10:00-10:20	ThA17.1
<i>Singular Perturbation Margin Assessment of Linear Time-Invariant Systems Via the Bauer-Fike Theorems</i> , pp. 6521-6528.	
Yang, Xiaojing	Ohio Univ.
Zhu, J. Jim	Ohio Univ.

10:20-10:40	ThA17.2
<i>Generalized Sensitivity Decoupling for Dual-Stage Servo Systems</i> , pp. 6529-6534.	
Kinney, Charles	Precision Control Solutions, LLC
Weng, Ming-Chi	Quantum Corp.
Goker, Turguy	Quantum Corp.

10:40-11:00	ThA17.3
<i>Piecewise Quadratic Functions for Finite-Time Stability Analysis</i> , pp. 6535-6540.	
Ambrosino, Roberto	Univ. di Napoli, Parthenope
Garone, Emanuele	Univ. Libre de Bruxelles
Ariola, Marco	Univ. degli Studi di Napoli Parthenope
Amato, Francesco	Univ. Magna Graecia di Catanzaro

11:00-11:20	ThA17.4
<i>A Two-Impulse Method for Stabilizing the Spacecraft Relative Motion with Respect to a Periodic Trajectory</i> , pp. 6541-6546.	
Deaconu, Georgia	LAAS - CNRS
louembet, christophe	LAAS - CNRS
Theron, Alain	LAAS - CNRS

11:20-11:40	ThA17.5
<i>Singular Perturbation Margin Assessment of Linear Slowly Time-Varying Systems</i> , pp. 6547-6553.	
Yang, Xiaojing	Ohio Univ.
Zhu, J. Jim	Ohio Univ.

11:40-12:00	ThA17.6
<i>The Rendezvous Dynamics under Linear Quadratic Optimal Control</i> , pp. 6554-6559.	
Di Cairano, Stefano	Mitsubishi Electric Res. Lab.
Pascucci, Carlo Alberto	IMT Inst. for Advanced Studies Lucca
Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca

12:00-12:20	ThA17.7
<i>Numerical Computation of Structured Complex Stability Radii of Large-Scale Matrices and Pencils</i> , pp. 6560-6565.	
Benner, Peter	Max Planck Inst. for Dynamics of Complex Tech. Systems
Voigt, Matthias	Max Planck Inst. for Dynamics of Complex Tech. Systems

<b>ThB01</b>	Hibiscus 1
<b>Networked Event-Based Control</b> (Invited Session)	
Chair: Hirche, Sandra	Tech. Univ. München
Co-Chair: Johansson, Karl H.	KTH Royal Inst. of Tech.
Organizer: Hirche, Sandra	Tech. Univ. München
Organizer: Johansson, Karl H.	KTH Royal Inst. of Tech.
Organizer: Heemels, W.P.M.H.	Eindhoven Univ. of Tech.

14:00-14:20	ThB01.1
<i>Event-Triggered PI Control: Saturating Actuators and Anti-Windup Compensation (I)</i> , pp. 6566-6571.	
Lehmann, Daniel	KTH Royal Inst. of Tech.
Kiener, Georg Alexander	KTH Royal Inst. of Tech.
Johansson, Karl H.	KTH Royal Inst. of Tech.

14:20-14:40	ThB01.2
<i>The Performance of Event-Based Control for Scalar Systems with Packet Losses (I)</i> , pp. 6572-6576.	
Blind, Rainer	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart

14:40-15:00	ThB01.3
<i>Resilient Event Triggered Systems with Limited Communication (I)</i> , pp. 6577-6582.	
Li, Lichun	Univ. of Notre Dame
HU, Bin	Univ. of Notre Dame
Lemmon, Michael	Univ. of Notre Dame

15:00-15:20	ThB01.4
<i>Event-Based State Estimation with Variance-Based Triggering (I)</i> , pp. 6583-6590.	
Trimpe, Sebastian	ETH Zurich
D'Andrea, Raffaello	ETH

15:20-15:40	ThB01.5
<i>Adaptive Event-Triggered Control Over a Shared Network (I)</i> , pp. 6591-6596.	
Molin, Adam	Tech. Univ. München
Hirche, Sandra	Tech. Univ. München

15:40-16:00	ThB01.6
<i>Event-Triggered Dynamic Output Feedback Control for LTI Systems (I)</i> , pp. 6597-6602.	
Tallapragada, Pavankumar	Univ. of Maryland, Coll. Park
Chopra, Nikhil	Univ. of Maryland, Coll. Park

<b>ThB02</b>	Hibiscus 2
<b>Output Feedback and Observers II</b> (Regular Session)	
Chair: Silvestre, Carlos	Inst. Superior Tecnico
Co-Chair: Rouchon, Pierre	Mines ParisTech

14:00-14:20	ThB02.1
<i>Globally Asymptotically Stable Filters for Navigation Aided by Direction and Depth Measurements</i> , pp. 6603-6608.	
Batista, Pedro	Inst. Superior Técnico
Silvestre, Carlos	Univ. of Macau
Oliveira, Paulo Jorge	Inst. Superior Técnico

14:20-14:40	ThB02.2
<i>GES Integrated LBL/USBL Navigation System for Underwater Vehicles</i> , pp. 6609-6614.	
Batista, Pedro	Inst. Superior Técnico
Silvestre, Carlos	Inst. Superior Técnico
Oliveira, Paulo Jorge	Inst. Superior Técnico

14:40-15:00	ThB02.3
<i>Design of a Prescribed Convergence Time Uniform Robust Exact Observer in the Presence of Measurement Noise</i> , pp. 6615-6620.	
Fraguela Cuesta, Liset	Univ. Nacional Autónoma de México
Angulo, Marco Tulio	Univ. Nacional Autónoma de México
Moreno, Jaime A.	Univ. Nacional Autónoma de México
Fridman, Leonid M.	Univ. Nacional Autónoma de México

15:00-15:20	ThB02.4
<i>Robust Observer Design for Lipschitz Nonlinear Systems Using Quadratic Polynomial Constraints</i> , pp. 6621-6626.	
Wang, Yan	Auburn Univ.
Bevly, David M.	Auburn Univ.

15:20-15:40	ThB02.5
<i>Rotational and Translational Bias Estimation Based on Depth and Image Measurements</i> , pp. 6627-6634.	
Zarrouati-Vissiere, Nadege	DGA
Rouchon, Pierre	Mines ParisTech
Beauchard, Karine	CNRS, CMLS, Ec. Pol.

15:40-16:00	ThB02.6
<i>Dynamical Continuous High Gain Observer for Sampled Measurements Systems</i> , pp. 6635-6640.	
Hann, Cheikh Ahmadou	Univ. Caen Basse-Normandie
Bamba	
Van Assche, Vincent	Univ. de Caen Basse Normandie
Crasta, Naveena	Supelec, France
Lamnabhi-Lagarrigue, Francoise	CNRS and EEIC

<b>ThB03</b>	Hibiscus 3
<b>Robustness in Networked Control Systems with Uncertainty</b> (Invited Session)	
Chair: Antsaklis, Panos J.	Univ. of Notre Dame
Co-Chair: Marquez, Horacio J.	Univ. of Alberta
Organizer: Chesi, Graziano	Univ. of Hong Kong

14:00-14:20	ThB03.1
<i>Gain-Scheduled Synthesis with Dynamic Positive Real Multipliers (I)</i> , pp. 6641-6646.	
Scherer, Carsten W.	Univ. of Stuttgart

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14:20-14:40 ThB03.2  
*Output Feedback Model-Based Control of Uncertain Discrete-Time Systems with Network Induced Delays (I)*, pp. 6647-6652.

Garcia, Eloy Univ. of Notre Dame  
Antsaklis, Panos J. Univ. of Notre Dame

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14:40-15:00 ThB03.3  
*Decentralized Control of Interconnected Positive Systems Using L1-Induced Norm Characterization (I)*, pp. 6653-6658.

Ebihara, Yoshio Kyoto Univ.  
Peaucelle, Dimitri LAAS-CNRS, Univ. de Toulouse  
Arzelier, Denis LAAS-CNRS

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15:00-15:20 ThB03.4  
*Stability and Performance Analysis in the Presence of LTV Perturbations with Bounded Rates of Variation: A Lyapunov Based Approach (I)*, pp. 6659-6664.

Roos, Clément ONERA  
Lafourcade, Laure ONERA  
Biannic, Jean-Marc ONERA

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15:20-15:40 ThB03.5  
*Stabilization of Uncertain Distributed Networked Control Systems with Minimal Communications Network*, pp. 6665-6670.

Razeghi-Jahromi, Mohammad Univ. of Rochester  
Seyedi, Alireza Univ. of Rochester

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15:40-16:00 ThB03.6  
*H<sub>∞</sub> Filtering of Lipschitz Nonlinear Systems with Network-Induced Uncertain Delays*, pp. 6671-6675.

Allahverdi Charandabi, Behnam Univ. of Alberta  
Marquez, Horacio J. Univ. of Alberta

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**ThB04** Plumeria 1  
**Markov Processes II (Regular Session)**

Chair: Dullerud, Geir E. Univ. of Illinois, Urbana-Champaign  
Co-Chair: Arapostathis, Ari Univ. of Texas at Austin

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14:00-14:20 ThB04.1  
*The Poisson Equation for Reversible Markov Chains: Analysis and Application to Markov Chain Samplers*, pp. 6676-6682.

Cogill, Randy Univ. of Virginia  
Vargo, Erik Univ. of Virginia

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14:20-14:40 ThB04.2  
*Application of Variance Reduction Techniques for Tau-Leaping Systems to Particle Filters*, pp. 6683-6689.

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

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14:40-15:00 ThB04.3  
*Robust Filtering for Discrete-Time Markovian Jump Linear Systems Via Penalty Game Approach*, pp. 6690-6695.

Cerri, João Paulo Univ. of São Paulo at São Carlos  
Terra, Marco Henrique Univ. of São Paulo at São Carlos

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15:00-15:20 ThB04.4  
*Stochastic Differential Equations for Power Law Behaviors*, pp. 6696-6701.

Jiang, Bo Univ. of Massachusetts Amherst  
Brockett, Roger Harvard Univ.  
Gong, Weibo Univ. of Massachusetts Amherst  
Towsley, Don Univ. of Massachusetts Amherst

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15:20-15:40 ThB04.5  
*A Relative Value Iteration for Ergodic Control of Non-Degenerate Diffusions*, pp. 6702-6707.

Arapostathis, Ari Univ. of Texas at Austin  
Borkar, Vivek S. Indian Inst. of Tech.

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15:40-16:00 ThB04.6  
*Loss Bounds for Uncertain Transition Probabilities in Markov Decision Processes*, pp. 6708-6715.

Mastin, Andrew Massachusetts Inst. of Tech.  
Jaillet, Patrick Massachusetts Inst. of Tech.

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**ThB05** Plumeria 2  
**Automata (Regular Session)**

Chair: Tarraf, Danielle C. Johns Hopkins Univ.  
Co-Chair: Moreira, Marcos Univ. Federal do Rio de Janeiro  
Vicente

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14:00-14:20 ThB05.1  
*Method for Translating Ladder Diagrams to Ordinary Petri Nets*, pp. 6716-6721.

Chen, Xuekun Huaqiao Univ.  
Luo, JiLiang Huaqiao Univ.  
Qi, Pengfei Huaqiao Univ.

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14:20-14:40 ThB05.2  
*Enforcement of Opacity Properties Using Insertion Functions*, pp. 6722-6728.

Wu, Yi-Chin Univ. of Michigan  
Lafortune, Stephane Univ. of Michigan

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14:40-15:00 ThB05.3  
*Controllability and Stabilizability of Probabilistic Logical Control Networks*, pp. 6729-6734.

Zhao, Yin Chinese Acad. of Sciences  
Cheng, Daizhan Chinese Acad. of Sciences

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15:00-15:20 ThB05.4  
*An Iterative Algorithmic Implementation of Input-Output Finite State Approximations*, pp. 6735-6741.

Aalamifar, Fereshteh Johns Hopkins Univ.  
Tarraf, Danielle C. Johns Hopkins Univ.

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15:20-15:40 ThB05.5  
*Petri Net Diagnoser for DES Modeled by Finite State Automata*, pp. 6742-6748.

Moreira, Marcos Vicente Univ. Federal do Rio de Janeiro  
Cabral, Felipe Gomes de Univ. Federal do Rio de Janeiro  
Oliveira  
Diene, Oumar Univ. Federal do Rio de Janeiro

15:40-16:00	ThB05.6
<i>Attraction-Based Receding Horizon Path Planning with Temporal Logic Constraints</i> , pp. 6749-6754.	
Svorenova, Maria	Masaryk Univ.
Tumova, Jana	Masaryk Univ.
Barnat, Jiri	Masaryk Univ.
Cerna, Ivana	Masaryk Univ.

<b>ThB06</b>	Plumeria 3
<b>Robust Estimation of Uncertain Systems I</b> (Invited Session)	
Chair: Efimov, Denis	INRIA - LNE
Co-Chair: Mazenc, Frederic	EPI INRIA DISCO
Organizer: Efimov, Denis	INRIA - LNE
Organizer: Raïssi, Tarek	Conservatoire National des Arts et Métiers

14:00-14:20	ThB06.1
<i>Interval Observers for Discrete-Time Systems (I)</i> , pp. 6755-6760.	
Mazenc, Frederic	EPI INRIA DISCO
Dinh, Thach N.	LSS, Supelec
Niculescu, Silviu-Iulian	CNRS-Supelec

14:20-14:40	ThB06.2
<i>Robustly Optimal Filter Design for Nonlinear Systems (I)</i> , pp. 6761-6766.	
Novara, Carlo	Pol. di Torino
Ruiz, Fredy	Pontificia Univ. Javeriana
Milanese, Mario	Modelway srl

14:40-15:00	ThB06.3
<i>On Set-Membership Observer Design for a Class of Periodical Time-Varying Systems (I)</i> , pp. 6767-6772.	
Efimov, Denis	INRIA - LNE
Raïssi, Tarek	Conservatoire National des Arts et Métiers
Chebotarev, Stanislav	Saint Petersburg State Univ. of ITMO
Zolghadri, Ali	Univ. Bordeaux

15:00-15:20	ThB06.4
<i>Generation of Worst-Case Input Signals Based on the Guaranteed Sampling of Linear Interval Predictors with Non-Held Uncertain Inputs (I)</i> , pp. 6773-6779.	
Combastel, Christophe	ENSEA

15:20-15:40	ThB06.5
<i>Construction of ISS Interval Observers for Triangular Systems (I)</i> , pp. 6780-6785.	
Mazenc, Frederic	EPI INRIA DISCO
Bernard, Olivier	Inria

15:40-16:00	ThB06.6
<i>Rejection of Sinusoidal Disturbance Approach Based on High-Gain Principle (I)</i> , pp. 6786-6791.	
Bobtsov, Alexey	St. Petersburg National Res. Univ. ITMO
Kolyubin, Sergey	St. Petersburg National Res. Univ. ITMO
Pyrkin, Anton	St. Petersburg National Res. Univ. ITMO

<b>ThB07</b>	Maile 1
<b>Distributed Optimization</b> (Invited Session)	
Chair: Raginsky, Maxim	Univ. of Illinois, Urbana-Champaign
Co-Chair: Nedich, Angelia	Univ. of Illinois, Urbana-Champaign
Organizer: Raginsky, Maxim	Univ. of Illinois, Urbana-Champaign
Organizer: Nedich, Angelia	Univ. of Illinois, Urbana-Champaign

14:00-14:20	ThB07.1
<i>Communication-Efficient Algorithms for Statistical Optimization (I)</i> , pp. 6792-6792.	
Zhang, Yuchen	Univ. of California, Berkeley
Duchi, John	Univ. of California, Berkeley
Wainwright, Martin	Univ. of California, Berkeley

14:20-14:40	ThB07.2
<i>Continuous-Time Stochastic Mirror Descent on a Network: Variance Reduction, Consensus, Convergence (I)</i> , pp. 6793-6800.	
Raginsky, Maxim	Univ. of Illinois at Urbana-Champaign
Bouvier, Jake	Duke Univ.

14:40-15:00	ThB07.3
<i>A Continuous-Time Decentralized Optimization Scheme with Positivity Constraints (I)</i> , pp. 6801-6807.	
Kvaternik, Karla	Univ. of Toronto
Pavel, Lacra	Univ. of Toronto

15:00-15:20	ThB07.4
<i>Optimal Discovery with Probabilistic Expert Advice (I)</i> , pp. 6808-6812.	
Bubeck, Sébastien	Princeton Univ.
Ernst, Damien	Univ. of Liège
Garivier, Aurelien	Télécom ParisTech

15:20-15:40	ThB07.5
<i>Distributed Subgradient Projection Algorithm for Multi-Agent Optimization with Nonidentical Constraints and Switching Topologies</i> , pp. 6813-6818.	
Lin, Peng	Univ. of Electronic Science and Tech. of China
Ren, Wei	Univ. of California, Riverside

15:40-16:00	ThB07.6
<i>Computational Aspects of Distributed Optimization in Model Predictive Control</i> , pp. 6819-6824.	
Conte, Christian	ETH Zurich
Summers, Tyler	ETH Zurich
Zeilinger, Melanie N.	École Pol. Fédérale de Lausanne
Morari, Manfred	ETH Zurich
Jones, Colin Neil	École Pol. Fédérale de Lausanne

<b>ThB08</b>	Maile 2
<b>Stability of Hybrid Systems</b> (Regular Session)	
Chair: Netic, Dragan	Univ. of Melbourne
Co-Chair: Liu, Bin	Australian National Univ.

14:00-14:20 ThB08.1

*Small-Gain Theorems of LaSalle Type for Hybrid Systems*, pp. 6825-6830.

Liberzon, Daniel Univ. of Illinois, Urbana-Champaign  
Nesic, Dragan Univ. of Melbourne  
Teel, Andrew R. Univ. of California, Santa Barbara

14:20-14:40 ThB08.2

*Constructions of ISS-Lyapunov Functions for Interconnected Impulsive Systems*, pp. 6831-6836.

Dashkovskiy, Sergey Univ. of Applied Sciences Erfurt  
Mironchenko, Andrii Univ. of Würzburg

14:40-15:00 ThB08.3

*Control Lyapunov Functions and Hybrid Zero Dynamics*, pp. 6837-6842.

Ames, Aaron Texas A&M Univ.  
Galloway, Kevin Univ. of Michigan  
Grizzle, Jessie W. Univ. of Michigan

15:00-15:20 ThB08.4

*Probability-Based Feedback Gain Scheduling for Stabilizing Switched Linear Stochastic Systems under Delayed Sampled Mode Information*, pp. 6843-6848.

Cetinkaya, Ahmet Tokyo Inst. of Tech.  
Hayakawa, Tomohisa Tokyo Inst. of Tech.

15:20-15:40 ThB08.5

*Stability for Hybrid Event Systems*, pp. 6849-6854.

Liu, Bin Australian National Univ.  
Hill, David J. Univ. of Sydney

15:40-16:00 ThB08.6

*Averaging in Singularly Perturbed Hybrid Systems with Hybrid Boundary Layer Systems*, pp. 6855-6860.

Wang, Wei Univ. of Melbourne  
Teel, Andrew R. Univ. of California, Santa Barbara  
Nesic, Dragan Univ. of Melbourne

**ThB09** Maile 3  
**Advances in Fractional Order Systems and Control** (Invited Session)

Chair: Torres, Delfim F. M. Univ. of Aveiro  
Co-Chair: Pisano, Alessandro Univ. of Cagliari  
Organizer: Caponetto, Riccardo Univ. of Catania  
Organizer: Pisano, Alessandro Univ. of Cagliari

14:00-14:20 ThB09.1

*A Fractional Order Maximum Power Point Tracker: Stability Analysis and Experiments (I)*, pp. 6861-6866.

Malek, Hadi Energy Dynamics Lab.  
Dadras, Sara Tarbiat Modares Univ.  
Chen, YangQuan Univ. of California, Merced

14:20-14:40 ThB09.2

*A Survey of Fractional-Order Generalized Predictive Control (I)*, pp. 6867-6872.

Romero, Miguel UNED  
de Madrid, Angel P. UNED  
Manoso, C. UNED  
Vinagre, B. M. Univ. de Extremadura

14:40-15:00 ThB09.3

*Variable Order Fractional Variational Calculus for Double Integrals (I)*, pp. 6873-6878.

Odziejewicz, Tatiana Univ. of Aveiro  
Malinowska, Agnieszka B. Bialystok Univ. of Tech.  
Torres, Delfim F. M. Univ. of Aveiro

15:00-15:20 ThB09.4

*Adaptive Identification of the Commensurate Order in Fractional Processes by Means of Variable-Order Operators (I)*, pp. 6879-6884.

Rapaic, Milan R. Univ. of Novi Sad  
Pisano, Alessandro Univ. degli Studi di Cagliari  
Usai, Elio Univ. degli Studi di Cagliari  
Jelicic, Zoran D. Univ. of Novi Sad

15:20-15:40 ThB09.5

*Fractional Noether's Theorem with Classical and Riemann-Liouville Derivatives (I)*, pp. 6885-6890.

Frederico, Gastão S. F. Univ. of Cape Verde  
Torres, Delfim F. M. Univ. of Aveiro

15:40-16:00 ThB09.6

*Stability Analysis of Fractional Neutral Time-Delay Systems with Multiple Chains of Poles Asymptotic to Same Points in the Imaginary Axis*, pp. 6891-6895.

Nguyen, Le Ha Vy INRIA Saclay-Ile-de-France  
Bonnet, Catherine INRIA Saclay-Ile-de-France

**ThB10** Pikake 1  
**Decentralized Control II** (Regular Session)

Chair: Angeli, David Imperial Coll.  
Co-Chair: Aghdam, Amir G. Concordia Univ.

14:00-14:20 ThB10.1

*A Stochastic Approach to Distributed Power Frequency Control by Means of Smart Appliances*, pp. 6896-6901.

Angeli, David Imperial Coll.  
Astolfi, Alessandro Imperial Coll. & Univ. of Rome

14:20-14:40 ThB10.2

*Building Temperature Control: A Passivity-Based Approach*, pp. 6902-6907.

Mukherjee, Sumit Rensselaer Pol. Inst.  
Mishra, Sandipan Rensselaer Pol. Inst.  
Wen, John T. Rensselaer Pol. Inst.

14:40-15:00 ThB10.3

*On the Decentralized H<sub>2</sub> Optimal Control of Bilateral Teleoperation Systems with Time Delays (I)*, pp. 6908-6914.

Kristalny, Maxim Lund Univ.  
Cho, Jang Ho Lund Univ.

15:00-15:20 ThB10.4

*Stability Certificates for Networks of Heterogeneous Linear Systems*, pp. 6915-6920.

Pates, Richard Univ. of Cambridge  
Vinnicombe, Glenn Univ. of Cambridge



15:20-15:40	ThB10.5
<i>Decentralized Pole-Placement Using Generalized Sampled-Data Hold Functions</i> , pp. 6921-6925.	
Tousi, Mani	Concordia Univ.
Ajorlou, Amir	Concordia Univ.
Mahboubi, Hamid	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.

15:40-16:00	ThB10.6
<i>Decentralized Control Over Analog Erasure Links</i> , pp. 6926-6931.	
Liu, Jie	Univ. of Notre Dame
Gupta, Vijay	Univ. of Notre Dame

<b>ThB11</b>	Pikake 2
<b>Modeling and Control of Building Systems I</b> (Invited Session)	
Chair: Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
Co-Chair: Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign
Organizer: Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
Organizer: Barooah, Prabir	Univ. of Florida
Organizer: Eisenhower, Bryan	Univ. of California, Santa Barbara
Organizer: Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign

14:00-14:20	ThB11.1
<i>Issues in Identification of Control-Oriented Thermal Models of a Zone in a Multi-Zone Building (I)</i> , pp. 6932-6937.	
Lin, Yashen	Univ. of Florida
Barooah, Prabir	Univ. of Florida
Middelkoop, Timothy	Univ. of Florida

14:20-14:40	ThB11.2
<i>A Comparison of Thermal Zone Aggregation Methods (I)</i> , pp. 6938-6944.	
Dobbs, Justin	Cornell Univ.
Hencey, Brandon	Cornell Univ.

14:40-15:00	ThB11.3
<i>Uncertainty in the Energy Dynamics of Commercial Office Buildings (I)</i> , pp. 6945-6950.	
Eisenhower, Bryan	Univ. of California, Santa Barbara
Mezic, Igor	Univ. of California, Santa Barbara

15:00-15:20	ThB11.4
<i>Parameter Identifiability for Multi-Zone Building Models (I)</i> , pp. 6951-6956.	
Agbi, Clarence	Carnegie Mellon Univ.
Song, Zhen	Siemens Corp. Res.
Krogh, Bruce H.	Carnegie Mellon Univ.

15:20-15:40	ThB11.5
<i>A Set-Based Estimation of Heat Loads for Energy Management in Building Systems (I)</i> , pp. 6957-6962.	
Guay, Martin	Queen's Univ.
Dhaliwal, Samandeep	Queen's Univ.

15:40-16:00	ThB11.6
<i>HVAC Control Using Infinite-Horizon Economic MPC (I)</i> , pp. 6963-6968.	
Mendoza-Serrano, David	Illinois Inst. of Tech.
Chmielewski, Donald J.	Illinois Inst. of Tech.

<b>ThB12</b>	Pikake 3
<b>Traffic Flow Modeling, Identification, and Control</b> (Invited Session)	
Chair: Nuñez, Alfredo	Delft Univ. of Tech.
Co-Chair: Ferrara, Antonella	Univ. of Pavia
Organizer: Bianchi, Domenico	Univ. of L'Aquila
Organizer: Nuñez, Alfredo	Delft Univ. of Tech.
Organizer: Ferrara, Antonella	Univ. of Pavia

14:00-14:20	ThB12.1
<i>Optimal Balancing of Road Traffic Density Distributions for the Cell Transmission Model (I)</i> , pp. 6969-6974.	
Pisarski, Dominik	INRIA GRENOBLE
Canudas de Wit, Carlos	CNRS, GIPSA-Lab.

14:20-14:40	ThB12.2
<i>An Event-Triggered Model Predictive Control Scheme for Freeway Systems (I)</i> , pp. 6975-6982.	
Ferrara, Antonella	Univ. of Pavia
Nai Oleari, Alberto	Univ. of Pavia
Sacone, Simona	Univ. of Genova
Siri, Silvia	Univ. of Genova

14:40-15:00	ThB12.3
<i>A Parameter Identification Algorithm for the METANET Model with a Limited Number of Loop Detectors (I)</i> , pp. 6983-6988.	
Frejo, Jose Ramon D.	Univ. de Sevilla
Camacho, Eduardo F.	Univ. de Sevilla
Horowitz, Roberto	Univ. of California at Berkeley

15:00-15:20	ThB12.4
<i>How Can Macroscopic Models Reveal Self-Organization in Traffic Flow? (I)</i> , pp. 6989-6994.	
Cristiani, Emiliano	Consiglio Nazionale delle Ricerche
Piccoli, Benedetto	Rutgers Univ.
Tosin, Andrea	Consiglio Nazionale delle Ricerche

15:20-15:40	ThB12.5
<i>Distributed Identification of Fuzzy Confidence Intervals for Traffic Measurements (I)</i> , pp. 6995-7000.	
Nuñez, Alfredo	Delft Univ. of Tech.
De Schutter, Bart	Delft Univ. of Tech.

15:40-16:00	ThB12.6
<i>Traffic Light Control Using Infinitesimal Perturbation Analysis</i> , pp. 7001-7006.	
Geng, Yanfeng	Boston Univ.
Cassandras, Christos G.	Boston Univ.

<b>ThB13</b>	Ilima 1
<b>Process Control II</b> (Regular Session)	
Chair: Qin, S. Joe	Univ. of Southern California
Co-Chair: Sjöberg, Johan	ABB AB

14:00-14:20	ThB13.1
<i>Online Integration of Scheduling and Control for Cyclic Production in CSTR</i> , pp. 7007-7012.	
Chu, Yunfei	Northwestern Univ.
You, Fengqi	Northwestern Univ.

14:20-14:40	ThB13.2
<i>Numerical Backstepping for Diameter Control of Silicon Ingots in the Czochralski Process</i> , pp. 7013-7017.	
Rahmanpour, Parsa	Norwegian Univ. of Science & Tech.
Hovd, Morten	Norwegian Univ. of Sci & Tech.

14:40-15:00	ThB13.3
<i>Concurrent Projection to Latent Structures for Output-Relevant and Input-Relevant Fault Monitoring</i> , pp. 7018-7023.	
Qin, S. Joe	Univ. of Southern California
Zheng, Yingying	Univ. of Southern California

15:00-15:20	ThB13.4
<i>An Improved Predictive Optimal Controller with Elastic Search Space for Steam Temperature Control of Large-Scale Supercritical Power Unit</i> , pp. 7024-7029.	
Ma, Liangyu	North China Electric Power Univ.
Lee, Kwang Y.	Baylor Univ.
Ge, Yiping	North China Electric Power Univ.

15:20-15:40	ThB13.5
<i>Interactive Multiobjective Optimization for the Hot Rolling Process</i> , pp. 7030-7036.	
Sjöberg, Johan	ABB Corp. Res. AB
Lindkvist, Simon	ABB Corp. Res. AB
Linder, Jonas	Linköping Univ.
Daneryd, Anders	ABB Corp. Res. AB

15:40-16:00	ThB13.6
<i>Enthalpy-Based Feedback Control Algorithms for the Stefan Problem</i> , pp. 7037-7042.	
Petrus, Bryan	Univ. of Illinois at Urbana-Champaign
Bentsman, Joseph	Univ. of Illinois at Urbana-Champaign
Thomas, Brian G.	Univ. of Illinois at Urbana-Champaign

<b>ThB14</b>	Ilima 2
<b>Optimal Control II (Regular Session)</b>	
Chair: Ntogramatzidis, Lorenzo	Curtin Univ.
Co-Chair: Fontes, Fernando A. C. C.	Univ. do Porto

14:00-14:20	ThB14.1
<i>A Reduction Technique for Generalised Riccati Difference Equations Arising in Linear-Quadratic Optimal Control</i> , pp. 7043-7048.	
Ferrante, Augusto	Univ. di Padova
Ntogramatzidis, Lorenzo	Curtin Univ.

14:20-14:40	ThB14.2
<i>Semistability-Based Robust and Optimal Control Design for Network Systems</i> , pp. 7049-7054.	
Hui, Qing	Texas Tech. Univ.
Liu, Zhenyi	Texas Tech. Univ.

14:40-15:00	ThB14.3
<i>Discrete-Time Optimal Feedback Control Via Hamilton-Jacobi Theory with an Application to Hybrid Systems</i> , pp. 7055-7062.	
Lee, Taeyoung	George Washington Univ.

15:00-15:20	ThB14.4
<i>An Optimal Regulation Strategy for Energy Management of Hybrid Electric Vehicles (I)</i> , pp. 7063-7068.	
Sampathnarayanan, Balaji	Ohio State Univ.
Onori, Simona	Ohio State Univ.
Yurkovich, Stephen	Univ. of Texas at Dallas

15:20-15:40	ThB14.5
<i>An Optimal Control Approach to the Unit Commitment Problem</i> , pp. 7069-7074.	
Fontes, Fernando A. C. C.	Univ. do Porto
Fontes, Dalila B. M. M.	Univ. do Porto
Roque, Luis	ISEP

15:40-16:00	ThB14.6
<i>Multiple-Input Cultivation Model Based Optimization of Penicillin Production</i> , pp. 7075-7080.	
Pcolka, Matej	Czech Tech. Univ. in Prague
Celikovsky, Sergej	Inst. of Information Theory and Automation

<b>ThB15</b>	Ilima 3
<b>Sliding Mode Control II (Regular Session)</b>	
Chair: Cavallo, Alberto	Seconda Univ. degli Studi di Napoli
Co-Chair: Vazquez, Carlos	National Autonomous Univ. of Mexico

14:00-14:20	ThB15.1
<i>A Study of Duopolistic Dynamics with Competitive Advertising Based on State-Dependent Switching Behavior</i> , pp. 7081-7087.	
Kaszakurewicz, Eugenius	Univ. Federal de Rio de Janeiro
Bhaya, Amit	Univ. Federal de Rio de Janeiro

14:20-14:40	ThB15.2
<i>Sliding Mode Control for DC/DC Converters</i> , pp. 7088-7094.	
Cavallo, Alberto	Seconda Univ. degli Studi di Napoli
Guida, Beniamino	Seconda Univ. degli studi di Napoli

14:40-15:00	ThB15.3
<i>A Robust Controller Based on Adaptive Super-Twisting Algorithm for a 3DOF Helicopter</i> , pp. 7095-7100.	
Plestan, Franck	Ec. Centrale de Nantes, IRCCyN
Chriette, Abdelhamid	Ec. Centrale de Nantes, IRCCyN

15:00-15:20	ThB15.4
<i>Practical Relative Degree in Black-Box Control</i> , pp. 7101-7106.	
Levant, Arie	Tel - Aviv Univ.

15:20-15:40	ThB15.5
<i>High Performance Quasi-Continuous HOSM Controller for Sensorless IPMSM Based on Adaptive Interconnected Observer</i> , pp. 7107-7112.	
Hamida, Mohamed Assaad	Ec. Centrale de Nantes, IRCCyN
Glumineau, Alain	Ec. Centrale de Nantes, IRCCyN
De Leon, Jesus	Univ. Autonoma de Nuevo Leon

15:40-16:00	ThB15.6
<i>Global Extremum Seeking Control with Sliding Modes for Output-Feedback Global Tracking of Nonlinear Systems</i> , pp. 7113-7118.	
Yin, Chun	Univ. of California, Merced
Stark, Brandon	Univ. of California, Merced
Zhong, Shou-ming	UEST
Chen, YangQuan	Univ. of California, Merced

<b>ThB16</b>	Haleakala Ballroom 3
<b>Game Theory II (Regular Session)</b>	

Chair: Zhu, Chao	Univ. of Wisconsin-Milwaukee
Co-Chair: Sinopoli, Bruno	Carnegie Mellon Univ.

14:00-14:20	ThB16.1
<i>On the Characterization and Computation of Nash Equilibria on Parallel Networks with Horizontal Queues</i> , pp. 7119-7125.	
Krichene, Walid	Univ. of California, Berkeley
Reilly, Jack	Univ. of California, Berkeley
Amin, Saurabh	Massachusetts Inst. of Tech.
Bayen, Alexandre M.	Univ. of California, Berkeley

14:20-14:40	ThB16.2
<i>On Stackelberg Routing on Parallel Networks with Horizontal Queues</i> , pp. 7126-7132.	
Krichene, Walid	Univ. of California, Berkeley
Reilly, Jack	Univ. of California, Berkeley
Amin, Saurabh	Massachusetts Inst. of Tech.
Bayen, Alexandre M.	Univ. of California, Berkeley

14:40-15:00	ThB16.3
<i>Adversarial Detection As a Zero-Sum Game (I)</i> , pp. 7133-7138.	
Vamvoudakis, Kyriakos	Univ. of California, Santa Barbara
Hespanha, Joao P.	Univ. of California, Santa Barbara
Sinopoli, Bruno	Carnegie Mellon Univ.
Mo, Yilin	Carnegie Mellon Univ.

15:00-15:20	ThB16.4
<i>Tracking Equilibria with Markovian Evolution (I)</i> , pp. 7139-7144.	
Namvar Gharehshiran, Omid	Univ. of British Columbia
Krishnamurthy, Vikram	Univ. of British Columbia
Yin, George	Wayne State Univ.

15:20-15:40	ThB16.5
<i>Dynamic Stochastic Games with Asymmetric Information</i> , pp. 7145-7150.	
Nayyar, Ashutosh	Univ. of Illinois, Urbana-Champaign
Basar, Tamer	Univ. of Illinois, Urbana-Champaign

15:40-16:00	ThB16.6
<i>On Games with Coupled Constraints</i> , pp. 7151-7156.	
Arslan, Gurdal	Univ. of Hawaii at Manoa
Demirkol, M. Fatih	Turkcell Iletisim Hizmetleri, A.S.
Yuksel, Serdar	Queen's Univ.

<b>ThB17</b>	Haleakala Ballroom 5
<b>Synchronization in Coupled Oscillators: Theory and Applications (Tutorial Session)</b>	

Chair: Bullo, Francesco	Univ. California, Santa Barbara
Co-Chair: Sepulchre, Rodolphe J.	Univ. de Liege
Organizer: Bullo, Francesco	Univ. California, Santa Barbara
Organizer: Sepulchre, Rodolphe J.	Univ. de Liege
Organizer: Arcak, Murat	Univ. of California, Berkeley

14:00-14:40	ThB17.1
<i>Exploring Synchronization in Complex Oscillator Networks (I)</i> , pp. 7157-7170.	
Dörfler, Florian	Univ. California, Santa Barbara
Bullo, Francesco	Univ. California, Santa Barbara

14:40-15:20	ThB17.2
<i>Kick Synchronization versus Diffusive Synchronization (I)</i> , pp. 7171-7183.	
Mauroy, Alexandre	Univ. of California Santa Barbara
Sacré, Pierre	Univ. de Liège
Sepulchre, Rodolphe J.	Univ. de Liège

15:20-16:00	ThB17.3
<i>Synchronization and Pattern Formation in Diffusively Coupled Systems (I)</i> , pp. 7184-7192.	
Arcak, Murat	Univ. of California, Berkeley

<b>ThC01</b>	Hibiscus 1
<b>Event-Based Control (Invited Session)</b>	

Chair: Hirche, Sandra	Tech. Univ. München
Co-Chair: Johansson, Karl H.	KTH Royal Inst. of Tech.
Organizer: Hirche, Sandra	Tech. Univ. München
Organizer: Johansson, Karl H.	KTH Royal Inst. of Tech.
Organizer: Heemels, W.P.M.H.	Eindhoven Univ. of Tech.

16:30-16:50	ThC01.1
<i>Aperiodic Model Predictive Control Via Perturbation Analysis (I)</i> , pp. 7193-7198.	
Eqtami, Alina	National Tech. Univ. of Athens
Dimarogonas, Dimos V.	KTH Royal Inst. of Tech.
Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens

16:50-17:10	ThC01.2
<i>Synchronization of Dynamical Networks with Distributed Event-Based Communication</i> , pp. 7199-7204.	
Liu, Tao	Univ. of Groningen
Hill, David J.	Univ. of Sydney
Liu, Bin	Australian National Univ.

17:10-17:30	ThC01.3
<i>Stability Analysis of Multiple State-Based Schedulers with CSMA (I)</i> , pp. 7205-7211.	
Ramesh, Chithrupa	KTH Royal Inst. of Tech.
Sandberg, Henrik	KTH Royal Inst. of Tech.
Johansson, Karl H.	KTH Royal Inst. of Tech.

17:30-17:50	ThC01.4
<i>Dynamic Programming Formulation of Periodic Event-Triggered Control: Performance Guarantees and Co-Design (I)</i> , pp. 7212-7217.	
Antunes, Duarte	Eindhoven Univ. of Tech.
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
Tabuada, Paulo	Univ. of California, Los Angeles
17:50-18:10	ThC01.5
<i>Formation Control of Multi-Agent Systems with Connectivity Preservation by Using Both Event-Driven and Time-Driven Communication</i> , pp. 7218-7223.	
Yu, Han	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame
18:10-18:30	ThC01.6
<i>Smart Energy-Aware Sensors for Event-Based Control (I)</i> , pp. 7224-7229.	
Cardoso de Castro, Nicolas	INRIA
Quevedo, Daniel E.	Univ. of Newcastle
Garin, Federica	INRIA
Canudas de Wit, Carlos	CNRS, GIPSA-Lab.

<b>ThC02</b>	Hibiscus 2
<b>Modeling, Analysis, and Control of Software Systems</b> (Invited Session)	
Chair: Lafortune, Stephane	Univ. of Michigan
Co-Chair: Wang, Yin	Hewlett-Packard
Organizer: Lafortune, Stephane	Univ. of Michigan
Organizer: Wang, Yin	Hewlett-Packard
16:30-16:50	ThC02.1
<i>On Atomicity Enforcement in Concurrent Software Via Discrete Event Systems Theory (I)</i> , pp. 7230-7237.	
Wang, Yin	Hewlett-Packard
Liu, Peng	Univ. of Science and Tech. Hong Kong
Kelly, Terence	Hewlett-Packard
Lafortune, Stephane	Univ. of Michigan
Reveliotis, Spyros	Georgia Inst. of Tech.
Zhang, Charles	Univ. of Science and Tech. Hong Kong
16:50-17:10	ThC02.2
<i>The ACTS Software and Its Supervisory Control Framework (I)</i> , pp. 7238-7243.	
lordache, Marian	LeTourneau Univ.
Antsaklis, Panos J.	Univ. of Notre Dame
17:10-17:30	ThC02.3
<i>Maximally Permissive Deadlock Avoidance for Sequential Resource Allocation Systems Using Disjunctions of Linear Classifiers (I)</i> , pp. 7244-7251.	
Cordone, Roberto	Univ. degli Studi di Milano
Nazeem, Ahmed	United Airlines
Piroddi, Luigi	Pol. di Milano
Reveliotis, Spyros	Georgia Inst. of Tech.

17:30-17:50	ThC02.4
<i>Application of Interface Theories to the Separate Compilation of Synchronous Programs (I)</i> , pp. 7252-7258.	
Benveniste, Albert	IRISA-INRIA
Caillaud, Benoit	IRISA / INRIA Rennes
Raclet, Jean-Baptiste	IRIT
17:50-18:10	ThC02.5
<i>Supervisory Control of Extended Finite Automata Using Transition Projection</i> , pp. 7259-7266.	
Shoaei, Mohammad Reza	Chalmers Univ. of Tech.
Feng, Lei	KTH Royal Inst. of Tech.
Lennartson, Bengt	Chalmers Univ. of Tech.
18:10-18:30	ThC02.6
<i>Throughput Regulation in Multicore Processors Via IPA</i> , pp. 7267-7272.	
Almoosa, Nawaf	Georgia Inst. of Tech.
Song, William	Georgia Inst. of Tech.
Wardi, Yorai	Georgia Inst. of Tech.
Yalamanchili, Sudhakar	Georgia Inst. of Tech.

<b>ThC03</b>	Hibiscus 3
<b>Robust Adaptive Control</b> (Regular Session)	
Chair: Poznyak, Alexander S.	CINVESTAV-IPN
Co-Chair: Dashkovskiy, Sergey	Univ. of Applied Sciences Erfurt
16:30-16:50	ThC03.1
<i>Robust Sampled-Data Adaptive Control of the Rohrs Counterexamples</i> , pp. 7273-7278.	
Sumer, Dogan	Univ. of Michigan
Bernstein, Dennis S.	Univ. of Michigan
16:50-17:10	ThC03.2
<i>Robust Output Feedback Stabilization of Axial Flow Compressors with Uncertain Compressor Characteristics</i> , pp. 7279-7284.	
Jiang, tiantian	Chinese Acad. of Sciences
17:10-17:30	ThC03.3
<i>The Furuta's Pendulum Stabilization without the Use of a Mathematical Model: Attractive Ellipsoid Method with KL-Adaptation</i> , pp. 7285-7290.	
Ordaz, Patricia	CINVESTAV
Poznyak, Alexander S.	CINVESTAV-IPN
17:30-17:50	ThC03.4
<i>Design of Adaptive Controllers for Nonlinear Switched Systems with Arbitrary Switchings</i> , pp. 7291-7296.	
Dashkovskiy, Sergey	Univ. of Applied Sciences Erfurt
Pavlichkov, Svyatoslav	Univ. of Applied Sciences Erfurt
17:50-18:10	ThC03.5
<i>Guaranteed Delay Margins for Adaptive Control of Scalar Plants</i> , pp. 7297-7302.	
Matsutani, Megumi	Massachusetts Inst. of Tech.
Annaswamy, Anuradha	Massachusetts Inst. of Tech.
Lavretsky, Eugene	Boeing Co.

18:10-18:30 ThC03.6

*L1 Adaptive Controller for MIMO System with Unmatched Uncertainties Using Modified Piecewise Constant Adaptation Law*, pp. 7303-7308.

Li, Zhiyuan Univ. of Illinois, Urbana-Champaign  
Hovakimyan, Naira Univ. of Illinois, Urbana-Champaign

**ThC04** Plumeria 1  
**Developments in Stochastic Systems, Identification, and Control**  
(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

16:30-16:50 ThC04.1

*Optimal Dividend Payment Problems in Piecewise-Deterministic Compound Poisson Risk Models (I)*, pp. 7309-7314.

Feng, Runhuan Univ. of Wisconsin, Milwaukee  
Zhang, Shuaiqi Central South Univ.  
Zhu, Chao Univ. of Wisconsin, Milwaukee

16:50-17:10 ThC04.2

*A Randomized Approach to Stochastic Model Predictive Control (I)*, pp. 7315-7320.

Prandini, Maria Pol. di Milano  
Garatti, Simone Pol. Di Milano  
Lygeros, John ETH Zurich

17:10-17:30 ThC04.3

*Sign-Perturbed Sums (SPS): A Method for Constructing Exact Finite-Sample Confidence Regions for General Linear Systems (I)*, pp. 7321-7326.

Csáji, Balázs Csanád Univ. of Melbourne  
Campi, M. C. Univ. di Brescia  
Weyer, Erik Univ. of Melbourne

17:30-17:50 ThC04.4

*A Novel Approach to Model Error Modelling Using the Expectation-Maximization Algorithm (I)*, pp. 7327-7332.

Delgado, Ramon A. Univ. of Newcastle  
Goodwin, Graham C. Univ. of Newcastle  
Carvajal, Rodrigo Univ. of Newcastle  
Agüero, Juan C. Univ. of Newcastle

17:50-18:10 ThC04.5

*Experiment Design for the Identification of a Simple Wiener System (I)*, pp. 7333-7338.

Gevers, Michel Univ. Catholique de Louvain, and Vrije Univ. Brussels  
Caenepeel, Matthias Vrije Univ. Brussels  
Schoukens, Johan Vrije Univ. Brussels

18:10-18:30 ThC04.6

*Stochastic Controllability and Its Role in Network Congestion Control (I)*, pp. 7339-7345.

Liu, Andrew R. Cymer  
Bitmead, Robert Univ. of California, San Diego

**ThC05** Plumeria 2  
**Modeling and Performance-Oriented Discrete-Event Control of Complex Systems** (Invited Session)

Chair: Su, Rong Nanyang Tech. Univ.  
Co-Chair: Lewis, Frank L. Univ. of Texas at Arlington  
Organizer: Su, Rong Nanyang Tech. Univ.  
Organizer: Lewis, Frank L. Univ. of Texas at Arlington

16:30-16:50 ThC05.1

*Decentralized Discrete-Event Modeling and Control of Task Execution for Robotic Networks (I)*, pp. 7346-7351.

Gasparri, Andrea Univ. "Roma Tre"  
Di Paola, Donato National Res. Council (CNR)  
Naso, David Pol. di Bari  
Lewis, Frank L. Univ. of Texas at Arlington

16:50-17:10 ThC05.2

*Symbolic Computation of Nonblocking Control Function for Timed Discrete Event Systems (I)*, pp. 7352-7359.

Miremadi, Sajed Chalmers Univ. of Tech.  
Fei, Zhennan Chalmers Univ. of Tech.  
Akesson, Knut Chalmers Univ. of Tech.  
Lennartson, Bengt Chalmers Univ. of Tech.

17:10-17:30 ThC05.3

*A ; fYYXmAlgorithm for Computing Finite-Makespan Controllable Sublanguages (I)*, pp. 7360-7365.

Su, Rong Nanyang Tech. Univ.

17:30-17:50 ThC05.4

*Structured Modeling, Analysis, and Control of Complex Railway Operations (I)*, pp. 7366-7371.

van den Boom, Ton J. J. Delft Univ. of Tech.  
Kersbergen, Bart Delft Univ. of Tech.  
De Schutter, Bart Delft Univ. of Tech.

17:50-18:10 ThC05.5

*A Continuum Description for a DES Control Problem (I)*, pp. 7372-7376.

Armbruster, Dieter Arizona State Univ.  
Herty, Michael RWTH Aachen  
Ringhofer, Christian Arizona State Univ.

18:10-18:30 ThC05.6

*A#: A Distributed Version of a\* for Factored Planning*, pp. 7377-7382.

Jezequel, Loig ENS Cachan Bretagne  
Fabre, Eric IRISA / INRIA

**ThC06** Plumeria 3  
**Robust Estimation of Uncertain Systems II** (Invited Session)

Chair: Efimov, Denis INRIA - LNE  
Co-Chair: Fridman, Leonid M. Univ. Nacional Autonoma de Mexico  
Organizer: Efimov, Denis INRIA - LNE  
Organizer: Raïssi, Tarek Conservatoire National des Arts et Métiers

16:30-16:50 ThC06.1

*The Differentiation Error of Noisy Signals Using the Generalized Super-Twisting Differentiator (I)*, pp. 7383-7388.

Angulo, Marco Tulio Univ. Nacional Autonoma de Mexico  
Moreno, Jaime A. Univ. Nacional Autonoma de Mexico  
Fridman, Leonid M. Univ. Nacional Autonoma de Mexico

16:50-17:10 ThC06.2

*An Algebraic Approach for Human Posture Estimation in the Sagittal Plane Using Accelerometer Noisy Signal (I)*, pp. 7389-7394.

Perruquetti, Wilfrid Ec. Centrale de Lille  
Bonnet, Vincent Lirmm  
Mboup, Mamadou Univ. de Reims Champagne Ardenne  
Ushirobira, Rosane Inria Lille - Nord Europe & Univ. de Bourgogne  
Fraisse, Philippe Lirmm

17:10-17:30 ThC06.3

*Discrete State Reconstruction for Mechanical Switched Systems Using High-Order Sliding-Mode Identification Techniques (I)*, pp. 7395-7400.

Ríos, Héctor Univ. Nacional Autonoma de Mexico  
Davila, Jorge National Pol. Inst.  
Fridman, Leonid M. Univ. Nacional Autonoma de Mexico

17:30-17:50 ThC06.4

*Estimation of Reachability Sets for Large-Scale Uncertain Systems: From Theory to Computation (I)*, pp. 7401-7406.

Daryin, Alexander Moscow State (Lomonosov) Univ.  
Kurzanski, A.B. Univ. of California at Berkeley

17:50-18:10 ThC06.5

*Observers Design for a Class of Nonlinear Singular Systems*, pp. 7407-7412.

Boutat, Driss Ensi de Bourges  
Zheng, Gang INRIA  
Boutat-Baddas, Latifa Centre de Recherche d'Automatique de Nancy (CRAN)  
Darouach, Mohamed Univ. de Lorraine, CRAN-CNRS

**ThC07** Maile 1  
**Distributed Learning, Coordination, 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

16:30-16:50 ThC07.1

*Robust Distributed Routing in Dynamical Networks with Cascading Failures (I)*, pp. 7413-7418.

Como, Giacomo Lund Univ.  
Savla, Ketan Univ. of Southern California  
Acemoglu, Daron Massachusetts Inst. of Tech.  
Dahleh, Munther A. Massachusetts Inst. of Tech.  
Frazzoli, Emilio Massachusetts Inst. of Tech.

16:50-17:10 ThC07.2

*Achieving Pareto Optimality through Distributed Learning (I)*, pp. 7419-7424.

Marden, Jason Univ. of Colorado, Boulder  
Young, H.Peyton Johns Hopkins Univ.  
Pao, Lucy Y. Univ. of Colorado, Boulder

17:10-17:30 ThC07.3

*A Randomized Gossip Consensus Algorithm on Convex Metric Spaces (I)*, pp. 7425-7430.

Matei, Ion Univ. of Maryland  
Somarakis, Christoforos Univ. of Maryland  
Baras, John S. Univ. of Maryland

17:30-17:50 ThC07.4

*Necessary and Sufficient Conditions for the Stabilizability of a Class of LTI Distributed Observers (I)*, pp. 7431-7436.

Park, Shinkyu Univ. of Maryland  
Martins, Nuno C. Univ. of Maryland

17:50-18:10 ThC07.5

*Conditions for Learning in Generalized Tandem Networks (I)*, pp. 7437-7444.

Drakopoulos, Kimon Massachusetts Inst. of Tech.  
Ozdoglar, Asu Massachusetts Inst. of Tech.  
Tsitsiklis, John Massachusetts Inst. of Tech.

18:10-18:30 ThC07.6

*Population Games, Stable Games, and Passivity (I)*, pp. 7445-7450.

Fox, Michael J. Georgia Inst. of Tech.  
Shamma, Jeff S. Georgia Inst. of Tech.

**ThC08** Maile 2  
**Distributed Optimization in Peer-To-Peer Networks (Invited Session)**

Chair: Allgower, Frank Univ. of Stuttgart  
Co-Chair: Notarstefano, Giuseppe Univ. del Salento  
Organizer: Allgower, Frank Univ. of Stuttgart  
Organizer: Bürger, Mathias Univ. of Stuttgart  
Organizer: Notarstefano, Giuseppe Univ. del Salento

16:30-16:50 ThC08.1

*Continuous-Time Distributed Convex Optimization on Weight-Balanced Digraphs (I)*, pp. 7451-7456.

Gharesifard, Bahman Univ. of Illinois, Urbana-Champaign  
Cortes, Jorge Univ. of California, San Diego

16:50-17:10 ThC08.2

*Distributed Robust Optimization Via Cutting-Plane Consensus (I)*, pp. 7457-7463.

Bürger, Mathias Univ. of Stuttgart  
Notarstefano, Giuseppe Univ. del Salento  
Allgower, Frank Univ. of Stuttgart

17:10-17:30 ThC08.3

*A Comparative Analysis of the Fast-Lipschitz Convergence Speed (I)*, pp. 7464-7469.

Jakobsson, Martin KTH Royal Inst. of Tech.  
Fischione, Carlo KTH Royal Inst. of Tech.

17:30-17:50	ThC08.4
<i>Network Optimization under Uncertainty (I)</i> , pp. 7470-7475.	
Zargham, Michael	Univ. of Pennsylvania
Ribeiro, Alejandro	Univ. of Pennsylvania
Jadbabaie, Ali	Univ. of Pennsylvania

17:50-18:10	ThC08.5
<i>A Regularized Saddle-Point Algorithm for Networked Optimization with Resource Allocation Constraints (I)</i> , pp. 7476-7481.	
Simonetto, Andrea	Delft Univ. of Tech.
Keviczky, Tamas	Delft Univ. of Tech.
Johansson, Mikael	KTH Royal Inst. of Tech.

18:10-18:30	ThC08.6
<i>On the Kalman-Yakubovich-Popov Lemma for Positive Systems (I)</i> , pp. 7482-7484.	
Rantzer, Anders	Lund Univ.

<b>ThC09</b>	Maile 3
<b>Differential Geometric Control Theory and Applications</b> (Invited Session)	
Chair: Zenkov, Dmitry	North Carolina State Univ.
Co-Chair: Sanyal, Amit	New Mexico State Univ.
Organizer: Chyba, Monique	Univ. of Hawaii
Organizer: Marriott, John	Univ. of Hawaii
Organizer: Sanyal, Amit	New Mexico State Univ.

16:30-16:50	ThC09.1
<i>Rolling Motions of Pseudo-Orthogonal Groups (I)</i> , pp. 7485-7491.	
Crouch, Peter	Univ. of Hawaii
Silva Leite, Fátima	Univ. of Coimbra

16:50-17:10	ThC09.2
<i>On Optimal Protocols for Combinations of Chemo and Immunotherapy (I)</i> , pp. 7492-7497.	
Ledzewicz, Urszula	Southern Illinois Univ. Edwardsville
Faraji Mosalman, Mozhdeh Sadat	Southern Illinois Univ. Edwardsville
Schaettler, Heinz M.	Washington Univ.

17:10-17:30	ThC09.3
<i>Unscented State Estimation for Rigid Body Motion on SE(3) (I)</i> , pp. 7498-7503.	
Bohn, Jan	New Mexico State Univ.
Sanyal, Amit	New Mexico State Univ.

17:30-17:50	ThC09.4
<i>Hamel's Formalism and Variational Integrators on a Sphere (I)</i> , pp. 7504-7510.	
Zenkov, Dmitry	North Carolina State Univ.
Leok, Melvin	Univ. of California, San Diego
Bloch, Anthony M.	Univ. of Michigan

17:50-18:10	ThC09.5
<i>Fundamental Problems in Geometric Control Theory (I)</i> , pp. 7511-7516.	
Lewis, Andrew D.	Queen's Univ.

18:10-18:30	ThC09.6
<i>Extension of the Belitskii Normal Form to Nonlinear Control Systems</i> , pp. 7517-7522.	
Menini, Laura	Univ. di Roma Tor Vergata
Tornambe, Antonio	Univ. di Roma Tor Vergata

<b>ThC10</b>	Pikake 1
<b>Sampled Data Control</b> (Regular Session)	
Chair: Mazenc, Frederic	EPI INRIA DISCO
Co-Chair: Fridman, Emilia	Tel-Aviv Univ.

16:30-16:50	ThC10.1
<i>Stabilization of Linear Input Delayed Dynamics under Sampling</i> , pp. 7523-7528.	
Mazenc, Frederic	EPI INRIA DISCO
Normand-Cyrot, Marie-Dorothée	CNRS-Supélec

16:50-17:10	ThC10.2
<i>Sampled-Data Distributed <math>H_\infty</math> Control of a Class of Parabolic Systems</i> , pp. 7529-7534.	
Fridman, Emilia	Tel-Aviv Univ.
Bar am, Netzer	Tel Aviv Univ.

17:10-17:30	ThC10.3
<i>Digital Stabilization of Delayed-Input Strict-Feedforward Dynamics</i> , pp. 7535-7540.	
Monaco, Salvatore	Univ. di Roma
Normand-Cyrot, Marie-Dorothée	CNRS-Supélec
Tanasa, Valentin	Univ. Pol. Bucharest

17:30-17:50	ThC10.4
<i>Stability of Bilinear Sampled-Data Systems with an Emulation of Static State Feedback</i> , pp. 7541-7546.	
Omran, Hassan	LAGIS - Ec. Centale de Lille
Hetel, Laurentiu	EC-LILLE.
Richard, Jean-Pierre	Ec. Centrale de Lille
Lamnabhi-Lagarrigue, Françoise	CNRS and EEIC

17:50-18:10	ThC10.5
<i>Self-Triggered Robust Control of Nonlinear Stochastic Systems</i> , pp. 7547-7552.	
Aggoune, Woihida	ENSEA
Castillo-Toledo, Bernardino	CINVESTAV-GDL, Mexico
Di Gennaro, Stefano	Univ. of L'Aquila

18:10-18:30	ThC10.6
<i>Observer Based Self-Triggered Control of an Acyclic Interconnection of Linear Plants</i> , pp. 7553-7558.	
Almeida, João	Inst. Superior Técnico
Silvestre, Carlos	Inst. Superior Técnico
Pascoal, Antonio Manuel	Inst. Superior Técnico

<b>ThC11</b>	Pikake 2
<b>Modeling and Control of Building Systems II</b> (Invited Session)	
Chair: Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
Co-Chair: Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign
Organizer: Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
Organizer: Barooah, Prabir	Univ. of Florida
Organizer: Eisenhower, Bryan	Univ. of California, Santa Barbara
Organizer: Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign
16:30-16:50	ThC11.1
<i>Fast Stochastic MPC with Optimal Risk Allocation Applied to Building Control Systems (I)</i> , pp. 7559-7564.	
Ma, Yudong	University of California, Berkeley
Vichik, Sergey	Technion - Israel Inst. of Tech.
Borrelli, Francesco	University of California, Berkeley
16:50-17:10	ThC11.2
<i>Effect of Various Uncertainties on the Performance of Occupancy-Based Optimal Control of HVAC Zones (I)</i> , pp. 7565-7570.	
Goyal, Siddharth	Univ. of Florida
Ingley, Herbert	Univ. of Florida
Barooah, Prabir	Univ. of Florida
17:10-17:30	ThC11.3
<i>Learning Near-Optimal Decision Rules for Energy Efficient Building Control (I)</i> , pp. 7571-7576.	
Domahidi, Alexander	ETH Zurich
Ullmann, Fabian	ETH Zurich
Morari, Manfred	ETH Zurich
Jones, Colin N.	École Pol. Fédérale de Lausanne
17:30-17:50	ThC11.4
<i>Green Scheduling for Radiant Systems in Buildings (I)</i> , pp. 7577-7582.	
Nghiem, Truong X.	Univ. of Pennsylvania
Behl, Madhur	Univ. of Pennsylvania
Pappas, George J.	Univ. of Pennsylvania
Mangharam, Rahul	Univ. of Pennsylvania
17:50-18:10	ThC11.5
<i>Economic COP Optimization of a Heat Pump with Hierarchical Model Predictive Control (I)</i> , pp. 7583-7588.	
Tahersima, Fatemeh	Aalborg Univ.
Stoustrup, Jakob	Aalborg Univ.
Rasmussen, Henrik	Aalborg Univ.
Afkhami Meybodi, Soroush	Aalborg Univ.
18:10-18:30	ThC11.6
<i>Stability Analysis for Decentralized Control of Multi-Evaporator Vapor-Compression Cycle Systems (I)</i> , pp. 7589-7595.	
Jain, Neera	Univ. of Illinois, Urbana-Champaign
Sundaram, Shreyas	Univ. of Waterloo
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign

<b>ThC12</b>	Pikake 3
<b>Electrical Motor Control</b> (Regular Session)	
Chair: Blanchini, Franco	Univ. degli Studi di Udine
Co-Chair: Pisano, Alessandro	Univ. of Cagliari
16:30-16:50	ThC12.1
<i>Multi-Phase Synchronous Motors: Minimum Dissipation Fault-Tolerant Control with Currents Saturation</i> , pp. 7596-7601.	
Fei, Marco	Univ. of Modena and Reggio Emilia
Zanasi, Roberto	Univ. of Modena and Reggio Emilia
16:50-17:10	ThC12.2
<i>An LPV Control Scheme for Induction Motors</i> , pp. 7602-7607.	
Blanchini, Franco	Univ. degli Studi di Udine
Casagrande, Daniele	Univ. degli Studi di Udine
Miani, Stefano	Univ. degli Studi di Udine
Viaro, Umberto	Univ. degli Studi di Udine
17:10-17:30	ThC12.3
<i>Signal Injection and Averaging for Position Estimation of Permanent-Magnet Synchronous Motors</i> , pp. 7608-7613.	
Jebai, Al Kassem	MINES ParisTech
Malrait, Francois	STI
Martin, Philippe	MINES ParisTech
Rouchon, Pierre	MINES ParisTech
17:30-17:50	ThC12.4
<i>Detection of Rotor Broken Bar and Eccentricity Faults in Induction Motors Via Second Order Sliding Mode Observer</i> , pp. 7614-7619.	
Pilloni, Alessandro	Univ. degli Studi di Cagliari
Pisano, Alessandro	Univ. degli Studi di Cagliari
Usai, Elio	Univ. degli Studi di Cagliari
Puche-Panadero, Ruben	Univ. Pol. de Valencia
17:50-18:10	ThC12.5
<i>On the Optimal Trajectory Generation for Servomotors: A Hamiltonian Approach</i> , pp. 7620-7625.	
Wang, Yebin	Mitsubishi Electric Res. Lab.
Ueda, Koichiro	Mitsubishi Electric Res. Lab.
Bortoff, Scott A.	Mitsubishi Electric Res. Lab.
18:10-18:30	ThC12.6
<i>A Novel PID-Based Control Approach for Switched-Reluctance Motors</i> , pp. 7626-7631.	
Loria, Antonio	CNRS
Espinosa-Perez, Gerardo	Univ. Nacional Autonoma de Mexico
Chumacero, Erik	L2S supelec
<b>ThC13</b>	Ilina 1
<b>Formal Methods in Control</b> (Invited Session)	
Chair: Wongpiromsarn, Tichakorn	Singapore-MIT Alliance for Res. & Tech.
Co-Chair: Belta, Calin	Boston Univ.
Organizer: Wongpiromsarn, Tichakorn	Singapore-MIT Alliance for Res. & Tech.
Organizer: Belta, Calin	Boston Univ.



16:30-16:50	ThC13.1
<i>Finite Bisimulations for Switched Linear Systems (I)</i> , pp. 7632-7637.	
Aydin Gol, Ebru	Boston Univ.
Ding, Xu Chu	United Tech. Res. Center
Lazar, Mircea	Eindhoven Univ. of Tech.
Belta, Calin	Boston Univ.

16:50-17:10	ThC13.2
<i>Scaling up Controller Synthesis for Linear Systems and Safety Specifications (I)</i> , pp. 7638-7643.	
Rungger, Matthias	Univ. of California at Los Angeles
Mazo Jr., Manuel	INCAS3 / Univ. of Groningen
Tabuada, Paulo	Univ. of California at Los Angeles

17:10-17:30	ThC13.3
<i>Control of Probabilistic Systems under Dynamic, Partially Known Environments with Temporal Logic Specifications (I)</i> , pp. 7644-7651.	
Wongpiromsarn, Tichakorn	Singapore-MIT Alliance for Res. & Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.

17:30-17:50	ThC13.4
<i>Stability and Attractivity of Absorbing Sets for Discrete-Time Markov Processes (I)</i> , pp. 7652-7657.	
Tkachev, Ilya	TU Delft
Abate, Alessandro	TU Delft

17:50-18:10	ThC13.5
<i>Incremental Control Synthesis in Probabilistic Environments with Temporal Logic Constraints (I)</i> , pp. 7658-7663.	
Ulusoy, Alphan	Boston Univ.
Wongpiromsarn, Tichakorn	Singapore-MIT Alliance for Res. & Tech.
Belta, Calin	Boston Univ.

18:10-18:30	ThC13.6
<i>Reactive Controllers for Differentially Flat Systems with Temporal Logic Constraints (I)</i> , pp. 7664-7670.	
Liu, Jun	Univ. of Sheffield
Topcu, Ufuk	California Inst. of Tech.
Ozay, Necmiye	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.

<b>ThC14</b>	Ilima 2
<b>Challenges and Advances in Optimal Control (Invited Session)</b>	
Chair: Campbell, Stephen L	North Carolina State Univ.
Co-Chair: Maurer, Helmut	Univ. Münster
Organizer: Campbell, Stephen L	North Carolina State Univ.
Organizer: Maurer, Helmut	Univ. Münster
Organizer: Zidani, Hasnaa	ENSTA ParisTech

16:30-16:50	ThC14.1
<i>Bang-Bang and Singular Controls in Optimal Control Problems with Partial Differential Equations (I)</i> , pp. 7671-7678.	
Pesch, Hans Josef	Univ. of Bayreuth
Bechmann, Simon	Univ. of Bayreuth
Wurst, Jan-Eric	Univ. of Bayreuth

16:50-17:10	ThC14.2
<i>Optimal Control for Reconstruction of Curves without Cusps (I)</i> , pp. 7679-7684.	
Boscain, Ugo V.	CNRS
Duits, Remco	Eindhoven Univ. of Tech.
Rossi, Francesco	Aix-Marseille Univ.
Sachkov, Yuri	Russian Acad. of Science

17:10-17:30	ThC14.3
<i>A Variant of Nonsmooth Maximum Principle for State Constrained Problems (I)</i> , pp. 7685-7690.	
Biswas, Md. Haider Ali	Univ. do Porto
de Pinho, Maria do Rosario	Univ. do Porto

17:30-17:50	ThC14.4
<i>A Geometric Analysis of Bang-Bang Extremals in Optimal Control Problems for Combination Cancer Chemotherapy (I)</i> , pp. 7691-7696.	
Schaettler, Heinz M.	Washington Univ.
Ledzewicz, Urszula	Southern Illinois Univ. at Edwardsville
Mahmoudiandehkordi, Siamak	Southern Illinois Univ. Edwardsville
Reisi Gahrooei, Mostafa	Southern Illinois Univ. Edwardsville

17:50-18:10	ThC14.5
<i>Optimal Bang-Bang and Singular Controls in Collision Avoidance for Participants with Unequal Linear Speeds (I)</i> , pp. 7697-7702.	
Maurer, Helmut	Univ. Münster
Tarnopolskaya, Tanya	CSIRO Mathematics, Informatics and Statistics, Sydney
Fulton, Neale	CSIRO Mathematics, Informatics and Statistics, Canberra

18:10-18:30	ThC14.6
<i>Stratified Necessary Conditions for Unbounded Differential Inclusions with State Constraints (I)</i> , pp. 7703-7707.	
Bettiol, Piernicola	Univ. de Brest
Boccia, Andrea	Imperial Coll. London
Vinter, Richard B.	Imperial Coll. London

<b>ThC15</b>	Ilima 3
<b>Sliding Mode Control III (Regular Session)</b>	

Chair: Rodrigues, Luis	Concordia Univ.
Co-Chair: Basin, Michael V.	Autonomous Univ. of Nuevo Leon

16:30-16:50	ThC15.1
<i>Discrete-Time Sliding Mode Regulator for Nonminimum Phase Systems</i> , pp. 7708-7713.	
Galicia, Marcos Israel	CINVESTAV Unidad Guadalajara
Loukianov, Alexander G.	CINVESTAV IPN GDI
Rivera, Jorge	Univ. de Guadalajara
Utkin, Vadim I.	Ohio State Univ.

16:50-17:10	ThC15.2
<i>Generic and Generalized Boundary Operating Points in Piecewise-Linear (discontinuous) Control Systems</i> , pp. 7714-7719.	
Della Rossa, Fabio	Pol. di Milano
Dercole, Fabio	Pol. di Milano

17:10-17:30	ThC15.3
<i>H<sub>∞</sub> Non-Fragile Observer-Based Sliding Mode Control of Singular Markovian Jump Systems with State Delay</i> , pp. 7720-7725.	
Zhou, Pingfang	Shanghai Jiao Tong Univ.
Wang, Yueying	Shanghai Jiao Tong Univ.
Wang, Quanbao	Shanghai Jiao Tong Univ.
Chen, Ji-An	Shanghai Jiao Tong Univ.
Ren, Jiemei	Shanghai Jiao Tong Univ.
Duan, Dengping	Shanghai Jiao Tong Univ.

17:30-17:50	ThC15.4
<i>Output Mini-Max Control for Polynomial Systems: Analysis and Application</i> , pp. 7726-7731.	
Jimenez-Lizarraga, Manuel A.	Autonomous Univ. of Nuevo Leon
Basin, Michael V.	Autonomous Univ. of Nuevo Leon
Rodriguez-Ramirez, Pablo Cesar	Autonomous Univ. of Nuevo Leon
Rodriguez, Celeste	Autonomous Univ. of Nuevo Leon

17:50-18:10	ThC15.5
<i>Nonlinear Fixed-Time Control Protocol for Uniform Allocation of Agents on a Segment</i> , pp. 7732-7737.	
Parsegov, Sergey	Inst. of Control Sciences, Russian Acad. of Sciences
Polyakov, Andrey	INRIA-LNE,
Shcherbakov, Pavel	Inst. of Control Sciences, Russian Acad. of Sciences

18:10-18:30	ThC15.6
<i>A Convex Formulation of Controller Synthesis for Piecewise-Affine Slab Systems Based on Invariant Sets</i> , pp. 7738-7743.	
Kaynama, Sina	Concordia Univ.
Samadi, Behzad	Maplesoft
Rodrigues, Luis	Concordia Univ.

<b>ThC16</b>	Haleakala Ballroom 3
<b>Game Theory III (Regular Session)</b>	
Chair: Marden, Jason	Univ. of Colorado, Boulder
Co-Chair: Jones, Malachi	Georgia Tech.

16:30-16:50	ThC16.1
<i>A Game-Theoretical Approach for Finding Optimal Strategies in an Intruder Classification Game</i> , pp. 7744-7751.	
Dritsoula, Lemonia	Univ. of California, Santa Cruz
Loiseau, Patrick	EURECOM
Musacchio, John	Univ. of California, Santa Cruz

16:50-17:10	ThC16.2
<i>Policy Improvement for Repeated Zero-Sum Games with Asymmetric Information (I)</i> , pp. 7752-7757.	
Jones, Malachi	Georgia Inst. of Tech.
Shamma, Jeff S.	Georgia Inst. of Tech.

17:10-17:30	ThC16.3
<i>Dynamic Network Interdiction Games with Imperfect Information and Deception</i> , pp. 7758-7763.	
Castanon, David A.	Boston Univ.
Zheng, Jiefu	Boston Univ.

17:30-17:50	ThC16.4
<i>Designing Games for Distributed Optimization with a Time Varying Communication Graph</i> , pp. 7764-7769.	
Li, Na	California Inst. of Tech.
Marden, Jason	Univ. of Colorado, Boulder

<b>ThC17</b>	Haleakala Ballroom 5
<b>LMI-Based Techniques (Regular Session)</b>	
Chair: Arzelier, Denis	LAAS-CNRS
Co-Chair: Regruto, Diego	Pol. di Torino

16:30-16:50	ThC17.1
<i>LMI Search for Rational Anticausal Zames--Falb Multipliers</i> , pp. 7770-7775.	
Carrasco, Joaquin	Univ. of Manchester
Maya Gonzalez, Martin	Univ. of Manchester
Lanzon, Alexander	Univ. of Manchester
Heath, William Paul	Univ. of Manchester

16:50-17:10	ThC17.2
<i>An Optimal Design of H-Infinity Static Output Feedback Controller Using LMI for Collocated Gyroscopic System</i> , pp. 7776-7780.	
Kurotaki, Yuki	Univ. of Electro-Communications
Nagashio, Tomoyuki	Osaka Prefecture Univ.
Kida, Takashi	Univ. of Electro-Communications

17:10-17:30	ThC17.3
<i>Robust H<sub>∞</sub> Performance of Periodic Systems with Memory: New Formulations, Analysis and Design Results</i> , pp. 7781-7786.	
Tregouet, Jean-Francois	LAAS-CNRS
Arzelier, Denis	LAAS-CNRS
Peaucelle, Dimitri	LAAS-CNRS, Univ. de Toulouse
Ebihara, Yoshio	Kyoto Univ.
Pittet, Christelle	CNES
Falcoz, Alexandre	IMS

17:30-17:50	ThC17.4
<i>Asymptotic Stability of Two-Dimensional Continuous Roesser Models with Singularities at the Stability Boundary</i> , pp. 7787-7792.	
Knorn, Steffi	NUI Maynooth
Middleton, Richard H.	Univ. of Newcastle

17:50-18:10	ThC17.5
<i>Polytopic Outer Approximations of Semialgebraic Sets</i> , pp. 7793-7798.	
Cerone, Vito	Pol. di Torino
Piga, Dario	Delft Univ. of Tech.
Regruto, Diego	Pol. di Torino

18:10-18:30	ThC17.6
<i>An LMI Based Approach to Passivity Analysis and Robust Passification of Uncertain Linear Systems with Time Varying Delays</i> , pp. 7799-7804.	
Ahmed, Aftab	Georgia Inst. of Tech.
Farooq, Sameer	Pakistan Inst. of Engineering And Applied Sciences, Islamabad
Khan, Abdul Qayyum	Pakistan Inst. of Engineering and Applied Sciences,
Abid, Muhammad	Pakistan Inst. of Engineering and Applied Sciences