Content List of 55th IEEE Conference on Decision and Control

Technical Program for Monday December 12, 2016

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Modeling and Control of Power Flow for Transient Thermal Systems (Semiplenary Session)
Chair: Bullo, Francesco Univ. California at Santa Barbara
Co-Chair: Jovanovic, Mihailo Univ. of Minnesota
MoSP1.1
Modeling and Control of Power Flow for Transient Thermal Systems*
Alleyne, Andrew G. Univ. of Illinois, Urbana-Champaign

MoSP2
On the First Experimental Realization of a Quantum State Feedback (Semiplenary Session)
Chair: Giua, Alessandro Aix-Marseille Univ. France / Univ. of Cagliari, Italy
Co-Chair: Cortes, Jorge Univ. of California, San Diego
MoSP2.1
On the First Experimental Realization of a Quantum State Feedback*
Rouchon, Pierre Mines ParisTech

MoA01
Network Analysis and Control I (Regular Session)
Chair: Charalambous, Themistoklis Chalmers Univ. of Tech
Co-Chair: Roy, Sandip Washington State Univ
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Dietrich, Florian CRAN - Univ. De Lorraine
Martin, Samuel Univ. De Lorraine
Jungers, Marc CNRS - Univ. De Lorraine
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Morarescu, Irinel-Constantin Cran Cnrs Umr 7039 - Uls
Nesic, Dragan Univ. of Melbourne
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Eletreby, Rashad Carnegie Mellon Univ
Yagan, Osman Carnegie Mellon Univ
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Lageman, Christian Univ. of Wuerzburg
Sun, Zhiyong Australian National Univ
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Charalambous, Themistoklis Chalmers Univ. of Tech

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Co-Chair: Liu, Ji Univ. of Illinois at Urbana-Champaign
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Gao, Zuguang Univ. of Illinois at Urbana-Champaign
Chen, Xudong Univ. of Colorado, Boulder
Liu, Ji Univ. of Illinois at Urbana-Champaign
Basar, Tamer Univ. of Illinois, Urbana-Champaign
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Constantinou, Christos Cyprus Univ. of Tech
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Fathian, Kaveh Univ. of Texas at Dallas
Rachinskii, Dmitrii Univ. of Texas at Dallas
Summers, Tyler H. Univ. of Texas at Dallas
Gans, Nicholas Univ. of Texas at Dallas
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Belabbas, Mohamed Ali Univ. of Illinois at Urbana-Champaign
Chen, Xudong Univ. of Colorado, Boulder
Basar, Tamer Univ. of Illinois, Urbana-Champaign
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Wang, Bohui Shanghai Jiao Tong Univ
Wang, Jingcheng Shanghai Jiaotong Univ
Zhu, Huifeng Department of Shanghai Municipal Monitoring Centre of Water Supp
Zhang, Bin Univ. of South Carolina
Li, Xiaocheng Shanghai Jiao Tong Univ
Wang, Xiaofeng Univ. of South Carolina
Dai, Leijie Department of Shanghai Municipal Monitoring Centre of Water Supp
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Cooperative Control I (Regular Session)
Chair: Scardovi, Luca
Co-Chair: Bai, He
Univ. of Toronto
Oklahoma State Univ

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Bai, He
Oklahoma State Univ

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Boskos, Dimitris
KTH
Dimarogonas, Dimos V.
Royal Inst. of Tech

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Roza, Ashton
Univ. of Toronto
Maggiore, Manfredi
Univ. of Toronto
Scardovi, Luca
Univ. of Toronto

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Khorsavi, Mohammad
Concordia Univ
Khodadadi, Hossein
Concordia Univ
Aghdam, Amir G.
Concordia Univ
Rivaz, Hassan
Concordia Univ

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Zareh Eshghdoust, Mehran
Univ. of Modena and Reggio Emilia
Sabattini, Lorenzo
Univ. of Modena and Reggio Emilia
Secchi, Cristian
Univ. of Modena & Reggio Emilia

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An, Tianrui
Univ. of Alberta
Liu, Jinfeng
Univ. of Alberta
Forbes, J. Fraser
Univ. of Alberta

MoA04
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Chair: Motee, Nader
Co-Chair: Somarakis, Christoforos
Organizer: Siami, Milad
Lehigh Univ
Lehigh Univ
Lehigh Univ

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Univ. of Illinois at Urbana-Champaign
Beck, Carolyn L.
Univ. of Illinois at Urbana-Champaign
Nedich, Angelia
Univ. of Illinois at Urbana-Champaign
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Notarnicola, Ivano
Univ. Del Salento
Notarstefano, Giuseppe
Univ. Del Salento

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Qu, Guannan
Harvard Univ
Li, Na
Harvard Univ

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Landgren, Peter
Princeton Univ
Srivastava, Vaibhav
Michigan State Univ
Leonard, Naomi Ehrich
Princeton Univ

Vanli, Nuri Denizcan
MIT
Gurbuzbalaban, Mert
New York Univ. Courant Inst
Ozdaglar, Asu
MIT

Optimal Control I (Regular Session)
Chair: Chen, Mo
Univ. of California, Berkeley
Co-Chair: Borum, Andy
Univ. of Illinois at Urbana-Champaign

Chen, Mo
Univ. of California, Berkeley
Herbert, Sylvia
UC Berkeley
Tomlin, Claire J.
UC Berkeley

Huang, Yunlong
Univ. of Maryland
Krishnaprasad, P. S.
Univ. of Maryland

Frego, Marco
Univ. of Trento
Bevilacqua, Paolo
Univ. of Trento

de Pinho, Maria do Rosario
Univ. Do Porto, Fac. Engenharia
Foroodandeh, Zahra
Faculty of Mathematics and Computer Science, Amirkabir Univ
Matos, Anibal Castilho
Faculdade De Engenharia Da Univ. Do Porto

Jadbabaie, Ali
MIT
Olshevsky, Alexander
Boston Univ

Magnusson, Sindri
KTH - Royal Inst. of Tech
Enyiocha, Chinwendu
Harvard Univ
Li, Na
Harvard Univ
Fischione, Carlo
Royal Inst. of Tech

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Banjac, Goran
Univ. of Oxford
Goulart, Paul
Univ. of Oxford

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Spedicato, Sara
Univ. Del Salento
Notarstefano, Giuseppe
Univ. Del Salento

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Fanti, Maria Pia
Pol. of Bari
Mangi, Agostino Marcello
Pol. Di Bari
Pedroncelli, Giovanni
Univ. of Triste
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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
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Garatti, Simone Pol. Di Milano
Prandini, Maria Pol. Di Milano
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Carè, Algo Hungarian Acad. of Sciences (MTA), Budapest
Csaji, Balazs MTA SZTAKI: Inst. for Computer Science and Control, Hungary
Campi, M. C. Univ. Di Brescia
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Firoozi, Dena McGill Univ
Caines, Peter E. McGill Univ
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Maity, Dipankar Univ. of Maryland, Coll. Park
Baras, John S. Univ. of Maryland
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Satchidanandanand, Bharadwaj Texas A&M Univ
Kumar, P. R. Texas A&M Univ
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Liu, Ji Univ. of Illinois at Urbana-Champaign
Pare, Philip Univ. of Illinois at Urbana-Champaign
Nedich, Angelia Univ. of Illinois, Urbana-Champaign
Tang, Choon Yik Univ. of Oklahoma
Beck, Carolyn L. Univ. of Illinois, Urbana-Champaign
Basar, Tamer Univ. of Illinois, Urbana-Champaign
Co-Chair: Farokhi, Farhad The Univ. of Melbourne
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Zlotnik, David Evan Univ. of Michigan
Forbes, James Richard McGill Univ
10:20-10:40 MoA09.2
Farokhi, Farhad The Univ. of Melbourne
Milosevic, Jezdrimir KTH Royal Inst. of Tech
Sandberg, Henrik KTH Royal Inst. of Tech
10:40-11:00 MoA09.3
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Berkane, Soulaimane Western Univ
Abdessameud, Abdelkader Univ. of Western Ontario
Tayebi, Abdelghamid Lakehead Univ
11:00-11:20 MoA09.4
Kwon, Cheolhyeon Purdue Univ
Hwang, Inseok Purdue Univ
11:20-11:40 MoA09.5
Vasconcelos, Marcos M. Univ. of Southern California
Martins, Nuno C. Univ. of Maryland
11:40-12:00 MoA09.6
Park, Shinkyu Massachusetts Inst. of Tech
Martins, Nuno C. Univ. of Maryland
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Chair: Fujimoto, Kenji Kyoto Univ
Co-Chair: Santillo, Mario Ford Motor Company
10:00-10:20 MoA10.1
Qiu, Zeng Univ. of Michigan, Ann Arbor
Sun, Jing Univ. of Michigan
Jankovic, Mrdjan Ford Res. & Advanced Engineering
Santillo, Mario Ford Motor Company
10:20-10:40 MoA10.2
Galinho, Miguel Kungliga Tekniska Hogskolan
Rojas, Cristian R. KTH Royal Inst. of Tech
Hjalmarsson, Hakon KTH Royal Inst. of Tech
10:40-11:00 MoA10.3
### MoA10

**Learning Hybrid Models with Logical and Continuous Dynamics Via Multiclass Linear Separation**  
Kwan, Chi-Man  
Applied Res. LLC  
11:00-11:20  
MoA10.4

**Algebraic Estimation of a Biased and Noisy Continuous Signal Via Orthogonal Polynomials**  
Ushirobira, Rosane  
INRIA  
Bemporad, Alberto  
IMT Inst. for Advanced Studies Lucca  
11:20-11:40  
MoA10.5

**Measurement Difference Autocovariance Method for Noise Covariance Matrices Estimation**  
Dunik, Jindrich  
Univ. of West Bohemia  
Straka, Ondrej  
Univ. of West Bohemia  
Kost, Oliver  
Univ. of West Bohemia  
11:40-12:00  
MoA10.6

### MoA11

**Adaptive Control I (Regular Session)**  
Chair: Bernstein, Dennis S.  
Univ. of Michigan  
Co-Chair: Yucelen, Tansel  
Univ. of South Florida  
10:00-10:20  
MoA11.1

**On Model Reference Adaptive Control for Uncertain Dynamical Systems with Unmodeled Dynamics**  
Hoehener, Daniel  
Massachusetts Inst. of Tech  
Del Vecchio, Domitilla  
Massachusetts Inst. of Tech  
10:20-10:40  
MoA11.2

**Adaptive Control of Plants That Are Practically Impossible to Control by Fixed-Gain Control Laws**  
Rahman, Yusuf  
Univ. of Michigan  
Bernstein, Dennis S.  
Univ. of Michigan  
11:00-11:20  
MoA11.3

**Adaptive Control of a Surface Marine Craft with Parameter Identification Using Integral Concurrent Learning**  
Bell, Zachary  
Univ. of Florida  
Parikh, Anup  
Univ. of Florida  
Nezvadovitz, Jason  
Univ. of Florida  
Dixon, Warren E.  
Univ. of Florida  
11:20-11:40  
MoA11.4

**Synthesis of Adaptive Controllers for Spacecraft Rendezvous Maneuvers Using Nonlinear Models of Relative Motion**  
Zhang, Kewen  
Worcester Pol. Inst  
Demetriou, Michael A.  
Worcester Pol. Inst  
11:40-12:00  
MoA11.5

### MoA12

**Automata (Regular Session)**  
Chair: Hadjicostis, Christoforos N.  
Univ. of Cyprus  
Co-Chair: Seatzu, Carla  
Univ. of Cagliari  
10:00-10:20  
MoA12.1

**Controller Design under Safety Specifications for a Class of Bounded Hybrid Automata**  
Hoehener, Daniel  
Massachusetts Inst. of Tech  
Del Vecchio, Domitilla  
Massachusetts Inst. of Tech  
10:20-10:40  
MoA12.2

**Reliable Conditional-Cooervability for Decentralized Supervisory Control of Discrete Event Systems with Conditional Decisions**  
Yoshida, Sho  
Osaka Univ  
Takai, Shigemasa  
Osaka Univ  
10:40-11:00  
MoA12.3

**Risk-Averse Control of Markov Decision Processes with Omega-Regular Objectives**  
Ehlers, Ruediger  
Univ. of Bremen  
Moarref, Salar  
Univ. of Pennsylvania  
Topcu, Ufuk  
The Univ. of Texas at Austin  
11:00-11:20  
MoA12.4

**Automata Theory Meets Approximate Dynamic Programming: Optimal Control with Temporal Logic Constraints**  
Papusha, Ivan  
California Inst. of Tech  
Fu, Jie  
Worcester Pol. Inst  
Topcu, Ufuk  
The Univ. of Texas at Austin  
11:20-11:40  
MoA12.5

**Distributed Computation of Maximally Permissive Supervisors in Three-Level Relaxed Coordination Control of Discrete-Event Systems**  
Komenda, Jan  
Czech Acad. of Sciences  
Masopust, Tomas  
TU Dresden  
van Schuppen, Jan H.  
Van Schuppen Control Res  
11:40-12:00  
MoA12.6

### MoA13

**Input to State Stability and Its Variants (Invited Session)**  
Chair: Kellett, Christopher M.  
Univ. of Newcastle  
Co-Chair: Rüffer, Björn S.  
The Univ. of Newcastle  
Organizer: Kellett, Christopher M.  
Univ. of Newcastle  
10:00-10:20  
MoA13.1

Pepe, Pierdomenico  Univ. of L’Aquila
Pola, Giordano  Univ. of L’Aquila
Di Benedetto, M. Domenica  Univ. of L’Aquila

10:20-10:40  MoA13.2


Forni, Paolo  Imperial Coll. London
Angeli, David  Imperial Coll.

10:40-11:00  MoA13.3

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Forni, Paolo  Imperial Coll. London
Angeli, David  Imperial Coll.

11:00-11:20  MoA13.4


Yang, Guosong  Univ. of Illinois at Urbana-Champaign
Liberzon, Daniel  Univ. of Illinois, Urbana-Champaign
Mironchenko, Andrii  Univ. of Passau

11:20-11:40  MoA13.5


Ito, Hiroshi  Kyushu Inst. of Tech

11:40-12:00  MoA13.6


Tran, Duc  The Univ. of Newcastle
Rüffer, Björn S.  The Univ. of Newcastle
Kellett, Christopher M.  Univ. of Newcastle

12:00-12:20  MoA13.7


Nozari, Erfan  Univ. of California, San Diego
Tallapragada, Pavankumar  Univ. of California, San Diego
Cortes, Jorge  Univ. of California, San Diego

11:00-11:20  MoA14.4

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Selivanov, Anton  Tel Aviv Univ
Fridman, Emilia  Tel-Aviv Univ

11:20-11:40  MoA14.5

A Non-Monotonic Approach to Periodic Event-Triggered Control with Packet Loss (I), pp. 507-512.

Linzenmayer, Steffen  Univ. of Stuttgart
Dimarogonas, Dimos V.  Royal Inst. of Tech
Allgöwer, Frank  Univ. of Stuttgart

11:40-12:00  MoA14.6


Mamduhi, Mohammad  Tech. Univ. München
Hossein  Tech. Univ. München
Kneissl, Maximilian  Tech. Univ. of Munich
Hirche, Sandra  Tech. Univ. München

12:00-12:20  MoA14.7

PDE Control and Adaptive Structures (Invited Session)

Chair: Meurer, Thomas  Christian-Albrechts-Univ. Kiel
Co-Chair: Macchelli, Alessandro  Univ. of Bologna - Italy
Organizer: Meurer, Thomas  Christian-Albrechts-Univ. Kiel
Organizer: Le Gorrec, Yann  Ensmm, Femto-St / As2m

10:00-10:20  MoA15.1

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Kater, Andreas  Christian-Albrechts-Univ. Kiel
Meurer, Thomas  Christian-Albrechts-Univ. Kiel

10:20-10:40  MoA15.2

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Koga, Shumon  Univ. of California, San Diego
Diagne, Mamadou  Univ. of Michigan Ann Arbor
Krstic, Miroslav  Univ. of California, San Diego

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Morris, Kirsten  Univ. of Waterloo
Vest, Ambroise  Lycée Henri Poincare

11:00-11:20  MoA15.4

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

11:20-11:40  MoA15.5

Brayton-Moser Formulation of Infinite Dimensional Port-Hamiltonian Systems with Application to Boundary Control (I), pp. 543-548.
Macchelli, Alessandro
Univ. of Bologna - Italy

11:40-12:00 MoA15.6

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Roman, Christophe
GIPSA-Lab -- Grenoble INP
Bresch-Pietri, Delphine
CNRS, GIPSA-Lab
Cerpa, Eduardo
Univ. Técnica Federico Santa Maria
Prieur, Christophe
CNRS
Sename, Olivier
Univ. Grenoble Alpes

MoA16
Ironwood 3

Delay Systems I (Regular Session)

Chair: Califano, Claudia
Univ. Di Roma
Co-Chair: Bonnet, Catherine
INRIA Saclay-Ille-De-France

10:00-10:20 MoA16.1


Califano, Claudia
Univ. Di Roma
Battilotti, Stefano
Univ. La Sapienza
Moog, Claude H.
CNRS

10:20-10:40 MoA16.2


Djema, Wald
INRIA Saclay-Ille-De-France
Mazenc, Frederic
Epi Inria Disco
Bonnet, Catherine
INRIA Saclay-Ille-De-France
Clairambault, Jean
INRIA
Hirsch, Pierre
Groupe De Recherche Clinique Sur Les Myé Loproliferations A
Delhommeau, François
Groupe De Recherche Clinique Sur Les Myé Loproliferations A

10:40-11:00 MoA16.3

Analysis of PWA Control of Discrete-Time Linear Dynamics in the Presence of Variable Time-Delay, pp. 567-572.

Laraba, Mohammed-Tahar
Lab. of Signals and Systems
Olaru, Sorin
CentraleSupelec
Niculescu, Silviu-Iulian
CNRS-Supelec

11:00-11:20 MoA16.4


Fan, David D.
Georgia Inst. of Tech
Theodorou, Evangelos A.
Georgia Inst. of Tech

11:20-11:40 MoA16.5


Bejarano, Francisco Javier
Inst. Pol. Nacional, ESIME
Zheng, Gang
INRIA

11:40-12:00 MoA16.6

H_inf State-Feedback Control of Linear Systems with Time-Varying Input Delays, pp. 586-591.

Yuan, Chengzhi
Univ. of Rhode Island
Wu, Fen
North Carolina State Univ

MoA17
Ironwood 6

Variational Analysis in Dynamics and Control (Invited Session)

Chair: Goebel, Rafal
Loyola Univ. Chicago
Co-Chair: Sanfelice, Ricardo G.
Univ. of California at Santa Cruz
Organizer: Goebel, Rafal
Loyola Univ. Chicago
Organizer: Sanfelice, Ricardo G.
Univ. of California at Santa Cruz

10:00-10:20 MoA17.1


Stechlinski, Peter
MIT
Barton, Paul I.
MIT

10:20-10:40 MoA17.2

How Well-Posedness of Hybrid Systems Can Extend Beyond Zeno Times (I), pp. 598-603.

Goebel, Rafal
Loyola Univ. Chicago
Sanfelice, Ricardo G.
Univ. of California at Santa Cruz

10:40-11:00 MoA17.3


Possieri, Corrado
Univ. Di Roma Tor Vergata
Teel, Andrew R.
Univ. of California at Santa Barbara

11:00-11:20 MoA17.4

Differential-Algebraic Inclusions with Maximal Monotone Operators (I), pp. 610-615.

Cambel, M. Kanat
Univ. of Groningen
Iannelli, Luigi
Univ. of Sannio in Benevento
Tanwani, Aneel
Laas -- Cnrs
Trenn, Stephan
Univ. of Kaiserslautern

11:20-11:40 MoA17.5

Continuously Generalized Model Predictive Control (I), pp. 616-621.

Rakovic, Sasa V.
Texas A&M Univ
Levine, William S.
Univ. of Maryland
Acikmese, Behcet
Univ. of Washington

11:40-12:00 MoA17.6

Results on Invariance-Based Feedback Control for Hybrid Dynamical Systems (I), pp. 622-627.

Chai, Jun
The Univ. of California at Santa Cruz
Sanfelice, Ricardo G.
Univ. of California at Santa Cruz

MoA18
Ironwood 7

H-Infinity Control (Regular Session)

Chair: Aguilar, Luis T.
Inst. Pol. Nacional
Co-Chair: Mylvaganam, Thulasi
Imperial Coll. London

10:00-10:20 MoA18.1

Nonlinear Robust H-Infinity Tracking Control for 6 DOF Spacecraft Formation with Input Saturation, pp. 628-633.

Huang, Yi
Beihang Univ
Jia, Yingmin
Beihang Univ

10:20-10:40 MoA18.2

Robust Sensorless Speed-Tracking Controller for Surface-Mount Permanent Magnet Synchronous Motors, pp. 634-639.

Ramirez-Villalobos, Ramon
Inst. Tecnologico De Tijuana
Ferreira de Loza, Alejandra Unam
Coria, Luis N. Inst. Tecnologico De Tijuana

10:40-11:00 MoA18.3
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Graciani Rodrigues, Caio National Lab. for Scientific César Computing - LNCC
Todorov, Marcos LNCC
Fragoso, Marcelo Lncc / Mct

11:00-11:20 MoA18.4
Reduction of SDPs in H-Infinity Control of SISO Systems and Performance Limitations Analysis, pp. 646-651.
Waki, Hayato Inst. of Mathematics for Industry, Kyushu Univ
Ebihara, Yoshio Kyoto Univ
Sebe, Noboru Kyushu Inst. of Tech

11:20-11:40 MoA18.5
Mylvaganam, Thulasi Imperial Coll. London
Astolfi, Alessandro Imperial Coll. & Univ. of Rome

11:40-12:00 MoA18.6
A Global Optimization Approach to Structured Regulation Design under H Infinity Constraints, pp. 658-663.
monnet, dominique ENSTA Bretagne
NININ, Jordan ENSTA Bretagne
CLEMENT, Benoit ENSTA Bretagne

MoA19 Ironwood 8
Power Systems I (Regular Session)
Chair: Rajagopal, Ram Stanford Univ
Co-Chair: Lavaei, Javad UC Berkeley

10:00-10:20 MoA19.1
Decentralized Optimal Frequency Control of Interconnected Power Systems with Transient Constraints (I), pp. 664-671.
Wang, Zhaojian Tsinghua Univ
Liu, Feng Tsinghua Univ
Low, Steven California Inst. of Tech
Zhao, Changhong National Renewable Energy Lab
Mei, Shengwei Tsinghua Univ

10:20-10:40 MoA19.2
Power System State Estimation with a Limited Number of Measurements, pp. 672-679.
Madani, Ramtin The Univ. of Texas at Arlington
Ashraphiujo, Morteza Univ. of California, Berkeley
Lavaei, Javad UC Berkeley
Baldick, Ross Univ. of Texas, Austin

10:40-11:00 MoA19.3
Jafarian, Matin KTH Royal Inst. of Tech
Scherpen, Jacqueliem M.A. Univ. of Groningen
Aiello, Marco Univ. of Groningen

11:00-11:20 MoA19.4
Qin, Junjie Stanford Univ
Yang, Insoo Univ. of Southern California
Rajagopal, Ram Stanford Univ

11:20-11:40 MoA19.5
A Strong Semidefinite Programming Relaxation of the Unit Commitment Problem, pp. 694-701.
Ashraphiujo, Morteza Univ. of California, Berkeley
Fattahi, Salar Univ. of California, Berkeley
Lavaei, Javad UC Berkeley
Atamturk, Alper UC Berkeley

11:40-12:00 MoA19.6
Power System Controllability through Nontraditional Generation (I), pp. 702-708.
Wilches-Bernal, Felipe Sandia National Lab
Lackner, Christoph Rensselaer Pol. Inst
Chow, Joe H. Rensselaer Pol. Inst

MoA20 Copperleaf 1
Advanced Vehicle Control Technology (Invited Session)
Chair: Onori, Simona Clemson Univ
Co-Chair: Pisu, Pierluigi Clemson Univ
Organizer: Wang, Yue-Yun General Motors Company
Organizer: Onori, Simona Clemson Univ
Organizer: Borhan, Ali Cummings Inc

10:00-10:20 MoA20.1
Vehicle Tracking Control on Piecewise-Clothoidal Trajectories by MPC with Guaranteed Error Bounds (I), pp. 709-714.
Di Cairano, Stefano Mitsubishi Electric Res. Labs
Kalabic, Uros V. Mitsubishi Electric Res. Lab. (MERL)
Berntorp, Karl Mitsubishi Electric Res. Labs

10:20-10:40 MoA20.2
Du, Zhiyuan Clemson Univ
Pisu, Pierluigi Clemson Univ

10:40-11:00 MoA20.3
A Model Predictive Control Approach for Semi-Active Suspension Control Problem of a Full Car (I), pp. 721-726.
NGUYEN, Manh Quan CNRS GIPSA-LAb Grenoble Univ
Canale, Massimo Pol. Di Torino
Sename, Olivier Univ. Grenoble Alpes
Dugard, Luc CNRS-Grenoble INP

11:00-11:20 MoA20.4
Li, Nan Univ. of Michigan
Oyler, Dave W. Univ. of Michigan
Zhang, Mengxuan The Univ. of Michigan
Yildiz, Yildiray Bilkent Univ
Girard, Anouck Univ. of Michigan, Ann Arbor
Kolmanovsky, Ilya V. The Univ. of Michigan

11:20-11:40 MoA20.5
Robust Control of Electrically Turbocharged Diesel Engines, pp. 734-
Robust Observer-Based Sliding Mode Controller for Vehicles with Roll Dynamics, pp. 740-745.

Reachability Analysis for Switched Affine Systems and Its Application to Controlled Stochastic Biochemical Reaction Networks (I), pp. 746-751.

Mitigation of Ribosome Competition through Distributed Srna Feedback (I), pp. 758-763.

Analysis of Consensus-Based Economic Dispatch Algorithm under Uniform Time Delays (I), pp. 783-788.


Sharing Electricity Storage, pp. 813-820.

Controllability and Observability of an N-Link Underactuated Planar Robot with Different Actuator-Sensor Configurations: Active Intermediate Joint or Joints, pp. 821-826.
10:20-10:40 MoA23.2
3D Dynamic Walking on Stepping Stones with Control Barrier Functions, pp. 827-834.

Nguyen, Quan Carnegie Mellon Univ
Hereid, Ayonga Georgia Inst. of Tech
Grizzle, Jessy W. Univ. of Michigan
Ames, Aaron D. Georgia Inst. of Tech
Sreenath, Koushil Carnegie Mellon Univ

10:40-11:00 MoA23.3
Velocity Field Control with Energy Compensation Toward Therapeutic Exercise, pp. 835-842.

Fukui, Yoshiro Ritsumeikan Univ
Wada, Takahiro Ritsumeikan Univ

11:00-11:20 MoA23.4

Wang, Meng Nankai Univ
Sun, Lei Nankai Univ
Yin, Wei Nankai Univ
Dong, Shuai Nankai Univ
Liu, Jingtai Inst. of Robotics and Automatic Information System Na

11:20-11:40 MoA23.5

Kiyota, Takanori The Univ. of Kitakyushu
narnatou, kouki The Univ. of Kitakyusyu
Minamiyama, Yasuhiro Kurume National Coll. of Tech
Yamamoto, Shuhei Kitakyushu Univ

11:40-12:00 MoA23.6
Improving DAC Resolution in Closed-Loop Control of Precision Mechatronic Systems Using Dithering, pp. 855-861.

Eielsen, Arnfinn Aas Univ. of Newcastle
Fleming, Andrew J. Univ. of Newcastle

MoB01 Starvine 1
Network Analysis and Control II (Regular Session)

Chair: Johansson, Mikael KTH - Royal Inst. of Tech
Co-Chair: Pequito, Sergio Univ. of Pennsylvania

13:30-13:50 MoB01.4
Consensus Speed Optimisation with Finite Leadership Perturbation in K-Nearest Neighbour Networks, pp. 879-894.

Clark, Ruaridh Univ. of Strathclyde
Punzo, Giuliano Univ. of Strathclyde
Macdonald, Malcolm Univ. of Strathclyde

14:00-14:20 MoB01.5
Decentralized Observability with Limited Communication between Sensors, pp. 885-890.

Alexandru, Andreea Beatrice Univ. of Pennsylvania
Pequito, Sergio Univ. of Pennsylvania
Jadbabaie, Ali MIT
Pappas, George J. Univ. of Pennsylvania

14:30-14:50 MoB01.6
Laplacian Dynamics on Signed Networks, pp. 891-896.

Pan, Lulu Univ. of Washington
Shao, Haibin Shanghai Jiao Tong Univ
Mesbahi, Mehran Univ. of Washington

MoB02 Starvine 2
Agents-Based Systems II (Regular Session)

Chair: Wang, Chen Peking Univ
Co-Chair: Sakurama, Kazunori Tottori Univ

13:30-13:50 MoB02.1
Multi-Stage Discrete Time Dynamic Average Consensus, pp. 897-903.

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

13:50-14:10 MoB02.2
Distance-Based Control of K4 Formation with Almost Global Convergence, pp. 904-909.

Park, Myoung-Chul Gwangju Inst. of Science and Tech. (GIST)
Sun, Zhiyong Australian National Univ
Trinh, Hoang Minh Gwangju Inst. of Science and Tech. (GIST)
Anderson, Brian D.O. Australian National Univ
Ahn, Hyo-Sung Gwangju Inst. of Science and Tech. (GIST)

14:10-14:30 MoB02.3
Synchronization in an Homogeneous, Time-Varying Network with Nonuniform Time-Varying Communication Delays, pp. 910-915.

Stoorvogel, Anton A. Univ. of Twente
Saberi, Ali Washington State Univ
Zhang, Meirong Washington State Univ

14:30-14:50 MoB02.4
Controlling Anonymous Mobile Agents to Form a Circle Formation in a Plane without Collision, pp. 916-921.

Wang, Chen Peking Univ
Xie, Guangming Peking Univ

14:50-15:10 MoB02.5
Further Analysis on Graph Rigidity, pp. 922-927.

Trinh, Hoang Minh Gwangju Inst. of Science and Tech. (GIST)
Park, Myoung-Chul Gwangju Inst. of Science and Tech. (GIST)
Distributed Control of Networked Multi-Agent Systems for Formation with Freedom of Special Euclidean Group, pp. 928-932.

Sakurama, Kazunori
Tottori Univ

13:30-13:50 MoB03.1

Distributed Control and Parameter Estimation for Homogeneous Lagrangian Multi-Agent Systems, pp. 933-938.

Bechlioulis, Charalampos P.
National Tech. Univ. of Athens

Demetriou, Michael A.
Worcester Pol. Inst

Kyriakopoulos, Kostas J.
National Tech. Univ. of Athens

13:50-14:10 MoB03.2

Weighted Centroid Tracking Control for Multi-Agent Systems, pp. 939-944.

Yang, Qingkai
Univ. of Groningen

Cao, Ming
Univ. of Groningen

Fang, Hao
Beijing Inst. of Tech

Chen, Jie
Beijing Inst. of Tech

14:10-14:30 MoB03.3

Learning and Synchronization of Movement Primitives for Bimanual Manipulation Tasks, pp. 945-950.

Thota, Pavan kumar
Univ. of Connecticut, UConn

Ravichandar, Harish
Univ. of Connecticut

Dani, Ashwin P
Univ. of Connecticut

14:30-14:50 MoB03.4

Cooperative Output Regulation of Multi-Agent Systems with Incomplete Exosystem Measurement, pp. 951-956.

Basu, Himadri
Univ. of New Hampshire

Yoon, Se Young (Pablo)
Univ. of New Hampshire

14:50-15:10 MoB03.5

On a Relation between Graph Signal Processing and Multi-Agent Consensus, pp. 957-961.

Izumi, Shinsaku
Okayama Prefectural Univ

Azuma, Shun-ichi
Kyoto Univ

Sugie, Toshiharu
Kyoto Univ

15:10-15:30 MoB03.6

Consensus by Maximum Hands-Off Distributed Control with Sampled-Data State Observation, pp. 962-966.

Ikeda, Takuya
Kyoto Univ

Nagahara, Masaaki
The Univ. of Kitakyushu

Kashima, Kenji
Kyoto Univ

MoB04

Analysis and Control of Complex Network Dynamics (Invited Session)

Chair: Bolouki, Sadegh
Univ. of Illinois at Urbana-Champaign

Co-Chair: Liu, Ji
Univ. of Illinois at Urbana-Champaign

Organizer: Bolouki, Sadegh
Univ. of Illinois at Urbana-Champaign

Organizer: Liu, Ji
Univ. of Illinois at Urbana-Champaign

Organizer: Nedich, Angelia
Arizona State Univ

13:30-13:50 MoB04.1

Efficient Containment of Exact SIR Markovian Processes on Networks (I), pp. 967-972.

Ogura, Masaki
Univ. of Pennsylvania

Preciado, Victor M.
Univ. of Pennsylvania

13:50-14:10 MoB04.2

The Effect of Awareness on Networked SIS Epidemics (I), pp. 973-978.

Paarporn, Keith
Georgia Inst. of Tech

Eksin, Ceyhun
Georgia Inst. of Tech

Weitz, Joshua
Georgia Inst. of Tech

Shamma, Jeff S.
KAUST

14:10-14:30 MoB04.3

Ignoring Extreme Opinions in Complex Networks: The Impact of Heterogeneous Thresholds (I), pp. 979-984.

Sundaram, Shreyas
Purdue Univ

14:30-14:50 MoB04.4

Characterizing the Positive Semidefiniteness of Signed Laplacians Via Effective Resistances (I), pp. 985-990.

Chen, Wei
Univ. of California at Berkeley

Liu, Ji
Univ. of Illinois at Urbana-Champaign

Chen, Yongxin
Univ. of Minnesota

Khong, Sai Zhen
Univ. of Minnesota

Wang, Dan
Hong Kong Univ. of Science and Tech

Basar, Tamer
Univ. of Illinois, Urbana-Champaign

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

Johansson, Karl H.
Royal Inst. of Tech

14:50-15:10 MoB04.5

Networked Control under Communication Constraints: The Discrete-Time Case (I), pp. 991-996.

Liu, Kun
Beijing Inst. of Tech

Pan, Xia
Beijing Inst. of Tech

Xia, Yuanqing
Beijing Inst. of Tech

Fridman, Emilia
Tel-Aviv Univ

Lam, James
The Univ. of Hong Kong

15:10-15:30 MoB04.6

On a Framework for Analysis and Design of Cascades on Boolean Networks, pp. 997-1002.

Kearney, Griffin
Syracuse Univ

Fardad, Makan
Syracuse Univ

MoB05

Distributed and Large-Scale Optimization II (Invited Session)

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

Co-Chair: Olshesky, Alexander
Univ. of Illinois at Urbana-Champaign

14:30-14:50 MoB05.1

On a Relation between Graph Signal Processing and Multi-Agent Consensus, pp. 957-961.

Izumi, Shinsaku
Okayama Prefectural Univ

Azuma, Shun-ichi
Kyoto Univ

Sugie, Toshiharu
Kyoto Univ

15:10-15:30 MoB05.2

Consensus by Maximum Hands-Off Distributed Control with Sampled-Data State Observation, pp. 962-966.

Ikeda, Takuya
Kyoto Univ

Nagahara, Masaaki
The Univ. of Kitakyushu

Kashima, Kenji
Kyoto Univ

MoB06

Distributed Control of Networked Multi-Agent Systems for Formation with Freedom of Special Euclidean Group, pp. 928-932.

Sakurama, Kazunori
Tottori Univ

13:30-13:50 MoB06.6
13:30-13:50 MoB05.1
An Exact Distributed Newton Method for Reinforcement Learning (I), pp. 1003-1008.
Tutunov, Rasul
Univ. of Pennsylvania
Bou Ammar, Haitham
Princeton Univ
Jadbabaie, Ali
MIT

13:50-14:10 MoB05.2
Shen, Xinyue
Tsinghua Univ
Diamond, Steven
Stanford Univ
Gu, Yuantao
Tsinghua Univ
Boyd, Stephen
Stanford Univ

14:10-14:30 MoB05.3
Line Search for Averaged Operator Iteration (I), pp. 1015-1022.
Giselsson, Pontus
Lund Univ
Fält, Mattias
Lund Univ
Boyd, Stephen
Stanford Univ

14:30-14:50 MoB05.4
Nedich, Angelia
Univ. of Illinois, Urbana-Champaign
Olshevsky, Alexander
Boston Univ
Shi, Wei
Boston Univ

14:50-15:10 MoB05.5
Approximate Projections for Decentralized Optimization with SDP Constraints, pp. 1030-1035.
Lee, Soomin
Georgia Inst. of Tech
Zavlanos, Michael M.
Duke Univ

15:10-15:30 MoB05.6
Exponentially Fast Distributed Coordination for Nonsmooth Convex Optimization (I), pp. 1036-1041.
Niederlaender, Simon
Univ. of Stuttgart
Allgöwer, Frank
Univ. of Stuttgart
Cortes, Jorge
Univ. of California, San Diego

13:30-13:50 MoB07.1
Zhang, Yicheng
Nanyang Tech. Univ
Su, Rong
Nanyang Tech. Univ
Li, Qing
Nanyang Tech. Univ
Cassandras, Christos G.
Boston Univ
Xie, Lihua
Nanyang Tech. Univ

13:50-14:10 MoB07.2
A Quadratically Convergent Primal Decomposition Algorithm with Soft Coupling for Nonlinear Parameter Estimation, pp. 1086-1092.
Kouzoupis, Dimitris
Univ. of Freiburg
Quirynen, Rien
KU Leuven
Lago Garcia, Jesus
Univ. of Freiburg
Erhard, Michael
SkySails GmbH
Diehl, Moritz
Univ. of Freiburg

14:10-14:30 MoB07.3
A Forward-Backward Bregman Splitting Scheme for Regularized Distributed Optimization Problems, pp. 1093-1098.
Xu, Jinming
Nanyang Tech. Univ
Zhu, Shanying
Shanghai Jiao Tong Univ
Soh, Yeng Chai
Nanyang Tech. Univ
Xie, Lihua
Nanyang Tech. Univ

Verschueren, Robin
Univ. of Freiburg
Van Duijkeren, Niels
KU Leuven
Quirynen, Rien
KU Leuven
Diehl, Moritz
Univ. of Freiburg

14:50-15:10 MoB07.5

Zhang, Liang
Univ. of Minnesota
Kekatos, Vassilis
Virginia Tech
Giannakis, Georgios B.
Univ. of Minnesota

15:10-15:30 MoB07.6

Kumar, Saurav
Univ. of Texas at Dallas
Gans, Nicholas
Univ. of Texas at Dallas

MoB08
Stochastic Optimal Control I (Regular Session)

Chair: Theodorou, Evangelos
Georgia Inst. of Tech.
Co-Chair: Bakolas, Efthathios
The Univ. of Texas at Austin

13:30-13:50 MoB08.1
Stochastic Drift Counteraction Optimal Control and Enhancing Convergence of Value Iteration, pp. 1119-1124.

Zidek, Robert A. E.
Univ. of Michigan
Kolmanovsky, Ilya V.
The Univ. of Michigan

13:50-14:10 MoB08.2
Cyber Physical Attacks with Control Objectives and Detection Constraints, pp. 1125-1130.

Chen, Yuan
Carnegie Mellon Univ
Kar, Soummya
Carnegie Mellon Univ
Moura, Jose' M. F.
Carnegie Mellon Univ

14:10-14:30 MoB08.3

Alora, John Irvin
MIT
Gorodetsky, Alex
Massachusetts Inst. of Tech
Karaman, Sertac
Massachusetts Inst. of Tech
Marzouk, Youssef
Massachusetts Inst. of Tech
Lowry, Nathan
C.S. Draper Lab

14:30-14:50 MoB08.4

Pakniyat, Ali
McGill Univ
Caines, Peter E.
McGill Univ

14:50-15:10 MoB08.5
Infinite Dimensional Control of Doubly Stochastic Jump Diffusions, pp. 1145-1152.

Bakshi, Kaivalya S.
Georgia Inst. of Tech
Theodorou, Evangelos A.
Georgia Inst. of Tech

15:10-15:30 MoB08.6
Optimal Covariance Control for Discrete-Time Stochastic Linear Systems Subject to Constraints, pp. 1153-1158.

Bakolas, Efthathios
The Univ. of Texas at Austin
14:10-14:30  MoB10.3
Matveeva, Faina  Univ. of Kentucky
Seyyedmousavi, Seyyedadilareza  Univ. of Kentucky
Zhang, Xingye  Univ. of Kentucky
Seigler, Thomas M.  Univ. of Kentucky
Hoagg, Jesse B.  Univ. of Kentucky

14:30-14:50  MoB10.4
On System Identification for ARMAX Models Based on the Variational Bayesian Method, pp. 1217-1222.
Fujimoto, Kenji  Kyoto Univ
Takaki, Yuji  Kyoto Univ

14:50-15:10  MoB10.5
Alternative Form of Predictor Based Identification of LPV-SS Models with Innovation Noise, pp. 1223-1228.
Cox, Pepijn B.  Eindhoven Univ. of Tech
Tóth, Roland  Eindhoven Univ. of Tech

MoB11  Starvine 11
Adaptive Control II (Regular Session)

   Chair: Yong, Sze Zheng  Massachusetts Inst. of Tech
   Co-Chair: Oliveira, Tiago Roux  State Univ. of Rio De Janeiro

13:30-13:50  MoB11.1
Adaptive Hidden Mode Tracking Control with Input Constraints and Bounded Disturbances, pp. 1235-1242.
Yong, Sze Zheng  Univ. of Michigan
Frazzoli, Emilio  Massachusetts Inst. of Tech

13:50-14:10  MoB11.2
Adaptive Rejection of Periodic Disturbances Acting on Linear Systems with Unknown Dynamics, pp. 1243-1248.
Shahsavari, Behroz  Univ. of California, Berkeley
Pan, Jinwen  Univ. of Science and Tech. of China
Horowitz, Roberto  Univ. of California at Berkeley

14:10-14:30  MoB11.3
Newton-Based Extremum Seeking for Higher Derivatives of Unknown Maps with Delays (/), pp. 1249-1254.
Rusti, Damir  Tech. Univ. of Munich
Oliveira, Tiago Roux  State Univ. of Rio De Janeiro
Mills, Greg  Univ. of California, San Diego
Kristic, Miroslav  Univ. of California, San Diego

14:30-14:50  MoB11.4
Adaptive Control for a Class of Nonlinear Systems with Output Constraints and Actuator Faults, pp. 1255-1260.
Jin, Xu  Georgia Inst. of Tech

14:50-15:10  MoB11.5
Basu Roy, Sayan  Indian Inst. of Tech. Delhi
Bhasin, Shubhendu  Indian Inst. of Tech
Kar, Indra Narayan  Indian Inst. of Tech. Delhi

15:10-15:30  MoB11.6
Oliva-Fonseca, Pablo  Univ. Nacional Autonoma De Mexico
Rueda-Escobedo, Juan G.  Univ. Nacional Autonoma De Mexico
Moreno, Jaime A.  Univ. Nacional Autonoma De Mexico-UNAM

MoB12  Starvine 12
Fault Detection and Tolerance I (Regular Session)

   Chair: Eun, Yongsoon  DGIST
   Co-Chair: Ferrari-Trecate, Giancarlo  Univ. Degli Studi Di Pavia

13:30-13:50  MoB12.1
Identifying Covert Data-Manipulators in Power System Estimation Loops (I), pp. 1273-1278.
Liao, Mang  North Carolina State Univ
Chakrabortty, Aranya  North Carolina State Univ

13:50-14:10  MoB12.2
Duvvuri, Sri Satya Sita Rama  Indian Inst. of Tech. Hyderabad
Satrah Babu  Indian Inst. of Tech. Hyderabad
Detroja, Ketan P.  Indian Inst. of Tech. Hyderabad

14:10-14:30  MoB12.3
Scalable Monitoring of Interconnected Stochastic Systems, pp. 1285-1290.
Boem, Francesca  Imperial Coll. London
Carli, Ruggero  Univ. of Padova
Farina, Marcello  Pol. Di Milano
Ferrari-Trecate, Giancarlo  E. Pol. Fédérale De Lausanne
Parisini, Thomas  Imperial Coll. & Univ. of Trieste

14:30-14:50  MoB12.4
Analysis of Set-Theoretic Unknown Input Observer and Interval Observer in Robust Fault Detection, pp. 1291-1296.
Xu, Feng  Tsinghua Univ
Tan, Junbo  Tsinghua Univ
Wang, Xueqian  Tsinghua Univ
Puig, Vicenc  Univ. Pol. De Catalunya
Li, Bin  Tsinghua Univ
Yuan, Bo  Tsinghua Univ
Liu, Houde  Tsinghua Univ

14:50-15:10  MoB12.5
Kim, Junsoo  Seoul National Univ
Lee, Chanhwa  Seoul National Univ
Shim, Hyungbo  Seoul National Univ
Eun, Yongsoo  DGIST
Seo, Jin H.  Seoul National Univ

15:10-15:30  MoB12.6
Characterization of a CUSUM Model-Based Sensor Attack Detector, pp. 1303-1309.
Murguia, Carlos
Singapore Univ. of Tech. and Design
Ruths, Justin
Univ. of Texas at Dallas

MoB13
Lyapunov Methods I (Regular Session)
Chair: Bianchini, Gianni
Univ. Degli Studi Di Siena
Co-Chair: Gross, Dominic
ETH Zurich
13:30-13:50 MoB13.1
Wu, Chengshuai
Zhejiang Univ
Chen, Jian
Zhejiang Univ
Wu, Zhongle
Zhejiang Univ
Qu, Lisong
Zhejiang Univ
Zhang, Kaixiang
Zhejiang Univ
13:50-14:10 MoB13.2
Nonlinear Orbit Control with Longitude Tracking, pp. 1316-1321.
Leomanni, Mirko
Univ. Di Siena
Bianchini, Gianni
Univ. Degli Studi Di Siena
Garulli, Andrea
Univ. Di Siena
Giannitrapani, Antonio
Univ. Di Siena
14:10-14:30 MoB13.3
Sampled-Data Stabilisation of Feedforward Dynamics with Lyapunov Cross-Term, pp. 1322-1327.
Mattioni, Mattia
La Sapienza Univ. Di Roma
Monaco, Salvatore
Univ. Di Roma
Normand-Cyrot, Dorothée
CNRS-Supélec
14:30-14:50 MoB13.4
Rouse, Courtney
Univ. of Florida
Parikh, Anup
Univ. of Florida
Duenas, Victor H
Univ. of Florida
Cousin, Christian
Univ. of Florida
Dixon, Warren E.
Univ. of Florida
14:50-15:10 MoB13.5
Waitman, Sérgio
Ec. Centrale De Lyon
Massioni, Paolo
INSA De Lyon
Bako, Laurent
Ec. Centrale De Lyon
Scorletti, Gerard
Ec. Centrale De Lyon
Fromion, Vincent
INRA
15:10-15:30 MoB13.6
Gross, Dominic
ETH Zurich
Stursberg, Olaf
Univ. of Kassel

MoB14
Event-Triggered and Self-Triggered Control for Linear Systems (Invited Session)
Chair: Heemels, W.P.M.H.
Eindhoven Univ. of Tech
Co-Chair: Vamvoudakis, Kyriakos G.
Univ. of Califomia, Santa Barbara
Organizer: Heemels, W.P.M.H.
Eindhoven Univ. of Tech
Organizer: Hirche, Sandra
Tech. Univ. München
Organizer: Johansson, Karl H.
Royal Inst. of Tech
13:30-13:50 MoB14.1
y -Invasive Event-Triggered and Self-Triggered Control for Perturbed Linear Systems (I), pp. 1346-1351.
Brunner, Florian David
Univ. of Stuttgart
Heemels, W.P.M.H.
Eindhoven Univ. of Tech
Allgöwer, Frank
Univ. of Stuttgart
13:50-14:10 MoB14.2
Dynamic Event-Triggered Control with Time Regularization for Linear Systems (I), pp. 1352-1357.
Borgers, Dominicus Paulus
Eindhoven Univ. of Tech
Dolk, Victor Sebastian
Eindhoven Univ. of Tech
Heemels, W.P.M.H.
Eindhoven Univ. of Tech
14:10-14:30 MoB14.3
Consistent Event-Triggered Methods for Linear Quadratic Control (I), pp. 1358-1363.
Antunes, Duarte
Eindhoven Univ. of Tech, the Netherlands
Asadi Khashooei, Behnam
Eindhoven Univ. of Tech
14:30-14:50 MoB14.4
Timing Abstraction of Perturbed LTI Systems with L2-Based Event-Triggering Mechanism (I), pp. 1364-1369.
Sharifi Kolarijani, Arman
Delft Univ. of Tech
Mazo Jr., Manuel
Delft Univ. of Tech
Keviczky, Tamas
Delft Univ. of Tech
14:50-15:10 MoB14.5
Periodic Asynchronous Event-Triggered Control, pp. 1370-1375.
Fu, Anqi
Tech. Univ. of Delft
Mazo Jr., Manuel
Delft Univ. of Tech
15:10-15:30 MoB14.6
Vamvoudakis, Kyriakos G.
Virginia Tech
Ferraz, Henrique
Univ. of California, Santa Barbara

MoB15
Control Synthesis of Infinite Dimensional Systems (Invited Session)
Chair: Motee, Nader
Lehigh Univ
Co-Chair: Bonnet, Catherine
INRIA Saclay-Ile-De-France
Organizer: Demetriou, Michael A.
Worcester Pol. Inst
Organizer: Fahroo, Fariba
DARPA
Organizer: Le Gorrec, Yann
Ensmm, Femto-St / As2m
13:30-13:50 MoB15.1
Sub-Optimal Boundary Control of Semilinear PDEs Using a Dyadic Perturbation Observer (I), pp. 1382-1387.
Paranjape, Aditya A.
Indian Inst. of Tech. Bombay
Chung, Soon-Jo
California Inst. of Tech
13:50-14:10 MoB15.2
Localized Stability Certificates for Spatially Distributed Systems (I),
Fault Detection of Infinite Dimensional Systems in Presence of Disturbances (I), pp. 1394-1398.
Baniamerian, Amir Concordia Univ
Meskin, Nader Qatar Univ
Khorasani, Khashayar Concordia Univ

Coprimeness of Fractional Representations (I), pp. 1399-1404.
Bonnet, Catherine INRIA Saclay-Ile-De-France
Yamamoto, Yutaka Kyoto Univ

Feng, Hongyinping School of Mathematical Sciences, Shanxi Univ
Guo, Bao-Zhu Acad. of Mathematics and Systems Science

Post-Processing Finite-Horizon Parameterizing Manifolds for Optimal Control of Nonlinear Parabolic PDEs, pp. 1411-1416.
Chekhroun, Mickael Univ. of California, Los Angeles
Liu, Honghu Virginia Pol. Inst. and State Univ

Thermoacoustic Instabilities Arising from Secondary Modes, an Analytical and Experimental Declaration, pp. 1417-1422.
Zalluhoglu, Umut Univ. of Connecticut
Olgaç, Nejat Univ. of Connecticut

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Figueroedo, Luis Felipe da Cruz Univ. of Brasilia
Ishihara, Joao Y. Univ. of Brasilia

Ahmad, Usman Dalhousie Univ
Pan, Ya-Jun Dalhousie Univ

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MoB18.4: Understanding Robust Control Theory Via Stick Balancing, pp. 1508-1514.
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MoB18.5: Robust Linear Quadratic Regulator for Uncertain Systems, pp. 1515-1520.
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Univ. of Michigan

Siegel, Jason B.  
Univ. of Michigan

Stefanopoulou, Anna G.  
Univ. of Michigan

Castanier, Matthew  
US Army Tank Automotive Res. Development, and Engineering C

Ding, Yi  
U.S. Army Tank Automotive Res. Development, and Engineering

14:50-15:10 MoB20.5


Jing, Junbo  
The Ohio State Univ

Ozatay, Engin  
The Ohio State Univ

Kurt, Arda  
The Ohio State Univ

Michelini, John  
Ford Motor Company

Filev, Dimitre P.  
Ford Motor Company

Ozguner, Umit  
Ohio State Univ

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Towards ECU-Ready Nonlinear Model Predictive Control: Tip-In Maneuver Case Study (I), pp. 1602-1607.

Santin, Ondrej  
Czech Tech. Univ. in Prague, Faculty of Electrical Engineering

Mikuláš, Ondřej  
Honeywell Spol. S R.O

Pachner, Daniel  
Honeywell Lab

Herceg, Martin  
Honeywell, Spol. S.r.o

Pekar, Jaroslav  
Honeywell Spol S R.o

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Chair: Bonnard, Bernard  
Inst. De Mathématiques De Bourgogne

Co-Chair: Chyba, Monique  
Univ. of Hawaii

Organizer: Bonnard, Bernard  
Inst. De Mathématiques De Bourgogne

Organizer: Chyba, Monique  
Univ. of Hawaii

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Bonnard, Bernard  
Inst. De Mathématiques De Bourgogne

Rouot, Jérémy  
INRIA Sophia Antipolis

Jacquemard, Alain  
Univ. De Bourgogne

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Aix-Marseille Univ

Pouradier Duteil, Nastassia  
Rutgers Univ. Camden

Yakoby, Nir  
Rutgers Univ

Piccoli, Benedetto  
Rutgers Univ. - Camden

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An Optimal Control Approach to Photoacoustic Tomography (I), pp. 1620-1624.

Bergounioux, Maïtine  
Univ. D'orleans, FDP-MAPMO

Haberkorn, Thomas  
FDP-MAPMO, Univ. of Orleans

MoB22

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Control of Computing Systems (Invited Session)

Chair: Papadopoulos, Alessandro Vittorio  
Pol. Di Milano

Co-Chair: Kerrigan, Eric C.  
Imperial Coll. London

Organizer: Papadopoulos, Alessandro Vittorio  
Mälardalen Univ

Organizer: Kerrigan, Eric C.  
Imperial Coll. London

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Thammawichai, Mason  
Imperial Coll. London

Kerrigan, Eric C.  
Imperial Coll. London

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A Control Theoretical Approach to Non-Intrusive Geo-Replication for Cloud Services (I), pp. 1649-1656.

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Lund Univ. Dept. Automatic Control

Tärneberg, William  
Lund Univ

Tomás, Luis  
Umeå Univ

Tordsson, Johan  
Umeå Univ

Kihl, Maria  
Lund Univ

Maggio, Martina  
Lund Univ

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GIPSA-Lab/cnrs

Berekmer, Mihaly  
GIPSA-Lab

ROBU, Bogdan  
GIPSA-Lab/cnrs

Marchand, Nicolas  
GIPSA-Lab

Bouchenak, Sara  
INSA Lyon

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Pol. Di Milano

Terraneo, Federico  
Pol. Di Milano

seva, Silvano  
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<td>Co-Chair: Hadjicostis, Christoforos N.</td>
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United States Naval Acad

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Co-Chair: Dimarogonas, Dimos V.
Organizer: Abad Torres, Jackeline
Organizer: Roy, Sandip

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Department of Information Engineering, Univ. of Padova
Department of Information Engineering, Univ. of Padova

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Univ. of Southern California

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<td>Univ. of Virginia</td>
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16:40-17:00 \ MoC11.3


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<tr>
<td>Seo, Dongeun</td>
<td>Embry-Riddle Aeronautical Univ</td>
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<tr>
<td>Elnaggar, Mahmoud</td>
<td>Cairo Univ</td>
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<td>saad, Mohamed Shawky</td>
<td>Cairo Univ. Faculty of Engineering</td>
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<td>Abdel Fattah, Hosam A.</td>
<td>Cairo Univ</td>
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<td>Elshafei, Abdell Latif</td>
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<tr>
<td>Menner, Marcel</td>
<td>Massachusetts Inst. of Tech</td>
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<td>Annaswamy, Anuradha M.</td>
<td>Massachusetts Inst. of Tech</td>
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<td>Zolitsch, Alexander Wolfgang</td>
<td>Tech. Univ. München</td>
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17:40-18:00 \ MoC11.6


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<tr>
<td>Toumi, Samir</td>
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<td>Beji, Lotfi</td>
<td>Univ. of Evry</td>
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<td>Mlayeh, Rhouma</td>
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<td>Abichou, Azgal</td>
<td>Ec. Pol. De Tunis</td>
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**Detection of Biasing Attacks on Distributed Estimation Networks**, pp. 2134-2139.

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<tr>
<td>Deghat, Mohammad</td>
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<td>Ugrinovskii, Valery</td>
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<td>Shames, Iman</td>
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<td>Langbort, Cedric</td>
<td>Univ. of Illinois, Urbana-Champaign</td>
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16:20-16:40 \ MoC12.2

**A Novel Approach to Sensor and Actuator Integrity Monitoring**, pp. 2140-2145.

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<th>Name</th>
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<tr>
<td>Skach, Jan</td>
<td>Univ. of West Bohemia</td>
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<td>Puncochar, Ivo</td>
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<td>Lewis, Frank L.</td>
<td>Univ. of Texas at Arlington</td>
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16:40-17:00 \ MoC12.3

**Optimal Active Fault Diagnosis by Temporal-Difference Learning**, pp. 2146-2151.

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<th>Name</th>
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<tr>
<td>Zhang, Kai</td>
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<td>Shardt, Yuri</td>
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<td>Chen, Zhiwen</td>
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<td>Ding, Steven X.</td>
<td>Univ. of Duisburg-Essen</td>
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MoC12.5
A Fault-Tolerant Sensor Reconciliation Scheme Based on LPV Unknown Input Observers, pp. 2158-2163.
Behzad, Hamid Univ. of Science and Tech. Casavola, Alessandro Univ. Della Calabria
Tedesco, Francesco Univ. Della Calabria Sadrnia, M.A. Shahrood Univ. of Tech
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A Decentralized Fault-Tolerant Control Scheme Based on Active Fault Diagnosis, pp. 2164-2169.
Raimondo, Davide Martino Univ. Degli Studi Di Pavia
Boem, Francesca Imperial Coll. London
Gallo, Alexander Imperial Coll. London
Parisini, Thomas Imperial Coll. & Univ. of Trieste

MoC13
Lyapunov Methods II (Regular Session)
Chair: Coogan, Samuel Univ. of California, Los Angeles
Co-Chair: Lazar, Mircea Eindhoven Univ. of Tech
16:00-16:20 MoC13.1
Bobiti, Ruxandra Tech. Univ. Eindhoven
Lazar, Mircea Eindhoven Univ. of Tech
16:20-16:40 MoC13.2
HAN, Dongkun Tech. Univ. of Munich
Althoff, Matthias Tech. Univ. München
16:40-17:00 MoC13.3
Separability of Lyapunov Functions for Contractive Monotone Systems, pp. 2184-2189.
Coogan, Samuel Univ. of California, Los Angeles
17:00-17:20 MoC13.4
Functional Electrical Stimulation Induced Cycling Using Repetitive Learning Control, pp. 2190-2195.
Duenas, Victor Univ. of Florida
Cousin, Christian Univ. of Florida
Parikh, Anup Univ. of Florida
Dixon, Warren E. Univ. of Florida
17:20-17:40 MoC13.5
Improved Slack-Matrix-Based Summation Inequality and Applications to Discrete-Time Systems with Time-Varying Delays, pp. 2196-2200.
Lee, Seok Young POSTECH
Lee, Won Il POSTECH
Park, PooGyeon Pohang Univ. of Sci. & Tech
17:40-18:00 MoC13.6
Oza, Harshal B. Ahmedabad Univ
Orlov, Yury CICESE
Spurgeon, Sarah K. Univ. Coll. London

MoC14
Event-Triggered and Self-Triggered Control for Multi-Agent and Networked Systems (Invited Session)
Chair: Johansson, Karl H. Royal Inst. of Tech
Co-Chair: Nowzari, Cameron Univ. of Pennsylvania
Organizer: Heemels, W.P.M.H. Eindhoven Univ. of Tech
Organizer: Hirche, Sandra Tech. Univ. München
Organizer: Johansson, Karl H. Royal Inst. of Tech
16:00-16:20 MoC14.1
Multi-Agent Trajectory Tracking with Self-Triggered Cloud Access (I), pp. 2207-2214.
Adaldo, Antonio Royal Inst. of Tech. KTH
Liuzza, Davide KTH Royal Inst. of Tech.
Dimarogonas, Dimos V. Royal Inst. of Tech.
Johansson, Karl H. Royal Inst. of Tech.
16:20-16:40 MoC14.2
Coordination of Multi-Agent Systems Via Asynchronous Cloud Communication (I), pp. 2215-2220.
Bowman, Sean L. Univ. of Pennsylvania
Nowzari, Cameron Univ. of Pennsylvania
Pappas, George J. Univ. of Pennsylvania
16:40-17:00 MoC14.3
Distributed Event Driven Optimization for Network Utility Maximization (I), pp. 2221-2226.
Meng, Xiangyu Nanyang Tech. Univ
Xie, Lihua Nanyang Tech. Univ
Soh, Yeng Chai Nanyang Tech. Univ
17:00-17:20 MoC14.4
Self-Triggered Control for Multi-Agent Systems with Quantized Communication or Sensing (I), pp. 2227-2232.
Yi, Xinlei KTH Royal Inst. of Tech
Wei, Jieqiang KTH
Johansson, Karl H. Royal Inst. of Tech
17:20-17:40 MoC14.5
Event-Based Multi-Agent Cooperative Control with Quantized Relative State Measurements, pp. 2233-2239.
Liu, Qingchen Australian National Univ
Qin, Jiahu Univ. of Science and Tech. of China
Yu, Changbin (Brad) The Australian National Univ
17:40-18:00 MoC14.6
Event-Based Leader-Follower Consensus for Multiple Euler-Lagrange Systems with Parametric Uncertainties, pp. 2240-2246.
Liu, Qingchen Australian National Univ
Ye, Mengbin (Ben) Australian National Univ
Qin, Jiahu Univ. of Science and Tech. of China
Yu, Changbin (Brad) The Australian National Univ

MoC15
Distributed Parameter Systems I (Invited Session)
Chair: Demetriou, Michael A. Worcester Pol. Inst
Co-Chair: Fahroo, Fariba DARPA
Organizer: Demetriou, Michael A. Worcester Pol. Inst
Organizer: Fahroo, Fariba DARPA
16:00-16:20  MoC15.1
Karafyllis, Iasson National Tech. Univ. of Athens
Krstic, Miroslav Univ. of California, San Diego

16:20-16:40  MoC15.2
Spreading Control of Sub-Diffusion Process (I), pp. 2253-2258.
Ge, Fudong Donghua Univ
Chen, YangQuan Univ. of California, Merced
Kou, Chunhui Donghua Univ

16:40-17:00  MoC15.3
Sensor Location in a Controlled Thermal Fluid (I), pp. 2259-2264.
HUI, WEIWEI Univ. of Minnesota
Morris, Kirsten Univ. of Waterloo
Zhang, Yangwen Missouri Univ. of Science and Tech

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Jacob, Birgit Univ. of Wuppertal
Nabiullin, Robert Univ. of Wuppertal
Partington, Jonathan R. Univ. of Leeds
Schwenninger, Felix Univ. of Wuppertal

16:00-16:20  MoC16.1
Optimization of Dynamical Systems with Time-Varying or Input-Varying Delays, pp. 2282-2289.
Clerget, Charles-Henri MINES ParisTech
Grimaldi, Jean-Philippe Total RC
Chèbre, Meriam Total SA
Petit, Nicolas MINES ParisTech

16:20-16:40  MoC16.2
Dynamic Predictor for Linear Time-Delay Systems with Disturbances, pp. 2290-2295.
Caballero-Barragán, Humberto CINVESTAV Unidad Guadalajara
Osuna-Ibarra, Linda Patricia CINVESTAV Unidad Guadalajara
Loukianov, Alexander G. CINVESTAV IPN Unidad GDL
MoC19
Power Systems III (Regular Session)

MoC20
Automotive Control II (Regular Session)
Vehicle Lateral Motion Estimation with Its Dynamic and Kinematic Models Based Interacting Multiple Model Filter, pp. 2449-2454.

Path Following Control for a Reversing General 2-Trailer System, pp. 2455-2461.


Some Remarks on Immune Control of Infections and Tumors (I), pp. 2475-2480.

Some Remarks on Immune Control of Infections and Tumors (I), pp. 2475-2480.


17:20-17:40 MoC22.5


Yamamoto, Naoki Keio Univ
Nurdin, Hendra I UNSW Australia
James, Matthew R. Australian National Univ

17:40-18:00 MoC22.6


Yokotera, Yu Keio Univ
Yamamoto, Naoki Keio Univ

MoC23 Coppearleaf 4

Multivehicle Systems II (Regular Session)

Chair: Milutinovic, Dejan Univ. of California, Santa Cruz
Co-Chair: Reveliotis, Spyros Georgia Inst. of Tech

16:00-16:20 MoC23.1

Scalable Value Approximation for Multiple Target Tail-Chase with Collision Avoidance, pp. 2543-2548.

Hashemi, Araz Wayne State Univ
Casbeer, David W. Air Force Res. Lab
Milutinovic, Dejan Univ. of California, Santa Cruz

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Hybrid Centralized/Distributed Autonomous Intersection Control: Using a Job Scheduler As a Planner and Inheriting Its Efficiency Guarantees, pp. 2549-2554.

GREGOIRE, Jean Mines ParisTech
Frazzoli, Emilio Massachusetts Inst. of Tech

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3D Collision Avoidance Algorithm for Unmanned Aerial Vehicles with Limited Field of View Constraints, pp. 2555-2560.

Roelofsen, Steven École Pol. Fédérale De Lausanne
Gillet, Denis Ec. Pol. Fédérale De Lausanne (EPFL)

17:00-17:20 MoC23.4

Shapes of Cyclic Pursuit and Their Evolution, pp. 2561-2566.

Baryshnikov, Yuliy UIUC
Chen, Cheng Univ. of Illinois at Urbana-Champaign

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Primal Decomposition of the Optimal Coordination of Vehicles at Traffic Intersections, pp. 2567-2573.

Hult, Robert Chalmers Univ. of Tech
Zanon, Mario Chalmers Univ
Gros, Sebastien Chalmers Univ. of Tech
Falcone, Paolo Chalmers Univ. of Tech

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On the Optimal Location of Distribution Centers for a One-Dimensional Transportation System, pp. 2574-2580.

Terelius, Håkan Royal Inst. of Tech
Johansson, Karl H. Royal Inst. of Tech
Technical Program for Tuesday December 13, 2016

TuSP1
Distributed Large-Scale Optimization (Semiplenary Session)
Chair: Bullo, Francesco
Univ. California at Santa Barbara
Co-Chair: Pappas, George J.
Univ. of Pennsylvania
08:30-09:30 TuSP1.1
Distributed Large-Scale Optimization
Nedich, Angelia
Arizona State Univ.

TuSP2
Smart Cities As Cyber-Social-Physical Systems (Semiplenary Session)
Chair: Giua, Alessandro
Aix-Marseille Univ. France / Univ. of Cagliari, Italy
Co-Chair: Jovanovic, Mihailo
Univ. of Minnesota
08:30-09:30 TuSP2.1
Smart Cities As Cyber-Social-Physical Systems
Cassandras, Christos G.
Boston Univ.

TuA01
Network Analysis and Control IV (Regular Session)
Chair: Monshizadeh, Nima
Univ. of Groningen
Co-Chair: Clark, Andrew
Worcester Pol. Inst
10:00-10:20 TuA01.1
Singular-Perturbations-Based Analysis of Synchronization in Heterogeneous Networks: A Case-Study, pp. 2581-2586.
Mahgenem, Mohamed
L2S-Supelec
Panteley, Elena
Lab. Des Signaux Et Systemes, CNRS - SUPELEC
Loria, Antonio
CNRS
10:20-10:40 TuA01.2
Lee, Phillip
Univ. of Washington
Clark, Andrew
Worcester Pol. Inst
Alomair, Basel
King Abdulaziz City for Science and Tech
Bushnell, Linda
Univ. of Washington
Poovendran, Radha
Univ. of Washington, Seattle
10:40-11:00 TuA01.3
A Lyapunov Approach to Control of Microgrids with a Network-Preserved Differential-Algebraic Model (I), pp. 2595-2600.
De Persis, Claudio
Univ. of Groningen
Monshizadeh, Nima
Univ. of Groningen
Schiffer, Johannes
Univ. of Leeds
Dörfler, Florian
Swiss Federal Inst. of Tech. (ETH) Zurich
11:00-11:20 TuA01.4
Stability of Networked Systems with Switching Topologies, pp. 2601-2608.
Gopalakrishnan, Karthik
Massachusetts Inst. of Tech
Balakrishnan, Hamsa
Massachusetts Inst. of Tech
Jordan, Richard
Sonde Health, Inc
11:20-11:40 TuA01.5
Consensus for Nonlinear Monotone Networks with Unilateral Interactions, pp. 2609-2614.
Manfredi, Sabato
Univ. of Naples Federico II
Angeli, David
Imperial Coll
11:40-12:00 TuA01.6
A New Proof of Reichert's Theorem, pp. 2615-2619.
Zhang, Sara Ying
Univ. of Bristol
Jiang, Jason Zheng
Univ. of Bristol
Smith, Malcolm C.
Univ. of Cambridge

TuA02
Agents-Based Systems IV (Regular Session)
Chair: Panagou, Dimitra
Univ. of Michigan, Ann Arbor
Co-Chair: Tan, Xiaobo
Michigan State Univ
10:00-10:20 TuA02.1
Fullmer, Daniel
Yale Univ
Liu, Ji
Univ. of Illinois at Urbana-Champaign
Morse, A. Stephen
Yale Univ
10:20-10:40 TuA02.2
Cluster Synchronization of Inter-Cluster Nonidentical Linear Systems under Directed Nonnegative Graphs, pp. 2626-2631.
Liu, Zhongchang
Sun Yat-Sen Univ
Wong, Wing Shing
Chinese Univ. of Hong Kong
Cheng, Hui
Sun Yat-Sen Univ
10:40-11:00 TuA02.3
Wang, Chu
Nokia Bell Labs
Li, Qianxiao
Princeton Univ
E, Weinan
Princeton Univ
Chazelle, Bernard
Princeton
11:00-11:20 TuA02.4
An O(N^2) Algorithm for Computation of the Minimum Time Consensus, pp. 2638-2643.
Mulla, Ameer Kalandar
Indian Inst. of Tech. Bombay
Patil, Deepak U.
TU Kaiserslautern
Chakraborty, Debraj
Indian Inst. of Tech. Bombay
11:20-11:40 TuA02.5
Bentz, William
Univ. of Michigan
Panagou, Dimitra
Univ. of Michigan, Ann Arbor
11:40-12:00 TuA02.6
Distributed Time-Difference-Of-Arrival (TDOA)-Based Localization of a Moving Target, pp. 2652-2658.
Ennasr, Osama N.
Michigan State Univ
Guoliang, Xing
Michigan State Univ
Tan, Xiaobo
Michigan State Univ

TuA03
Cooperative Control IV (Regular Session)
Chair: Dibaji, Seyed Mehran
Massachusetts Inst. of Tech

Wang, Li Georgia Inst. of Tech
Egerstedt, Magnus Georgia Inst. of Tech
Ames, Aaron D. Georgia Inst. of Tech


Jaleel, Hassan King Abdullah Univ. of Science & Tech
Shamma, Jeff S. KAUST

Output $H_{\infty}$ Synchronization of Heterogeneous Linear Multi-Agent Systems Via a Distributed Output-Feedback, pp. 2677-2682.

Adib Yaghmaie, Farnaz Nanyang Tech. Univ
Hengster-Movric, Kristian Czech Tech. Univ. in Prague, FEL
Lewis, Frank L. Univ. of Texas at Arlington
Su, Rong Nanyang Tech. Univ
Sebek, Michael Czech Tech. Univ. in Prague


S Varma, Vineeth Univ. De Lorraine
Postoyan, Romain CNRS-CRAN

Optimization-Based Estimation and Predictive Control under Uncertainty (Invited Session)

Chair: Mesbah, Ali Univ. of California, Berkeley
Co-Chair: Muñoz de la Peña, David Univ. De Sevilla
Organizer: Mesbah, Ali Univ. of California, Berkeley
Organizer: Lucia, Sergio OVG Univ. of Magdeburg
Organizer: Findeisen, Rolf OVG Univ. of Magdeburg

Enhancing Output Feedback MPC for Linear Discrete-Time Systems with Set-Valued Moving Horizon Estimation (I), pp. 2733-2738.

Brunner, Florian David Univ. of Stuttgart
Muller, Matthias A. Univ. of Stuttgart
Alögöwer, Frank Univ. of Stuttgart

Robust Economic Model Predictive Control of a Community Micro-Grid (I), pp. 2739-2744.

Pereira, Mario Univ. De Sevilla
Muñoz de la Peña, David Univ. De Sevilla
Limon, Daniel Univ. De Sevilla

Stochastic Predictive Control with Adaptive Model Maintenance (I), pp. 2745-2750.

Bavdekar, Vinay Anil Univ. of California Berkeley
Ehlinger, Victoria Univ. of California at Berkeley
Gidon, Dogan UC Berkeley
Mesbah, Ali Univ. of California, Berkeley

Model Predictive Control for Uncertain Nonlinear Systems Subject to...
Chance Constraints (I), pp. 2751-2756.
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Qu, Ting  
Findeisen, Rolf  
Chen, Hong  
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Kurz, Gerhard  
Hanebeck, Uwe D.  
11:40-12:00 TuA05.6

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Lucia, Sergio  
Findeisen, Rolf  
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Chair: Zhang, Jing  
Co-Chair: Wang, Yuh-Shyang  
10:00-10:20 TuA06.1

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10:20-10:40 TuA06.2

Sun, He  
Zhang, Jing  
Wu, Re-Bing  
Rabitz, Herschel  
Tarn, Tzyh-Jong  
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Gomes, Diogo  
Machado Velho, Roberto  
11:00-11:20 TuA06.4

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11:20-11:40 TuA06.5

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Nandan, Anirudh  
Imtiaz, Syed  
Ahmed, Salim  
11:40-12:00 TuA06.6

Multi-Agent Coordination in Dynamic Networks, pp. 2802-2807.
Manifold Made Simple, pp. 2853-2860.
Marjanovic, Goran
Univ. of New South Wales
Piggott, Marc James
Univ. of New South Wales
Solo, Victor
Univ. of New South Wales
10:40-11:00 TuA08.3

All Stabilizing and Concealing Gaussian Type Controllers for Linear Scalar Systems, pp. 2861-2866.
Sato, Kazuhiro
Kyoto Univ
Azuma, Shun-ichi
Kyoto Univ
11:00-11:20 TuA08.4

Coverage and Field Estimation on Bounded Domains by Diffusive Swarms, pp. 2867-2874.
Elamvazhuthi, Karthik
Arizona State Univ
Adams, Chase
Arizona State Univ
Berman, Spring
Arizona State Univ
11:20-11:40 TuA08.5

Field Kalman Filter and Its Approximation, pp. 2875-2880.
Bania, Piotr
AGH Univ. OF SCIENCE AND Tech
Baranowski, Jerzy
AGH Univ. of Science and Tech
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Malekpour, Shirzad
Univ. of Wisconsin-Madison
Barmish, B. Ross
Univ. of Wisconsin
11:40-12:00 TuA08.7

SLAM Pose-Graph Robustification Via Multi-Scale Heat-Kernel Analysis, pp. 2912-2919.
Datta, Sayantan
International Inst. of Information Tech. Hyderabad
Tourani, Siddharth
IIIT Hyderabad
Sharma, Avinash
IIIT Hyderabad
Krishna, K. Madhava
IIIT-Hyderabad
11:40-12:00 TuA09.6

Fully Distributed State Estimation with Multiple Model Approach, pp. 2920-2925.
Wang, Shaoceng
Univ. of California, Riverside
Ren, Wei
Univ. of California, Riverside
Chen, Jie
Beijing Inst. of Tech
11:40-12:00 TuA09.7

TuA10

Identification IV (Regular Session)
Chair: Leong, Alex S.
Paderborn Univ
Co-Chair: Chiuso, Alessandro
Univ. Di Padova
10:00-10:20 TuA10.1

Leading Impulse Response Identification Via the Weighted Elastic Net Criterion, pp. 2926-2931.
Calafiore, Giuseppe C.
Pol. Di Torino
Novara, Carlo
Pol. Di Torino
Taragna, Michele
Pol. Di Torino
10:20-10:40 TuA10.2

Leong, Alex S.
Paderborn Univ
Weyer, Erik
Univ. of Melbourne
Nair, Girish N.
Univ. of Melbourne
10:40-11:00 TuA10.3

System Identification from Partial Samples: Non-Asymptotic Analysis, pp. 2938-2944.
Rao, Milind
Stanford Univ
Kipnis, Alon
Stanford Univ
Javidi, Tara
Univ. of California, San Diego
Eldar, Yonina
Tech. Israel Inst. of Tech
Goldsmith, Andrea
Stanford Univ
11:00-11:20 TuA10.4

Online Semi-Parametric Learning for Inverse Dynamics Modeling, pp. 2945-2950.
Romeres, Diego
Univ. of Padova
Zorzi, Mattia
Univ. Degli Studi Di Padova
Chiuso, Alessandro
Univ. Di Padova
Camoriano, Raffaello
Istituto Italiano Di Tecnologia and Univ. Degli Studi Di Ge
11:20-11:40 TuA10.5

Innovation-Based Subspace Identification in Open and Closed-Loop, pp. 2951-2956.
Mercère, Guillaume
Univ. of Poitiers
Markovsky, Ivan
Vrije Univ. Brussel
Ramos, Jose A.
Nova Southeastern Univ
11:40-12:00 TuA10.6

Goudjil, Abdelhak
Univ. of Caen Normandy
TuA11  Starvine 11
Adaptive Systems (Regular Session)
Chair: Ebenbauer, Christian  Univ. of Stuttgart
Co-Chair: Gibson, Travis E.  Harvard Medical School

10:00-10:20  TuA11.1
Extremum Control of Linear Systems Based on Output Feedback, pp. 2963-2968.
Michalowski, Simon  Univ. of Stuttgart
Ebenbauer, Christian  Univ. of Stuttgart

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Adaptation and Synchronization Over a Network: Asymptotic Error Convergence and Pinning, pp. 2969-2974.
Gibson, Travis E.  Harvard Medical School

10:40-11:00  TuA11.3
Yayla, Metehan  Middle East Tech. Univ
Kutay, Ali  Middle East Tech. Univ

11:00-11:20  TuA11.4
Identification of Unknown Sinusoids in 2 X 2 Linear Hyperbolic PDEs, pp. 2981-2987.
Anfinsen, Henrik  Norwegian Univ. of Science and Tech
Strecker, Timm  Norwegian Univ. of Science and Tech
Aamo, Ole Morten  NTNU

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Adaptation and Synchronization Over a Network: Stabilization without a Reference Model, pp. 2988-2993.
Gibson, Travis E.  Harvard Medical School

TuA12  Starvine 12
Hybrid Systems (Regular Session)
Chair: Schoellig, Angela P  Univ. of Toronto
Co-Chair: Dullerud, Geir E.  Univ. of Illinois, Urbana-Champaign

10:00-10:20  TuA12.1
On the Construction of Safe Controllable Regions for Affine Systems with Applications to Robotics, pp. 3000-3005.
Helwa, Mohamed K.  Univ. of Toronto
Schoellig, Angela P  Univ. of Toronto

10:20-10:40  TuA12.2
Tracking Control for Hybrid Systems with State Jumps Using Gluing Function, pp. 3006-3011.
Kim, Jisu  Seoul National Univ
Shim, Hyungbo  Seoul National Univ
Seo, Jin H.  Seoul National Univ

10:40-11:00  TuA12.3
Wang, Yu  Univ. of Illinois at Urbana-Champaign
Roohi, Nima  Univ. of Illinois at Urbana-Champaign
West, Matthew  Univ. of Illinois, Urbana-Champaign
Viswanathan, Mahesh  Univ. of Illinois
Dullerud, Geir E.  Univ. of Illinois, Urbana-Champaign

11:00-11:20  TuA12.4
System of Funnels Framework for Robust Global Non-Linear Control, pp. 3018-3023.
Shvartsman, Rina  Univ. of Melbourne
Teel, Andrew R.  Univ. of California at Santa Barbara
Oetomo, Denny Nurjanto  The Univ. of Melbourne
Nesic, Dragan  Univ. of Melbourne

11:20-11:40  TuA12.5
Hyun, Nak-seung Patrick  Georgia Inst. of Tech
Verriest, Erik I.  Georgia Inst. of Tech

11:40-12:00  TuA12.6
Singh, Prince  MIT
Yong, Sze Zheng  Univ. of Michigan
GREGOIRE, Jean  Mines ParisTech
Censi, Andrea  MIT
Frazzoli, Emilio  Massachusetts Inst. of Tech

TuA13  Starvine 13
Nonlinear Systems I (Regular Session)
Chair: Sjoberg, Jonas E.  Chalmers Univ. of Tech
Co-Chair: Jorgensen, John Bagterp  Tech. Univ. of Denmark

10:00-10:20  TuA13.1
Tang, Ze  Department of Electrical Engineering, Yeungnam Univ. 280 D
Park, Ju H.  Yeungnam Univ
Jung, Ho-Youl  Yeungnam Univ
Lee, Tae H.  Yeungnam Univ

10:20-10:40  TuA13.2
Giordano, Giuseppe  Chalmers Univ. of Tech
Sjoberg, Jonas E.  Chalmers Univ. of Tech

10:40-11:00  TuA13.3
Boiroux, Dimitri  Tech. Univ. of Denmark
Juhl, Rune  Tech. Univ. of Denmark
Madsen, Henrik Tech. Univ. of Denmark
Jorgensen, John Bagterp Tech. Univ. of Denmark
11:00-11:20 TuA13.4
Combined State and Parameter Estimation and Identifiability of State Space Realizations, pp. 3054-3059.
Yu, Ming-Jui Univ. of Michigan - Ann Arbor
Bernstein, Dennis S. Uniu. of Michigan
11:20-11:40 TuA13.5
Abdalmoaty, Mohamed KTH
Hjalmarsson, Håkan KTH Royal Inst. of Tech
11:40-12:00 TuA13.6
Consistent Variable Selection for High-Dimensional Nonparametric Additive Nonlinear Systems, pp. 3066-3071.
Mu, Bqiangled Chinese Acad. of Sciences
Zheng, Wei Xing Western Sydney Univ
Bai, Er-Wei Univ. of Iowa

TuA14 Ironwood 1
Event-Triggered and Self-Triggered Estimation and Output-Feedback Control (Invited Session)
Chair: Hirche, Sandra Tech. Univ. München
Co-Chair: Xia, Meng The MathWorks
Organizer: Heemels, W.P.M.H. Eindhoven Univ. of Tech
Organizer: Hirche, Sandra Tech. Univ. München
Organizer: Johansson, Karl H. Royal Inst. of Tech
10:00-10:20 TuA14.1
Rahnama, Arash Univ. of Notre Dame
Xia, Meng The MathWorks
Antsaklis, Panos J. Univ. of Notre Dame
10:20-10:40 TuA14.2
Hashimoto, Kazumune Keio Univ
Adachi, Shuiichi Keio Univ
Dimarogonas, Dimos V. Royal Inst. of Tech
10:40-11:00 TuA14.3
Optimal Stationary Self-Triggered Sampling for Estimation (I), pp. 3084-3089.
Soleymani, Touraj Tech. Univ. München
Hirche, Sandra Tech. Univ. München
Baras, John S. Univ. of Maryland
11:00-11:20 TuA14.4
Fadlyab, Mahyar Univ. of Pennsylvania
Nowzari, Cameron Univ. of Pennsylvania
Pappas, George J. Univ. of Pennsylvania
Ribeiro, Alejandro Univ. of Pennsylvania
Preciado, Victor M. Univ. of Pennsylvania
11:20-11:40 TuA14.5
Predictive and Self Triggering for Event-Based State Estimation (I), pp. 3098-3105.
Trimpe, Sebastian Max Planck Inst. for Intelligent Systems

TuA15 Ironwood 2
Controller Design and Stabilization of PDEs (Invited Session)
Chair: Demetriou, Michael A. Worcester Pol. Inst
Co-Chair: Le Gorrec, Yann Ensmm, Femto-St / As2m
Organizer: Demetriou, Michael A. Worcester Pol. Inst
Organizer: Fahroo, Fariba DARPA
Organizer: Le Gorrec, Yann Ensmm, Femto-St / As2m
10:00-10:20 TuA15.1
Input-To-State Stabilization in $H^\infty$-Norm for Boundary Controlled Linear Hyperbolic PDEs with Application to Quantized Control (I), pp. 3112-3117.
Tanwani, Aneel Laas -- Cnrs
Prieur, Christophe CNRS
Tarbouriech, Sophie LAAS-CNRS
10:20-10:40 TuA15.2
Two Sided Boundary Stabilization of Two Linear Hyperbolic PDEs in Minimum Time (I), pp. 3118-3124.
AURIO, Jean MINES ParisTech, PSL Res. Univ
Di Meglio, Florent MINES ParisTech
10:40-11:00 TuA15.3
Control of Transport PDE/Nonlinear ODE Cascades with State-Dependent Propagation Speed (I), pp. 3125-3130.
Diagne, Mamadou Univ. of Michigan Ann Arbor
Bekiaris-Liberis, Nikolaos Tech. Univ. of Crete
Otto, Andreas Chemnitz Univ. of Tech
Krstic, Miroslav Univ. of California, San Diego
11:00-11:20 TuA15.4
On the Control by Interconnection and Exponential Stabilisation of Infinite Dimensional Port-Hamiltonian Systems, pp. 3137-3142.
Macchelli, Alessandro Univ. of Bologna - Italy
11:20-11:40 TuA15.5
On the Control by Interconnection and Exponential Stabilisation of Infinite Dimensional Port-Hamiltonian Systems, pp. 3137-3142.
Macchelli, Alessandro Univ. of Bologna - Italy
11:40-12:00 TuA15.6
Polyakov, Andrey Inria Lille Nord-Europe
Coron, Jean-michel Univ. Pierre Et Marie Curie
Rosier, Lionel Univ. Henri Poincare Nancy 1

TuA16 Ironwood 3
Delay Systems IV (Regular Session)
Chair: Malisoff, Michael Louisiana State Univ
Co-Chair: Egorov, Alexey V. SPbSU
10:00-10:20 TuA16.1

Gomez, Marco A. CINVESTAV
Cuvas, Carlos Centro De Investigación Y De Estudios Avanzados Del Inst. Po
Mondié, Sabine CINVESTAV-IPN
Egorov, Alexey V. SPbSU

10:20-10:40 TuA16.2

A Finite Necessary and Sufficient Stability Condition for Linear Retarded Type Systems, pp. 3155-3160.

Egorov, Alexey V. SPbSU

10:40-11:00 TuA16.3


Gu, Keqin Southern Illinois Univ. Edwardsville
JIN, Chi Supelec & Univ. Paris Saclay
Boussaada, Islam IPSA & L2S, CNRS-Supelec-Univers. Paris Sud
Niculescu, Silviu-Julian CNRS-Supelec

11:00-11:20 TuA16.4


Mazenc, Frederic Epi Inria Disco
Malisoff, Michael Louisiana State Univ
Weston, Jerome Louisiana State Univ

11:20-11:40 TuA16.5


Besselink, Bart Univ. of Groningen
Feyzmahdavian, Hamid Reza Royal Inst. of Tech. (KTH)
Sandberg, Henrik KTH Royal Inst. of Tech
Johansson, Mikael KTH - Royal Inst. of Tech

11:40-12:00 TuA16.6


Mazenc, Frederic Epi Inria Disco
Malisoff, Michael Louisiana State Univ

11:20-11:40 TuA16.7

TuA17

Predictive Control for Nonlinear Systems I (Regular Session)

Chair: Aguiar, A. Pedro Faculty of Engineering, Univ. of Porto
Co-Chair: Muller, Matthias A. Univ. of Stuttgart

10:00-10:20 TuA17.1


Seok, Jinwoo Univ. of Michigan
Kolmanovsky, Ilya V. The Univ. of Michigan
Girard, Anouck Univ. of Michigan, Ann Arbor

10:20-10:40 TuA17.2

Integrating Production Scheduling and Process Operation Via Economic Model Predictive Control, pp. 3190-3195.

Alangar, Anas Univ. of California, Los Angeles
Durand, Helen UCLA

10:40-11:00 TuA17.3


Alessandretti, Andrea Faculty of Engineering, Univ. of Porto (FEUP)
Aguiar, A. Pedro Faculty of Engineering, Univ. of Porto
Jones, Colin N. EPFL

11:00-11:20 TuA17.4

Nonlinear Model Predictive Control for Large Angle Attitude Maneuver of Spacecraft with RW and RCS, pp. 3202-3209.

Sakamoto, Atsushi The Univ. of Electro-Communications
Ikeda, Yuichi Shonan Inst. of Tech
Yamaguchi, Isao National Defense Acad
Kida, Takashi Univ. of Electro-Communications

11:20-11:40 TuA17.5

Min-Max Economic Model Predictive Control Approaches with Guaranteed Performance, pp. 3210-3215.

Bayer, Florian Anton Univ. of Stuttgart
Muller, Matthias A. Univ. of Stuttgart
Allgöwer, Frank Univ. of Stuttgart

11:40-12:00 TuA17.6

Efficient Nonlinear Model Predictive Control Via Quasi-LPV Representation, pp. 3216-3221.

Gonzalez Cisneros, Pablo Hamburg Univ. of Tech
Sebastian
Voss, Sophia Hamburg Univ. of Tech
Werner, Herbert Hamburg Univ. of Tech

TuA18

Ironwood 7

Linear Matrix Inequalities (Regular Session)

Chair: Fridman, Emilia Tel-Aviv Univ
Co-Chair: Chiu, Wei-Yu Yuan Ze Univ

10:00-10:20 TuA18.1

LMI-Based Adaptive Control for Uncertain Polytopic Systems, pp. 3222-3227.

Campos, Victor Federal Univ. of Ouro Preto
Nguyen, AnhTu Univ. of Valenciennes
Palhares, Reinaldo Martinez Federal Univ. of Minas Gerais

10:20-10:40 TuA18.2


Ahmad, Nur Syazreen Univ. Sains Malaysia
Carrasco, Joaquin Univ. of Manchester

10:40-11:00 TuA18.3

Analysis of an H_infty Design for Dynamic Pricing in the Smart Grid, pp. 3234-3239.

Fridman, Emilia Tel-Aviv Univ
Shaikhet, Leonid Tel Aviv Univ

11:00-11:20 TuA18.4

Simple LMIs for Stabilization by Using Delays, pp. 3240-3245.

Chiu, Wei-Yu Yuan Ze Univ

11:20-11:40 TuA18.5
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<td>Hilhorst, Gis, Lambrechts, Erik, Pipeleers, Goele</td>
<td>KU Leuven, Katholieke Univ. Leuven</td>
<td>11:40-12:00</td>
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<td>Feasibility Analysis of the Bilinear Matrix Inequalities with an</td>
<td>Wang, Yan, Lambrechts, Erik, Hilhorst, Gis, Pipeleers, Goele,</td>
<td>KU Leuven, Katholieke Univ. Leuven</td>
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<td>Application to Multi-Objective Nonlinear Observer Design, pp. 3252-</td>
<td>Rajamani, Rajesh</td>
<td>Univ. of Minnesota, KU Leuven</td>
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### TuA19

#### Power Systems IV (Regular Session)

**Chair:** Lestas, Ioannis  
**Co-Chair:** Turitsyn, Konstantin

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<td>Tang, Yujie, Low, Steven</td>
<td>California Inst. of Tech, Caltech</td>
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<td>Decomposition-Based Global Optimization for Optimal Design of</td>
<td>Li, Dan, Li, Xiang</td>
<td>Queen's Univ, California Inst. of</td>
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<td>Power Distribution Systems, pp. 3265-3270.</td>
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<td>Stability and Control of Ad Hoc DC Microgrids, pp. 3271-3278.</td>
<td>Belk, Julia, Inam, Wardah, Perreault, David, Turitsyn, Konstantin</td>
<td>MIT, Caltech, MIT, MIT</td>
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<td>Analytical Investigation of Poorly Damped Conditions in VSC-HVDC</td>
<td>Song, Yujiao, Breitholtz, Claes, Stamatiou, Georgios, Bongiorno, Massimo</td>
<td>Chalmers Univ, Chalmers Univ,</td>
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<td>Wang, Shuai, Baillieul, John</td>
<td>Boston Univ, Boston Univ</td>
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<td>Stability and Optimality of Distributed Schemes for Secondary</td>
<td>Kasis, Andreas, Devane, Eoin, Lestas, Ioannis</td>
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<td>Frequency Regulation in Power Networks, pp. 3294-3299.</td>
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### TuA20

#### A Spacecraft Benchmark Problem for Analysis & Control of Hybrid Systems (Invited Session)

**Chair:** Erwin, Richard Scott  
**Co-Chair:** L’Afflitto, Andrea

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<td>Jewison, Christopher, Erwin, Richard Scott</td>
<td>Massachusetts Inst. of Tech,</td>
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<td>Computing Reach-Avoid Sets for Space Vehicle Docking under</td>
<td>Poonawala, Hasan A, Topcu, Ufuk</td>
<td>Univ. of Texas at Austin, The</td>
<td>11:00-11:20</td>
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<td>Continuous Thrust (I), pp. 3312-3318.</td>
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<td>Filter-Based Stochastic Abstractions for Constrained Planning with</td>
<td>Malladi, Balaram, Sanfelice, Ricardo G., Butcher, Eric, Wang, Jingwei,</td>
<td>Univ. of Arizona, Univ. of</td>
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<td>Robust Hybrid Supervisory Control for Rendezvous and Docking of a</td>
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<td>Stability and Optimality of Distributed Schemes for Secondary</td>
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### TuA21

#### Biomolecular Systems (Regular Session)

**Chair:** Franco, Elisa  
**Co-Chair:** Materassi, Donatello

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<td>Design of a Multicellular Feedback Control Strategy in a Synthetic</td>
<td>Fiore, Gianfranco, Matyjaszkiewicz, Antoni, Annunziata, Fabio, Grierson,</td>
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<td>Bacterial Consortium (I), pp. 3338-3343.</td>
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Modelling, Simulation and Control of Single Cell Expression
Dynamics of the Galactose-Inducible Promoter in Yeast (I), pp. 3344-3349.
Perrino, Giansimone Univ. of Naples Federico II
di Bernardo, Diego Telethon Inst. of Genetics and Medicine

10:40-11:00 TuA21.3

Exploring the Impact of Resource Limitations on Gene Network Reconstruction (I), pp. 3350-3355.
Tyler, Quarton Univ. of Texas at Dallas
Kang, Taek Univ. of Texas at Dallas
Sontag, Eduardo D. Rutgers Univ
Bleris, Leonidas Univ. of Texas at Dallas

11:00-11:20 TuA21.4

Steady State Dynamics of Molecular Motors Reveals LoadDependent Cooperativity, pp. 3356-3362.
Talukdar, Saurav Univ. of Minnesota - Twin Cities
Bhaban, Shreyas Univ. of Minnesota
Matrassisi, Donatello Univ. of Tennessee, Knoxville
Salapaka, Murti V. Univ. of Minnesota, Minneapolis

11:20-11:40 TuA21.5

Gyorgy, Andras Univ. of California, Berkeley
Murray, Richard M. California Inst. of Tech

11:40-12:00 TuA21.6

Giordano, Giulia Lund Univ
Franco, Elisa Univ. of California at Riverside

TuA22 (Regular Session) Copperleaf 3

Neural Networks (Regular Session)
Chair: Bian, Tao Pol. School of Engineering, New York Univ
Co-Chair: Ferrari, Silvia Cornell Univ

10:00-10:20 TuA22.1

Bian, Tao Pol. School of Engineering, New York Univ
Jiang, Zhong-Ping New York Univ

10:20-10:40 TuA22.2

Spiking Neural Network (SNN) Control of a Flapping Insect-Scale Robot, pp. 3381-3388.
Clawson, Taylor Cornell Univ
Ferrari, Silvia Cornell Univ
Fuller, Sawyer Univ. of Washington
Wood, Robert Harvard Univ

10:40-11:00 TuA22.3

An Adaptive Control Scheme for Non-Canonical Discrete-Time Neural Network Systems, pp. 3389-3394.
Zhang, Yanjun Nanjing Univ. of Aeronautics and Astronautics
Tao, Gang Univ. of Virginia
Chen, Mou Nanjing Univ. of Aeronautics and Astronautics

11:00-11:20 TuA22.4

Szanto, Nathan Missouri Univ. of Science and Tech
Narayanan, Vignesh Missouri Univ. of Science and Tech
Jagannathan, Sarangapani Missouri Univ. of Science & Tech

11:20-11:40 TuA22.5

Patan, Krzysztof Univ. of Zielona Gora
Patan, Maciej Univ. of Zielona Gora
Kowalów, Damian Univ. of Zielona Góra

TuA23 Ironwood 5

Formal Synthesis of Control Strategies for Dynamical Systems (Tutorial Session)
Chair: Belta, Calin Boston Univ
Organizer: Belta, Calin Boston Univ

10:00-12:00 TuA23.1

Belta, Calin Boston Univ

TuB01 Starvine 1

Networked Control Systems I (Regular Session)
Chair: Mukherjee, Dwaipayan Tech. Israel Inst. of Tech
Co-Chair: Sun, Zhiyong Australian National Univ

13:30-13:50 TuB01.1

Retrofitting State Feedback Control of Networked Nonlinear Systems Based on Hierarchical Expansion, pp. 3432-3437.
Sadamoto, Tomonori Tokyo Inst. of Tech
Ishizaki, Takayuki Tokyo Inst. of Tech
Imura, Jun-ichi Tokyo Inst. of Tech
Sandberg, Henrik KTH Royal Inst. of Tech
Johansson, Karl H. Royal Inst. of Tech

13:50-14:10 TuB01.2

Consensus Over Weighted Digraphs: A Robustness Perspective, pp. 3438-3443.
Mukherjee, Dwaipayan Tech. Israel Inst. of Tech
Zelazo, Daniel Tech. - Israel Inst. of Tech

14:10-14:30 TuB01.3

Sun, Zhiyong Australian National Univ
Huang, Na Peking Univ
Anderson, Brian D.O. Australian National Univ
Duan, Zhisheng Peking Univ

14:30-14:50 TuB01.4

Al-Dabbagh, Ahmad Univ. of Alberta
Chen, Tongwen Univ. of Alberta

14:50-15:10 TuB01.5
Adaptive Control of Networked Distributed Systems with Unknown Interconnections, pp. 3456-3461.

Lymperopoulos, Georgios
Univ. of Southern California
Ioannou, Petros A.
Univ. of Southern California

15:10-15:30 TuB01.6

Formation Feasibility on Coordination Control of Networked Heterogeneous Systems with Drift Terms, pp. 3462-3467.

Sun, Zhiyong
Australian National Univ
Anderson, Brian D.O.
Australian National Univ

TuB02 Starvine 2

Agents-Based Systems V (Regular Session)

Chair: Markdahl, Johan
Univ. of Luxembourg
Co-Chair: Varagnolo, Damiano
LTU Luleå Univ. of Tech

13:30-13:50 TuB02.1

Output Consensus of Second-Order Multi-Agent Systems with Mismatched Disturbances Via SMC and GPIO, pp. 3468-3473.

Li, Guipu
School of Automation, Southeast Univ
Wang, Xiangyu
Southeast Univ
Li, Shihua
Southeast Univ
Yang, Jun
Southeast Univ
Chen, Xisong
Southeast Univ

13:50-14:10 TuB02.2

A Tight Bound on the Bernoulli Trials Network Size Estimator, pp. 3474-3480.

Lucchese, Riccardo
LTU Luleå Univ. of Tech
Varagnolo, Damiano
LTU Luleå Univ. of Tech

14:10-14:30 TuB02.3

Global Stabilization of Rigid Formations Via Sliding Mode Control, pp. 3481-3486.

Lin, Yanjun
Zhejiang Univ
Wang, Lili
Yale Univ
Han, Tingrui
Zhejiang Univ
Lin, Zhiyun
Zhejiang Univ
Zheng, Ronghao
City Univ. of Hong Kong

14:30-14:50 TuB02.4


Markdahl, Johan
Univ. of Luxembourg
Goncalves, Jorge
Univ. of Cambridge

14:50-15:10 TuB02.5

Formation Control of Heterogeneous Agents Over Directed Graphs, pp. 3493-3498.

Han, Tingrui
Zhejiang Univ
Lin, Zhiyun
Zhejiang Univ
Xu, Yun
Coll. of Electrical Engineering, Zhejiang Univ
Zheng, Ronghao
City Univ. of Hong Kong
Zhang, Haitao
Univ. of Science and Tech. of China

15:10-15:30 TuB02.6

Attitude Synchronization of Rigid Bodies Via Distributed Control, pp. 3499-3504.

Dong, Yili
Kyoto Univ
Ohta, Yoshito
Kyoto Univ

TuB03 Starvine 3

Cooperative Control V (Regular Session)

Chair: Ishii, Hideaki
Tokyo Inst. of Tech
Co-Chair: Montijano, Eduardo
Centro Univ. De La Defensa

13:30-13:50 TuB03.1

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Social and Economic Networks (Invited Session)

Chair: Ajorlou, Amir
Massachusetts Inst. of Tech
Co-Chair: Jadbabaie, Ali
MIT
Organizer: Ajorlou, Amir
Massachusetts Inst. of Tech
Organizer: Jadbabaie, Ali
MIT

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The Ohio State Univ

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Pacific Northwest National Lab


Shanbhag, Uday V.
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Georgia Inst. of Tech
Georgia Inst. of Tech
Univ. of Illinois, Urbana-Champaign

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Richardson, Robert Univ. of Leeds

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Sakakura, Yoshiaki DENSO IT Lab. INC
Yamano, Chiharu DENSO IT Lab. INC

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Li, Peng Imperial Coll. London
Pin, Gilberto Electrolux Professional S.p.A. (Italy)
Parisini, Thomas Imperial Coll. & Univ. of Trieste

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Chair: Romeres, Diego  Co-Chair: Gehan, Olivier
Univ. of Padova  ENSICAEN

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Young, Peter C. Lancaster Univ
Yuz, Juan I. Univ. Tecnica Federico Santa Maria

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Prando, Giulia Univ. Di Padova
Romeres, Diego Univ. of Padova
Chiesso, Alessandro Univ. Di Padova

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Cerone, Vito Pol. Di Torino
Razza, Valentino Pol. Di Torino
Regruto, Diego Pol. Di Torino

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Cerone, Vito Pol. Di Torino
Razza, Valentino Pol. Di Torino
Regruto, Diego Pol. Di Torino

TuB11

Robust Adaptive Control (Regular Session)

Chair: Yucelen, Tansel Missouri Univ. of Science and Tech
Co-Chair: Song, Yongduan Chongqing Univ

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Gruenwald, Benjamin Univ. of South Florida
Yucelen, Tansel Univ. of South Florida
Muse, Jonathan Wright Patterson Air Force Base
Wagner, Daniel Missouri Univ. of Science and Tech

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Chair: NICOLAU, Florentina INRIA
Co-Chair: Scarciotti, Giordano Imperial Coll. London


Padoan, Alberto Imperial Coll. London
Scarcioi, Giordano Imperial Coll. London
Astolfi, Alessandro Imperial Coll. & Univ. of Rome


Farooq, Hamza Univ. of Minnesota
Chen, Yongxin Univ. of Minnesota
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Kawano, Yu Kyoto Univ

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Co-Chair: Warnick, Sean Brigham Young Univ

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Yin, Xiang Univ. of Michigan
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**TuB17**

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TAHIROVIC, Adnan Univ. of Sarajevo
Dzudzanovic, Samir Kv Team

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TuB18

Uncertain Systems (Regular Session)

Chair: Lin, Wei Case Western Res. Univ
Co-Chair: Findeisen, Rolf OVG Univ. Magdeburg

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Power Systems V (Regular Session)

Chair: Lavaei, Javad UC Berkeley
Co-Chair: Effimov, Denis Inria - Lne

13:30-13:50 TuB19.1


Bazrafshan, Mohammad M. The Univ. of Texas at San Antonio
Gatsis, Nikolaos The Univ. of Texas at San Antonio
Taha, Ahmad Univ. of Texas at San Antonio
Taylor, Joshua Univ. of Toronto

13:50-14:10 TuB19.2

Optimal Power Dispatch in Networks of High-Dimensional Models of Synchronous Machines, pp. 4110-4115.

Stegink, Tjerk Univ. of Groningen
De Persis, Claudio Univ. of Groningen
van der Schaft, Arjan Univ. of Groningen

14:10-14:30 TuB19.3

Nonlinear Analysis of an Improved Swing Equation, pp. 4116-4121.

Monshizadeh, Pooya Univ. of Groningen
De Persis, Claudio Univ. of Groningen
Monshizadeh, Nina Univ. of Groningen
van der Schaft, Arjan Univ. of Groningen

14:30-14:50 TuB19.4


Liu, Zhipeng Univ. of Washington
Clark, Andrew Worcester Pol. Inst
Lee, Phillip Univ. of Washington
Bushnell, Linda Univ. of Washington
Kirschen, Daniel Univ. of Washington
Poovendran, Radha Univ. of Washington, Seattle
### TuB19.5


Barabanov, Nikita  
North Dakota State Univ

Schiffer, Johannes  
Univ. of Leeds

Ortega, Romeo  
LSS-Supelec

Efimov, Denis  
Inria

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### TuB19.6


Izumi, Shinsaku  
Okayama Prefectural Univ

Karakawa, Yuya  
Okayama Prefectural Univ

Xin, Xin  
Okayama Prefectural Univ

Yamasaki, Taiga  
Okayama Prefectural Univ

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### TuB20

#### Aerospace Systems (Regular Session)

**Chair:** Ghosh, Satadal  
Naval Postgraduate School

**Co-Chair:** Milam, Mark  
Northrop Grumman Aerospace Systems

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**13:30-13:50 TuB20.1**


Ghosh, Satadal  
Naval Postgraduate School

Davis, Duane  
Naval Postgraduate School

Chung, Timothy H.  
DARPA

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**13:50-14:10 TuB20.2**


Pattanaik, Anay  
Univ. of Illinois, Urbana-Champaign

Kothari, Mangal  
Indian Inst. of Tech. Kanpur

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**14:10-14:30 TuB20.3**


Berkane, Soulaime  
Western Univ

Abdessameud, Abdelkader  
Univ. of Western Ontario

Tayebi, Abdelhamid  
Lakehead Univ

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**14:30-14:50 TuB20.4**


Kim, Hyeonggeun  
Seoul National Univ

Kim, H. Jin  
Seoul National Univ

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**14:50-15:10 TuB20.5**

**Robust Acceleration Control of a Hexarotor UAV with a Disturbance Observer**, pp. 4166-4171.

Lee, Seung Jae  
Seoul National Univ

Suseong, Kim  
Seoul National Univ

Kim, H. Jin  
Seoul National Univ

Johansson, Karl H.  
Royal Inst. of Tech

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**15:10-15:30 TuB20.6**

**Trajectory Generation for Constrained Differentially Flat Systems with Time and Frequency Domain Objectives**, pp. 4172-4177.

Tsuei, Stephanie  
Northrop Grumman Aerospace Systems

Milam, Mark  
Northrop Grumman Aerospace Systems

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### TuB21

#### Biological Systems (Regular Session)

**Chair:** Preciado, Victor M.  
Univ. of Pennsylvania

**Co-Chair:** Bleris, Leonidas  
Univ. of Texas at Dallas

---

**13:30-13:50 TuB21.1**

**Dynamic Analysis of Bet-Hedging Strategies As a Protection Mechanism against Environmental Fluctuations**, pp. 4178-4183.

Ogura, Masaki  
Univ. of Pennsylvania

Wakai, Masashi  
Chiba Univ

Preciado, Victor M.  
Univ. of Pennsylvania

---

**13:50-14:10 TuB21.2**

**Controlling the Ribosomal Density Profile in Mrna Translation**, pp. 4184-4189.

Zarai, Yoram  
Tel Aviv Univ

Margaliot, Michael  
Tel Aviv Univ

Sontag, Eduardo D.  
Rutgers Univ

Tuller, Tamir  
School of Elec. Eng., Tel Aviv Univ

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**14:10-14:30 TuB21.3**

**On Brain Modeling in Resting-State As a Network of Coupled Oscillators**, pp. 4190-4195.

Favaretto, Chiara  
Department of Information Engineering, Univ. of Padova

Cenedese, Angelo  
Univ. of Padova

---

**14:30-14:50 TuB21.4**


Chyba, Monique  
Univ. of Hawaii

Bonnard, Bernard  
Inst. De Mathématiques De Bourgogne

Rouot, Jérémy  
INRIA Sophia Antipolis

Takagi, Daisuke  
Univ. of Hawaii

---

**14:50-15:10 TuB21.5**

**Pattern Synthesis in a 3D Agent-Based Model of Stem Cell Differentiation**, pp. 4202-4207.

Briers, Demarcus  
Boston Univ

Haghighi, Iman  
Boston Univ

White, Douglas  
Georgia Inst. of Tech

Kemp, Melissa  
Georgia Inst. of Tech

Belta, Calin  
Boston Univ

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**15:10-15:30 TuB21.6**

**Point-Based Value Iteration for Partially-Observed Boolean Dynamical Systems with Finite Observation Space**, pp. 4208-4213.

Imani, Mahdi  
Texas A&M Univ

Braga-Neto, Ulisses  
Texas A&M Univ

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### TuB22

#### Energy Systems (Regular Session)

**Chair:** Dominguez-Garcia, Alejandro D.  
Univ. of Illinois at Urbana-Champaign

**Co-Chair:** Roozbehani, Mardavij  
Massachusetts Inst. of Tech

---

**13:30-13:50 TuB22.1**

**Exploiting Phase Cohesiveness for Frequency Control of Islanded Inverter-Based Microgrids**, pp. 4214-4219.

Zholbaryssov, Madi  
Univ. of Illinois at Urbana-Champaign
Champaign

Dominguez-Garcia, Alejandro D.
Univ. of Illinois at Urbana-Champaign

13:50-14:10 TuB22.2
Battery Capacity of Deferrable Energy Demand, pp. 4220-4225.

Madjidian, Daria
Massachusetts Inst. of Tech
Roozbehani, Mardavij
Massachusetts Inst. of Tech
Dahleh, Munther A.
Massachusetts Inst. of Tech

14:10-14:30 TuB22.3

Fang, Huazhen
Univ. of Kansas
Wu, Di
Pacific Northwest National Lab
Yang, Tao
Univ. of North Texas

14:30-14:50 TuB22.4
An Outer Approximation of the Minkowski Sum of Convex Conic Sets with Application to Demand Response, pp. 4233-4238.

Barot, Suhail
Univ. of Toronto
Taylor, Joshua
Univ. of Toronto

14:50-15:10 TuB22.5

Bin-Karim, Shamir
Univ. of North Carolina at Charlotte
Bafandeh, Alireza
Univ. of North Carolina at Charlotte
Vermillion, Christopher
Univ. of North Carolina at Charlotte

15:10-15:30 TuB22.6

Jin, Jiangliang
Singapore Univ. of Tech. and Design
Xu, Yunjian
Singapore Univ. of Tech. and Design
Khalid, Yawar
Singapore Univ. of Tech. and Design
Ul Hassan, Naveed
Lahore Univ. of Management Sciences

Differential Privacy in Control and Network Systems (Tutorial Session)

Chair: Cortes, Jorge
Co-Chair: Pappas, George J.
Organizer: Cortes, Jorge
Univ. of California, San Diego
Univ. of Pennsylvania
Univ. of California, San Diego

TuB23 Ironwood 5

13:30-13:35 TuB23.1

Cortes, Jorge
Univ. of California, San Diego
Dullerud, Geir E.
Univ. of Illinois, Urbana-Champaign
Han, Shuo
Univ. of Pennsylvania
Le Ny, Jerome
Pol. Montreal
Mitra, Sayan
Univ. of Illinois
Pappas, George J.
Univ. of Pennsylvania

13:35-14:00 TuB23.2
Foundations of Differential Privacy (I)*.

Pappas, George J.
Univ. of Pennsylvania

14:00-14:30 TuB23.3
Differential Privacy Filtering (I)*.

Le Ny, Jerome
Pol. Montreal

14:30-15:00 TuB23.4
Differential Privacy, Entropy, and Consensus (I)*.

Dullerud, Geir E.
Univ. of Illinois, Urbana-Champaign

15:00-15:30 TuB23.5
Differential Privacy and Distributed Optimization (I)*.

Cortes, Jorge
Univ. of California, San Diego

TuC01 Starvine 1

Networked Control Systems II (Regular Session)

Chair: El-Farra, Nael H.
Co-Chair: Gharesifard, Bahman
Univ. of California, Davis
Queens Univ. Canada

16:00-16:20 TuC01.1
Distributed Hybrid Consensus of Second-Order Dynamics Over Proximity Nets, pp. 4273-4277.

Liu, Zhixiin
Acad. of Mathematics and Systems Science, ChineseAcademyof Scie
Wang, Lin
Shanghai Jiao Tong Univ
Baras, John S.
Univ. of Maryland

16:20-17:00 TuC01.2
Sparse Feedback Stabilization of Multi-Agent Dynamics (I), pp. 4278-4283.

Caponigro, Marco
Conservatoire National Des Arts Et Métiers
Piccoli, Benedetto
Rutgers Univ. - Camden
Rossi, Francesco
Aix-Marseille Univ
Treilat, Emmanuel
Univ. Pierre Et Marie Curie (Paris 6)

16:40-17:00 TuC01.3
Feedforward Estimators for the Distributed Average Tracking of Bandlimited Signals in Discrete Time with Switching Graph Topology, pp. 4284-4289.

Van Scoy, Bryan
Freeman, Randy
Lynch, Kevin M.
Northwestern Univ
Northwestern Univ
Northwestern Univ

17:00-17:20 TuC01.4
Distributed Power Sharing Control of Grid-Connected AC Microgrid, pp. 4290-4295.

Cai, He
Nanyang Tech. Univ
Hu, Guoqiang
Nanyang Tech. Univ

17:20-17:40 TuC01.5
Output Feedback-Based Event-Triggered Control of Distributed Processes with Communication Constraints (I), pp. 4296-4301.

Xue, Da
Univ. of California, Davis
El-Farra, Nael H.
Univ. of California, Davis

17:40-18:00 TuC01.6
A Subspace Consensus Approach for Distributed Connectivity Assessment of Asymmetric Networks, pp. 4302-4307.

Asadi, Mohammad Mehdi
Concordia Univ
TuC02  
Advances in Cooperative Control of Networked Systems (Invited Session)

Chair: Cao, Yongcan  
Univ. of Texas, San Antonio  
Co-Chair: Casbeer, David W.  
Air Force Res. Lab  
Organizer: Cao, Yongcan  
Univ. of Texas, San Antonio  
Organizer: Garcia, Eloy  
Infosclerx Corp  
Organizer: Casbeer, David W.  
Air Force Res. Lab

16:00-16:20  
Towards Cost-Effective Distributed Information Fusion with Partially Active Sensors in Directed Networks (I), pp. 4308-4313.

Cao, Yongcan  
Univ. of Texas, San Antonio  
Casbeer, David W.  
Air Force Res. Lab  
Garcia, Eloy  
Infosclerx Corp  
Zhang, Xiaodong  
Wright State Univ

16:20-16:40  
Distributed Continuous-Time Online Optimization Using Saddle-Point Methods (I), pp. 4314-4319.

Lee, Soomin  
Georgia Inst. of Tech  
Ribeiro, Alejandro  
Univ. of Pennsylvania  
Zavlanos, Michael M.  
Duke Univ

16:40-17:00  
Cooperative Localisation of UAVs in a GPS-Denied Environment Using Bearing Measurements (I), pp. 4320-4326.

Zhang, Lvtianyang  
Australian National Univ  
Ye, Mengbin (Ben)  
Australian National Univ  
Anderson, Brian D.O.  
Australian National Univ  
Sarunic, Peter William  
Defence Science and Tech. Group  
Hmam, Haleem  
Defence Science and Tech. Organisation

17:00-17:20  
Cooperative Filtering for Parameter Identification of Diffusion Processes (I), pp. 4327-4333.

You, Jie  
Rensselaer Pol. Inst  
Zhang, Fumin  
Georgia Inst. of Tech  
Wu, Wencen  
Rensselaer Pol. Inst

17:20-17:40  
Bio-Inspired Source Seeking: A Hybrid Speeding up and Slowing down Algorithm (I), pp. 4334-4339.

Khan, Ayesha  
Georgia Inst. of Tech  
Mishra, Vivek  
Georgia Inst. of Tech  
Zhang, Fumin  
Georgia Inst. of Tech

17:40-18:00  
Optimal Distributed Control with Application to Asymmetric Vehicle Platoons, pp. 4340-4345.

Herman, Ivo  
Czech Tech. Univ. in Prague  
Sebek, Michael  
Czech Tech. Univ. in Prague

TuC03  
Control of Networks I (Regular Session)

Chair: Scardovi, Luca  
Univ. of Toronto  
Co-Chair: Dong, Zhe  
Tsinghua Univ

16:00-16:20  
Controlability Analysis of Networks through Their Topologies, pp. 4346-4351.

Mousavi, Shima Sadat  
Sharif Univ. of Tech  
Haeri, Mohammad  
Sharif Univ. of Tech

16:20-16:40  
A Passivity-Based Approach for Constrained Mobile Robotic Networks, pp. 4352-4357.

Nguyen, Tam  
Univ. Libre De Bruxelles  
Doi, Mamoru  
Tokyo Inst. of Tech  
Hatanaka, Takeshi  
Tokyo Inst. of Tech  
Garone, Emanuele  
Univ. Libre De Bruxelles  
Fujita, Masayuki  
Tokyo Inst. of Tech

16:40-17:00  
Formation Control of Teleoperating Cyber-Physical System Subject to Time Delay and Actuator Saturation Constrains, pp. 4358-4363.

Jing, Yan  
Yanshan Univ  
Wan, Yan  
Univ. of North Texas  
Chen, Cailian  
Shanghai Jiao Tong Univ  
Hua, Chang-Chun  
Yanshan Univ  
Guan, Xinping  
Shanghai Jiao Tong Univ

17:00-17:20  
Distributed Frequency Synchronization and Phase-Difference Tracking for Kuramoto Oscillators and Its Application to Islanded Microgrids, pp. 4364-4369.

Mao, Yanbing  
Binghamton Univ  
Zhang, Ziang  
Binghamton Univ

17:20-17:40  
Distributed Flowrate-Pressure Control of Fluid Flow Networks, pp. 4370-4375.

Dong, Zhe  
Tsinghua Univ

17:40-18:00  
Synchronization of Linear Time-Invariant Systems on Rooted Graphs, pp. 4376-4381.

Xia, Tian  
Univ. of Toronto  
Scardovi, Luca  
Univ. of Toronto

TuC04  
Communication Networks (Regular Session)

Chair: Melchor-Aguilar, Daniel  
Alejandro  
Co-Chair: Hadjicostis, Christoforos N.  
Univ. of Cyprus

16:00-16:20  
Complete Stability Region of PD Controllers for TCP/AQM Networks, pp. 4382-4387.

Puerto-Piñ, A. K.  
Inst. Potosino De Investigacion Cientifica Y Tecnologica (IPICyT)

16:20-16:40  
From Ideal to Packet-Based Communication for Spatially Invariant Systems with Various Interconnection Structures, pp. 4388-4395.

Heijmans, Stefan H. J.  
Eindhoven Univ. of Tech  
Heemels, W.P.M.H.  
Eindhoven Univ. of Tech

16:40-17:00  
Synchronization of Linear Time-Invariant Systems on Rooted Graphs, pp. 4376-4381.
Distributed C-Means Data Clustering Algorithm, pp. 4396-4401.
Oliva, Gabriele Univ. Campus Bio-Medico of Rome
Setola, Roberto Univ. Campus Biomedical
Hadjicostis, Christoforos N. Univ. of Cyprus
17:00-17:20 TuC04.4
Beck, Michael Alexander Univ. of Kaiserslautern
17:20-17:40 TuC04.5
Lu, Ning Thompson Rivers Univ
Li, Bin Univ. of Rhode Island
Srikant, R Univ. of Illinois, Urbana-Champaign
Ying, Lei Arizona State Univ
17:40-18:00 TuC04.6
Distributed Asynchronous Cholesky Decomposition, pp. 4414-4419.
Oliva, Gabriele Univ. Campus Bio-Medico of Rome
Setola, Roberto Univ. Campus Biomedical
Hadjicostis, Christoforos N. Univ. of Cyprus
17:00-17:20 TuC05
Game Theory for Large-Scale Systems and Complex Networks (Invited Session)
Chair: Grammatico, Sergio Eindhoven Univ. of Tech
Co-Chair: Alpcan, Tansu The Univ. of Melbourne
Organizer: Zhu, Quanyan New York Univ
Organizer: Hayel, Yezekael Univ. of Avignon
16:00-16:20 TuC05.1
Large-Scale Strategic Games and Adversarial Machine Learning (I), pp. 4420-4426.
Alpcan, Tansu The Univ. of Melbourne
Rubinstein, Benjamin The Univ. of Melbourne
Leckie, Christopher Andrew The Univ. of Melbourne
16:20-16:40 TuC05.2
Giordano, Giulia Lund Univ
Bauso, Dario The Univ. of Sheffield
Blanchini, Franco Univ. Degli Studi Di Udine
16:40-17:00 TuC05.3
Convergence of Approximate Best-Response Dynamics in Interference Games, pp. 4433-4438.
Bistritz, Ilai Tel-Aviv Univ
Leshem, Amir Bar-Ilan Univ
17:00-17:20 TuC05.4
Ahmadyan, Seyed Nematollah Univ. of Illinois at Urbana-Champaign
Etesami, Seyed Rasoul Univ. of Illinois at Urbana-Champaign
Poor, H. Vincent Princeton Univ
17:20-17:40 TuC05.5
Aggregative Control of Large Populations of Noncooperative Agents, pp. 4445-4450.
Grammatico, Sergio Eindhoven Univ. of Tech
17:40-18:00 TuC05.6
Conformity versus Manipulation in Reputation Systems (I), pp. 4451-4456.
Etesami, Seyed Rasoul Univ. of Illinois at Urbana-Champaign
Bolouki, Sadegh Univ. of Illinois, Urbana-Champaign
Nedich, Angelia Arizona State Univ
Basar, Tamer Univ. of Illinois, Urbana-Champaign
17:00-17:20 TuC06
Optimal Control VI (Regular Session)
Chair: Fujimoto, Kenji Kyoto Univ
Co-Chair: Shvartsman, Ilya Penn State Harrisburg
16:00-16:20 TuC06.1
Frison, Gianluca Tech. Univ. of Denmark
Kouzoupis, Dimitris Univ. of Freiburg
Jorgensen, John Baggerp Tech. Univ. of Denmark
Diehl, Moritz Univ. of Freiburg
16:20-16:40 TuC06.2
Using Optimal Control to Obtain Maximum Displacement Gait for Purcell’s Three-Link Swimmer, pp. 4463-4468.
Wiezel, Oren Tech. Israel Institute for Tech
Or, Yizhar Tech. - Israel Inst. of Tech
16:40-17:00 TuC06.3
A Study on Robust Nonlinear Optimal Control for Parameter Variation, pp. 4469-4473.
Okura, Yuki Kyoto Univ
Fujimoto, Kenji Kyoto Univ
17:00-17:20 TuC06.4
Optimal Control for Mean-Field System: Discrete-Time Case, pp. 4474-4480.
Zhang, Huanshui Shandong Univ
Qi, Qingyuan Shandong Univ
17:20-17:40 TuC06.5
Linear Programming Formulation of a Discrete Time Infinite Horizon Optimal Control Problem with Time Discounting Criterion, pp. 4481-4485.
Gaitsgory, Vladimir Macquarie Univ
Parkinson, Alex Macquarie Univ
Shvartsman, Ilya Penn State Harrisburg
17:40-18:00 TuC06.6
Tie, Lin Beihang Univ. (Beijing Univ. of Aeronautics and Astronautics)
17:00-17:20 TuC07
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<td>TuC07.1</td>
<td>A Stochastic Proximal Point Algorithm for Total Variation Regularization Over Large Scale Graphs (I), pp. 4490-4495.</td>
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<tr>
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<td>TuC07.3</td>
<td>A Dynamical Systems Framework for Stochastic Iterative Optimization (I), pp. 4504-4509.</td>
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<td>On the Analysis of Reflected Gradient and Splitting Methods for Monotone Stochastic Variational Inequality Problems (I), pp. 4510-4515.</td>
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<td>An Online Primal-Dual Method for Discounted Markovian Decision Process (I), pp. 4516-4521.</td>
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<td>Tracking Capability of Stochastic Gradient Algorithm with Constant Gain (I), pp. 4522-4527.</td>
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<td>Stochastic Systems III (Regular Session)</td>
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<td>Mean Field Games for Stochastic Growth with Relative Consumption, pp. 4528-4533.</td>
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<td>Explicit Solutions of One-Dimensional, First-Order, Stationary Mean-Field Games with Congestion, pp. 4534-4539.</td>
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<td>TuC09.1</td>
<td>A Joint Sparse Clustering and Classification Approach with Applications to Hospitalization Prediction, pp. 4566-4571.</td>
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<td>Learning to Control Partial Differential Equations: Regularized Fitted Q-Iteration Approach, pp. 4578-4585.</td>
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<td>On the Geometry of Message Passing Algorithms for Gaussian Reciprocal Processes, pp. 4572-4577.</td>
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<td>Controller Synthesis for Stochastic Systems with Persistent Noise, pp. 4546-4551.</td>
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<td>Adiabatic Elimination for Open Quantum Systems with Effective Lindblad Master Equations, pp. 4559-4565.</td>
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<td>TuC09.7</td>
<td>Tracking Capability of Stochastic Gradient Algorithm with Constant Gain (I), pp. 4522-4527.</td>
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<td>TuC09.8</td>
<td>A Joint Sparse Clustering and Classification Approach with Applications to Hospitalization Prediction, pp. 4566-4571.</td>
</tr>
</tbody>
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**Chair:** Nedich, Angelia  
*Univ. of Illinois, Urbana-Champaign*

**Co-Chair:** Yousefian, Farzad  
*Pennsylvania State Univ*

**Organizer:** Nedich, Angelia  
*Arizona State Univ*

**Organizer:** Yousefian, Farzad  
*Pennsylvania State Univ*

**Organizer:** Shanbhag, Uday V.  
*Pennsylvania State Univ*

**Co-Chair:** Ahmadi, Mohamadreza  
*Univ. of Oxford*

**Chair:** Carli, Francesca Paola  
*Univ. of Cambridge*

**Co-Chair:** Farahmand, Amir-massoud  
*Mitsubishi Electric Res. Labs (MERL)*

**Chair:** Nurdin, Hendra I  
*Univ. of Oxford*

**Chair:** Nurdin, Hendra I  
*UNSW Australia*

**Chair:** Xu, Tingting  
*Boston Univ*

**Chair:** Brisimi, Theodora  
*Boston Univ*

**Chair:** Wang, Tingting  
*Boston Univ*

**Chair:** Dai, Wuyang  
*Adobe Systems*

**Chair:** Paschalidis, Ioannis Ch.  
*Boston Univ*

**Chair:** Carli, Francesca Paola  
*Univ. of Cambridge*
Nikovski, Daniel  
Mitsubishi Electric Res. Labs

17:00-17:20  TuC09.4
Active Learning Based Requirement Mining for Cyber-Physical Systems, pp. 4586-4593.
Chen, Gang  
Univ. of California, Davis
Sabato, Zachary  
Department of Mechanical and Aerospace Engineering, UC Davis
Kong, Zhaodan  
Univ. of California, Davis

17:20-17:40  TuC09.5
Machine Learning Meets Kalman Filtering, pp. 4594-4599.
Carron, Andrea  
Univ. of Padova
Todescato, Marco  
Univ. of Padova
Carli, Ruggero  
Univ. of Padova
Schenato, Luca  
Univ. of Padova
Pillonetto, Gianluigi  
Univ. of Padova

17:40-18:00  TuC09.6
Characterization of L1-Norm Statistic for Anomaly Detection in Erdos-Renyi Graphs, pp. 4600-4605.
Kadavankandy, Arun  
INRIA
Cottatellucci, Laura  
Eurecom
Avrachenkov, Konstantin E.  
INRIA Sophia Antipolis

TuC10
Dynamic Network Identification (Invited Session)
Chair: Dankers, Arne  
Univ. of Calgary
Co-Chair: Van den Hof, Paul M.J.  
Eindhoven Univ. of Tech
Organizer: Dankers, Arne  
Univ. of Calgary
Organizer: Van den Hof, Paul M.J.  
Eindhoven Univ. of Tech

16:00-16:20  TuC10.1
Weerts, Harm H. M.  
Eindhoven Univ. of Tech
Van den Hof, Paul M.J.  
Eindhoven Univ. of Tech
Dankers, Arne  
Univ. of Calgary

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Everitt, Niklas  
KTH
Bottegal, Giulio  
Ku Leuven
Rojas, Cristian R.  
KTH Royal Inst. of Tech
Hjalmarsson, Håkan  
KTH Royal Inst. of Tech

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Matreass, Donatello  
Univ. of Tennessee, Knoxville

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Dhingra, Neil K  
Univ. of Minnesota
Jovanovic, Mihailo  
Univ. of Minnesota

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Manchester, Ian R.  
The Univ. of Sydney

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Kyoto Univ
Sugie, Toshiharu  
Kyoto Univ

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Chair: Schoellig, Angela P  
Univ. of Toronto
Co-Chair: Kober, Jens  
TU Delft
Organizer: Schoellig, Angela P  
Univ. of Toronto
Organizer: Trimpe, Sebastian  
Max Planck Inst. for Intelligent Systems
Organizer: Zeilinger, Melanie N.  
ETH Zurich

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Schoellig, Angela P  
Univ. of Toronto

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Pillonetto, Gianluigi  
Univ. of Padova
Chiuso, Alessandro  
Univ. Di Padova
Ljung, Lennart  
Linkoping Univ

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UC Berkeley
Akametalu, Anayo K.  
UC Berkeley
Tomlin, Claire J.  
UC Berkeley
Laine, Forrest J.  
Univ. of California, Berkeley

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Moriconi, Riccardo  
ETH Zurich
Schoellig, Angela P  
Univ. of Toronto
Krause, Andreas  
ETH Zurich

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Kober, Jens  
Delft Univ. of Tech
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Delft Univ. of Tech

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The Univ. of Tokyo
Tsumura, Koji  
The Univ. of Tokyo
Sughiyama, Yuki  
Inst. of Industrial Science, the Univ. of Tokyo
TuC12  
**Algebraic and Geometric Methods II (Regular Session)**

**Chair:** Violet, Grey  
**Co-Chair:** van der Schaft, Arjan  
**Univ. of Konstanz**  
**Univ. of Groningen**

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Johns Hopkins Univ  
Frangi, Alessio  
Univ. Nacional Autónoma De Mexico (UNAM)

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Altafini, Claudio  
Linkoping Univ

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**TuC12.4**  
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Raytheon  
Sanyal, Amit  
Syracuse Univ  
Butcher, Eric  
Univ. of Arizona

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**TuC12.5**  
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Violet, Grey  
Univ. of Konstanz

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**Chair:** Sundaram, Shreyas  
**Co-Chair:** Marconi, Lorenzo  
**Purdue Univ**  
**Univ. of Bologna**

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Galeani, Sergio  
Univ. Di Roma Tor Vergata  
Sassano, Mario  
Univ. of Rome, Tor Vergata

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Chakrabarty, Ankush  
Harvard Univ  
Ayoub, Raid  
Strategic CAD Labs, Intel Corp  
Buzzard, Gregory T.  
Purdue Univ  
Sundaram, Shreyas  
Purdue Univ

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Pin, Gilberto  
Electrolux Professional S.p.A. (Italy)  
Serrani, Andrea  
The Ohio State Univ  
Parisini, Thomas  
Imperial Coll. & Univ. of Trieste

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Mahony, Robert  
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Univ. of Western Ontario  
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Lakehead Univ

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**Chair:** Cai, Kai  
**Co-Chair:** Hill, Rick  
**Osaka City Univ**  
**Univ. of Detroit Mercy**

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Osaka City Univ

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Lopes, Gabriel A. D.  
Delft Univ. of Tech

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Univ. De Buenos Aires  
Braberman, Victor  
Univ. De Buenos Aires  
D'Ippolito, Nicolás  
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Univ. De Buenos Aires

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- **Chair:** Du, Nan  
- **Co-Chair:** Hu, Hesuan

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- **Chair:** Fridman, Emilia  
- **Co-Chair:** Dubljevic, Stevan

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- **Zheng, Jun**  
- **Zhu, Guochuan**

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- **Tong, Xin**  
- **Zhao, Xiaowei**

#### TuC15.3


- **Hansen, Scott**  
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- **Rhein, Sonke**  
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- **Xu, Qingqing**  
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- **Selivanov, Anton**  
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- **Chair:** Tarraff, Danielle C.  
- **Co-Chair:** Ling, Qiang

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- **El Chamie, Mahmoud**  
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- **Chair:** Xu, Xiangru  
- **Co-Chair:** Sznaier, Mario

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- **Li, Feng**  
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Sheckells, Matthew Johns Hopkins Univ
Kobilarov, Marin Johns Hopkins Univ

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Chair: Novara, Carlo Pol. Di Torino
Co-Chair: Giarré, Laura Univ. Di Palermo
16:00-16:20 TuC21.1
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Goodwin, Graham C. Univ. of Newcastle
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King, Bruce, R John Hunter Childrens Hospital and Hunter Medical Res. Inst
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Argenti, Fabrizio Univ. of Florence
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Alanwar, Amr Univ. of California, Los Angeles
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Srivastava, Mani UCLA
Tabuada, Paulo Univ. of California at Los Angeles
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Johansson, Karl H. Royal Inst. of Tech
Oechtering, Tobias J. Royal Inst. of Tech. (KTH)
Papadimitratos, Panos KTH Royal Institute of Tech
Sandberg, Henrik KTH Royal Inst. of Tech
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Gupta, Vijay Univ. of Notre Dame

Park, Gyunghoon Seoul National Univ
Shim, Hyungbo Seoul National Univ
Lee, Chanhwa Seoul National Univ
Eun, Yongsoo DGIST
Johansson, Karl H. Royal Inst. of Tech

TuC23 Ironwood 5
An Overview of Compressed Sensing (Tutorial Session)
Chair: Vidyasagar, Mathukumalli The Univ. of Texas at Dallas
Organizer: Vidyasagar, Mathukumalli The Univ. of Texas at Dallas

16:00-18:00 TuC23.1
A Tutorial Introduction to Compressed Sensing, pp. 5091-5104.
Vidyasagar, Mathukumalli The Univ. of Texas at Dallas
## Technical Program for Wednesday December 14, 2016

### WeP1 Ironwood 4

**Future Directions in Control: A Look Backwards and Forwards**  
(Plenary Session)

Chair: Valcher, Maria Elena  
Univ. Di Padova  
Co-Chair: Doyle III, Francis J.  
Harvard Univ

**Future Directions in Control: A Look Backwards and Forwards**

Murray, Richard M.  
California Inst. of Tech.

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California Inst. of Tech. |

### WeA01 Starvine 1

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

Chair: Franze', Giuseppe  
Univ. Della Calabria  
Co-Chair: Islam, Shafiqul  
Carleton Univ

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Liu, Peter X.  
Carleton Univ |
| 10:20-10:40| WeA01.2 | Optimal Control/Observation Points Problem and Separation Principle of Weakly Controlled Large-Scaled Multi-Agent Systems, pp. 5110-5115. | Tsumura, Koji  
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Kawasaki, Issei  
The Univ. of Tokyo |
| 10:40-11:00| WeA01.3 | H2-Clustering of Closed-Loop Consensus Networks under Generalized LQR Designs, pp. 5116-5121. | Xue, Nan  
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North Carolina State Univ |
| 11:00-11:20| WeA01.4 | Dynamically Event-Triggered State Estimation of Hidden Markov Models through a Lossy Communication Channel, pp. 5122-5127. | Huang, Jiarao  
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Chen, Tongwen  
Univ. of Alberta |
| 11:20-11:40| WeA01.5 | A Leader-Follower Architecture for Load Frequency Control Purposes against Cyber Attacks in Power Grids - Part I, pp. 5128-5133. | Franze', Giuseppe  
Tedesco, Francesco  
Casavola, Alessandro  
Univ. Della Calabria |

### WeA02 Starvine 2

**Autonomous Robots I**  
(Regular Session)

Chair: Jayawardhana, Bayu  
Univ. of Groningen

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| 10:00-10:20| WeA02   | Distributed Scaling Control of Rigid Formations, pp. 5140-5145.     | Garcia de Marina, Hector  
Jayawardhana, Bayu  
Cao, Ming  
Univ. of Groningen |
| 10:20-10:40| WeA02.2 | Harmonic Potential-Based Communication-Aware Navigation of Mobile Agents in Cluttered Spaces, pp. 5146-5151. | Afzal, Waqas  
King Fahd Univ. of Petroleum and Minerals  
Masoud, Ahamd A.  
KFUPM |
| 11:00-11:20| WeA02.3 | A Dynamical Systems Approach to Obstacle Navigation for a Series-Elastic Hexapod Robot, pp. 5152-5157. | Travers, Matthew  
Ansari, Alexander  
Choset, Howie  
Carnegie Mellon Univ |
| 11:20-11:40| WeA02.4 | Collision Avoidance Laws for Objects with Arbitrary Shapes, pp. 5158-5164. | Sunkara, Vishwamithra Reddy  
Chakravarthy, Animesh  
Wichita State Univ |
| 11:40-12:00| WeA02.5 | Shape-Based Compliant Control with Variable Coordination Centralization on a Snake Robot, pp. 5165-5170. | Whitman, Julian  
Ruscelli, Francesco  
Travers, Matthew  
Choset, Howie  
Carnegie Mellon Univ |
| 12:00-12:20| WeA02.6 | Intent Aware Shared Control in Off-Nominal Situations, pp. 5171-5176. | Maske, Harshal  
Chowdhary, Girish  
Pagilla, Prabhakar R.  
Univ. of Illinois Urbana Champaign  
Texas A&M Univ |

### WeA03 Starvine 3

**Control of Networks II**  
(Regular Session)

Chair: Touri, Behrouz  
Univ. of Colorado Boulder  
Co-Chair: Yucelen, Tansel  
Missouri Univ. of Science and Tech

<table>
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<th>Session</th>
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</thead>
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| 10:00-10:20| WeA03.1 | On Control of Multiagent Formations through Local Interactions, pp. 5177-5182. | Tran, Dzung  
Yucelen, Tansel  
Univ. of South Florida  
Univ. of South Florida |
| 10:20-10:40| WeA03.2 | Resilient and Decentralized Control of Multi-Level Cooperative Mobile Networks to Maintain Connectivity under Adversarial Environment, pp. 5183-5188. | Chen, Juntao  
Zhu, Quanyan  
New York Univ  
New York Univ |
| 10:40-11:00| WeA03.3 | Multi-Robot Reinforcement Learning for Cooperative Control of Non-Markovian Dynamic Systems, pp. 5189-5194. | Kim, Youngwoo  
Kwon, Juhee  
Sung, Hyo-Sung  
Korea Univ.  
Korea Univ.  
Korea Univ. |

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**Notes:**

- "Future Directions in Control: A Look Backwards and Forwards" by Murray, Richard M.  
California Inst. of Tech.
- "Output Feedback Impedance Reflection Based Bilateral Shared Autonomous System without Input Force Measurement" by Islam, Shafiqul  
Liu, Peter X.  
Carleton Univ
- "Optimal Control/Observation Points Problem and Separation Principle of Weakly Controlled Large-Scaled Multi-Agent Systems" by Tsumura, Koji  
Kawasaki, Issei  
The Univ. of Tokyo
- "H2-Clustering of Closed-Loop Consensus Networks under Generalized LQR Designs" by Xue, Nan  
Chakraborty, Aranya  
North Carolina State Univ
- "Dynamically Event-Triggered State Estimation of Hidden Markov Models through a Lossy Communication Channel" by Huang, Jiarao  
Shi, Dawei  
Chen, Tongwen  
Univ. of Alberta
- "A Leader-Follower Architecture for Load Frequency Control Purposes against Cyber Attacks in Power Grids - Part I" by Franze', Giuseppe  
Tedesco, Francesco  
Casavola, Alessandro  
Univ. Della Calabria
Finite Model Approximations and Asymptotic Optimality of Quantized Policies in Decentralized Stochastic Control, pp. 5189-5194.

Saldi, Naci
Univ. of Illinois at Urbana-Champaign
Yuksel, Serdar
Queen’s Univ
Linder, Tamas
Queen’s Univ

11:00-11:20 WeA03.4

O’Rourke, Sean
Univ. of Colorado Boulder
Touri, Behrouz
Univ. of Colorado Boulder

11:20-11:40 WeA03.5
Synchronization for Heterogeneous Time-Varying Networks with Non-Introspective, Non-Minimum-Phase Agents in the Presence of External Disturbances with Known Frequencies, pp. 5201-5206.

Zhang, Meirong
Washington State Univ
Saberi, Ali
Washington State Univ
Stoorvogel, Anton A.
Univ. of Twente

11:40-12:00 WeA03.6
Towards a Complete Characterization of Vulnerability of Networked Synchronization Processes, pp. 5207-5212.

Dhal, Rahul
EPIS Inc
Laferriere, Gerardo A.
Portland State Univ
coughman, John
Portland State Univ

10:00-10:20 WeA04.1
Distributed Sliding Mode Control for Multi-Vehicle Systems with Positive Definite Topologies (I), pp. 5213-5219.

Wu, Yujia
Univ. of California, Berkeley
Li, Shengbo
Tsinghua Univ
Zheng, Yang
Univ. of Oxford
Hedrick, J. Karl
Univ. of California at Berkeley

10:20-10:40 WeA04.2
Distributed Minimum Weighted Norm Solution to Linear Equations Associated with Weighted Inner Product, pp. 5220-5225.

Wang, Peng
Univ. of California, Riverside
Ren, Wei
Univ. of California, Riverside
Duan, Zhisheng
Peking Univ

10:40-11:00 WeA04.3
Distributed Model Predictive Control of Linear Discrete-Time Systems with Coupled Constraints, pp. 5226-5231.

Wang, Zheming
National Univ. of Singapore
Ong, Chong-Jin
National Univ. of Singapore
Hong, Geok Soon
Associate Professor

11:00-11:20 WeA04.4
Distributed Decoupling of Linear Multiagent Systems with Interconnected Nonlinear Uncertainties, pp. 5232-5237.

Resaei, Vahid
Univ. of Denver
Stefanovic, Margareta
Univ. of Denver

11:20-11:40 WeA04.5
Controller Synthesis for Distributed Systems Over Undirected Graphs

11:40-12:00 WeA04.6
Distributed Formation Control of Multiple Unmanned Aerial Vehicles Over Time-Varying Graphs Using Population Games, pp. 5245-5250.

Barreiro-Gomez, Julian
Univ. De Los Andes - Univ. Pol. De Catalunya
Mas, Ignacio
CONICET
Ocampo-Martinez, Carlos
Tech. Univ. of Catalonia (UPC)
Sánchez-Peña, Ricardo S.
Buenos Aires Inst. of Tech. (ITBA)
Quijano, Nicanor
Univ. De Los Andes

10:00-10:20 WeA05.1
New Results on the Solution of the Positive Consensus Problem (I), pp. 5251-5256.

Valcher, Maria Elena
Univ. Di Padova
Zorzan, Irene
Univ. of Padova

10:20-10:40 WeA05.2
An Infinitesimal Characterization of Nonlinear Contracting Interference Functions (I), pp. 5257-5262.

Ugo Abara, Precious
Tech. Univ. of Munich
Ticozzi, Francesco
Univ. Di Padova
Altafini, Claudio
Linkoping Univ

10:40-11:00 WeA05.3

Colombino, Marcello
ETH Zurich
Dhingra, Neil K
Univ. of Minnesota
Jovanovic, Mihailo
Univ. of Minnesota
Smith, Roy S.
ETH Zurich

11:00-11:20 WeA05.4
Diagonal Lyapunov Functions for Positive Linear Time-Varying Systems (I), pp. 5269-5274.

Khong, Sei Zhen
Univ. of Minnesota
Rantzer, Anders
Lund Univ

11:20-11:40 WeA05.5
H-Infinity Optimal Control for Infinite-Dimensional Systems with Strictly Negative Generator (I), pp. 5275-5280.

Lidström, Carolina
Lund Univ
Rantzer, Anders
Lund Univ
Morris, Kirsten
Univ. of Waterloo

11:40-12:00 WeA05.6
Exchange Economics As an Alternative to Distributed Optimization (I), pp. 5281-5285.

Rantzer, Anders
Lund Univ

11:40-12:00 WeA06
Game Theory I (Regular Session)

Chair: Nayyar, Ashutosh
Univ. of Southern California

11:40-12:00 WeA06.1
Controller Synthesis for Distributed Systems Over Undirected Graphs

Chair: Nayyar, Ashutosh
Univ. of Southern California

**Co-Chair: Kar, Soummya** Carnegie Mellon Univ.

10:00-10:20 WeA06.1

*To Observe or Not to Observe: Queuing Game Framework for Urban Parking*, pp. 5286-5291.

Ratliff, Lillian J. Univ. of Washington
Dowling, Chase Univ. of Washington
Mazumdar, Eric UC Berkeley
Zhang, Baosen Univ. of Washington

10:20-10:40 WeA06.2


Eksin, Ceyhun Georgia Inst. of Tech
Swenson, Brian Carnegie Mellon Univ
Kar, Soummya Carnegie Mellon Univ
Ribeiro, Alejandro Univ. of Pennsylvania

10:40-11:00 WeA06.3

*Stochastic Payoff-Based Learning in Multi-Agent Systems Modeled by Means of Potential Games*, pp. 5298-5303.

Tatarenko, Tatiana TU Darmstadt

11:00-11:20 WeA06.4


Su, Zhou Delft Univ. of Tech
Baldi, Simone Delft Univ. of Tech
De Schutter, Bart Delft Univ. of Tech

11:20-11:40 WeA06.5

*Finite Stage Asymmetric Repeated Games: Both Players’ Viewpoints*, pp. 5310-5315.

Li, Lichun Georgia Inst. of Tech
Feron, Eric Georgia Tech
Shamma, Jeff S. KAUST

11:40-12:00 WeA06.6


Navabi, Shiva Univ. of Southern California
Nayyar, Ashutosh Univ. of Southern California

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**WeA07**

Optimization I (Regular Session)

Chair: Peet, Matthew M. Arizona State Univ
Co-Chair: Wynn, Andrew Imperial Coll. London

10:00-10:20 WeA07.1

*Multi-Objective Optimization of Tracking/Impedance Control for a Prosthetic Leg with Energy Regeneration*, pp. 5322-5327.

Khademi, Ghohamreza Cleveland State Univ
Richter, Hanz Cleveland State Univ
Simon, Dan Cleveland State Univ

10:20-10:40 WeA07.2

*A New Method to Compute Generalized Inverses for Control Allocation*, pp. 5328-5334.

Kirchengast, Martin Graz Univ. of Tech
Steinberger, Martin Graz Univ. of Tech
Horn, Martin Graz Univ. of Tech

10:40-11:00 WeA07.3


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**WeA08**

Stochastic Systems IV (Regular Session)

Chair: Li, Jian Texas A&M Univ
Co-Chair: Master, Neal Stanford Univ

10:00-10:20 WeA08.1

*Infinite Server Queueing Networks with Deadline Based Routing*, pp. 5346-5353.

Master, Neal Stanford Univ
Bambos, Nicholas Stanford Univ

10:20-10:40 WeA08.2


Jagtap, Pushpak Tech. Univ. of Munich
Zamani, Majid Tech. Univ. of Munich

10:40-11:00 WeA08.3


Rajpurohit, Tanmay Georgia Inst. of Tech
Haddad, Wassim M. Georgia Inst. of Tech

11:00-11:20 WeA08.4


Zasadzinski, Michel Univ. De Lorraine & CRAN
Souley Ali, Harouna Univ. De Lorraine, CRAN UMR

11:20-11:40 WeA08.5

*Optimal Resource Capacity Management in Stochastic Loss Network Systems with Applications in Clouds and Data Centers*, pp. 5384-5389.


Optimal Control of Parallel Buffers by Using Output Feedback Based on Practical Observers, pp. 5422-5427.

Observer-Based Control for Linear Sampled-Data Systems: An Impulsive System Approach, pp. 5428-5433.

Filtering (Regular Session)

Chair: Zaccarian, Luca
Co-Chair: Efimov, Denis


Optimal Control of Parallel Buffers by Using Output Feedback Based on Practical Observers, pp. 5422-5427.

Observer-Based Control for Linear Sampled-Data Systems: An Impulsive System Approach, pp. 5428-5433.

Filtering (Regular Session)

Chair: Taghvaei, Amirhossein
Co-Chair: Berntorp, Karl
Adapting Strategies to Dynamic Environments in Controllable Stackelberg Security Games, pp. 5484-5489.


Repetitive Control of Non-Minimum Phase Systems Along B-Spline Trajectories, pp. 5496-5501.

Design and Modeling Aspects in Multivariable Iterative Learning Control, pp. 5502-5507.

New Stability Results for Switched Discrete-Time Systems with Application to Consensus Problems, pp. 5508-5514.

Discretization of Asymptotically Stable Homogeneous Systems by Explicit and Implicit Euler Methods, pp. 5545-5550.

On Almost Lyapunov Functions for Non-Vanishing Vector Fields, pp. 5557-5562.


Extremal Storage Functions and Minimal Realizations of Discrete-Time Linear Switching Systems, pp. 5533-5538.


Herty, Michael
RWTH Aachen Univ
Yu, Hui
RWTH Aachen Univ

Information Theory and Control (Regular Session)
Chair: Karaman, Sertac
Massachusetts Inst. of Tech
Co-Chair: Fox, Roy
Hebrew Univ

Information-Based Active SLAM Via Topological Feature Graphs, pp. 5583-5590.

Mu, Beipeng
MIT
Giamou, Matthew
MIT
Pauli, Liam
MIT
Agha-mohammadi, Ali-akbar
Texas A&M Univ
Leonard, John J.
Massachusetts Inst. of Tech
How, Jonathan P.
MIT


Abraham, George
Swarthmore Coll
Jagaramu, Aditya
Univ. of Delaware
Cannon, LaMont
Univ. of Delaware
Zurakowski, Ryan
Univ. of Delaware


Fox, Roy
Hebrew Univ
Tishby, Naftali
Hebrew Uni

Minimum-Information LQG Control — Part II: Retentive Controllers, pp. 5603-5609.

Fox, Roy
Hebrew Univ
Tishby, Naftali
Hebrew Uni

Control with Actuation Anticipation, pp. 5617-5622.

Hariyoshi, Ena
UC Berkeley
Ranade, Gireeja
Microsoft Res
Sahai, Anant
UC Berkeley

Estimation and Control of PDE Systems (Invited Session)
Chair: Demetriou, Michael A.
Worcester Pol. Inst
Co-Chair: Le Gorrec, Yann
Ensmm, Femto-St / As2m
Organizer: Demetriou, Michael A.
Worcester Pol. Inst
Organizer: Fahroo, Fariba
DARPA

Organizer: Le Gorrec, Yann
Ensmm, Femto-St / As2m

Backstepping PDE-Based Adaptive Observer for a Single Particle Model of Lithium-Ion Batteries (I), pp. 5623-5628.

Ascencio, Pedro
Imperial Coll. London
Astolfi, Alessandro
Imperial Coll. & Univ. of Rome
Parisini, Thomas
Imperial Coll. & Univ. of Trieste

Robustness to Diffusion of Prediction-Based Control for Convection Processes (I), pp. 5629-5634.

Bresch-Pietri, Delphine
CNRS, GIPSA-Lab
Krstic, Miroslav
Univ. of California, San Diego

A Constructive Solution to the Sub-Optimal Hankel Norm Approximation Problem for a Class of Infinite-Dimensional Systems (I), pp. 5643-5648.

Demetriou, Michael A.
Worcester Pol. Inst

Dancorrel, Claude
Univ. of Groningen

Vibration Regulation of a Flexible Hose for Aerial Refueling System, pp. 5649-5653.

Zhang, Shuang
Univ. of Electronic Science and Tech. of China
He, Wei
Univ. of Science and Tech. Beijing
Zou, Mingfo
Univ. of Electronic Science and Tech. of China
He, Xiuyu
School of Automation and Electrical Engineering, Univ. of S


TRINH, Ngoc-Tu
Univ. of Lyon, Univ. Lyon 1, Lab. LAGEP
Andrieu, Vincent
Univ. De Lyon
Xu, Chengzhong
Univ. Claude Bernard - Lyon1

Feedback Linearization (Regular Session)
Chair: Paliotta, Claudio
Norwegian Univ. of Science and Tech. - NTNU
Co-Chair: Schuster, Eugenio
Lehigh Univ

Trajectory Tracking of Under-Actuated Marine Vehicles, pp. 5660-5667.

Paliotta, Claudio
Norwegian Univ. of Science and Tech. - NTNU
Lefeber, Erjen
Eindhoven Univ. of Tech
Pettersen, Kristin Y.
Norwegian Univ. of Science and Tech
Schuster, Eugenio
Lehigh Univ
10:40-11:00
WeA16.3
Kim, Kyunam
UC Berkeley
Agogino, Alice
Univ. of California at Berkeley
11:00-11:20
WeA16.4
Pre-Action and Stable Inversion Based Precise Tracking for Non-Minimum Phase System, pp. 5682-5687.
Zhang, Youling
Coll. of Control Science and Engineering, Zhejiang Univ
Zhu, Qiuguo
Coll. of Control Science and Engineering, Zhejiang Univ
Xiong, Rong
Zhejiang Univ
11:20-11:40
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Sassano, Mario
Univ. of Rome, Tor Vergata
Astolfi, Alessandro
Imperial Coll. & Univ. of Rome
11:40-12:00
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Pant, Yash Vardhan
Univ. of Pennsylvania
Abbas, Houssam
Univ. of Pennsylvania
Mangharam, Rahul
Univ. of Pennsylvania
10:00-10:20
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Smith, Stanley W.
Univ. of Michigan, Ann Arbor
Nilsson, Petter
Univ. of Michigan
Ozay, Necmiye
Univ. of Michigan
10:20-10:40
WeA17.2
Robotic Swarm Control from Spatio-Temporal Specifications, pp. 5708-5713.
Haghighi, Iman
Boston Univ
Sadraddini, Sadra
Boston Univ
Belta, Calin
Boston Univ
10:40-11:00
WeA17.3
Tumova, Jana
Royal Inst. of Tech
Dimarogonas, Dimos V.
Royal Inst. of Tech
11:00-11:20
WeA17.4
Dallal, Eric
Univ. of California in Los Angeles
Tabuada, Paulo
Univ. of California at Los Angeles
11:20-11:40
WeA17.5
Symbolic Control of Systems with Dead Times Using Symbolic Smith Predictors, pp. 5726-5731.
Mizoguchi, Masashi
Osaka Univ
11:40-12:00
WeA17.6
Feasibility Envelopes for Metric Temporal Logic Specifications, pp. 5732-5737.
Sadraddini, Sadra
Boston Univ
Belta, Calin
Boston Univ
10:00-10:20
WeA18
Model and Controller Reduction (Regular Session)
Chair: Scherpen, Jacquelen M.A.
Univ. of Groningen
Co-Chair: Sato, Kazuhiro
Kyoto Univ
10:20-10:40
WeA18.1
Eigenstructure Analysis from Symmetrical Graph Motives with Application to Aggregated Controller Design, pp. 5744-5749.
Ishizaki, Takayuki
Tokyo Inst. of Tech
Ku, Risong
Tokyo Inst. of Tech
Imura, Jun-ichi
Tokyo Inst. of Tech
10:40-11:00
WeA18.3
Nonlinear Model Reduction by Deep Autoencoder of Noise Response Data, pp. 5750-5755.
Kashima, Kenji
Kyoto Univ
11:00-11:20
WeA18.4
Sato, Hiroyuki
Tokyo Univ. of Science
Sato, Kazuhiro
Kyoto Univ
11:20-11:40
WeA18.5
A New H^2 Optimal Model Reduction Method Based on Riemannian Conjugate Gradient Method, pp. 5762-5768.
Bachnas, Ahmad Alrianes
TU Eindhoven
Yan, Xiaowei
Eindhoven Univ. of Tech
Weiland, Siep
Eindhoven Univ. of Tech
11:40-12:00
WeA18.6
Bachnas, Ahmad Alrianes
TU Eindhoven
Yan, Xiaowei
Eindhoven Univ. of Tech
Weiland, Siep
Eindhoven Univ. of Tech
10:00-10:20
WeA19
Smart Grid II (Regular Session)
Chair: Grammatico, Sergio
Eindhoven Univ. of Tech
Co-Chair: Bolognani, Saverio
ETH
10:20-10:40
WeA19.1
Exponentially Convergent Decentralized Charging Control for Large Populations of Plug-In Electric Vehicles (I), pp. 5775-5780.
Grammatico, Sergio
Eindhoven Univ. of Tech
The Value of Communication in the Voltage Regulation Problem, pp. 5781-5786.

Cavraro, Guido
Univ. of Padova

Bolognani, Saverio
ETH

Carli, Ruggero
Univ. of Padova

Zampieri, Sandro
Univ. Di Padova

A Distributed Command Governor Approach for the Online Management of Reactive Power in Smart Grids with Distributed Generation, pp. 5787-5792.

Casavola, Alessandro
Univ. Della Calabria

Tedesco, Francesco
Univ. Della Calabria

VIZZA, Maurizio
UNICAL

Load Aggregation Effect in Power Grid, pp. 5793-5798.

Jonckheere, Edmond
Univ. of Southern California

Shalalfeh, Laith
Univ. of Southern California


Lu, Yueyun
The Ohio State Univ

Chang, Chin-Yao
The Ohio State Univ

Zhang, Wei
The Ohio State Univ

Marinovici, Laurentiu Dan
Pacific Northwest National Lab

Conejo, Antonio
The Ohio State Univ


Chakraborty, Pratyush
Univ. of Florida

Baeyens, Enrique
Univ. of Valladolid

Kharongnekar, Pramod P.
Univ. of Florida

Poolla, Kameshwar
Univ. of California at Berkeley


Borri, Alessandro
IASI-CNR

Palumbo, Pasquale
IASI-CNR

Singh, Abhyudai
Univ. of Delaware


Bronstein, Leo
Tech. Univ. Darmstadt

Koeppi, Heinz
Tech. Univ. Darmstadt


Vargas-Garcia, Cesar A.
Univ. of Delaware

Soltani, Mohammad
Univ. of Delaware

Singh, Abhyudai
Univ. of Delaware

A Molecular Implementation of the Least Mean Squares Estimator (I), pp. 5869-5874.

Zechner, Christoph
ETH Zuerich

Khammash, Mustafa H.
ETH Zurich

WeA22 Coppearleaf 3

Sensor Networks (Regular Session)

Chair: Akyol, Emrah  
Univ. of Illinois at Urbana-Champaign

Co-Chair: Chong, Michelle S.  
Lund Univ

10:00-10:20  WeA22.1


Li, Wenjie  
Lab. Des Signaux Et Systemes, CNRS-CentraleSupelec-Univ

Bassi, Francesca  
ESME-Sudria and L2S (UMR CNRS 8506) CNRS-CentraleSupelec-Univ

Galluccio, Laura  
Univ. Di Catania

Kieffer, Michel  
CNRS-Supelec

10:20-10:40  WeA22.2

Efficient Graph-Based Informativo Path Planning Using Cross Entropy, pp. 5894-5899.

Suh, Junghun  
Seoul National Univ

Cho, Kyunghoon  
Seoul National Univ

Oh, Songhwa  
Seoul National Univ

10:40-11:00  WeA22.3


Gao, Xiaobin  
Univ. of Illinois, Urbana-Champaign

Akyol, Emrah  
Univ. of Illinois at Urbana-Champaign

Basar, Tamer  
Univ. of Illinois, Urbana-Champaign

11:00-11:20  WeA22.4

Characterising the Vulnerability of Linear Control Systems under Sensor Attacks Using a System's Security Index, pp. 5906-5911.

Chong, Michelle S.  
Lund Univ

Kuijper, Margreta  
Univ. of Melbourne

11:20-11:40  WeA22.5

Distributed Partitioning Strategies with Visual Optimization for Camera Network Perimeter Patrolling, pp. 5912-5917.

Belgioioso, Giuseppe  
Eindhoven Univ. of Tech

Cenedese, Angelo  
Univ. of Padova

Michieletto, Giulia  
Univ. of Padova

11:40-12:00  WeA22.6

Environmental Estimation with Distributed Finite Element Agents, pp. 5918-5924.

Elwin, Matthew L.  
Northwestern Univ

Freeman, Randy  
Northwestern Univ

Lynch, Kevin M.  
Northwestern Univ

WeB01 Starvine 1

Networked Control Systems IV (Regular Session)

Chair: Hespanha, Joao P.  
Univ. of California, Santa Barbara

Co-Chair: Cenedese, Angelo  
Univ. of Padova

13:30-13:50  WeB01.1


Michieletto, Giulia  
Univ. of Padova

Cenedese, Angelo  
Univ. of Padova

Franchi, Antonio  
LAAS-CNRS

13:50-14:10  WeB01.2


Kim, Jihan  
Seoul National Univ

Park, Gyunghoon  
Seoul National Univ

Shim, Hyungbo  
Seoul National Univ

Eun, Yongsoon  
DGIST

14:10-14:30  WeB01.3

Robust Stability under Asynchronous Sensing and Control, pp. 5962-5967.

Wakaiki, Masashi  
Chiba Univ

Ogura, Masaki  
Univ. of Pennsylvania

Hespanha, Joao P.  
Univ. of California, Santa Barbara

14:30-14:50  WeB01.4

Multi-Rate Control Over AWGN Channels Via Analog Joint Source-Channel Coding, pp. 5968-5973.

Khina, Anatoly  
California Inst. of Tech

Pettersson, Gustav M.  
KTH Royal Inst. of Tech

Kostina, Victoria  
California Inst. of Tech

Hassibi, Babak  
Caltech

14:50-15:10  WeB01.5

Stability Analysis of Networked Control Systems with Direct-Feedthrough Terms: Part II - the Linear Case, pp. 5974-5979.

Heijmans, Stefan H. J.  
Eindhoven Univ. of Tech

Postoyan, Romain  
CNRS-CRAN

Noroozi, Navid  
Sheikh Bahaei Univ

Nesic, Dragan  
Univ. of Melbourne

Heemels, W.P.M.H.  
Eindhoven Univ. of Tech

15:10-15:30  WeB01.6

Conservation-Dissipation Structure of Linear Stochastic Systems, pp. 5980-5985.

Xue, Dong  
Tech. Univ. München

WeB02 Starvine 2

Autonomous Robots II (Regular Session)

Chair: Smith, Stephen L.  
Univ. of Waterloo

Co-Chair: Mitchell, Ian M.  
Univ. of British Columbia

16:30-16:50  WeB02.1


Etemad, Saeid  
Univ. of Toronto

Ok, Gunwon  
Seoul National Univ

16:50-17:10  WeB02.2

Towards a Fully Autonomous and Collaborative Urban Scout, pp. 5992-5997.

Lahijanian, Farzad  
Univ. of Michigan

Yazdani, Soheil  
UCLA

17:10-17:30  WeB02.3

Improving Human-Robot Interaction in the Home by Integrating Exemplar-Based Learning and Task-based Learning, pp. 5998-6003.

Huang, Wei-Chi  
Technical Univ. Munich

Wang, Wen  
Technical Univ. Munich

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<td>Shen, Chao Univ. of Victoria, Shi, Yang Univ. of Victoria, Buckham, Brad Univ. of Victoria</td>
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<td>Orthogonal Vector Field-Based Control for a Multi-Robot System Circumnavigating a Moving Target in 3D, pp. 6004-6009.</td>
<td>Miao, Zhiqiang Hunan Univ, Thakur, Divya Air Force Res. Lab, Erwin, Richard Scott Air Force Res. Lab, Pierre, Jean Air Force Res. Lab, Wang, Yaonan Hunan Univ, Fierro, Rafael Univ. of New Mexico</td>
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<td>On Efficient Computation of Shortest Dubins Paths through Three Consecutive Points, pp. 6010-6015.</td>
<td>Sadeghi Yengejeh, Armin Univ. of Waterloo, Smith, Stephen L. Univ. of Waterloo</td>
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<td>Traff, Neil Univ. of British Columbia, Mitchell, Ian M. Univ. of British Columbia</td>
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<td>Watkins, Benjamin Univ. of Kaiserslautern, Berkel, Felix Univ. of Kaiserslautern, Al-Areqi, Sanad Univ. of Kaiserslautern, Liu, Steven Univ. of Kaiserslautern,</td>
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Kulcsar, Balazs Chalmers Univ. of Tech
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Wang, Qi Peking Univ
Wang, Jinzhi Peking Univ
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Hou, Yun The Australian National Univ
Yu, Changbin (Brad) The Australian National Univ
Qin, Jiahui Univ. of Science and Tech. of China

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(Invited Session)
Chair: Parise, Francesca ETH Zurich
Co-Chair: Le Ny, Jerome Pol. Montreal
Organizer: Parise, Francesca ETH Zurich
Organizer: Nedich, Angelia Arizona State Univ
Organizer: Bauso, Dario The Univ. of Sheffield
Organizer: Lygeros, John ETH Zurich
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Salhab, Rabih Ec. Pol. De Montreal
Malhame, Roland P. Ec. Pol. De Montreal
Le Ny, Jerome Pol. Montreal
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Caines, Peter E. McGill Univ
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Salehisadaghian, Farzad Univ. of Toronto
Pavel, Lacra Univ. of Toronto
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Shalaby, Yasmin Univ. of Colorado at Boulder
Marden, Jason R. Univ. of California, Santa Barbara
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Lygeros, John ETH Zurich
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Mabrok, Mohamed King Abdullah Univ. of Science
and Tech. (KAUST)
Shamma, Jeff S. KAUST

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Chair: Ratliff, Lillian J. Univ. of Washington
Co-Chair: Li, Na Harvard Univ
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Development of a Visibility Augmented Proportional Navigation
Tardioli, Luca Univ. of Pisa
Frazzini, Giovanni Univ. of Pisa
Pollini, Lorenzo Univ. of Pisa
Innolenti, Mario Univ. of Pisa
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Ghavideh Dobakhshari, Donya Univ. of Notre Dame
Li, Na Harvard Univ
Gupta, Vijay Univ. of Notre Dame
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Sayin, Muhammed Omer Univ. of Illinois at Urbana-
Champaign
Akyol, Emrah Univ. of Illinois at Urbana-
Champaign
Basar, Tamer Univ. of Illinois, Urbana-
Champaign
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Theodorou, Evangelos A. Georgia Inst. of Tech
Tsiotras, Panagiotis Georgia Inst. of Tech
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Charalambous, Charalambos Univ. of Cyprus
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Stochastic Game Theoretic Trajectory Optimization in Continuous
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Sun, Wei Georgia Inst. of Tech
Theodorou, Evangelos A. Georgia Inst. of Tech
Tsiotras, Panagiotis Georgia Inst. of Tech

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Chair: Lagoa, Constantino M. Pennsylvania State Univ
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<td>Hermosilla, Cristopher (Louisiana State Univ) Wolenski, Peter R. (Louisiana State Univ)</td>
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<td>M. Jasour, Ashkan (The Pennsylvania State Univ) Lagoa, Constantino M. (Pennsylvania State Univ)</td>
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- Alessandri, Angelo
- Zemouche, Ali

**Local Carrier-Based Precision Approach and Landing System**, pp. 6284-6290.
- Isaacs, Jason T.
- Ezal, Kenan O.
- Hespanha, João P.

- Ding, Kemi
- Quevedo, Daniel E.
- Shi, Ling

- Guo, Ziyang
- Shi, Dawei
- Johansson, Karl H.

**On Distributed Optimal Kalman-Bucy Filtering by Averaging Dynamics of Heterogeneous Agents**, pp. 6309-6314.
- Kim, Jae Yong
- Shim, Hyungbo
- Wu, Jingbo

**Stochastic Sensor Scheduling for Multiple Dynamical Processes Over a Shared Channel (I)**, pp. 6315-6320.
- Han, Duo
- Wu, Junfeng
- Mo, Yilin
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**Distributed Learning with Infinitely Many Hypotheses**, pp. 6321-6326.
- Uribe, César A.
- Nedich, Angelia
- Olshevsky, Alexander

**Inverse Modeling of Non-Cooperative Agents Via Mixture of Utilities**, pp. 6327-6334.
- Konstantakopoulos, Ioannis
- Ratliff, Lillian J.
- Qin, Ming
- Spanos, Costas J.
- Sastry, Shankar

- Zhou, Yuxun
- Arghandeh, Reza
- Spanos, Costas

- Wen, Yi
- Song, Mengxuan
- Wang, Jun

- Devraj, Aditya M.
- Meyn, Sean P.

- Beckers, Thomas
- Hirche, Sandra

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**Safety and Invariance for Constrained Switching Systems**, pp. 6362-6367.
- Athanasopoulos, Nikolaos
- Smposkis, Konstantinos
- Jungers, Raphael M.

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### Additional Session Details

**Chairs**: Isaacs, Jason T. (California State Univ. Channel Islands)
**Co-Chairs**: Shi, Ling (Hong Kong Univ. of Science and Tech)
**Speakers**: Various authors and institutions as listed above.
Composing Limit Cycles for Motion Planning of 3D Bipedal Walkers, pp. 6368-6374.
Shafiee Motahar, Mohamad
Univ. of Delaware
Veer, Sushant
Univ. of Delaware
Poulakakis, Ioannis
Univ. of Delaware
14:10-14:30 WeB12.3

Direct Adaptive-Q Control for Online Performance Enhancement of Switching Linear Systems, pp. 6375-6381.
Friedrich, Stefan Roland
Tech. Univ. Muenchen
Buss, Martin
Tech. Univ. Muenchen
14:30-14:50 WeB12.4

Reliable Finite-Time $H_{\infty}$ Filtering for Switched Linear Systems with Persistent Dwell-Time, pp. 6382-6387.
Zhang, Lixian
Harbin Inst. of Tech
Basin, Michael
Autonomous Univ. of Nuevo Leon
Wang, Shun
Science and Tech. on Space Physics Lab
Xiao, Zhen
Science and Tech. on Space Physics Lab
Zeng, Ming
Harbin Inst. of Tech
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Li, Yinan
Univ. of Waterloo
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Switching L2 Gain for Analyzing the Magnitude of a System Switch, pp. 6395-6402.
Suyama, Koichi
Tokyo Univ. of Marine Science & Tech
Sebe, Noboru
Kyushu Inst. of Tech
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Chair: Liu, Zhilao
Zhejiang Univ
Co-Chair: Solis-Daun, Julio
Univ. Autonoma Metropolitana-Iztapalapa
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Univ. of Groningen
Zakiyullah
Jayawardhana, Bayu
Univ. of Groningen
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Zhang, Meng
Zhejiang Univ
Ortega, Romeo
LSS-SUPELEC
Liu, Zhilao
Zhejiang Univ
Su, Hongye
Zhejiang Univ
Cai, Jianping
Zhejiang Univ. of Water Res. and Electric Power
14:10-14:30 WeB13.3

Lyapunov Descriptions of Robust Output Stability for Systems with Delays, pp. 6416-6421.
Gallolu Kankanamalage, Florida Atlantic Univ
Hasala Senpathy
Florida Atlantic Univ
Wang, Yuan
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Loyola Univ. Chicago
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Huang, Yuan Can
Beijing Inst. of Tech
Li, Zeguo
Beijing Inst. of Tech
Duan, Xingguang
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Solis-Daun, Julio
Univ. Autonoma Metropolitana-Iztapalapa
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Chair: Edwards, Christopher
Univ. of Exeter
Co-Chair: Berman, Spring
Arizona State Univ
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Basin, Michael
Autonomous Univ. of Nuevo Leon
Rodriguez-Ramirez, Pablo
Autonomous Univ. of Nuevo Leon
Cesar
Ding, Steven X.
Univ. of Duisburg-Essen
Daszenies, Tim
Univ. of Duisburg-Essen
Shtessel, Yuri
Univ. of Alabama at Huntsville
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Mellucci, Chiara
Univ. of Exeter
Menon, Prathyush P
Univ. of Exeter
Edwards, Christopher
Univ. of Exeter
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Univ. of Kent
Yan, Xing-Gang
Univ. of Kent
Spurgeon, Sarah K.
Univ. Coll. London
Mao, Zehui
Nanjing Univ. of Aeronautics and Astronautics
14:30-14:50 WeB14.4

On the Discrete-Time Modeling and Control of Synchronous Generators by Means of Variational Integrators and Sliding Modes, pp. 6458-6463.
Zapata-Zuluaga, Cristian
CINVESTAV IPN Unidad GDL
Camilo
Loukianov, Alexander G.
CINVESTAV IPN Unidad GDL
Canedo, Jose M.
CINVESTAV
Rivera, Jorge
Cátedras Conacyt En Cinvestav Guadalajara
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Co-Chair: Mauroy, Alexandre
Organizer: Mauroy, Alexandre
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Tegling, Emma
Mezic, Igor

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Mezic, Igor
Hikihara, Takashi

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Madani, Ramtin
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Di Benedetto, M. Domenica


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Cofano, Giuseppe
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Chrpaj, Lukas
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Co-Chair: Poulakakis, Ioannis Univ. of Delaware

Terry, Patrick Univ. of California Santa Barbara
Piovan, Giulia Univ. of California, Santa Barbara
Byl, Katie Univ. of California at Santa Barbara

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CHANG, ALEXANDER GEORGIA INST. OF TECH
Serrano, Miguel Georgia Inst. of Tech
Vela, Patricio A. Georgia Inst. of Tech

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Shoukry, Yasser UC Berkeley/UCLA
Nuzzo, Pierluigi Univ. of Southern California
Saha, Indranil Univ. of California Berkeley
Sangiovanni-Vincentelli, Alberto Univ. of California at Berkeley
Seshia, Sanjit A. UC Berkeley
Pappas, George J. Univ. of Pennsylvania
Tabuada, Paulo Univ. of California at Los Angeles

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Mehr, Negar Univ. of California, Berkeley
Horowitz, Roberto Univ. of California at Berkeley
Dragan, Anca Univ. of California at Berkeley

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Xin, Xin Okayama Prefectural Univ

Jo, Ilkhee Univ. of Southern California
Huang, Yangyang Univ. of Southern California - Park Campus
Zimmermann, Walter Physikalisches Inst. LS Theoretische Physik I, Univ. Ba
Kano, Eva Univ. of Southern California

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Chair: Chopra, Nikhil Univ. of Maryland, Coll. Park
Co-Chair: Chen, Jian Zhejiang Univ

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Gupta, Nirupam Univ. of Maryland
Chopra, Nikhil Univ. of Maryland, Coll. Park

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Liu, Jinfeng Univ. of Alberta
Zou, Tao Chinese Acad. of Sciences
Yuan, Decheng Shenyang Inst. of Chemical Tech

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Kidambi, Krishna Bhavithavya Embry-Riddle Aeronautical Univ
Ramos-Pedroza, Natalie Embry-Riddle Aeronautical Univ
MacKunis, William Embry-Riddle Aeronautical Univ
Drakunov, Sergey V. Embry-Riddle Aeronautical Univ

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Song, Kang Tianjin Univ
upadhyay, devesh Ford
Sun, Harold Ford Motor Company
Xie, Hui Tianjin Univ
Zhu, Guoming Michigan State Univ

Farokhi, Farhad The Univ. of Melbourne
Shames, Iman The Univ. of Melbourne

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Chair: Savla, Ketan Univ. of Southern California
Co-Chair: Ferrara, Antonella Univ. of Pavia

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Canudas de Wit, Carlos CNRS, GIPSA-Lab
Ferrara, Antonella Univ. of Pavia

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Zu, Yue Iowa State Univ
Dai, Ran Iowa State Univ
Dong, Jing Iowa State Univ

GREGOIRE, Jean Mines ParisTech
Samaranayake, Samitha Univ. of California, Berkeley
Frazzoli, Emilio Massachusetts Inst. of Tech

14:10-14:30 WeB22.4 Convex Optimization for Energy-Efficient Traffic Control, pp. 6759-6764.
Model Predictive Control of Large-Scale Urban Networks Via Perimeter Control and Route Guidance Actuation, pp. 6765-6770.

Sirmatel, Isik Ilber
Urban Transport Systems Lab.
EPFL

Geroliminis, Nikolas
Urban Transport Systems Lab.
EPFL

14:50-15:10
WeB22.5

Throughput Analysis of a Horizontal Traffic Queue under Safe Car Following Models, pp. 6771-6776.

Motie, Mohammad
Univ. of Southern California

Savla, Ketan
Univ. of Southern California

15:10-15:30
WeB22.6

Switched Observer-Based Ramp Metering Controllers for Freeway Systems (I), pp. 6777-6782.

Ferrara, Antonella
Univ. of Pavia

Sacone, Simona
Univ. of Genova

Vivas, Carlos
Univ. De Sevilla

Rubio, Francisco R.
Univ. of Sevilla

WeB23
Juniper 4

Distributed Learning (Tutorial Session)

Chair: Rahimian, Mohammad Amin
Univ. of Pennsylvania

Co-Chair: Jadbabaie, Ali
MIT

Organizer: Rahimian, Mohammad Amin
Univ. of Pennsylvania

Organizer: Jadbabaie, Ali
MIT

13:30-14:10
WeB23.1

Group Decision Making and Social Learning (I), pp. 6783-6794.

Rahimian, Mohammad Amin
Univ. of Pennsylvania

Jadbabaie, Ali
MIT

14:10-14:50
WeB23.2

A Tutorial on Distributed (Non-Bayesian) Learning: Problem, Algorithms and Results (I), pp. 6795-6801.

Nedich, Angelia
Univ. of Illinois, Urbana-Champaign

Olshesky, Alexander
Boston Univ

Uribe, César A.
Univ. of Illinois at Urbana-Champaign

14:50-15:30
WeB23.3


Olshesky, Alexander
Boston Univ

WeC01
Starvine 1

Networked Control Systems V (Regular Session)

Chair: Lunze, Jan
Ruhr-Univ. Bochum

Co-Chair: Postoyan, Romain
CNRS-CRAN

16:00-16:20
WeC01.1


Wang, Wei
The Univ. of Melbourne

Postoyan, Romain
CNRS-CRAN

Nesic, Dragan
Univ. of Melbourne

Heemels, W.P.M.H.
Eindhoven Univ. of Tech

16:20-16:40
WeC01.2

Time-Triggered Control of Nonlinear Discrete-Time Systems, pp. 6814-6819.

Postoyan, Romain
CNRS-CRAN

Nesic, Dragan
Univ. of Melbourne

16:40-17:00
WeC01.3


Noroozi, Navid
Sheikh Bahaei Univ

Postoyan, Romain
CNRS-CRAN

Nesic, Dragan
Univ. of Melbourne

Heijmans, Stefan H. J.
Eindhoven Univ. of Tech

Heemels, W.P.M.H.
Eindhoven Univ. of Tech

17:00-17:20
WeC01.4

H2-Based Optimal Sparse Sliding Mode Control for Networked Control Systems, pp. 6826-6831.

Argha, Ahmadreza
Univ. of Tech. Sydney

Li, Li
Univ. of Tech. Sydney

Su, Steven W.
Univ. of Tech. Sydney

Nguyen, Hung
Univ. of Tech. Sydney

17:20-17:40
WeC01.5

Unified Approach to Controller and MMSE Estimator Design with Intermittent Communications, pp. 6832-6837.

Peters, Edwin G.W.
Univ. of Newcastle

Marelli, Damian
Univ. of Newcastle

Fu, Minyue
Univ. of Newcastle

Quevedo, Daniel E.
Paderborn Univ

17:40-18:00
WeC01.6

Six Degrees of Separation in Multi-Agent Systems, pp. 6838-6844.

Lunze, Jan
Ruhr-Univ. Bochum

WeC02
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Autonomous Robots III (Regular Session)

Chair: Speranzon, Alberto
Honeywell Aerospace - Advanced Tech

Co-Chair: Zhang, Fumin
Georgia Inst. of Tech

16:00-16:20
WeC02.1


Mishra, Vivek
Georgia Inst. of Tech

Zhang, Fumin
Georgia Inst. of Tech

16:20-16:40
WeC02.2

Constrained Source Seeking for Mobile Robots Via Simultaneous Perturbation Stochastic Approximation, pp. 6851-6856.

Ramirez-Lianos, Eduardo
Univ. of California, San Diego

Martinez, Sonia
Univ. of California at San Diego

16:40-17:00
WeC02.3


Zhou, Yuchen
Univ. of Maryland

Raghavan, Anesh
Univ. of Maryland

Baras, John S.
Univ. of Maryland

17:00-17:20
WeC02.4

Sampling-Based Min-Max Uncertainty Path Planning, pp. 6863-6870.

Englot, Brendan
Stevens Inst. of Tech
Shan, Tixiao
Stevens Inst. of Tech

Bopardikar, Shaunak D.
United Tech. Res. Center, Inc

Speranzon, Alberto
Honeywell Aerospace - Advanced Tech

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Stochastic Behavior of Robots That Navigate by Interacting with Their Environment, pp. 6871-6876.
Stager, Adam
Univ. of Delaware
Tanner, Herbert G.
Univ. of Delaware

17:40-18:00 WeC02.6
Ensuring Communication Connectivity in Multi-Agent Systems in the Presence of Uncooperative Clients, pp. 6877-6882.
Ju, Zhiyang
Univ. of Melbourne
Shames, Iman
The Univ. of Melbourne
Nesic, Dragan
Univ. of Melbourne

WeC03
Decentralized Control II (Regular Session)
Chair: Pates, Richard
Lund Univ
Co-Chair: D’Eleuterio, Gabriele M. T.
Univ. of Toronto

16:00-16:20 WeC03.1
Adaptive Decentralized Control with Nonminimum-Phase Closed-Loop Channel Zeros, pp. 6883-6888.
Islam, Syed Aseem Ul
Univ. of Michigan
Rahman, Yousaf
Univ. of Michigan
Bernstein, Dennis S.
Univ. of Michigan

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Characterising Stability Implying Properties That Are Preserved under Feedback, pp. 6889-6894.
Pates, Richard
Lund Univ

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Pattern Identification in Distributed Systems, pp. 6895-6900.
Omir, Melki
Univ. of Toronto
Sneiderman, Adam C.
Univ. of Toronto
Broucke, Mireille E.
Univ. of Toronto
D’Eleuterio, Gabriele M. T.
Univ. of Toronto

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Signaling Equilibria for Dynamic LQG Games with Asymmetric Information, pp. 6901-6908.
Vasal, Deepanshu
Univ. of Michigan, Ann Arbor
Anastasopoulos, Achilleas
Univ. of Michigan

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

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Polarization in Coopetitive Networks of Heterogeneous Nonlinear Agents, pp. 6915-6920.
Proskurnikov, Anton V.
Delft Univ. of Tech
Cao, Ming
Univ. of Groningen

WeC04
Starvine 4

WeC05
Distributed Control for Large-Populations of Rational Agents II (Invited Session)
Chair: Parise, Francesca
ETH Zurich
Co-Chair: Nedich, Angelia
Arizona State Univ
Organizer: Parise, Francesca
ETH Zurich
Organizer: Nedich, Angelia
Univ. of Illinois, Urbana-Champaign
Organizer: Bauso, Dario
The Univ. of Sheffield
Organizer: Lygeros, John
ETH Zurich

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Linear-Quadratic Mean Field Teams with a Major Agent, pp. 6958-6963.
Huang, Minyi
Carleton Univ
Distribution Randomized Control for Demand Dispatch (I), pp. 6964-6971.

Controlled Link Shedding for Maximizing Supportable Demand of a Disrupted Power Network (I), pp. 6972-6977.

Input-Output Stability of Linear Consensus Processes (I), pp. 6978-6983.

Controlling Human Utilization of Shared Resources Via Taxes, pp. 6984-6989.

Perturbation of System Dynamics and the Covariance Completion Problem, pp. 7036-7041.


Viable Set Approximation for Linear-Gaussian Systems with Unknown, Bounded Variance, pp. 7049-7055.

A Hierarchy of Polyhedral Approximations of Robust Semidefinite Programs, pp. 7056-7062.

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<td>Univ. of Illinois, Urbana-Champaign</td>
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<td>Co-Chair: Fu, Jie</td>
<td>Worcester Pol. Inst</td>
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<td>Max Planck Inst. for Software Systems</td>
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<td>Indian Inst. of Tech. Bombay, Zhejiang Univ, Boston Univ</td>
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Learning Control for Task Specific Industrial Robots, pp. 7202-7209.

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Chen, Chih-Chiang National Chiao Tung Univ
Qian, Chunjiang Univ. of Texas at San Antonio
Liang, Yew-Wen National Chiao Tung Univ
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Fetzer, Matthias Univ. of Stuttgart
Scherer, Carsten W. Univ. of Stuttgart

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Simon, Daniel Linkoping Univ
Löfberg, Johan Linkōpings Univ

17:00-17:20 WeC13.4


Jiao, Ticao Nanjing Univ. of Science and Tech
Zheng, Wei Xing Western Sydney Univ

17:20-17:40 WeC13.5


Dasgupta, Soura Univ. of Iowa
Beal, Jacob Raytheon BBN Tech

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Stability and Robustness of Homogeneous Differential Inclusions, pp. 7288-7293.

Levant, Arie Tel - Aviv Univ
Efimov, Denis Inria - Lne
Polyakov, Andrey Inria Lille Nord-Europe
Perruquetti, Wilfrid Ec. Centrale De Lille

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Cucuzzella, Michele Univ. of Pavia
Incremona, Gian Paolo Univ. of Pavia
Guastalli, Mauro Univ. of Pavia
Ferrara, Antonella Univ. of Pavia

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Panathula, Chandrasekhar Univ. of Alabama in Huntsville
Bharath Rosales, Antonio Inst. Tecnologico Y De Estudios Superiores De Monterrey, CCM

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Iss-Lyapunov Functions for Output Feedback Sliding Modes, pp. 7306-7311.

Aparicio, Andrea Engineering Faculty, UNAM
Efimov, Denis Inria
Fridman, Leonid National Autonomous Univ. of Mexico

17:00-17:20 WeC14.4


Efimov, Denis Inria
Levant, Arie Tel - Aviv Univ
Polyakov, Andrey Inria Lille Nord-Europe
Perruquetti, Wilfrid Ec. Centrale De Lille

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Koch, Stefan Graz Univ. of Tech
Reichhartinger, Markus Graz Univ. of Tech
Horn, Martin Graz Univ. of Tech
Fridman, Leonid National Autonomous Univ. of Mexico

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Castillo Lopez, Alberto Ismael National Autonomous Univ. of Mexico
Steinberger, Martin Graz Univ. of Tech
Fridman, Leonid National Autonomous Univ. of Mexico
Moreno, Jaime A. Univ. Nacional Autonoma De Mexico-UNAM
Horn, Martin Graz Univ. of Tech

WeC15

Chair: Kawan, Christoph Univ. of Passau
Co-Chair: Yuksel, Serdar Queen’s Univ
Organizer: Kawan, Christoph Univ. of Passau
Organizer: Yuksel, Serdar Queen’s Univ

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Sinha, Subhrajit Iowa State Univ
Vaidya, Umesh Iowa State Univ

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Liberzon, Daniel Univ. of Illinois, Urbana-Champaign
Mitra, Sayan Univ. of Illinois

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Colonius, Fritz Univ. of Augsburg
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<td>Mitchell, Ian M., Univ. of British Columbia, Yeh, Jeffrey, Google Inc, Laine, Forrest J., Univ. of California, Berkeley, Tomlin, Claire J., UC Berkeley</td>
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Paoletti, Simone Univ. Di Siena

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Baker, Kyri National Renewable Energy Lab
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Kelly, Scott Univ. of North Carolina at Charlotte
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Co-Chair: Serrani, Andrea

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Poletti, Luca
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Chair: Langbort, Cedric
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Calderone, Daniel Joseph
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Chair: Javidi, Tara
Organizer: Javidi, Tara

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