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Co-Chair: Rodrigues, Luis	Concordia Univ.
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de Lafontaine, Jean	Univ. de Sherbrooke
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Molaro, Mark C.	MIT
Strano, Michael S.	Massachusetts Inst. of Tech.
Braatz, Richard D.	Massachusetts Inst. of Tech.
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Sagues, Carlos	Univ. de Zaragoza
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Ukovich, Walter	Univ. of Trieste
Boschian, Valentina	Univ. of Trieste
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Kumar, Mrinal	Univ. of Florida
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Baldwin, Morgan	Air Force Res. Lab.
Erwin, Richard Scott	Air Force Res. Lab.
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Abelli, Andrea Univ. di Roma "La Sapienza"
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Kaldmäe, Arvo Inst. of Cybernetics at TUT
Kotta, Ülle Inst. of Cybernetics at TUT

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Linton, Carol William Holderbaum
(w.holderbaum@rdg.ac.uk)'s associate
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Biggs, James Douglas Univ. of Strathclyde

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Van De Wouw, Nathan Eindhoven Univ. of Tech.
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Nijmeijer, Hendrik Eindhoven Univ. of Tech.

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Chair: Jorgensen, John Tech. Univ. of Denmark
Bagterp
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Mutyam, Laxman Indian Inst. of Tech. Bombay
Belur, Madhu N. Indian Inst. of Tech. Bombay
Bhushan, Mani Indian Inst. of Tech. Bombay
Tiwari, Akhilanand Pati Bhabha Atomic Res. Centre
Kelkar, M.G. Nuclear Power Corp. of India Ltd
Pramanik, M Nuclear Power Corp. of India Ltd

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Tao, Gang Univ. of Virginia
Tan, Chang Nanjing Univ. of Aeronautics and Astronautics
Yao, Xuelian Coll. of Automation Engineering, NanjingUniversityofAeronautics

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Yao, Xuelian Coll. of Automation Engineering, NanjingUniversityofAeronautics
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Jiang, Bin Nanjing Univ. of Aeronautics & Astronautics

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Chair: Caines, Peter E. McGill Univ.
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Zyada, Zakarya Tanta Univ.
Sadeldin, Khaled Tanta Univ.
Salem, Mohammed gasco

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Das, Buddhadev McMaster Univ.
Mhaskar, Prashant McMaster Univ.
House, John Johnson Controls
Salsbury, Timothy Johnson Controls, Inc.

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Akhrif, Ouassima Ec. de Tech. superieure
Saydy, Lahcen Ec. Pol. of Montreal

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Co-Chair: Pannocchia, Gabriele Univ. of Pisa

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Alamo, Teodoro Univ. de Sevilla

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Morari, Manfred ETH Zurich

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Ono, Masahiro Keio Univ.

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Evans, Martin A. Univ. of Oxford, Department of Engineering Science
Cannon, Mark Univ. of Oxford
Kouvaritakis, Basil Oxford Univ.

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Chair: Naghshtabrizi, Payam Eaton Corp. Innovation Center
Co-Chair: Moarref, Miad Concordia Univ.

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Allgower, Frank Univ. of Stuttgart

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Sterritt, Roy Faculty of Engineering Univ. of Ulster
Tzes, Anthony Univ. of Patras

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Luna-Rivera, Martin Univ. Autónoma de San Luis Potosi

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Jadbabaie, Ali Univ. of Pennsylvania

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 Bilenne, Olivier Tech. Univ. Berlin

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Chair: Aschemann, Harald Univ. of Rostock
 Co-Chair: Spirk, Sebastian Tech. Univ.

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Wang, Chaoqing Univ. of science and Tech. of china
 Shen, Tielong Sophia Univ.
 Ji, Haibo Univ. of Science and Tech. of China
 Hikiri, Kunihiko Nissan Diesel Motor CO., LTD.

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 Casavola, Alessandro Univ. Della Calabria

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Göhrle, Christoph Univ. of Stuttgart
 Wagner, Andreas Audi AG
 Schindler, Andreas Audi AG
 Sawodny, Oliver Univ. of Stuttgart

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Duan, Shiming Univ. of Michigan
 Ni, Jun Univ. of Michigan
 Ulsoy, A. Galip Univ. of Michigan

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Observer-Based Backstepping Control of an Electro-Pneumatic Clutch, pp. 509-514.

Aschemann, Harald Univ. of Rostock
 Prabel, Robert Univ. of Rostock
 Schindele, Dominik Univ. of Rostock

11:40-12:00 WeA14.6
Experimental Validation of a New Model-Based Control Strategy for a Semi-Active Suspension System, pp. 515-520.

Pellegrini, Enrico Tech. Univ. München
 Spirk, Sebastian Tech. Univ.
 Pletschen, Nils Tech. Univ. München
 Lohmann, Boris Tech. Univ. München

WeA15 Hochelaga 3
Hybrid Vehicle Systems I (Regular Session)

Chair: Sun, Zongxuan Univ. of Minnesota
 Co-Chair: Cakmakci, Melih Bilkent Univ.

10:00-10:20 WeA15.1
Extending Energy Management in Hybrid Electric Vehicles with Explicit Control of Gear Shifting and Start-Stop, pp. 521-526.

van Reeve, Vital Eindhoven Univ. of Tech.
 Hofman, Theo Tech. Univ. Eindhoven
 Steinbuch, Maarten Eindhoven Univ. of Tech.
 Huisman, Rudolf DAF Trucks N.V.

10:20-10:40 WeA15.2
Advances in the Modelling and Control of Series Hybrid Electric Vehicles, pp. 527-534.

Evangelou, Simos Andreas Imperial Coll.
 Shukla, Amit Imperial Coll. London

10:40-11:00 WeA15.3

Concurrent Design of Energy Management and Vehicle Stability Algorithms for a Parallel Hybrid Vehicle Using Dynamic Programming, pp. 535-540.

Dokuyucu, Halil Ibrahim Bilkent Univ.
 Cakmakci, Melih Bilkent Univ.

11:00-11:20 WeA15.4

Design of a Variable Geometry Turbine Control Strategy for Solid Oxide Fuel Cell and Gas Turbine Hybrid Systems, pp. 541-546.

Weng, Caihao Univ. of Michigan
 Sun, Jing Univ. of Michigan

11:20-11:40 WeA15.5

On Real-Time Optimal Control of a Series Hybrid Electric Vehicle with an Ultra-Capacitor (I), pp. 547-552.

Razavian, Reza Univ. of Waterloo
 L. Azad, Nasser Univ. of Waterloo
 McPhee, John Univ. of Waterloo

11:40-12:00 WeA15.6

SDP-Based Extremum Seeking Energy Management Strategy for a Power-Split Hybrid Electric Vehicle, pp. 553-558.

Wang, Yu Univ. of Minnesota -twin cities
 Sun, Zongxuan Univ. of Minnesota

WeA16 Hochelaga 2
Life Extending Control of Electrochemical Energy Systems I
 (Invited Session)

Chair: Smith, Kandler National Renewable Energy Lab.
 Co-Chair: Fathy, Hosam K. Penn State Univ.
 Organizer: Varigonda, Subbarao United Tech. Res. Center
 Organizer: Fathy, Hosam K. Penn State Univ.
 Organizer: Hatzell, Kelsey The Pennsylvania State Univ.
 Organizer: McGee, Ryan Ford Motor Company
 Organizer: Smith, Kandler National Renewable Energy Lab.
 Organizer: Stefanopoulou, Anna G. Univ. of Michigan

10:00-10:20 WeA16.1

PDE Estimation Techniques for Advanced Battery Management Systems - Part I: SOC Estimation (I), pp. 559-565.

Moura, Scott Univ. of California, San Diego
 Chaturvedi, Nalin A. Robert Bosch LLC
 Krstic, Miroslav Univ. of California, San Diego

10:20-10:40 WeA16.2

PDE Estimation Techniques for Advanced Battery Management

Systems - Part II: SOH Identification (I), pp. 566-571.

Moura, Scott Univ. of California, San Diego
Chaturvedi, Nalin A. Robert Bosch LLC
Krstic, Miroslav Univ. of California, San Diego

10:40-11:00 WeA16.3

Nonlinear Parameter Estimation for Capacity Fade in Lithium-Ion Cells Based on a Reduced-Order Electrochemical Model (I), pp. 572-577.

Marcicki, James The Ohio State Univ.
Todeschini, Fabio Pol. di Milano
Onori, Simona Ohio State Univ.
Canova, Marcello The Ohio State Univ.

11:00-11:20 WeA16.4

Quadruple Adaptive Observer of the Core Temperature in Cylindrical Li-Ion Batteries and Their Health Monitoring (I), pp. 578-583.

Lin, Xinfan Univ. of Michigan
Stefanopoulou, Anna G. Univ. of Michigan
Perez, Hector E. Univ. of Michigan
Siegel, Jason B. Univ. of Michigan
Li, Yonghua Ford Motor Company
Anderson, R. Dyche Ford Motor Company

11:20-11:40 WeA16.5

A Survey of Long-Term Health Modeling, Estimation, and Control Challenges and Opportunities for Lithium-Ion Batteries (I), pp. 584-591.

Hatzell, Kelsey The Pennsylvania State Univ.
Sharma, Aabhas Pennsylvania State Univ.
Fathy, Hosam K. Penn State Univ.

11:40-12:00 WeA16.6

Real Time Battery Power Capability Estimation (I), pp. 592-597.

Anderson, R. Dyche Ford Motor Company
Zhao, Yanan Ford Motor Company
Wang, Xu Ford Motor Company
Yang, Xiao Guang Ford Motor Company
Li, Yonghua Ford Motor Company

WeA17 Grand Salon
Iterative Learning Control (Regular Session)

Chair: Boulet, Benoit McGill Univ.
Co-Chair: Freeman, Christopher T. Univ. of Southampton

10:00-10:20 WeA17.1

Adaptive Forward-Propagating Input Reconstruction for Nonminimum-Phase Systems, pp. 598-603.

D'Amato, Anthony Univ. of Michigan
Bernstein, Dennis S. Univ. of Michigan

10:20-10:40 WeA17.2

Experimentally Verified Iterative Learning Control Based on Repetitive Process Stability Theory, pp. 604-609.

Dabkowski, Pawel Grzegorz Nicolaus Copernicus Univ.
Galkowski, Krzysztof Univ. of Zielona Gora
Rogers, Eric Univ. of Southampton
Cai, Zhonglun Univ. of Southampton
Freeman, Christopher T. Univ. of Southampton
Lewin, Paul L. Univ. of Southampton
Hurak, Zdenek Czech Tech. Univ. in Prague

Kummert, Anton Univ. of Wuppertal

10:40-11:00 WeA17.3

Initialization of ILC Based on a Previously Learned Trajectory, pp. 610-614.

Janssens, Pieter Katholieke Univ. Leuven
Pipeleers, Goele Katholieke Univ. Leuven
Swevers, Jan K. U. Leuven

11:00-11:20 WeA17.4

Output Tracking with Preview for Nonminimum-Phase Linear Systems Based on B-Splines Decomposition, pp. 615-620.

Wang, Haiming Rutgers, the State Univ. of New Jersey
Kim, Kyong-Soo Iowa State Univ.
Zou, Qingze Rutgers, the State Univ. of New Jersey

11:20-11:40 WeA17.5

Development of a Multivariable Test Facility for the Evaluation of Iterative Learning Controllers, pp. 621-626.

Dinh, Thanh Southampton Univ.
Freeman, Christopher T. Univ. of Southampton
Lewin, Paul L. Univ. of Southampton

11:40-12:00 WeA17.6

Iterative Learning Model Predictive Controller of Plastic Sheet Temperature for a Thermoforming Process, pp. 627-633.

Chy, Md Muminul Islam McGill Univ.
Boulet, Benoit McGill Univ.

WeA18 Marquette
Estimation and Control of DPS I (Invited Session)

Chair: Demetriou, Michael A. Worcester Pol. Inst.
Co-Chair: Webster, Justin Univ. of Virginia
Organizer: Demetriou, Michael A. Worcester Pol. Inst.

10:00-10:20 WeA18.1

Parameter Estimation and Stabilization for an Unstable One-Dimensional Wave Equation with Boundary Input Harmonic Disturbances (I), pp. 634-639.

Guo, Wei Univ. of International Business and Ec.
Guo, Bao-Zhu The Chinese Acad. of Science

10:20-10:40 WeA18.2

Reconstruction of Boundary Conditions from Internal Conditions Using Viability Theory (I), pp. 640-645.

Hofleitner, Aude UC Berkeley
Claudel, Christian UC Berkeley
Bayen, Alexandre M. Univ. of California at Berkeley

10:40-11:00 WeA18.3

LQ Optimal Actuator Location in Structures (I), pp. 646-651.

Darivandi, Neda Univ. of Waterloo
Morris, Kirsten Univ. of Waterloo
Khajepour, Amir Univ. of Waterloo

11:00-11:20 WeA18.4

Motion Planning for an Elastic Kirchhoff Plate (I), pp. 652-657.

Schröck, Johannes Univ. of Tech. Vienna
Meurer, Thomas Vienna Univ. of Tech.
Kugi, Andreas Vienna Univ. of Tech.

11:20-11:40	WeA18.5
<i>Long-Time Dynamics and Control of Subsonic Flow-Structure Interactions (I)</i> , pp. 658-663.	
Lasiecka, Irena	Univ. of Virginia
Webster, Justin	Univ. of Virginia
11:40-12:00	WeA18.6
<i>Modeling and Control of a Flexible Riser with Application to Marine Installation (I)</i> , pp. 664-669.	
Ge, Shuzhi Sam	Univ. of Electronic Science and Tech. of China
He, Wei	National Univ. of Singapore
Zhang, Shuang	National Univ. of Singapore
WeA19	Jolliet
Information Collection and Classification Decision-Making (Invited Session)	
Chair: Hyun, Baro	Univ. of Michigan
Co-Chair: Kabamba, Pierre T.	Univ. of Michigan
Organizer: Hyun, Baro	Univ. of Michigan
Organizer: Kabamba, Pierre T.	Univ. of Michigan
Organizer: Girard, Anouck	Univ. of Michigan, Ann Arbor
10:00-10:20	WeA19.1
<i>Optimal Multivariate Classification by Linear Thresholding (I)</i> , pp. 670-675.	
Hyun, Baro	Univ. of Michigan
Faied, Mariam	Univ. of Michigan
Kabamba, Pierre T.	Univ. of Michigan
Girard, Anouck	Univ. of Michigan, Ann Arbor
10:20-10:40	WeA19.2
<i>Mixed-Initiative Strategies for Real-Time Scheduling of Multiple Unmanned Vehicles (I)</i> , pp. 676-682.	
Clare, Andrew	MIT
Macbeth, Jamie	MIT
Cummings, Mary (Missy)	MIT
10:40-11:00	WeA19.3
<i>Optimal Foraging of Renewable Resources (I)</i> , pp. 683-690.	
Enright, John	Kiva Systems
Frazzoli, Emilio	Massachusetts Inst. of Tech.
11:00-11:20	WeA19.4
<i>An Emulator-Based Rapid Source Localization Approach in Informative Sensor Planning (I)</i> , pp. 691-696.	
Choi, Han-Lim	KAIST
Tagade, Piyush	KAIST
11:20-11:40	WeA19.5
<i>Adaptation in Symbolic Dynamic Systems for Pattern Classification</i> , pp. 697-702.	
Wen, Yicheng	Penn State Univ.
Mukherjee, Kushal	Pennsylvania State Univ.
Ray, Asok	Pennsylvania State Univ.
11:40-12:00	WeA19.6
<i>Path Planning for Information Collection Tasks Using Bond-Energy Algorithm</i> , pp. 703-708.	
Chang, Yu-hsien	Univ. of Michigan
Hyun, Baro	Univ. of Michigan
Girard, Anouck	Univ. of Michigan, Ann Arbor

WeA20	Duluth
Formal Methods for Analysis and Controller Synthesis (Invited Session)	
Chair: Belta, Calin	Boston Univ.
Co-Chair: Lazar, Mircea	Eindhoven Univ. of Tech.
Organizer: Ding, Xu Chu	Boston Univ.
Organizer: Lazar, Mircea	Eindhoven Univ. of Tech.
Organizer: Belta, Calin	Boston Univ.
10:00-10:20	WeA20.1
<i>Safety Controller Synthesis Using Human Generated Trajectories: Nonlinear Dynamics with Feedback Linearization and Differential Flatness (I)</i> , pp. 709-714.	
Julius, Agung	Rensselaer Pol. Inst.
Winn, Andrew	Rensselaer Pol. Univ.
10:20-10:40	WeA20.2
<i>Receding Horizon Temporal Logic Control for Finite Deterministic Systems (I)</i> , pp. 715-720.	
Ding, Xu Chu	United Tech. Res. Center
Lazar, Mircea	Eindhoven Univ. of Tech.
Belta, Calin	Boston Univ.
10:40-11:00	WeA20.3
<i>Abstraction and Verification of Autonomous Max-Plus-Linear Systems (I)</i> , pp. 727-726.	
Adzkiya, Dieky	TU-Delft
De Schutter, Bart	Delft Univ. of Tech.
Abate, Alessandro	TU Delft
11:00-11:20	WeA20.4
<i>Switching Protocol Synthesis for Temporal Logic Specifications (I)</i> , pp. 727-734.	
Liu, Jun	California Inst. of Tech.
Ozay, Necmiye	California Inst. of Tech.
Topcu, Ufuk	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.
11:20-11:40	WeA20.5
<i>Sampling-Based Algorithms for Optimal Motion Planning with Deterministic μ-Calculus Specifications (I)</i> , pp. 735-742.	
Karaman, Sertac	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.
11:40-12:00	WeA20.6
<i>Controlling Wild Mobile Robots Using Virtual Gates and Discrete Transitions (I)</i> , pp. 743-749.	
Bobadilla, Leonardo	Univ. of Illinois at Urbana-Champaign
Martinez, Fredy	Distrital Univ. Francisco Jose de Caldas
Gobst, Eric	Univ. of Illinois at Urbana-Champaign
Gossman, Katrina	Univ. of Illinois at Urbana-Champaign
LaValle, Steven	Univ. of Illinois
WeA21	Mackenzie
Linear Parameter Varying Control (Invited Session)	
Chair: Mohammadpour, Javad	Univ. of Houston
Co-Chair: Stoustrup, Jakob	Aalborg Univ.
Organizer: Mohammadpour,	Univ. of Houston

Javad	Delft Univ. of Tech.
Organizer: Tóth, Roland	
10:00-10:20	WeA21.1
<i>Robust Attitude Control of Spacecraft with Magnetic Actuators (I)</i> , pp. 750-755.	
Calloni, Alberto	Pol. di Milano
Corti, Andrea	Pol. di Milano
Zanchettin, Andrea Maria	Pol. di Milano
Lovera, Marco	Pol. di Milano
10:20-10:40	WeA21.2
<i>Structured Control of LPV Systems with Application to Wind Turbines (I)</i> , pp. 756-761.	
Adegas, Fabiano Daher	Aalborg Univ.
Stoustrup, Jakob	Aalborg Univ.
10:40-11:00	WeA21.3
<i>Sampled-Data Filter Design for Linear Parameter Varying Systems (I)</i> , pp. 762-767.	
Ramezanifar, Amin	Univ. of Houston
Mohammadpour, Javad	Univ. of Michigan
Grigoriadis, Karolos M.	Univ. of Houston
11:00-11:20	WeA21.4
<i>Experimental Evaluation of an LPV-Gain-Scheduled Observer for Rejecting Multisine Disturbances with Time-Varying Frequencies (I)</i> , pp. 768-774.	
Heins, Wiebke	Clausthal Univ. of Tech.
Ballesteros, Pablo	Clausthal Univ. of Tech.
Bohn, Christian	Tech. Univ. Clausthal
11:20-11:40	WeA21.5
<i>Delay-Dependent H Infinity Control for LPV Systems with Fast-Varying Time Delays (I)</i> , pp. 775-780.	
Zope, Rohit Arvind	Univ. of Houston
Mohammadpour, Javad	Univ. of Michigan
Grigoriadis, Karolos M.	Univ. of Houston
Franckek, Matthew A.	Univ. of Houston
11:40-12:00	WeA21.6
<i>Stability and Induced ℓ_2-Gain of MIMO Input-Output LPV Systems</i> , pp. 781-786.	
Abbas, Hossam Seddik	Assiut Uinveristy
Werner, Herbert	Hamburg Univ. of Tech.
WeA22	Saint-Francois
Model-Based Powertrain Control for Diesels: An Industrial View (Tutorial Session)	
Chair: Willems, Frank	Eindhoven Univ. of Tech.
Co-Chair: van Nieuwstadt, Michiel J.	Ford Res. and Innovation Center
Organizer: Willems, Frank	Eindhoven Univ. of Tech.
10:00-10:40	WeA22.1
<i>Integrated Powertrain Control for Optimal CO₂-NO_x Tradeoff in Diesels (I)*</i> .	
Willems, Frank	Eindhoven Univ. of Tech.
10:40-11:00	WeA22.2
<i>Model-Based SCR Control and Diagnostics (I)*</i> .	
van Nieuwstadt, Michiel J.	Ford Res. and Innovation Center
11:00-11:20	WeA22.3
<i>Issues Facing Industrial Deployment of Advanced Control in Diesel</i>	

<i>Engines (I)*</i> .	
Stewart, Greg E	Honeywell
11:20-11:40	WeA22.4
<i>Cylinder Pressure Based Control and Diagnostics of Combustion Engines (I)*</i> .	
Tunestål, Per	Lund Univ. Faculty of Engineering
11:40-12:00	WeA22.5
<i>Panel Discussion (I)*</i> .	
Willems, Frank	Eindhoven Univ. of Tech.
van Nieuwstadt, Michiel J.	Ford Res. and Innovation Center
Stewart, Greg E	Honeywell
Tunestål, Per	Lund Univ. Faculty of Engineering
WeB01	Saint Laurent
Consensus Based Estimation and Control I (Regular Session)	
Chair: Hao, He	Univ. of Florida
Co-Chair: Savla, Ketan	Massachusetts Inst. of Tech.
13:30-13:50	WeB01.1
<i>Improving Convergence Rate of Distributed Consensus through Asymmetric Weights</i> , pp. 787-792.	
Hao, He	Univ. of Florida
Barooah, Prabir	Univ. of Florida
13:50-14:10	WeB01.2
<i>Model Estimation within Planning and Learning</i> , pp. 793-799.	
Geramifard, Alborz	MIT
Redding, Joshua	Massachusetts Inst. of Tech.
Joseph, Joshua	Massachusetts Inst. of Tech.
Roy, Nicholas	Massachusetts Inst. of Tech.
How, Jonathan P.	MIT
14:10-14:30	WeB01.3
<i>Decentralised Minimal-Time Dynamic Consensus</i> , pp. 800-805.	
Yuan, Ye	Univ. of Cambridge
Liu, Jun	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.
Goncalves, Jorge M.	Univ. of Cambridge
14:30-14:50	WeB01.4
<i>A New H-Infinity-Consensus Filtering Method for Multi-Agent Systems</i> , pp. 806-811.	
Yao, Xiuming	North China Electric Power Univ.
Zheng, Wei Xing	Univ. of Western Sydney
Li, Tao	Nanjing Univ. of Information Science and Tech.
14:50-15:10	WeB01.5
<i>Decentralized Control for Output Synchronization in Heterogeneous Networks of Non-Introspective Agents</i> , pp. 812-819.	
Grip, Håvard Fjær	Washington State Univ.
Yang, Tao	Washington State Univ.
Saberi, Ali	Washington State Univ.
Stoorvogel, Anton A.	Univ. of Twente
15:10-15:30	WeB01.6
<i>Joint Probabilistic Data Association-Feedback Particle Filter for Multiple Target Tracking Applications</i> , pp. 820-826.	
Yang, Tao	Univ. of Illinois at Urbana-Champaign
Huang, Geng	Univ. of Illinois Urbana Champaign

Mehta, Prashant G.

Univ. of Illinois,
Urbana-Champaign

WeB02	Gatineau
Randomized Algorithms (Regular Session)	
Chair: Kumar, Mrinal	Univ. of Florida
Co-Chair: Alamo, Teodoro	Univ. de Sevilla
13:30-13:50	WeB02.1
<i>An Information Guided Framework for Simulated Annealing</i> , pp. 827-832.	
Kumar, Mrinal	Univ. of Florida
13:50-14:10	WeB02.2
<i>Randomized Smoothing for Optimization of Non-Convex Functions: Problem of Image Registration</i> , pp. 833-838.	
Vakhitov, Alexander	Saint Petersburg State Univ.
Minin, Ivan	Saint Petersburg State Univ.
14:10-14:30	WeB02.3
<i>Randomized Control Design through Probabilistic Validation</i> , pp. 839-844.	
Alamo, Teodoro	Univ. de Sevilla
Luque, Amalia	Univ. of Sevilla
Ramirez, Daniel R.	Univ. of Sevilla
Tempo, Roberto	CNR-IEIIT, Pol. di Torino
14:30-14:50	WeB02.4
<i>Consensus Over Martingale Graph Processes</i> , pp. 845-850.	
Fazeli, Arastoo	Univ. of Pennsylvania
Jadbabaie, Ali	Univ. of Pennsylvania
14:50-15:10	WeB02.5
<i>Randomized Controls for Linear Plants and Confidence Regions for Parameters under External Arbitrary Noise</i> , pp. 851-856.	
Amelin, Konstantin	Sankt-Petersburg State Univ.
Granichin, Oleg N.	Sankt-Petersburg State Univ.
15:10-15:30	WeB02.6
<i>An Ellipsoid Algorithm for Linear Optimization with Uncertain LMI Constraints</i> , pp. 857-862.	
Ataei, Armin	Penn State Univ.
Wang, Qian	Penn State Univ.
WeB03	Bersimis
Mems II (Regular Session)	
Chair: Oldham, Kenn	Univ. of Michigan, Ann Arbor
Co-Chair: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.
13:30-13:50	WeB03.1
<i>Identification of Nucleation Rates in Droplet-Based Microfluidic Systems</i> , pp. 863-868.	
Chen, Kejia	Univ. of Illinois at Urbana-Champaign
Goh, Limay	General Electric Water & Process Tech.
He, Guangwen	Procter and Gamble, Japan K.K.,
Kenis, Paul J.A.	Univ. of Illinois, Urbana-Champaign
Zukoski III, Charles F.	Univ. of Illinois, Urbana-Champaign
Braatz, Richard D.	Massachusetts Inst. of Tech.

13:50-14:10	WeB03.2
<i>Integrated Inversion-Feedforward and PID-Based-Sliding-Mode Control for Piezoelectric Actuators</i> , pp. 869-874.	
Cao, Yu	University of Saskatchewan
Chen, Xiongbiao	Univ. of Saskatchewan
14:10-14:30	WeB03.3
<i>Sliding Mode Control Design of an Electrostatic Microactuator Using LPV Schemes</i> , pp. 875-880.	
Alwi, Halim	Univ. of Leicester
Zolotas, Argyrios	Loughborough Univ.
Edwards, Christopher	Univ. of Leicester
Grigoriadis, Karolos M.	Univ. of Houston
14:30-14:50	WeB03.4
<i>Practical Considerations in Precise Calibration of a Low-Cost MEMS IMU for Road-Mapping Applications</i> , pp. 881-888.	
Amirsadri, Ashkan	The Australian National Univ. (ANU), NICTA
Kim, Jonghyuk	The Australian National Univ. (ANU)
Petersson, Lars	NICTA, ANU
Trumpf, Jochen	Australian National Univ.
14:50-15:10	WeB03.5
<i>Control of High Density Microcantilever Systems</i> , pp. 889-894.	
Mehmet, Berkem	Univ. of Illinois at Urbana Champaign
Sehwail, Hussam	Univ. of Wisconsin - Madison
Voulgaris, Petros G.	Univ. of Illinois, Urbana-Champaign
15:10-15:30	WeB03.6
<i>Design and Implementation of a Large Measurement-Range AFM Scanning System</i> , pp. 895-900.	
Wu, Jim Wei	National Taiwan Univ.
Peng, Yuan-Zhi	National Taiwan Univ.
Chen, Jyun-Jhih	National Taiwan Univ.
Huang, Kuan-Chia	National Taiwan Univ.
Chen, Mei-Yung	National Taiwan Normal Univ.
Fu, Li-Chen	National Taiwan Univ.
WeB04	Peribonka
Flight Control II (Regular Session)	
Chair: Byl, Katie	Univ. of California at Santa Barbara
Co-Chair: Menezes, Amor A.	Univ. of California, Berkeley
13:30-13:50	WeB04.1
<i>Steering and Horizontal Motion Control in Insect-Inspired Flapping-Wing MAVs: The Tunable Impedance Approach</i> , pp. 901-908.	
Mahjoubi, Hosein	Univ. of California at Santa Barbara
Byl, Katie	Univ. of California at Santa Barbara
13:50-14:10	WeB04.2
<i>A Stabilizing Controller for PVTOL Aircraft</i> , pp. 909-913.	
Turker, Turker	Yildiz Tech. Univ.
Oflaz, Tugce	Yildiz Tech. Univ.
Gorgun, Haluk	YTU
Cansever, Galip	Yildiz Tech. Univ.

14:10-14:30	WeB04.3
<i>Optimal Control for Power-Off Landing of a Small-Scale Helicopter - a Pseudospectral Approach</i> , pp. 914-919.	
Taamallah, Skander	National Aerospace Lab. (NLR)
Bombois, Xavier	Delft Univ. of Tech.
Van den Hof, Paul M.J.	Eindhoven Univ. of Tech.
14:30-14:50	WeB04.4
<i>Flatness-Based Trajectory Planning for a Quadrotor Unmanned Aerial Vehicle Test-Bed Considering Actuator and System Constraints</i> , pp. 920-925.	
Chamseddine, Abbas	Concordia Univ.
Li, Tong	Concordia Univ.
Zhang, Youmin	Concordia Univ.
Rabbath, Camille Alain	Defence R&D Canada
Theilliol, Didier	Nancy Univ.
14:50-15:10	WeB04.5
<i>Glider Flight Environment Modeling for Optimal Control</i> , pp. 926-931.	
Shah, Dhaval	Univ. of Michigan
Menezes, Amor A.	Univ. of California, Berkeley
Kolmanovsky, Ilya V.	The Univ. of Michigan
15:10-15:30	WeB04.6
<i>Tracking and Robustness Analysis for UAVs with Bounded Feedbacks</i> , pp. 932-937.	
Gruszka, Aleksandra	Louisiana State Univ.
Malisoff, Michael	Louisiana State Univ.
Mazenc, Frederic	EPI INRIA DISCO
WeB05	Richelieu
Spacecraft Control II (Regular Session)	
Chair: Fitz-Coy, Norman	Univ. of Florida
Co-Chair: Moshtagh, Nima	Lockheed Martin Space Systems Company
13:30-13:50	WeB05.1
<i>Robust Control of a Launch Vehicle in Atmospheric Ascent Based on Guardian Maps</i> , pp. 938-943.	
Dubanchet, Vincent	Ec. Pol. de Montreal
Saussie, David	Ec. Pol. de Montreal
Berard, Caroline	ISAE
Saydy, Lahcen	Ec. Pol. of Montreal
Gourdeau, Richard	Ec. Pol. de Montréal
13:50-14:10	WeB05.2
<i>A Recurrent Neural Network (RNN)-Based Attitude Control Method for a VSCMG-Actuated Satellite</i> , pp. 944-949.	
Kim, Dohee	Univ. of Florida
Dinh, Huyen T.	Univ. of Florida
MacKunis, William	Embry-Riddle Aeronautical Univ.
Fitz-Coy, Norman	Univ. of Florida
Dixon, Warren E.	Univ. of Florida
14:10-14:30	WeB05.3
<i>Biased PN Based Impact Angle Constrained Guidance Using a Nonlinear Engagement Model</i> , pp. 950-955.	
G, Akhil	Indian Inst. of science, Bangalore
Ghose, Debasish	Indian Inst. of Science
14:30-14:50	WeB05.4
<i>Feasibility and Detection of a Bio-Inspired Approach for Space Situational Awareness</i> , pp. 956-960.	

Basset, Gareth	Univ. of Central Florida
Xu, Yunjun	Univ. of Central Florida
Pham, Khanh D.	AIR FORCE Res. Lab.
14:50-15:10	WeB05.5
<i>Feasibility Checks and Control Laws for Reconfigurations of Spacecraft Clusters</i> , pp. 961-966.	
Moshtagh, Nima	Lockheed Martin Space Systems Company
Ahmadi, Amir Ali	MIT
Mesbahi, Mehran	Univ. of Washington
15:10-15:30	WeB05.6
<i>Structured H-Infinity Control for a Launch Vehicle</i> , pp. 967-972.	
Knoblauch, Marcos Miguel	La Plata National Univ.
Saussie, David	Ec. Pol. de Montreal
Berard, Caroline	ISAE
WeB06	Harricana
Nonlinear Systems II (Regular Session)	
Chair: Huang, Peng	Boston Univ.
Co-Chair: George, Jemin	U.S. Army Res. Lab.
13:30-13:50	WeB06.1
<i>Nonlinear Setpoint Regulation of Dynamically Redundant Actuators</i> , pp. 973-978.	
Passenbrunner, Thomas Ernst	Johannes Kepler Univ. Linz
Sassano, Mario	Imperial Coll. London
Zaccarian, Luca	Univ. di Roma, Tor Vergata
13:50-14:10	WeB06.2
<i>A Scalable Iterative Convex Design for Nonlinear Systems</i> , pp. 979-984.	
Baldi, Simone	Univ. di Firenze
Ioannou, Petros A.	Univ. of Southern California
Kosmatopoulos, Elias	ITI/CERTH
14:10-14:30	WeB06.3
<i>Torque Controller Via Second Order Sliding Modes of WRIG Impelled by DC-Motor for Application in Wind Systems</i> , pp. 985-990.	
Morfin, Onofre	Autonomous Univ. of Juarez City
Loukianov, Alexander G.	CINVESTAV IPN GDI
Ruiz, Riemann	CINVESTAV Unidad Guadalajara
Sanchez, Edgar N.	CINVESTAV
Castellanos, Ivan	Autonomous Univ. of City Juarez
Valenzuela, Fredy	Autonomous Univ. of Tabasco
14:30-14:50	WeB06.4
<i>Feedback Linearization Approach to Distributed Feedback Manipulation</i> , pp. 991-996.	
Hurak, Zdenek	Czech Tech. Univ. in Prague
Zemanek, Jiri	Czech Tech. Univ. in Prague
14:50-15:10	WeB06.5
<i>Controller Design for Fractional Order Chaotic Lu System</i> , pp. 997-1002.	
Amini Boroujeni, Elham	Tarbiat Modares Univ.
Yazdanpanah, Mohammad Javad	Univ. of Tehran
Momeni, Hamidreza	Tarbiat Modares Univ. of Tehran
15:10-15:30	WeB06.6
<i>Adaptive Disturbance Accommodating Controller for Nonlinear Stochastic Systems</i> , pp. 1003-1010.	

George, Jemin U.S. Army Res. Lab.
 Singla, Puneet Univ. at Buffalo
 Crassidis, John L. Univ. at Buffalo, State Univ. of
 New York

WeB07	Chaudiere
Mechanical Systems II (Regular Session)	
Chair: Consolini, Luca	Univ. of Parma
Co-Chair: Pekarek, David	Northwestern Univ.
13:30-13:50	WeB07.1
<i>Optimization of the Wave Energy Absorption in Oscillating-Body Systems Using Extremum Seeking Approach</i> , pp. 1011-1016.	
Garcia-Rosa, Paula B.	Federal Univ. of Rio de Janeiro
Lizarralde, Fernando	Federal Univ. of Rio de Janeiro
Estefen, Segen F.	COPPE/UFRJ
13:50-14:10	WeB07.2
<i>Modal Damping of a Quadruple Pendulum for Advanced Gravitational Wave Detectors</i> , pp. 1017-1022.	
Shapiro, Brett	Massachusetts Inst. of Tech.
Mavalvala, Nergis	Massachusetts Inst. of Tech.
Youcef-Toumi, Kamal	Massachusetts Inst. of Tech.
14:10-14:30	WeB07.3
<i>Synchronizing N Cart-Pendulums Using Virtual Holonomic Constraints</i> , pp. 1023-1028.	
Jankuloski, Dame	Univ. of Toronto
Maggiore, Manfredi	Univ. of Toronto
Consolini, Luca	Univ. of Parma
14:30-14:50	WeB07.4
<i>A Dual Model-Free Control of Underactuated Mechanical Systems, Application to the Inertia Wheel Inverted Pendulum</i> , pp. 1029-1034.	
Andary, Sebastien	LIRMM - Univ. Montpellier 2
Chemori, Ahmed	LIRMM - Univ. Montpellier 2
Benoit, Michel	LIRMM, CNRS
Sallantin, Jean	LIRMM, CNRS
14:50-15:10	WeB07.5
<i>On Finite Time Resonance Entrainment in Multi-DOF Systems</i> , pp. 1035-1039.	
Efimov, Denis	INRIA - LNE
Fradkov, Alexander	Inst. for Problems of Mech. Eng.
Iwasaki, Tetsuya	UCLA
15:10-15:30	WeB07.6
<i>Variational Nonsmooth Mechanics Via a Projected Hamilton's Principle</i> , pp. 1040-1046.	
Pekarek, David	Northwestern Univ.
Murphey, Todd	Northwestern Univ.

WeB08	Matapedia
Optimization II (Regular Session)	
Chair: Raghunathan, Arvind	Mitsubishi Electric Res. Lab.
Co-Chair: Cenedese, Angelo	Univ. of Padova
13:30-13:50	WeB08.1
<i>Linear Time-Varying Impulse Optimization for Data Association</i> , pp. 1047-1052.	
Travers, Matthew	Carnegie Mellon
Murphey, Todd	Northwestern Univ.

Pao, Lucy Y.	Univ. of Colorado Boulder
13:50-14:10	WeB08.2
<i>A Distributed Scheme for Fair EV Charging under Transmission Constraints</i> , pp. 1053-1058.	
Phan, Dzung	IBM T.J. Watson Res. Center
Xiong, Jinjun	IBM T.J. Watson Res. Center
Ghosh, Soumyadip	IBM T.J. Watson Res. Center
14:10-14:30	WeB08.3
<i>A Distributed Anytime Algorithm for Maximizing Occupant Comfort</i> , pp. 1059-1066.	
Raghunathan, Arvind	Mitsubishi Electric Res. Lab.
Krishnamurthy, Sudha	United Tech. Res. Center
14:30-14:50	WeB08.4
<i>Distributed Dual Averaging for Convex Optimization under Communication Delays</i> , pp. 1067-1072.	
Tsianos, Konstantinos	McGill Univ.
Rabbat, Michael	McGill Univ.
14:50-15:10	WeB08.5
<i>An Efficient Quadratic Programming Implementation for Cross Directional Control of Large Papermaking Processes</i> , pp. 1073-1078.	
Wang, Jiadong	Univ. of Alberta
Mustafa, Ghulam	Univ. of Alberta
Chen, Tongwen	Univ. of Alberta
Chu, Danlei	Univ. of Alberta
Backstrom, Johan	Honeywell Measurex Inc.
15:10-15:30	WeB08.6
<i>Multidimensional Newton-Raphson Consensus for Distributed Convex Optimization</i> , pp. 1079-1084.	
Zanella, Filippo	Univ. of Padova
Varagnolo, Damiano	Univ. of Padova
Cenedese, Angelo	Univ. of Padova
Pillonetto, Gianluigi	Univ. of Padova
Schenato, Luca	Univ. of Padova

WeB09	Saint-Charles
Estimation II (Regular Session)	
Chair: Morgansen, Kristi A.	Univ. of Washington
Co-Chair: Brennan, Sean	Penn State Univ.
13:30-13:50	WeB09.1
<i>Flowfield Estimation in the Wake of a Pitching and Heaving Airfoil</i> , pp. 1085-1091.	
Hinson, Brian	Univ. of Washington
Morgansen, Kristi A.	Univ. of Washington
13:50-14:10	WeB09.2
<i>Fuzzy Observer with Unknown Inputs Using Unmeasurable Premise Variables for Vehicle Dynamics and Road Geometry Estimation</i> , pp. 1092-1097.	
Dahmani, Hamid	Univ. de Picardie Jules Verne
Chadli, Mohammed	Univ. de Picardie-Jules Verne
Rabhi, Abdelhamid	MIS
El Hajjaji, Ahmed	Univ. de Picardie-Jules Verne
14:10-14:30	WeB09.3
<i>Self-Valued Observers for Attitude and Rate Gyro Bias Estimation</i> , pp. 1098-1103.	
Brás, Sérgio	IST-ID
Rosa, Paulo Andre Nobre	Inst. Superior Tecnico, Lisbon

Silvestre, Carlos Inst. Superior Tecnico
Oliveira, Paulo Jorge Inst. Superior Técnico 501507930

14:30-14:50 WeB09.4

State Estimation in Large-Scale Open Channel Networks Using Particle Filters, pp. 1104-1110.

Rafiee, Mohammad Univ. of California, Berkeley
Barrau, Axel Ec. Pol.
Bayen, Alexandre M. Univ. of California at Berkeley

14:50-15:10 WeB09.5

Approximating the Riccati Equation Solution for Optimal Estimation in Large-Scale Adaptive Optics Systems, pp. 1111-1116.

Massioni, Paolo Univ. Paris 13 / ONERA
Kulcsar, Caroline L2TI
Raynaud, Henri-François Univ. Paris Nord
Conan, Jean-Marc ONERA

15:10-15:30 WeB09.6

An On-Line Algorithm for Anomaly Detection in Trajectory Data, pp. 1117-1122.

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

WeB10 Saint-Maurice
Adaptive Control II (Regular Session)

Chair: Yamakita, Masaki Tokyo Inst. of Tech.
Co-Chair: Guay, Martin Queen's Univ.

13:30-13:50 WeB10.1

Robust Adaptive Optimal Control for Unknown Dynamical Systems with Discontinuous Cost Function, pp. 1123-1128.

Sadamoto, Tomonori Tokyo Inst. of Tech.
Yamakita, Masaki Tokyo Inst. of Tech.

13:50-14:10 WeB10.2

A Universal Extremum Seeking-Based Stabilizer for Unknown LTV Systems with Unknown Control Directions, pp. 1129-1136.

Scheinker, Alexander UCSD, Los Alamos National Lab.
Krstic, Miroslav Univ. of California, San Diego

14:10-14:30 WeB10.3

Feedback Control of a Rotary Left Ventricular Assist Device Supporting a Failing Cardiovascular System, pp. 1137-1142.

Wang, Yu Univ. of Central Florida
Fargallah, George Univ. of Central Florida
Divo, Eduardo Daytona State Coll.
Simaan, Marwan A. Univ. of Central Florida

14:30-14:50 WeB10.4

Adaptive Control of State Constrained Nonlinear Systems in Strict Feedback Form, pp. 1143-1148.

Guay, Martin Queen's Univ.
Bürger, Mathias Univ. of Stuttgart

14:50-15:10 WeB10.5

Adaptive Cancellation of Matched Unknown Sinusoidal Disturbances for Unknown LTI Systems by State Derivative Feedback, pp. 1149-1154.

Basturk, Halil I. Univ. of California, San Diego
Krstic, Miroslav Univ. of California, San Diego

WeB11 Saguenay

Control of Motors (Regular Session)

Chair: Floquet, Thierry CNRS
Co-Chair: Luviano-Juárez, Alberto UPIITA - IPN Mexico

13:30-13:50 WeB11.1

Avoiding Feedback-Linearization Singularity Using a Quotient Method - the Field-Controlled DC Motor Case, pp. 1155-1161.

Sudarsandhari Shibani, Ec. Pol. Federale de Lausanne
Willson
Muellhaupt, Philippe Ec. Pol. Fed. de Lausanne
Bonvin, Dominique EPFL

13:50-14:10 WeB11.2

An Active Disturbance Rejection Approach for the Control of the Induction Motor: Observer Based Generalized PI Control, pp. 1162-1167.

Sira-Ramirez, Hebertt CINVESTAV
Gonzalez-Montañez, Felipe Univ. AUTONOMA METROPOLITANA
Cortés-Romero, John Univ. Nacional de Colombia
Luviano-Juárez, Alberto UPIITA - IPN Mexico

14:10-14:30 WeB11.3

Passivity-Based Adaptive Complementary PI Sliding-Mode Speed Controller for Synchronous Reluctance Motor Using Predictive Current Control, pp. 1168-1173.

Lin, Cheng-Kai National Taiwan Univ.
Fu, Li-Chen National Taiwan Univ.
Liu, Tian-Hua National Taiwan Univ. of Science and Tech.
Hsiao, Chieh-Fu National Taiwan Univ. of Science and Tech.

14:30-14:50 WeB11.4

EKF-Based Rotor and Stator Resistance Estimation in Speed Sensorless Control of Induction Motors, pp. 1174-1179.

Chiang, Chia-Jui National Taiwan Univ. of Science and Tech.
Wang, Yen-Kai National Taiwan Univ. of Science and Tech.
Cheng, Wei-Te National Taiwan Univ. of Science and Tech.

14:50-15:10 WeB11.5

Parameter Estimation of Permanent Magnet Stepper Motors without Position or Velocity Sensors, pp. 1180-1185.

Delpoux, Romain Ec. Centrale de Lille
Bodson, Marc Univ. of Utah
Floquet, Thierry CNRS

15:10-15:30 WeB11.6

Nonlinear Control Based on Singular Perturbation Theory for Position Tracking of Permanent Magnet Stepper Motors, pp. 1186-1191.

Kim, Wonhee Hanyang
Shin, Donghoon Hanyang Univ. Seoul, Korea
Lee, Youngwoo Hanyang Univ.
Chung, Chung Choo Hanyang Univ.

WeB12 Hochelaga 6
Predictive Control II (Regular Session)

Chair: Lynch, Jerome Univ. of Michigan
Co-Chair: Hartley, Edward N. Univ. of Cambridge

13:30-13:50 WeB12.1

An Agent-Based Model-Predictive Controller for Chilled Water Plants Using Wireless Sensor and Actuator Networks, pp. 1192-1198.

Kane, Michael Univ. of Michigan
Lynch, Jerome Univ. of Michigan

13:50-14:10 WeB12.2

Performance Evaluation of Multiplexed Model Predictive Control for a Large Airliner in Nominal and Contingency Scenarios, pp. 1199-1204.

Hartley, Edward N. Univ. of Cambridge
Maciejowski, Jan M. Univ. of Cambridge
Ling, Keck-Voon Nanyang Tech. Univ.

14:10-14:30 WeB12.3

Implementation Aspects of Model Predictive Control for Embedded Systems, pp. 1205-1210.

Zometa, Pablo OvG Univ. Magdeburg
Koegel, Markus OVG Univ. Magdeburg
Faulwasser, Timm OVG Univ. Magdeburg
Findeisen, Rolf OVG Univ. Magdeburg

14:30-14:50 WeB12.4

A Unifying Framework for Stability in MPC Using a Generalized Integral Terminal Cost, pp. 1211-1216.

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

14:50-15:10 WeB12.5

Lasso MPC: Smart Regulation of Over-Actuated Systems, pp. 1217-1222.

Gallieri, Marco Univ. of Cambridge
Maciejowski, Jan M. Univ. of Cambridge

15:10-15:30 WeB12.6

Chance Constrained Model Predictive Control for Multi-Agent Systems with Coupling Constraints, pp. 1223-1230.

Lyons, Daniel Karlsruhe Inst. of Tech.
Calliess, Jan-Peter Univ. of Oxford
Hanebeck, Uwe D. Karlsruhe Inst. of Tech. (KIT)

WeB13 Hochelaga 5
Stabilization of Networked Control Systems (Regular Session)

Chair: Schiavoni, Nicola L.M. Pol. di Milano
Co-Chair: Ishii, Hideaki Tokyo Inst. of Tech.

13:30-13:50 WeB13.1

Fault-Tolerant Stabilization in Discrete-Time Multiple-Integrator Networks, pp. 1231-1236.

Locatelli, Arturo Pol. di Milano
Schiavoni, Nicola L.M. Pol. di Milano

13:50-14:10 WeB13.2

Active Packet Dropout-Based Networked Control Systems Performance Optimization, pp. 1237-1242.

Wang, Yu-Long Central Queensland Univ.
Han, Qing-Long Central Queensland Univ.
Zhang, Xianming Central Queensland Univ.

14:10-14:30 WeB13.3

Input-To-State Stability of Hybrid Systems with Receding Horizon Control in the Presence of Unreliable Network Packet Dropouts, pp. 1243-1247.

Ma, Wann-Jiun Univ. of Notre Dame
Gupta, Vijay Univ. of Notre Dame

14:30-14:50 WeB13.4

Vulnerable Links and Secure Architectures in the Stabilization of Networks of Controlled Dynamical Systems, pp. 1248-1253.

Rai, Anurag Brigham Young Univ.
Ward, David Univ. of Maryland, Coll. Park
Roy, Sandip Washington State Univ.
Warnick, Sean Brigham Young Univ.

14:50-15:10 WeB13.5

Sufficient Conditions for Stabilization in Feedback Control Over Noisy Channels Using Anytime Rateless Codes, pp. 1254-1259.

Shirazinia, Amirpasha KTH Royal Inst. of Tech.
Bao, Lei Royal Inst. of Tech. (KTH)
Skoglund, Mikael Royal Inst. of Tech.

15:10-15:30 WeB13.6

Data Rate Limitations for Stabilization of Uncertain Systems Over Lossy Channels, pp. 1260-1265.

Okano, Kunihisa Tokyo Inst. of Tech.
Ishii, Hideaki Tokyo Inst. of Tech.

WeB14 Hochelaga 4
Modeling and Estimation in Automotive Powertrain Systems (Invited Session)

Chair: Mohammadpour, Javad Univ. of Houston
Co-Chair: Canova, Marcello The Ohio State Univ.
Organizer: Mohammadpour, Javad Univ. of Houston
Organizer: Canova, Marcello The Ohio State Univ.
Organizer: Scacchioli, Annalisa New York Univ. Pol. Inst.
Organizer: Wang, Yue-Yun General Motors Company
Organizer: Shim, Taehyun Univ. of Michigan-Dearborn
Organizer: Shilpiekandula, Vijay Mitsubishi Electrical Res. Lab.

13:30-13:50 WeB14.1

Adaptive Intake Oxygen Estimation in Lean-Burn Engines (I), pp. 1266-1270.

Kang, Jun-Mo General Motors Holdings LLC
Haskara, Ibrahim GM Res. & Development
Wang, Yue-Yun General Motors Company
Chang, Chen-Fang General Motors Company

13:50-14:10 WeB14.2

Combustion Phasing Model for Control of a Gasoline-Ethanol Fueled SI Engine with Variable Valve Timing (I), pp. 1271-1277.

Hall, Carrie Purdue Univ.
Shaver, Gregory M. Purdue Univ.
Chauvin, Jonathan IFP
Petit, Nicolas MINES ParisTech

14:10-14:30 WeB14.3

Grey-Box Modeling Architectures for Rotational Dynamic Control in Automotive Engines (I), pp. 1278-1283.

Cranmer, Adam Univ. of California, Berkeley
Shahbakhti, Mahdi Univ. of California, Berkeley
Hedrick, Karl Univ. of California at Berkeley

14:30-14:50 WeB14.4

Effective Compression Ratio Estimation in Engines with Flexible Intake Valve Actuation (I), pp. 1284-1289.

Stricker, Karla Purdue Univ.

Kocher, Lyle	Purdue Univ.
Koerberlein, Edward	Purdue Univ. School of Mechanical Engineering
Van Alstine, Dan	Purdue Univ. School of Mechanical Engineering
Shaver, Gregory M.	Purdue Univ.

14:50-15:10 WeB14.5

Parametrization and Adaptation of Gasoline Engine Air System Model Via Linear Programming Support Vector Regression (I), pp. 1290-1295.

Faust, Jacob	Univ. of Michigan
Sun, Jing	Univ. of Michigan
Butts, Kenneth R.	Toyota Tech. Center
Lu, Zhao	Tuskegee Univ.
Tanaka, Satoru	Toyota Motor Corp.

15:10-15:30 WeB14.6

Integrated Powertrain Control for Optimal CO₂-NO_x Tradeoff in an Euro-VI Diesel Engine with Waste Heat Recovery System (I), pp. 1296-1301.

Willems, Frank	Eindhoven Univ. of Tech.
Kupper, Frank	Eindhoven Univ. of Tech.
Cloudt, Robert	TNO Automotive

WeB15 Hochelaga 3
Hybrid Vehicle Systems II (Regular Session)

Chair: Filev, Dimitre P.	Ford Motor Company
Co-Chair: Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign

13:30-13:50 WeB15.1

Cost and Fuel-Optimal Selection of HEV Topologies Using Particle Swarm Optimization and Dynamic Programming, pp. 1302-1307.

Nuesch, Tobias	ETH Zurich
Ott, Tobias	ETH Zurich
Ebbesen, Soren	ETH Zurich
Guzzella, Lino	ETH Zurich

13:50-14:10 WeB15.2

Onboard Learning-Based Fuel Consumption Optimization in Series Hybrid Electric Vehicles, pp. 1308-1313.

Gupta, Rohit	Univ. of Michigan
Kolmanovsky, Ilya V.	The Univ. of Michigan
Wang, Yan	Ford Res. and Advanced Engineerintg, Ford Motor Company
Filev, Dimitre P.	Ford Motor Company

14:10-14:30 WeB15.3

Benefit of Route Recognition in Energy Management of Plug-In Hybrid Electric Vehicles, pp. 1314-1320.

Larsson, Viktor	Chalmers Univ. of Tech.
Johannesson, Lars	Chalmers
Egardt, Bo S.	Chalmers Univ. of Tech.
Lasson, Anders	Volvo Car Corp.

14:30-14:50 WeB15.4

Performance Evaluation and Tuning of a Fuzzy Control Strategy for a Fuel Cell Hybrid Electric Auto Rickshaw, pp. 1321-1326.

Abu Mallouh, Mohammed	Hashemite Univ.
Surgenor, Brian W.	Queen's Univ.
Dash, Peter	Queen's Univ.

McInnes, Lindsay Univ. of British Columbia

14:50-15:10 WeB15.5

A Framework for the Integrated Optimization of Charging and Power Management in Plug-In Hybrid Electric Vehicles, pp. 1327-1334.

Patil, Rakesh	Univ. of Michigan, Ann Arbor
Kelly, Jarod	Univ. of Michigan
Filipi, Zoran	Clemson Univ.
Fathy, Hosam K.	Penn State Univ.

15:10-15:30 WeB15.6

An Energy Management Strategy for a Hydraulic Hybrid Vehicle, pp. 1335-1341.

Deppen, Tim	Univ. of Illinois, Urbana-Champaign
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
Stelson, Kim A.	Univ. of Minnesota
Meyer, Jonathan	Univ. of Minnesota

WeB16 Hochelaga 2
Life Extending Control of Electrochemical Energy Systems II (Invited Session)

Chair: Varigonda, Subbarao	United Tech. Res. Center
Co-Chair: Fathy, Hosam K.	Penn State Univ.
Organizer: Varigonda, Subbarao	United Tech. Res. Center
Organizer: Fathy, Hosam K.	Penn State Univ.
Organizer: Hatzell, Kelsey	The Pennsylvania State Univ.
Organizer: McGee, Ryan	Ford Motor Company
Organizer: Stefanopoulou, Anna G.	Univ. of Michigan

13:30-13:50 WeB16.1

Control of Battery Storage for Wind Energy Systems (I), pp. 1342-1349.

Borhan, Hoseinali	Clemson Univ.
Rotea, Mario	The Univ. of Texas at Dallas
Viassolo, Daniel	Vestas

13:50-14:10 WeB16.2

Nondestructive Forensic Pathology of Lead-Acid Batteries (I), pp. 1350-1355.

Shi, Ying	Pennsylvania State Univ.
Ferone, Christopher Anthony	The Pennsylvania State Univ.
Rao, Chinmay	Penn State Univ.
Rahn, Christopher D.	Penn State Univ.

14:10-14:30 WeB16.3

*Battery Wear from Disparate Duty-Cycles: Opportunities for Electric-Drive Vehicle Battery Health Management (I)**.

Smith, Kandler	National Renewable Energy Lab.
Earleywine, Matthew	National Renewable Energy Lab.
Wood, Eric	National Renewable Energy Lab.
Pesaran, Ahmad	National Renewable Energy Lab.

14:30-14:50 WeB16.4

Constrained Control and Optimization of Tubular Solid Oxide Fuel Cells for Extending Cell Lifetime (I), pp. 1356-1361.

Spivey, Benjamin	ExxonMobil
Hedengren, John	Brigham Young Univ.
Edgar, Thomas F.	Univ. of Texas at Austin

14:50-15:10 WeB16.5

On the Accuracy and Simplifications of Battery Models Using in Situ Measurements of Lithium Concentration in Operational Cells (I), pp. 1362-1367.

Siegel, Jason B. Univ. of Michigan
 Lin, Xinfan Univ. of Michigan
 Stefanopoulou, Anna G. Univ. of Michigan

15:10-15:30 WeB16.6

Distributed Control Design to Regulate Grid Frequency and Reduce Drivetrain Stress in Wind Systems Using Battery Storage, pp. 1368-1375.

Baone, Chaitanya A. Univ. of Wisconsin-Madison
 DeMarco, Christopher L. Univ. of Wisconsin-Madison

WeB17 Grand Salon
Learning I (Regular Session)

Chair: Arslan, Gurdal Univ. of Hawaii at Manoa
 Co-Chair: Kurdila, Andrew J. Virginia Tech.

13:30-13:50 WeB17.1

The Importance of Variance Reduction in Policy Gradient Method, pp. 1376-1381.

Lau, Tak Kit The Chinese Univ. of Hong Kong
 Liu, Yun Hui The Chinese Univ. of Hong Kong

13:50-14:10 WeB17.2

Learning in Infinite-Horizon Inventory Competition with Total Demand Observations, pp. 1382-1387.

Zeinalzadeh, Ashkan Univ. of Hawaii
 Alptekinoglu, Aydin SMU Cox School of Business
 Arslan, Gurdal Univ. of Hawaii at Manoa

14:10-14:30 WeB17.3

Online Markov Decision Processes with Kullback-Leibler Control Cost, pp. 1388-1393.

Guan, Peng Duke Univ.
 Raginsky, Maxim Univ. of Illinois at Urbana-Champaign
 Willett, Rebecca Duke Univ.

14:30-14:50 WeB17.4

Gaussian Process Regression Using Laplace Approximations under Localization Uncertainty, pp. 1394-1399.

Jadaliha, Mahdi Michigan State Univ.
 Xu, Yunfei Michigan State Univ.
 Choi, Jongeun Michigan State Univ.

14:50-15:10 WeB17.5

Learning Theory with Consensus in Reproducing Kernel Hilbert Spaces, pp. 1400-1405.

Deng, Zhaoda Virginia Tech.
 Gregory, Jessica Virginia Tech.
 Kurdila, Andrew J. Virginia Tech.

15:10-15:30 WeB17.6

Transfer Learning for Dynamic RF Environments, pp. 1406-1411.

Wagle, Neeti Univ. of Colorado at Boulder
 Frew, Eric W. Univ. of Colorado, Boulder

WeB18 Marquette
Estimation and Control of DPS II (Invited Session)

Chair: Demetriou, Michael A. Worcester Pol. Inst.
 Co-Chair: Singler, John Missouri Univ. of Science and

Organizer: Demetriou, Michael Worcester Pol. Inst.
 A.

13:30-13:50 WeB18.1

Moment Matching with Prescribed Poles and Zeros for Infinite-Dimensional Systems (I), pp. 1412-1417.

Ionescu, Tudor C. Imperial Coll. London
 Iftime, Orest V. Univ. of Groningen

13:50-14:10 WeB18.2

Model Reduction for Distributed Parameter Systems: A Functional Analytic View (I), pp. 1418-1423.

Opmeer, Mark Univ. of Bath

14:10-14:30 WeB18.3

Model Reduction of Linear PDE Systems: A Continuous Time Eigensystem Realization Algorithm (I), pp. 1424-1429.

Singler, John Missouri Univ. of Science and Tech.

14:30-14:50 WeB18.4

Sensor Placement for Flexible Wing Shape Control (I), pp. 1430-1435.

Ray, Cody W. Oregon State Univ.
 Batten, Belinda A. Oregon State Univ.

14:50-15:10 WeB18.5

On a Generalization of the Proper Orthogonal Decomposition and Optimal Construction of Reduced Order Models (I), pp. 1436-1441.

Djouadi, Seddik, M. Univ. of Tennessee
 Sahyoun, Samir Univ. of Tennessee

15:10-15:30 WeB18.6

Design of Optimal Boundary Control for Non-Stationary Doubly Diffusive Convective Flow (I), pp. 1442-1447.

Ravindran, S.S. Univ. of Alabama in Huntsville

WeB19 Jolliet
Control of Power Systems (Regular Session)

Chair: Cakmakci, Melih Bilkent Univ.
 Co-Chair: Okou, Francis A. Royal Military Coll. of Canada

13:30-13:50 WeB19.1

Observer-Based PI Stabilization of Power Converters, pp. 1448-1453.

Alawieh, Aya Lab. signaux et systemes
 Jaafar, Ali Supélec
 Ortega, Romeo LSS-SUPELEC
 Godoy, Emmanuel Supelec
 Lefranc, Pierre Supélec

13:50-14:10 WeB19.2

Optimal Switching Control of a Step-Down DC-DC Converter, pp. 1454-1459.

Kawashima, Hiroaki Kyoto Univ. / Georgia Inst. of Tech.
 Wardi, Yorai Georgia Inst. of Tech.
 Taylor, David G. Georgia Inst. of Tech.
 Egerstedt, Magnus Georgia Inst. of Tech.

14:10-14:30 WeB19.3

A Multivariable Adaptive Nonlinear Controller for a Five-Level Diode Clamped Active Power Filter, pp. 1460-1467.

Okou, Francis A. Royal Military Coll. of Canada
 Gauthier, Sebastien Royal Military Coll. of Canada

Akhrif, Ouassima Ec. de Tech. superieure
Beguenane, Rachid RMC

14:30-14:50 WeB19.4

Thrust Allocation with Power Management Functionality on Dynamically Positioned Vessels, pp. 1468-1475.

Veksler, Aleksander NTNU
Johansen, Tor Arne Norwegian Univ. of Science & Tech.

Skjetne, Roger Norwegian Univ. of Science and Tech.

14:50-15:10 WeB19.5

On the Application of the Small-Gain Theorem to the Stability Analysis of Large-Scale Power Systems with Delay, pp. 1476-1481.

Gielen, Rob Eindhoven Univ. of Tech.
Hermans, R.M. Eindhoven Univ. of Tech.
Lazar, Mircea Eindhoven Univ. of Tech.
Teel, Andrew R. Univ. of California at Santa Barbara

15:10-15:30 WeB19.6

Development of a Supervisory Controller for Residential Energy Management Problems, pp. 1482-1487.

Akgun, Emre Bilkent Univ.
Cakmakci, Melih Bilkent Univ.

WeB20 Duluth

Computational Methods (Regular Session)

Chair: Koepl, Heinz ETH Zurich
Co-Chair: Imura, Jun-ichi Tokyo Inst. of Tech.

13:30-13:50 WeB20.1

Trajectory Enclosures for Nonlinear Systems with Uncertain Initial Conditions and Parameters, pp. 1488-1493.

August, Elias ETH
Lu, James ETHZ
Koepl, Heinz ETH Zurich

13:50-14:10 WeB20.2

Reducing Computational Time Via Order Reduction of a Class of Reaction-diffusion System, pp. 1494-1499.

López-Caamal, Fernando National Univ. of Ireland, Maynooth
Garcia, Miriam R. Hamilton Inst. National Univ. of Ireland, Maynooth
Middleton, Richard H. The Univ. of Newcastle

14:10-14:30 WeB20.3

Control Theoretic Approach to Stationary Iterative Methods for Large-Scale Toeplitz-Type Equations, pp. 1500-1506.

Kashima, Kenji Osaka Univ.
Oda, Tomohoto Tokyo Inst. of Tech.
Imura, Jun-ichi Tokyo Inst. of Tech.

14:30-14:50 WeB20.4

Distributed Verification of Controllability for Weighted Out-Tree Based Topology, pp. 1507-1512.

Guo, Di Zhejiang Univ.
Yan, Gangfeng Zhejiang Univ.
Lin, Zhiyun Zhejiang Univ.

14:50-15:10 WeB20.5

A Model-Based Approach for the Construction of Design Spaces in Quality-By-Design, pp. 1513-1518.

Kishida, Masako UIUC/MIT
Braatz, Richard D. Massachusetts Inst. of Tech.

15:10-15:30 WeB20.6

A Generic Particle Swarm Optimization Matlab Function, pp. 1519-1524.

Ebbesen, Soren ETH Zurich
Kiwitz, Pascal ETH Zurich, Inst. for Dynamic Systems and Control

Guzzella, Lino ETH Zurich

WeB21 Mackenzie

Constrained Control I (Regular Session)

Chair: Besancon, Gildas GIPSA-Lab. Grenoble INP
Co-Chair: Gomes da Silva Jr, Univ. Federal do Rio Grande do Joao Manoel Sul (UFRGS)

13:30-13:50 WeB21.1

Simple Strategy for Constrained Backstepping Design with Application to SMIB Control, pp. 1525-1530.

Besancon, Gildas GIPSA-Lab. Grenoble INP
Georges, Didier Grenoble Inst. of Tech.
Rafanotsimiva, Liva Falisoa Ec. Sup. Pol. Antsiranana Univ. BP 0, 201 Diégo-Sua
Razafimahenina, Jean Marie Ec. Sup. Pol. Antsiranana Univ. BP 0 Madagascar

13:50-14:10 WeB21.2

Static Anti-Windup for Systems with Sector-Bounded Nonlinearities, pp. 1531-1536.

Gomes da Silva Jr, Joao Univ. Federal do Rio Grande do Sul (UFRGS)
Turner, Matthew C. Univ. of Leicester

14:10-14:30 WeB21.3

Controller Design for a Class of Nonlinear Systems with State and Input Bounds, pp. 1537-1542.

Kim, Minsung Pohang Univ. of Science and Tech.
Lee, Jin S. Pohang Univ. of Science & Tech.

14:30-14:50 WeB21.4

Model Recovery Anti-Windup Control for Linear Discrete Time Systems with Magnitude and Rate Saturation, pp. 1543-1548.

Peni, Tamas Computer and Automation Res. Intitute, HAS
Kulcsar, Balazs Chalmers Univ. of Tech.
Bokor, Jozsef MTA SZTAKI Hungarian Acad. of Sciences

14:50-15:10 WeB21.5

A Dual Method for Determining the Performance Limits of a Semiactively Constrained Control System, pp. 1549-1554.

Harvey, Jr., Philip Scott Duke Univ.
Scruggs, Jeff Univ. of Michigan
Gavin, Henri P. Duke Univ.

WeB22 Saint-Francois

LPV Systems Control Design (Tutorial Session)

Chair: Blanchini, Franco Univ. degli Studi di Udine
Co-Chair: Scherer, Carsten W. Univ. of Stuttgart
Organizer: Blanchini, Franco Univ. degli Studi di Udine
Organizer: Miani, Stefano Univ. degli Studi di Udine

13:30-14:30	WeB22.1
<i>A Tutorial on the Control of Linear Parameter-Varying Systems (I)*</i> .	
Scherer, Carsten W.	Univ. of Stuttgart
14:30-14:50	WeB22.2
<i>LPV Methods for Spacecraft Control: An Overview and Two Case Studies (I)</i> , pp. 1555-1560.	
Corti, Andrea	Pol. di Milano
Dardanelli, Andrea	Pol. di Milano
Lovera, Marco	Pol. di Milano
14:50-15:10	WeB22.3
<i>Model Selection: From LTI to Switched-LPV (I)</i> , pp. 1561-1566.	
Sánchez-Peña, Ricardo	CONICET/ITBA
Bianchi, Fernando	Catalonia Inst. for Energy Res.
15:10-15:30	WeB22.4
<i>Some LPV Approaches for Semi-Active Suspension Control (I)</i> , pp. 1567-1572.	
Sename, Olivier	Grenoble Inst. of Tech.
Do, Anh Lam	Grenoble INP
Poussot-Vassal, Charles	ONERA
Dugard, Luc	CNRS-Grenoble INP
WeC01	Saint Laurent
Consensus Based Estimation and Control II (Regular Session)	
Chair: Shi, Yang	Univ. of Victoria
Co-Chair: Saberi, Ali	Washington State Univ.
16:00-16:20	WeC01.1
<i>Consensus Control of Linear Multi-Agent Systems with Distributed Adaptive Protocols</i> , pp. 1573-1578.	
Li, Zhongkui	Beijing Inst. of Tech.
Liu, Xiangdong	Beijing Inst. of Tech.
Ren, Wei	Univ. of California, Riverside
Xie, Lihua	Nanyang Tech. Univ.
16:20-16:40	WeC01.2
<i>Average Consensus in Multi-Agent Systems with Time-Varying Delays and Packet Losses</i> , pp. 1579-1584.	
Wu, Jian	Univ. of Victoria
Shi, Yang	Univ. of Victoria
16:40-17:00	WeC01.3
<i>Convergence Analysis for a Class of Bounded Distributed Connectivity Preserving Consensus Algorithms for Unicycles</i> , pp. 1585-1590.	
Ajorlou, Amir	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.
17:00-17:20	WeC01.4
<i>Mean Square Stability Analysis for Uniformly Circulant Networked Consensus with Stochastic Link Failures</i> , pp. 1591-1596.	
Ma, Xu	Iowa State Univ.
Elia, Nicola	Iowa State Univ.
17:20-17:40	WeC01.5
<i>Formation Control Based on a Consensus Protocol under Directed Communications with Two Time Delays</i> , pp. 1597-1602.	
Cepeda-Gomez, Rudy	Industrial Univ. of Santander
Olgac, Nejat	Univ. of Connecticut
17:40-18:00	WeC01.6
<i>Finite-Time Consensus for Single-Integrator Kinematics with</i>	

Unknown Inherent Nonlinear Dynamics under a Directed Interaction Graph, pp. 1603-1608.

Cao, Yongcan
Ren, Wei

Air Force Res. Lab.
Univ. of California, Riverside

WeC02	Gatineau
Markov Processes (Regular Session)	
Chair: Terra, Marco Henrique	Univ. of São Paulo at São Carlos
Co-Chair: Theodorou, Evangelos	Univ. of Southern California
16:00-16:20	WeC02.1
<i>Control of Discrete-Time Markovian Jump Linear Systems Subject to Partially Observed Chains</i> , pp. 1609-1614.	
Cerri, João Paulo	Univ. of São Paulo - São Carlos - Brasil
Terra, Marco Henrique	Univ. of São Paulo at São Carlos
16:20-16:40	WeC02.2
<i>A Two-Phase Time Aggregation Algorithm for Average Cost Markov Decision Processes</i> , pp. 1615-1620.	
Arruda, Edilson	Federal Univ. of Rio de Janeiro - UFRJ
Fragoso, Marcelo	LNCC / MCT
16:40-17:00	WeC02.3
<i>Nash Strategy of Multiparameter Singularly Perturbed Markov Jump Stochastic Systems with State and Control-Dependent Noise</i> , pp. 1621-1626.	
Mukaidani, Hiroaki	Hiroshima Univ.
Yamamoto, Toru	Hiroshima Univ.
Dragan, Vasile	Romanian Acad.
17:00-17:20	WeC02.4
<i>Gain-Scheduled H-Infinity Observer Design for Nonlinear Stochastic Systems with Time-Delay and Actuator Saturation</i> , pp. 1627-1632.	
Yin, Yanyan	Jiangnan Univ.
Shi, Peng	Univ. of Glamorgan
Liu, Fei	Jiangnan Univ.
Karimi, Hamid Reza	Univ. of Agder
17:20-17:40	WeC02.5
<i>Stochastic Optimal Control for Nonlinear Markov Jump Diffusion Processes</i> , pp. 1633-1639.	
Theodorou, Evangelos	Univ. of Washington
Todorov, Emanuel	Univ. of Washington
17:40-18:00	WeC02.6
<i>Stochastic H_2 Optimal Control of Discrete-Time Markov Jump Systems with Periodic Coefficients</i> , pp. 1640-1645.	
Ma, Hongji	Beijing Univ. of Aeronautics and Astronautics
Jia, Yingmin	Beihang Univ.
Du, Junping	Beijing Univ. of Posts and Telecommunications
Yu, Fashan	Henan Pol. Univ.
WeC03	Bersimis
Hysteresis (Regular Session)	
Chair: Esbrook, Alex	Michigan State Univ.
Co-Chair: Naso, David	Pol. di Bari
16:00-16:20	WeC03.1

Classical Prandtl-Ishlinskii Modeling and Inverse Multiplicative Structure to Compensate Hysteresis in Piezoactuators, pp. 1646-1651.

Rakotondrabe, Micky FEMTO-ST Inst.
Lutz, Philippe Femto-st

16:20-16:40 WeC03.2

Harmonic Analysis for Hysteresis Operators with Application to Control Design for Systems with Hysteresis, pp. 1652-1657.

Esbrook, Alex Michigan State Univ.
Tan, Xiaobo Michigan State Univ.

16:40-17:00 WeC03.3

Modeling and Compensation of Asymmetric Hysteresis Nonlinearity for Magnetostrictive Actuators with an Asymmetric Shifted Prandtl-Ishlinskii Model, pp. 1658-1663.

Li, Zhi Northeastern Univ.
Feng, Ying Concordia Univ.
Chai, Tianyou Northeastern Univ.
Fu, Jun MIT
Su, Chun-Yi Concordia Univ.

17:00-17:20 WeC03.4

Robust Performance Enhancement Using Disturbance Observers for Hysteresis Compensation Based on Generalized Prandtl-Ishlinskii Model, pp. 1664-1669.

El-Shaer, Ahmed H. Samsung Res. and Development (SISA)
Al Janaideh, Mohammad The Univ. of Jordan
Krejci, Pavel Acad. of Sciences of the Czech Republic
Tomizuka, Masayoshi Univ. of California, Berkeley

17:20-17:40 WeC03.5

On PID Control of Dynamic Systems with Hysteresis Using a Prandtl-Ishlinskii Model, pp. 1670-1675.

Riccardi, Leonardo Pol. di Bari - Bari, Italy
Naso, David Pol. di Bari
Turchiano, Biagio Pol. di Bari
Janocha, Hartmut Saarland Univ.
Palagachev, Dian Kostadinov Pol. di Bari

17:40-18:00 WeC03.6

Stability Analysis and Controller Design for a Linear System with Duhem Hysteresis Nonlinearity, pp. 1676-1681.

Ouyang, Ruiyue Univ. of Groningen
Jayawardhana, Bayu Univ. of Groningen

WeC04 Peribonka

Air-Traffic Management (Regular Session)

Chair: Hwang, Inseok Purdue Univ.
Co-Chair: Sun, Dengfeng Purdue Univ.

16:00-16:20 WeC04.1

A Network Congestion Control Approach to Airport Departure Management, pp. 1682-1688.

Khadiikar, Harshad Massachusetts Inst. of Tech.
Balakrishnan, Hamsa Massachusetts Inst. of Tech.

16:20-16:40 WeC04.2

Stochastic Analysis of Air-Traffic System and Its Corresponding Application in Parameters Prediction, pp. 1689-1694.

Ma, Qianli Purdue Univ.
Wan, Yan Univ. of North Texas

Sun, Dengfeng Purdue Univ.

16:40-17:00 WeC04.3

Dynamic Control of Airport Departures: Algorithm Development and Field Evaluation, pp. 1695-1701.

Simaiakis, Ioannis Massachusetts Inst. of Tech.
Balakrishnan, Hamsa Massachusetts Inst. of Tech.

17:00-17:20 WeC04.4

Algebraic Connectivity Optimization of the Air Transportation Network, pp. 1702-1707.

Spiers, Gregoire Ec. Pol.
Wei, Peng Purdue Univ.
Sun, Dengfeng Purdue Univ.

17:20-17:40 WeC04.5

An Optimal Routing Paradigm for Flexible Flights, pp. 1708-1713.

Wei, Peng Purdue Univ.
Kim, Taehoon Purdue Univ.
Landry, Steven Purdue Univ.
Sun, Dengfeng Purdue Univ.
DeLaurentis, Daniel Purdue Univ.

17:40-18:00 WeC04.6

Probabilistic Aircraft Conflict Resolution: A Stochastic Optimal Control Approach, pp. 1714-1719.

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

WeC05 Richelieu

Aerial Robots (Regular Session)

Chair: Marconi, Lorenzo Univ. di Bologna
Co-Chair: Damm, Gilney CNRS / Evry Univ.

16:00-16:20 WeC05.1

Design and Validation of an Attitude and Heading Reference System for an Aerial Robot Prototype, pp. 1720-1725.

Milosevic, Bojan Univ. of Bologna
Naldi, Roberto Univ. di Bologna
Farella, Elisabetta Univ. of Bologna
Benini, Luca Univ. of Bologna
Marconi, Lorenzo Univ. di Bologna

16:20-16:40 WeC05.2

Control Allocation for a Ducted-Fan Aerial Robot Employing Both Lift and Drag Forces, pp. 1726-1731.

Naldi, Roberto Univ. di Bologna
Marconi, Lorenzo Univ. di Bologna

16:40-17:00 WeC05.3

Pressure Sensor Array Based Nonlinear Robust Pitch Control for Small or Micro Aerial Vehicle, pp. 1732-1736.

Shen, He Univ. of Central Florida
Xu, Yunjun Univ. of Central Florida
Remeikas, Charles Univ. of Central Florida

17:00-17:20 WeC05.4

Vision-Based Estimation of Ground Moving Target by Multiple Unmanned Aerial Vehicles, pp. 1737-1742.

Zhang, Mingfeng Univ. of Toronto
Liu, Hugh Hong-Tao Univ. of Toronto

17:20-17:40 WeC05.5

Modeling and Conditional Integrator Control of an Unmanned Aerial

Vehicle for Airlaunch, pp. 1743-1748.

Nguyen, Van Cuong
IBISC - Univ. d'Evry Val
d'Essonne, Evry, France

Damm, Gilney
CNRS / Evry Univ.

17:40-18:00 WeC05.6

Tracking Expanding Star Curves Using Guidance Vector Fields, pp. 1749-1754.

Frew, Eric W. Univ. of Colorado, Boulder
Lawrence, Dale A. Univ. of Colorado

WeC06 Harricana
Nonlinear Systems III (Regular Session)

Chair: Guay, Martin Queen's Univ.
Co-Chair: Swensen, John Johns Hopkins Univ.

16:00-16:20 WeC06.1

Self-Propulsion of a Spherical Body Shedding Coaxial Vortex Rings in an Ideal Fluid: Hamiltonian Modeling and Simulation, pp. 1755-1760.

Tallapragada, Phanindra Univ. of North Carolina, Charlotte
Kelly, Scott Univ. of North Carolina at Charlotte

Fairchild, Michael UNC Charlotte
Bhattacharya, Tapobrata Univ. of North Carolina at Charlotte

16:20-16:40 WeC06.2

Singularity Induced Bifurcation and Fold Points in Inviscid Transonic Flow, pp. 1761-1766.

Marszalek, Wieslaw DeVry Univ.

16:40-17:00 WeC06.3

Motion Planning by the Homotopy Continuation Method for Control-Affine Systems, pp. 1767-1772.

Amiss, Scott Queen's Univ.
Guay, Martin Queen's Univ.

17:00-17:20 WeC06.4

A Solution for a Class of Output Regulation Problems on $SO(n)$, pp. 1773-1779.

Schmidt, Gerd Simon Univ. of Stuttgart
Ebenbauer, Christian Univ. of Stuttgart
Allgower, Frank Univ. of Stuttgart

17:20-17:40 WeC06.5

An Almost Global Estimator on $SO(3)$ with Measurement on S^2 , pp. 1780-1786.

Swensen, John Yale Univ.
Cowan, Noah Johns Hopkins Univ.

17:40-18:00 WeC06.6

Dissipative Differential Inclusions, Set-Valued Energy Storage and Supply Rate Maps, and Discontinuous Dynamical Systems, pp. 1787-1792.

Haddad, Wassim M. Georgia Inst. of Tech.
Sadikhov, Teymur Georgia Inst. of Tech.

WeC07 Chaudiere
Actuators (Regular Session)

Chair: Li, Perry Y. Univ. of Minnesota
Co-Chair: Reuter, Johannes EATON Corp.

16:00-16:20 WeC07.1

Position Control of Hybrid Pneumatic-Electric Actuators, pp.

1793-1799.

Bone, Gary McMaster Univ.
Chen, Xing McMaster Univ.

16:20-16:40 WeC07.2

Optimal Trajectories for a Liquid Piston Compressor/Expander in a Compressed Air Energy Storage System with Consideration of Heat Transfer and Friction, pp. 1800-1805.

Saadat, Mohsen Univ. of Minnesota
Li, Perry Y. Univ. of Minnesota
Simon, Terrence W. Univ. of Minnesota

16:40-17:00 WeC07.3

Valve Flow Rate Identification and Robust Force Control for a Pneumatic Actuator Used in a Flight Simulator, pp. 1806-1813.

Rapp, Philipp Univ. of Stuttgart
Weickgenannt, Martin Univ. of Stuttgart
Tarin, Cristina Univ. of Stuttgart
Sawodny, Oliver Univ. of Stuttgart

17:00-17:20 WeC07.4

Passivity Based Adaptive Control of a Two Chamber Single Rod Hydraulic Actuator, pp. 1814-1819.

Wang, Meng U of Minnesota
Li, Perry Y. Univ. of Minnesota

17:20-17:40 WeC07.5

Flatness Based State Decomposition in Magnetic Flux Channel Models for Solenoid Valve Control, pp. 1820-1825.

Rey, Felix Karlsruher Inst. of Tech.
Reuter, Johannes Constance Univ. of Applied Sciences

17:40-18:00 WeC07.6

Iterative Inversion-Based Control of Piezoactuator for Evaluating Cilia-Based Micro-Mixing, pp. 1826-1831.

Kongthon, Jiradech Univ. of Washington
Devasia, Santosh Univ. of Washington

WeC08 Matapedia
Optimization III (Regular Session)

Chair: Chen, Dongmei the Univ. of Texas at Austin
Co-Chair: Conway, Richard Univ. of California, Berkeley

16:00-16:20 WeC08.1

High-Order Numerical Solutions to Bellman's Equation of Optimal Control, pp. 1832-1837.

Aguilar, Cesar O Naval Postgraduate School
Krener, Arthur J Naval Postgraduate School

16:20-16:40 WeC08.2

Stochastic Dynamic Network Interdiction Games, pp. 1838-1844.

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

16:40-17:00 WeC08.3

Linearly Solvable Markov Games, pp. 1845-1850.

Dvijotham, Krishnamurthy Univ. of Washington, Seattle
Todorov, Emanuel Univ. of Washington

17:00-17:20 WeC08.4

A Sequential Colonel Blotto Game with a Sensor Network, pp. 1851-1857.

Fuchs, Zachariah Univ. of Florida
Khargonekar, Pramod P. Univ. of Florida

17:20-17:40	WeC08.5
<i>Discrete-Time H2 Guaranteed Cost Analysis for Systems with Norm-Bounded Structured Uncertainty</i> , pp. 1858-1864.	
Conway, Richard	Univ. of California, Berkeley
Horowitz, Roberto	Univ. of California at Berkeley
17:40-18:00	WeC08.6
<i>Design of Scenarios for Constrained Stochastic Optimization Via Vector Quantization</i> , pp. 1865-1870.	
Cooper, Hal James	Univ. of Newcastle
Goodwin, Graham C.	Univ. of Newcastle
Feuer, Arie	Tech.
Cea, Mauricio	Univ. of Newcastle
WeC09	Saint-Charles
Estimation III (Regular Session)	
Chair: Spall, James C.	Johns Hopkins Univ.
Co-Chair: Zamani, Mohammad	The Australian National Univ.
16:00-16:20	WeC09.1
<i>Relative Performance of Expected and Observed Fisher Information in Covariance Estimation for Maximum Likelihood Estimates</i> , pp. 1871-1876.	
Cao, Xumeng	Johns Hopkins Univ.
Spall, James C.	Johns Hopkins Univ.
16:20-16:40	WeC09.2
<i>Geometric Methods for Structured Covariance Estimation</i> , pp. 1877-1882.	
Ning, Lipeng	Univ. of Minnesota
Jiang, Xianhua	Univ. of Minnesota
Georgiou, Tryphon T.	Univ. of Minnesota
16:40-17:00	WeC09.3
<i>State-Bounding Estimation for Nonlinear Models with Multiple Measurements</i> , pp. 1883-1888.	
Becis-Aubry, Yasmina	Univ. of Orléans
Ramdani, Nacim	Univ. of Orléans
17:00-17:20	WeC09.4
<i>Interval Observers for Continuous-Time Linear Systems with Discrete-Time Outputs</i> , pp. 1889-1894.	
Mazenc, Frederic	EPI INRIA DISCO
Kieffer, Michel	CNRS-Supelec
Walter, Eric	CNRS-Supelec-Univ. Paris-Sud
17:20-17:40	WeC09.5
<i>A Second Order Minimum-Energy Filter on the Special Orthogonal Group</i> , pp. 1895-1900.	
Zamani, Mohammad	The Australian National Univ.
Trumpf, Jochen	Australian National Univ.
Mahony, Robert	Australian National Univ.
17:40-18:00	WeC09.6
<i>Graph Laplacian Based Matrix Design for Finite-Time Distributed Average Consensus</i> , pp. 1901-1906.	
Kibangou, Alain	Univ. Joseph Fourier-CNRS

WeC10	Saint-Maurice
Robust Adaptive Control (Regular Session)	
Chair: Kharisov, Evgeny	Univ. of Illinois at Urbana-Champaign (UIUC)

Co-Chair: Nunes, Eduardo	COPPE - Federal Univ. of Rio de Janeiro
Vieira Leao	
16:00-16:20	WeC10.1
<i>Generalization of L1 Adaptive Control Architecture for Switching Estimation Laws</i> , pp. 1907-1912.	
Kharisov, Evgeny	Univ. of Illinois at Urbana-Champaign (UIUC)
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
16:20-16:40	WeC10.2
<i>Adaptive Control with Nearest-Neighbor Previous Instant Compensation for Discrete-Time Nonlinear Strict-Feedback Systems</i> , pp. 1913-1918.	
Yang, Chenguang	Univ. of Plymouth
Ma, Hongbin	Beijing Inst. of Tech.
Xu, Bin	Northwestern Pol. Univ.
Fu, Mengyin	Department of Automatic Control, Beijing Inst. of Technology
16:40-17:00	WeC10.3
<i>L1 Adaptive Control with Proportional Adaptation Law</i> , pp. 1919-1924.	
Vanness, Justin	Univ. of Illinois Urbana - Champaign
Kharisov, Evgeny	Univ. of Illinois at Urbana-Champaign (UIUC)
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
17:00-17:20	WeC10.4
<i>Binary MIMO MRAC Using a Passifying Multiplier - a Smooth Transition to Sliding Mode Control</i> , pp. 1925-1930.	
Yanque, Ivanko	UFRJ
Nunes, Eduardo Vieira Leao	COPPE - Federal Univ. of Rio de Janeiro
Costa, Ramon R.	COPPE - Federal Univ. of Rio de Janeiro
Hsu, Liu	COPPE/UFRJ
17:20-17:40	WeC10.5
<i>Robust Adaptive Decoupling Control Based on a Reduced Order Model</i> , pp. 1931-1936.	
Fu, Yue	Northeastern Univ.
Chai, Tianyou	Northeastern Univ.
Fu, Jun	MIT
17:40-18:00	WeC10.6
<i>On the Robustness of L1 Adaptive Control with Time Varying Perturbations & Filter Design</i> , pp. 1937-1942.	
Naghnaeian, Mohammad	Univ. of Illinois Urbana-Champaign
Voulgaris, Petros G.	Univ. of Illinois, Urbana-Champaign
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
WeC11	Saguenay
Control of Printing Systems (Regular Session)	
Chair: Barton, Kira	Univ. of Michigan, Ann Arbor
Co-Chair: Koekebakker, Sjirk	Océ Tech. B.V.
Holger	
16:00-16:20	WeC11.1
<i>Improving the Performance of a Printing System Using Model</i>	

Reference Adaptive Control: An LMI Approach, pp. 1943-1948.

Ezzeldin Mahdy, Mohamed Eindhoven Univ. of Tech.
Weiland, Siep Eindhoven Univ. of Tech.
van den Bosch, P. P. J. Eindhoven Univ. of Tech.

16:20-16:40 WeC11.2

Control Strategy for Systems with Input-Induced Nonlinearities: A Printing System Case Study, pp. 1949-1954.

Cochior, Carmen Eindhoven Univ. of Tech.
van den Bosch, P. P. J. Eindhoven Univ. of Tech.
Waarsing, Rene OCE
Verriet, Jacques Embedded Systems Inst.

16:40-17:00 WeC11.3

Observer-Based Robust L2 Control for a Professional Printing System, pp. 1955-1960.

Ezzeldin Mahdy, Mohamed Eindhoven Univ. of Tech.
Weiland, Siep Eindhoven Univ. of Tech.
van den Bosch, P. P. J. Eindhoven Univ. of Tech.

17:00-17:20 WeC11.4

Parameterized Iterative Learning Control: Application to a Wide Format Inkjet Printer, pp. 1961-1966.

Koekebakker, Sjirk Holger Océ Tech. B.V.
Lemmen, Bas Pieter Tech. Univ. of Eindhoven
Bosgra, Okko H. Delft Univ. of Tech.
Van den Bosch, Peter Oce-Tech. BV

17:20-17:40 WeC11.5

Pre-Filtering Head-Dependent Adaptive Feed-Forward Compensation for Linear Vibration in Hard-Disc-Drive, pp. 1967-1972.

Luo, Ying Utah State Univ.
Zhang, Tao KLA-Tencor
Zhou, Li Samsung Information Systems America
Lee, BongJin SISA Samsung
Kang, Changik SISA Samsung
Chen, YangQuan Utah State Univ.

17:40-18:00 WeC11.6

Max-Plus Algebra for Optimal Scheduling of Multiple Sheets in a Printer, pp. 1973-1978.

Alirezai, Mohsen tudelft
van den Boom, Ton J. J. Delft Univ. of Tech.
Babuska, R. Delft Univ. of Tech.

WeC12 Hochelaga 6

Predictive Control III (Regular Session)

Chair: Meskin, Nader Qatar Univ.
Co-Chair: Khaki Sedigh, Ali K.N. Toosi Univ. of Tech.

16:00-16:20 WeC12.1

Output-Feedback Model Predictive Control of Biological Phenomena Modeled by S-Systems, pp. 1979-1984.

Meskin, Nader Qatar Univ.
Nounou, Hazem Texas A&M Univ. at Qatar
Nounou, Mohamed Texas A&M Univ. at Qatar
Datta, Aniruddha Texas A&M Univ.
Dougherty, Edward Texas A&M Univ.

16:20-16:40 WeC12.2

Distributed Tree-Based Model Predictive Control on an Open Water System, pp. 1985-1990.

Maestre, J.M. Delft Univ. of Tech.
Raso, Luciano TU Delft
van Overloop, Peter-Jules Delft Univ. of Tech.
De Schutter, Bart Delft Univ. of Tech.

16:40-17:00 WeC12.3

Prediction-Based Feedback Control of a Class of Processes with Input-Varying Delay, pp. 1991-1997.

Bresch-Pietri, Delphine MINES ParisTech
Chauvin, Jonathan IFP
Petit, Nicolas MINES ParisTech

17:00-17:20 WeC12.4

Lyapunov Based Multiple Model Predictive Control: An LMI Approach, pp. 1998-2003.

Abdollahpouri, Mohammad K. N. Toosi Univ. of Tech.
Khaki Sedigh, Ali K.N. Toosi Univ. of Tech.
Fatehi, Alireza K.N. Toosi Univ. of Tech.

17:20-17:40 WeC12.5

Model Predictive Control for the Dynamic Encirclement of a Target, pp. 2004-2009.

Marasco, Anthony Royal Military Coll. of Canada
Givigi, Sidney Royal Military Coll. of Canada
Rabbath, Camille Alain Defence R&D Canada

17:40-18:00 WeC12.6

Spectrogram-MPC: Enforcing Hard Constraints on Systems' Output Spectra, pp. 2010-2017.

Hours, Jean-Hubert EPFL
Zeilinger, Melanie N. École Pol. Fédérale de Lausanne (EPFL)
Gondhalekar, Ravi Osaka Univ.
Jones, Colin Neil École Pol. Fédérale de Lausanne (EPFL)

WeC13 Hochelaga 5

Scheduling in Networked Control Systems (Regular Session)

Chair: Sinopoli, Bruno Carnegie Mellon Univ.
Co-Chair: Campos-Delgado, Daniel U. UASLP

16:00-16:20 WeC13.1

A Cross-Layer Power Allocation Scheme for CDMA Wireless Networks, pp. 2018-2023.

Martinez-Sanchez, Cinthia Facultad de Ciencias, Univ. Autonoma de San Luis Potosi
Luna-Rivera, Martin Univ. Autónoma de San Luis Potosi
Campos-Delgado, Daniel U. UASLP

16:20-16:40 WeC13.2

On Rate Allocation for Multiple Plants in a Networked Control System, pp. 2024-2029.

Bao, Lei Royal Inst. of Tech. (KTH)
Fischione, Carlo Royal Inst. of Tech.
Skoglund, Mikael Royal Inst. of Tech.

16:40-17:00 WeC13.3

Sensor Data Scheduling for Linear Quadratic Gaussian Control with Full State Feedback, pp. 2030-2035.

Shi, Ling Hong Kong Univ. of Science and Tech.
Yuan, Ye Univ. of Cambridge

Zhang, Huanshui	Shandong Univ.
17:00-17:20	WeC13.4
<i>Scheduling Measurements and Controls Over Networks - Part I: Rollout Strategies for Protocol Design</i> , pp. 2036-2041.	
Antunes, Duarte	Eindhoven Univ. of Tech. the Netherlands.
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
Hespanha, Joao P.	Univ. of California, Santa Barbara
Silvestre, Carlos	Inst. Superior Tecnico
17:20-17:40	WeC13.5
<i>Scheduling Measurements and Controls Over Networks - Part II: Rollout Strategies for Simultaneous Protocol and Controller Design</i> , pp. 2042-2047.	
Antunes, Duarte	Eindhoven Univ. of Tech. the Netherlands.
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.
Hespanha, Joao P.	Univ. of California, Santa Barbara
Silvestre, Carlos	Inst. Superior Tecnico
17:40-18:00	WeC13.6
<i>Stochastic Sensor Scheduling in Wireless Sensor Networks with General Graph Topology (I)</i> , pp. 2048-2053.	
Mo, Yilin	Carnegie Mellon Univ.
Garone, Emanuele	Univ. Libre de Bruxelles
Casavola, Alessandro	Univ. Della Calabria
Sinopoli, Bruno	Carnegie Mellon Univ.

WeC14 Hochelaga 4
Modeling and Control of HCCI and PCCI Engines (Invited Session)

Chair: Shim, Taehyun	Univ. of Michigan-Dearborn
Co-Chair: Canova, Marcello	The Ohio State Univ.
Organizer: Shim, Taehyun	Univ. of Michigan-Dearborn
Organizer: Canova, Marcello	The Ohio State Univ.
Organizer: Wang, Yue-Yun	General Motors Company
Organizer: Mohammadpour, Javad	Univ. of Houston
Organizer: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.
Organizer: Scacchioli, Annalisa	New York Univ. Pol. Inst.

16:00-16:20 WeC14.1

Air-To-Fuel Ratio Regulation During SI to HCCI Combustion Mode Transition Using the LQ Tracking Control (I), pp. 2054-2059.

Yang, Xiaojian	Michigan State Univ.
Zhu, Guoming	Michigan State Univ.
Chen, Xuefei	Michigan State Univ.

16:20-16:40 WeC14.2

Control-Oriented PCCI Combustion Timing Model for a Diesel Engine Utilizing Flexible Intake Valve Modulation and High EGR Levels (I), pp. 2060-2065.

Van Alstine, Dan	Purdue Univ. School of Mechanical Engineering
Kocher, Lyle	Purdue Univ.
Koerberlein, Edward	Purdue Univ. School of Mechanical Engineering
Stricker, Karla	Purdue Univ.
Shaver, Gregory M.	Purdue Univ.

16:40-17:00 WeC14.3

Adaptive Control of Homogeneous Charge Compression Ignition

(HCCI) Engines (I), pp. 2066-2071.

Chiang, Chia-Jui	National Taiwan Univ. of Science and Tech.
Chou, Chih-Cheng	National Taiwan Univ. of Science and Tech.
Lin, Jian-Hong	National Taiwan Univ. of Science and Tech.

17:00-17:20 WeC14.4

Experiments and Analysis of High Cyclic Variability at the Operational Limits of Spark-Assisted HCCI Combustion (I), pp. 2072-2077.

Larimore, Jacob	Univ. of Michigan
Hellström, Erik	Univ. of Michigan
Sterniak, Jeffrey	Robert Bosch LLC
Jiang, Li	Robert Bosch LLC
Stefanopoulou, Anna G.	Univ. of Michigan

17:20-17:40 WeC14.5

Late Phasing Homogeneous Charge Compression Ignition Cycle-To-Cycle Combustion Timing Control with Fuel Quantity Input (I), pp. 2078-2083.

Jungkunz, Adam	Stanford Univ.
Erlien, Stephen	Stanford Univ.
Gerdes, J. Christian	Stanford Univ.

17:40-18:00 WeC14.6

Fuel Governor Augmented Control of Recompression HCCI Combustion During Large Load Transients (I), pp. 2084-2089.

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

WeC15 Hochelaga 3
Transportation Systems (Regular Session)

Chair: Murphey, Yi Lu	Univ. of Michigan-Dearborn
Co-Chair: Frazzoli, Emilio	Massachusetts Inst. of Tech.

16:00-16:20 WeC15.1

Real-Time Estimation of Rollover Index for Tripped Rollovers with a Novel Unknown Inputs Nonlinear Observer (I), pp. 2090-2095.

Phanomchoeng, Gridsada	Univ. of Minnesota
Rajamani, Rajesh	Univ. of Minnesota

16:20-16:40 WeC15.2

Driving Course Prediction for Vehicle Handling Maneuvers, pp. 2096-2101.

Liu, Ruoqian	Univ. of Michigan-Dearborn
Yu, Hai	Res. and Advanced Engineering, Ford Motor Company

McGee, Ryan	Ford Motor Company
Murphey, Yi Lu	Univ. of Michigan-Dearborn

16:40-17:00 WeC15.3

Improving Markov Chain Models for Road Profiles Simulation Via Definition of States (I), pp. 2102-2107.

Chin, Philip A.	Virginia Pol. Inst. and State Univ.
Ferris, John	Virginia Pol. Inst. and State Univ.
Reid, Alexander A.	U.S. Army RDECOM-TARDEC

17:00-17:20 WeC15.4

Cloud-Computing Based Velocity Profile Generation for Minimum Fuel Consumption: A Dynamic Programming Based Solution (I), pp. 2108-2113.

Wollaeger, James	Ohio State Univ.
Kumar, Sri Adarsh	The Ohio State Univ.
Onori, Simona	Ohio State Univ.
Filev, Dimitre P.	Ford Motor Company
Ozguner, Umit	Ohio State Univ.
Rizzoni, Giorgio	Ohio State Univ.
Di Cairano, Stefano	Mitsubishi Electric Res. Lab.

17:20-17:40 WeC15.5

Flatness-Based Electronic Posture Control (EPC) for Accident Avoidance (I), pp. 2114-2119.

Scacchioli, Annalisa	New York Univ. Pol. Inst.
Lu, Jianbo	Ford Motor Company

17:40-18:00 WeC15.6

Cost Bounds for Pickup and Delivery Problems with Application to Large-Scale Transportation Systems, pp. 2120-2127.

Treleven, Kyle	Massachusetts Inst. of Tech.
Pavone, Marco	Stanford Univ.
Frazzoli, Emilio	Massachusetts Inst. of Tech.

WeC16 Hochelaga 2
Power Systems I (Regular Session)

Chair: Das, Tuhin	Univ. of Central Florida
Co-Chair: Sira-Ramirez, Hebertt	CINVESTAV

16:00-16:20 WeC16.1

Theory and Experimental Results of Two Dynamic Energy Routers (I), pp. 2128-2133.

Ramirez Rivera, Victor Manuel	LSS-LGEP-SUPELEC
Ortega, Romeo	LSS-SUPELEC
Bethoux, Olivier	Ensea
Grino, Robert	Univ. Pol. De Catalunya
Sánchez-Squella, Antonio	Supélec

16:20-16:40 WeC16.2

First-Principles Model-Based Robust Control of the Current Profile Evolution in the DIII-D Tokamak, pp. 2134-2140.

Barton, Justin	Lehigh Univ.
Boyer, Mark D.	Lehigh Univ.
Shi, Wenyu	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
Luce, Timothy	General Atomics
Ferron, J. R.	General Atomics
Walker, Michael L.	General Atomics
Humphreys, D.A.	General Atomics
Penaflo, Benjamin P.	General Atomics
Johnson, Robert D.	General Atomics

16:40-17:00 WeC16.3

Ripple Reduction in AC - DC Power Converters Via a Lyapunov Approach, pp. 2141-2146.

Pham, Huong	Univ. of Massachusetts Lowell
Jung, Hoeguk	Univ. of Massachusetts, Lowell
Hu, Tingshu	Univ. of Massachusetts, Lowell

17:00-17:20 WeC16.4

Inventory Control of Storage in Distribution Systems, pp. 2147-2152.

Taylor, Joshua	Univ. of California, Berkeley
Callaway, Duncan	Univ. of California, Berkeley
Poola, Kameshwar	Univ. of California at Berkeley

17:20-17:40 WeC16.5

Voltage Regulation of a Fuel Cell-Boost Converter System : A Proportional Integral Exact Tracking Error Dynamics Passive Output Feedback Control Approach, pp. 2153-2158.

Sira-Ramirez, Hebertt	CINVESTAV
Oliver, Marco	Centro Nal. De Investigacion Y Desarrollo Tecnologico
Leyva-Ramos, Jesus	Inst. Potosino de Investigacion Cientifica y Tecnologica

17:40-18:00 WeC16.6

Quasi-Stationarity of Electric Power Grid Dynamics Based on a Spatially Embedded Kuramoto Model, pp. 2159-2164.

Mangesius, Herbert	TU Muenchen
Hirche, Sandra	Tech. Univ. München
Obradovic, Dragan	Siemens

WeC17 Grand Salon
Learning II (Regular Session)

Chair: Jadbabaie, Ali	Univ. of Pennsylvania
Co-Chair: Brennan, Sean	Penn State Univ.

16:00-16:20 WeC17.1

On Consensus and Exponentially Fast Social Learning, pp. 2165-2170.

Molavi, Pooya	Univ. of Pennsylvania
Rahnama Rad, Kamiar	Columbia Univ.
Tahbaz-Salehi, Alireza	Columbia Business School
Jadbabaie, Ali	Univ. of Pennsylvania

16:20-16:40 WeC17.2

Efficient Bayesian Spatial Prediction with Mobile Sensor Networks Using Gaussian Markov Random Fields, pp. 2171-2176.

Xu, Yunfei	Michigan State Univ.
Choi, Jongeun	Michigan State Univ.
Dass, Sarat	Michigan State Univ.
Maiti, Taps	Michigan State Univ.

16:40-17:00 WeC17.3

Model Free Reinforcement Learning with Continuous Action in Practice, pp. 2177-2182.

Degriss, Thomas	Univ. of Alberta
Pilarski, Patrick M.	Univ. of Alberta
Sutton, Richard S.	Univ. of Alberta

17:00-17:20 WeC17.4

A Unified Framework for Supervised Learning of Semantic Models, pp. 2183-2188.

Wen, Yicheng	Penn State Univ.
Sarkar, Soumalya	Pennsylvania State Univ.
Ray, Asok	Pennsylvania State Univ.
Jin, Xin	The Pennsylvania State Univ.
Damarla, Thyagaraju	Army Res. Lab.

17:20-17:40 WeC17.5

Optimally Robust Extrema Filters for Time Series Data, pp. 2189-2195.

Vemulapalli, Pramod	The Pennsylvania State Univ.
Monga, Vishal	Pennsylvania State Univ.
Brennan, Sean	The Pennsylvania State Univ.

17:40-18:00 WeC17.6

Distributed Estimation of the Size of an Anonymous Network Using

Bernoulli Trials, pp. 2196-2201.

Varagnolo, Damiano

Univ. of Padova

Pillonetto, Gianluigi

Univ. of Padova

Schenato, Luca

Univ. of Padova

WeC18 Marquette

Estimation and Control of DPS III (Invited Session)

Chair: Demetriou, Michael A. Worcester Pol. Inst.

Co-Chair: Christofides, Univ. of California at Los Angeles
Panagiotis D.

Organizer: Demetriou, Michael Worcester Pol. Inst.
A.

16:00-16:20 WeC18.1

Collocated Output-Feedback Stabilization of a 2×2 Quasilinear Hyperbolic System Using Backstepping (I), pp. 2202-2207.

Vazquez, Rafael Univ. de Sevilla

Coron, Jean-michel Univ. Pierre et Marie Curie

Krstic, Miroslav Univ. of California, San Diego

Bastin, Georges Univ. Catholique de Louvain

16:20-16:40 WeC18.2

Predictive Control of Aggregate Surface Morphology in a Two-Stage Thin Film Deposition Process for Improved Light Trapping (I), pp. 2208-2213.

Huang, Jianqiao UCLA

Orkoulas, Gerassimos UCLA

Christofides, Panagiotis D. Univ. of California at Los Angeles

16:40-17:00 WeC18.3

Guidance of a Moving Sensor for the Control of Diffusion PDEs Based on On-Line Approximations of Feedback Kernels (I), pp. 2214-2219.

Demetriou, Michael A. Worcester Pol. Inst.

17:00-17:20 WeC18.4

Aspects of Controllability and Observability for Time-Varying Parabolic PDE Systems (I), pp. 2220-2225.

Ng, James Univ. of Alberta

Aksikas, Ilyasse King Abdelaziz Univ.

Dubljevic, Stevan Univ. of Alberta

17:20-17:40 WeC18.5

Backstepping Control for Parabolic PDEs with In-Domain Actuation (I), pp. 2226-2231.

Tsubakino, Daisuke Hokkaido Univ.

Krstic, Miroslav Univ. of California, San Diego

Hara, Shinji The Univ. of Tokyo

17:40-18:00 WeC18.6

Control of the Boussinesq Equations and Implications for Sensor Location in Energy Efficient Buildings (I), pp. 2232-2237.

Burns, John A. Virginia Tech.

Hu, Weiwei Virginia Tech.

He, Xiaoming Missouri Univ. of Science and Tech.

WeC19 Jolliet

Control of Renewable Energy Systems (Regular Session)

Chair: Chen, YangQuan Utah State Univ.

Co-Chair: Visioli, Antonio Univ. of Brescia

16:00-16:20 WeC19.1

Wind Sensorless Control of Wind Energy Conversion System with PMS Generator, pp. 2238-2243.

El Magri, Abdelmounime

EMI

Giri, Fouad

Univ. of Caen Basse-Normandie

Elfadili, Abderrahim

mohamed V

Dugard, Luc

CNRS-Grenoble INP

16:20-16:40 WeC19.2

A Feedback Linearization GPC Control Strategy for a Solar Furnace, pp. 2244-2249.

Beschi, Manuel

Univ. of Brescia

Berenguel, Manuel

Univ. of Almeria

Visioli, Antonio

Univ. of Brescia

Guzman, Jose Luis

Univ. of Almeria

Yebra, Luis José

CIEMAT-Plataforma Solar de Almeria

16:40-17:00 WeC19.3

A Structure Exploiting Algorithm for Approximate Robust Optimal Control with Application to Power Generating Kites, pp. 2250-2255.

Sternberg, Julia

www.uni-hamburg.de

Houska, Boris

Univ. of Leuven

Diehl, Moritz

Katholieke Univ. Leuven

17:00-17:20 WeC19.4

Design, Analysis, and Learning Control of a Fully Actuated Micro Wind Turbine, pp. 2256-2263.

Kolter, J. Zico

Massachusetts Inst. of Tech.

Tedrake, Russ

MIT

17:20-17:40 WeC19.5

Model Predictive Control of DFIG-Based Wind Turbines, pp. 2264-2269.

Kaneko, Akira

Osaka Prefecture Univ.

Hara, Naoyuki

Osaka Prefecture Univ.

Konishi, Keiji

Osaka Prefecture Univ.

WeC20 Duluth

Reduced Order Modeling (Regular Session)

Chair: Borggaard, Jeff

Virginia Tech.

Co-Chair: Li, Li

Univ. of Tech. Sydney

16:00-16:20 WeC20.1

Control of Heave-Induced Pressure Fluctuations in Managed Pressure Drilling, pp. 2270-2275.

Landet, Ingar Skyberg

Norwegian Univ. of Science and Tech.

Pavlov, Alexey

Statoil R&D Center

Aamo, Ole Morten

NTNU

Mahdianfar, Hessam

Norwegian Univ. of Science and Tech. (NTNU)

16:20-16:40 WeC20.2

Structured Model Reduction of Power Systems, pp. 2276-2282.

Sturk, Christopher

Royal Inst. of Tech.

Vanfretti, Luigi

KTH Royal Inst. of Tech.

Milano, Federico

Univ. of Castilla-La Mancha

Sandberg, Henrik

KTH Royal Inst. of Tech.

16:40-17:00 WeC20.3

Model Reduction for Indoor-Air Behavior in Control Design for Energy-Efficient Buildings, pp. 2283-2288.

Borggaard, Jeff

Virginia Tech.

Cliff, Eugene M. Gugercin, Serkan	Virginia Tech. Virginia Tech.
17:00-17:20	WeC20.4
<i>Hydro Power Plant Modeling for Generation Control Applications</i> , pp. 2289-2294.	
Robert, Gerard	EDF
Michaud, Frederic	EDF
17:20-17:40	WeC20.5
<i>Reduced-Order Local Representation of Uncertain Large-Scale Interconnected Systems</i> , pp. 2295-2300.	
Li, Li	Univ. of Tech. Sydney
17:40-18:00	WeC20.6
<i>Model Reduction of Multi-Input Dynamical Networks Based on Clusterwise Controllability</i> , pp. 2301-2306.	
Ishizaki, Takayuki	Tokyo Inst. of Tech.
Kashima, Kenji	Osaka Univ.
Imura, Jun-ichi	Tokyo Inst. of Tech.
Aihara, Kazuyuki	Univ. of Tokyo
WeC21 Mackenzie	
Constrained Control II (Regular Session)	
Chair: El-Farra, Nael H.	Univ. of California, Davis
Co-Chair: Gomes da Silva Jr, Joao Manoel	Univ. Federal do Rio Grande do Sul (UFRGS)
16:00-16:20	WeC21.1
<i>Switched Control of Uncertain Nonlinear Process Systems Subject to Control and Communication Constraints</i> , pp. 2307-2312.	
Hu, Ye	Univ. of California, Davis
El-Farra, Nael H.	Univ. of California, Davis
16:20-16:40	WeC21.2
<i>Control of Linear Systems with Input Saturation and Non-Input-Additive Sustained Disturbances -- Continuous-Time Systems</i> , pp. 2313-2318.	
Wang, Xu	Washington State Univ.
Saberi, Ali	Washington State Univ.
Grip, Håvard Fjær	Washington State Univ.
Stoorvogel, Anton A.	Univ. of Twente
16:40-17:00	WeC21.3
<i>Control of Linear Systems with Input Saturation and Non-Input-Additive Sustained Disturbances -- Discrete-Time Systems</i> , pp. 2319-2324.	
Wang, Xu	Washington State Univ.
Saberi, Ali	Washington State Univ.
Grip, Håvard Fjær	Washington State Univ.
Stoorvogel, Anton A.	Univ. of Twente
17:00-17:20	WeC21.4
<i>Synthesis of Polynomial Control Laws and Analysis for Discrete-Time Polynomial Systems with Saturating Inputs</i> , pp. 2325-2330.	
Valmórbida, Giórgio	Univ. degli Studi di Roma "Tor Vergata"
Tarbouriech, Sophie	LAAS-CNRS
Garcia, Germain	LAAS-CNRS
Zaccarian, Luca	Univ. di Roma, Tor Vergata
17:20-17:40	WeC21.5
<i>State Feedback Design for Rational Nonlinear Control Systems with Saturating Inputs</i> , pp. 2331-2336.	

Zardo Oliveira, Maurício	Univ. Federal do Rio Grande do Sul (UFRGS)
Gomes da Silva Jr, Joao Manoel	Univ. Federal do Rio Grande do Sul (UFRGS)
Coutinho, Daniel	Univ. Federal de Santa Catarina
17:40-18:00	WeC21.6
<i>A New Low-And-High Gain Feedback Design Using MPC for Global Stabilization of Linear Systems Subject to Input Saturation</i> , pp. 2337-2342.	
Wang, Xu	Washington State Univ.
Grip, Håvard Fjær	Washington State Univ.
Saberi, Ali	Washington State Univ.
Johansen, Tor Arne	Norwegian Univ. of Science & Tech.

WeC22 Saint-Francois	
PID Control (Regular Session)	
Chair: Dormido, Sebastián	UNED
Co-Chair: Pagilla, Prabhakar R.	Oklahoma State Univ.
16:00-16:20	WeC22.1
<i>Analysis and Design of Multiscale Controllers for Linear Systems</i> , pp. 2343-2348.	
Cimino, Mauro	Oklahoma State Univ.
Pagilla, Prabhakar R.	Oklahoma State Univ.
16:20-16:40	WeC22.2
<i>Controller Design of Multivariable LTI Unknown Systems</i> , pp. 2349-2355.	
Wang, William Szu-Wei	Univ. of Toronto
Davison, Edward J.	Univ. of Toronto
16:40-17:00	WeC22.3
<i>A Speed Regulating Scheme for Air-Turbine Dental Handpieces</i> , pp. 2356-2361.	
Zakeri, Vahid	Simon Fraser Univ.
Arzanpour, Siamak	Simon Fraser Univ.
17:00-17:20	WeC22.4
<i>A New Two Degree-Of-Freedom Event-Based PI Control Strategy</i> , pp. 2362-2367.	
Beschi, Manuel	Univ. of Brescia
Dormido, Sebastián	UNED
Sánchez Moreno, José	UNED
Visioli, Antonio	Univ. of Brescia
17:20-17:40	WeC22.5
<i>Closed-Loop PI/PID Controller Tuning for Stable and Unstable Processes</i> , pp. 2368-2373.	
Mohammad, Shamsuzzoha	King Fahd Univ. of Petroleum and Minerals(KFUPM)
Lee, Moonyong	Yeungnam Univ.
Seki, Hiroya	Tokyo Inst. of Tech.
17:40-18:00	WeC22.6
<i>A Feedforward Plus Decoupling Control Design for Set-Point Following of TITO Processes</i> , pp. 2374-2379.	
Piccagli, Stefano	Univ. of Brescia
Visioli, Antonio	Univ. of Brescia

Technical Program for Thursday June 28, 2012

ThSP1	Grand Salon
Toward IT-Enabled Power Systems: Large-Scale Distributed Control for Tomorrow's Electricity Grid (Semiplenary Session)	
Chair: Lafortune, Stephane	Univ. of Michigan
Co-Chair: Borrelli, Francesco	University of California at Berkeley
08:30-09:30	ThSP1.1
<i>Toward IT-Enabled Power Systems: Large-Scale Distributed Control for Tomorrow's Electricity Grid (I)*.</i>	
Ilic, Marija	Carnegie Mellon Univ.
ThSP2	Duluth/Mackenzie
Control with Stochastic Components: How Cells Achieve Homeostasis and Exploit Fluctuations (Semiplenary Session)	
Chair: Balas, Gary J.	Univ. of Minnesota
Co-Chair: Egerstedt, Magnus	Georgia Inst. of Tech.
08:30-09:30	ThSP2.1
<i>Control with Stochastic Components: How Cells Achieve Homeostasis and Exploit Fluctuations (I)*.</i>	
El-samad, Hana	Univ. of California at San Francisco
ThA01	Saint Laurent
Cooperative Control (Regular Session)	
Chair: Hatanaka, Takeshi	Tokyo Inst. of Tech.
Co-Chair: Cao, Chengyu	Univ. of Connecticut
10:00-10:20	ThA01.1
<i>Payoff-Based Inhomogeneous Partially Irrational Play for Potential Game Theoretic Cooperative Control: Convergence Analysis, pp. 2380-2387.</i>	
Goto, Tatsuhiro	Tokyo Inst. of Tech.
Hatanaka, Takeshi	Tokyo Inst. of Tech.
Fujita, Masayuki	Tokyo Inst. of Tech.
10:20-10:40	ThA01.2
<i>Cooperative Control of Multi-Agent Systems with Limited Angular Field of View, pp. 2388-2393.</i>	
Asadi, Mohammad Mehdi	Concordia Univ.
Ajorlou, Amir	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.
10:40-11:00	ThA01.3
<i>Agreeing under Randomized Network Dynamics, pp. 2394-2400.</i>	
Shi, Guodong	Royal Inst. of Tech.
Johansson, Karl H.	Royal Inst. of Tech.
11:00-11:20	ThA01.4
<i>Evolving Control for Preserving Connectivity among Agents of Network with Non-Cooperative Moving Agents, pp. 2401-2406.</i>	
Menon, Prathyush P	Univ. of Exeter
Edwards, Christopher	Univ. of Leicester
Shtessel, Yuri B.	Univ. of Alabama at Huntsville
11:20-11:40	ThA01.5
<i>Cooperative Control of Linear Parameter-Varying Systems, pp. 2407-2412.</i>	
Seyboth, Georg Sebastian	Univ. of Stuttgart
Schmidt, Gerd Simon	Univ. of Stuttgart

Allgower, Frank	Univ. of Stuttgart
11:40-12:00	ThA01.6
<i>Cooperative Adaptive Control of a Two-Agent System, pp. 2413-2418.</i>	
Luo, Jie	Univ. of Connecticut
Cooper, John	Univ. of Connecticut
Cao, Chengyu	Univ. of Connecticut
Pham, Khanh D.	AIR FORCE Res. Lab.
ThA02	Gatineau
Hybrid and Switched Systems I (Regular Session)	
Chair: Medvedev, Alexander V.	Uppsala Univ.
Co-Chair: Sanfelice, Ricardo G.	Univ. of Arizona
10:00-10:20	ThA02.1
<i>Complex Dynamics and Chaos in a Scalar Linear Continuous System with Impulsive Feedback, pp. 2419-2424.</i>	
Zhusubaliyev, Zhanybai	South West State Univ. (Kursk State Tech. Univ.)
Churilov, Alexander	St.Petersburg State Marine Tech. Univ.
Medvedev, Alexander V.	Uppsala Univ.
10:20-10:40	ThA02.2
<i>Fixed-Complexity Piecewise Ellipsoidal Representation of the Continual Reachability Set Based on Ellipsoidal Techniques, pp. 2425-2430.</i>	
Kaynama, Shahab	Univ. of British Columbia
Oishi, Meeko	Univ. of New Mexico
Mitchell, Ian M.	Univ. of British Columbia
Dumont, Guy A.	Univ. of British Columbia
10:40-11:00	ThA02.3
<i>Passivity-Based Design of Switching Controllers for Nonlinear Systems, pp. 2431-2436.</i>	
Kloiber, Tobias	Tech. Univ. München
Kotyczka, Paul	Tech. Univ. Muenchen
11:00-11:20	ThA02.4
<i>Zeno Behavior in Electromechanical Hybrid Systems: From Theory to Experimental Validation, pp. 2437-2442.</i>	
Nadubettu Yadukumar, Shishir	Texas A&M Univ.
Kothapalli, Bhargav	Texas A&M Univ.
Ames, Aaron	Texas A&M Univ.
11:20-11:40	ThA02.5
<i>On the Synchronization of Two Impulsive Oscillators under Communication Constraints, pp. 2443-2448.</i>	
Phillips, Sean	Univ. of Arizona
Sanfelice, Ricardo G.	Univ. of Arizona
Erwin, Richard Scott	Air Force Res. Lab.
11:40-12:00	ThA02.6
<i>On the Effect and Robustness of Zero-Crossing Detection Algorithms in Simulation of Hybrid Systems Jumping on Surfaces, pp. 2449-2454.</i>	
Copp, David A.	Univ. of Arizona
Sanfelice, Ricardo G.	Univ. of Arizona
ThA03	Bersimis

Control of High-Precision Motion Stages (Invited Session)

Chair: Heertjes, Marcel	Eindhoven Univ. of Tech.
Co-Chair: Steinbuch, Maarten	Eindhoven Univ. of Tech.
Organizer: Heertjes, Marcel	Eindhoven Univ. of Tech.
Organizer: Steinbuch, Maarten	Eindhoven Univ. of Tech.

10:00-10:20 ThA03.1

Next-Generation Wafer Stage Motion Control: Connecting System Identification and Robust Control (I), pp. 2455-2460.

Oomen, Tom	Eindhoven Univ. of Tech.
van Herpen, Robbert	Eindhoven Univ. of Tech.
Quist, Sander	Eindhoven Univ. of Tech.
van de Wal, Marc	ASML
Bosgra, Okko H.	Delft Univ. of Tech.
Steinbuch, Maarten	Eindhoven Univ. of Tech.

10:20-10:40 ThA03.2

Data-Based Control Tuning in Master-Slave Systems (I), pp. 2461-2466.

Heertjes, Marcel	Eindhoven Univ. of Tech.
Temizer, Burak	Eindhoven Univ. of Tech.

10:40-11:00 ThA03.3

Variable Gain Motion Control for Transient Performance Improvement (I), pp. 2467-2472.

Hunnekens, Bram	Eindhoven Univ. of Tech.
Van De Wouw, Nathan	Eindhoven Univ. of Tech.
Nijmeijer, Hendrik	Eindhoven Univ. of Tech.

11:00-11:20 ThA03.4

Combined Input Shaping and Feedforward Control for Flexible Motion Systems, pp. 2473-2478.

Bruijnen, Dennis	Philips Innovation Services
van Dijk, Niels	Philips Innovation Services

11:20-11:40 ThA03.5

Oscillation-Synchronous Control of a Frequency-Measuring Atomic Force Microscope (I), pp. 2479-2484.

Amin-Shahidi, Darya	Massachusetts Inst. of Tech.
Trumper, David	Massachusetts Inst. of Tech.

11:40-12:00 ThA03.6

Non-Raster Sampling in Atomic Force Microscopy: A Compressed Sensing Approach, pp. 2485-2490.

Andersson, Sean	Boston Univ.
Pao, Lucy Y.	Univ. of Colorado Boulder

ThA04 Peribonka**Aerospace Applications I** (Regular Session)

Chair: Dimarogonas, Dimos V.	Royal Inst. of Tech.
Co-Chair: Khorasani, Khashayar	Concordia Univ.

10:00-10:20 ThA04.1

Design and Experimental Validation of a Controller Suite for an Autonomous, Finless Airship, pp. 2491-2496.

Liesk, Torsten	McGill Univ.
Nahon, Meyer	McGill Univ.
Boulet, Benoit	McGill Univ.

10:20-10:40 ThA04.2

Modified Model Predictive Control in a Virtual Satellite, pp. 2497-2502.

Bai, Xueliang	Univ. of Sydney
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Wu, Xiaofeng Univ. of Sydney

Xiao, Size Univ. of Sydney

10:40-11:00 ThA04.3

A Decentralized Event-Based Predictive Navigation Scheme for Air-Traffic Control, pp. 2503-2508.

Maniatopoulos, Spyros	National Tech. Univ. of Athens
Dimarogonas, Dimos V.	Royal Inst. of Tech.
Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens

11:00-11:20 ThA04.4

Detection of Scramjet Unstart in a Hypersonic Vehicle Model, pp. 2509-2514.

Pettinari, Silvia	Univ. of Camerino
Corradini, Maria Letizia	Univ. di Camerino
Serrani, Andrea	The Ohio State Univ.

11:20-11:40 ThA04.5

Generalized Fault Recovery of an Under-Actuated Quadrotor Aerial Vehicle, pp. 2515-2520.

Ranjbaran, Mina	Concordia Univ.
Khorasani, Khashayar	Concordia Univ.

11:40-12:00 ThA04.6

Control of Flapping Wing Micro-Air Vehicles Using Variable Stiffness Membrane Wings, pp. 2521-2526.

Hale, Lawrence	Virginia Pol. Inst. and State Univ.
Woolsey, Craig	Virginia Tech.
Patil, Mayuresh J.	Virginia Tech.

ThA05 Richelieu**Aerospace Systems I** (Regular Session)

Chair: Urakubo, Takateru	Kobe Univ.
Co-Chair: Plestan, Franck	Ec. Centrale de Nantes-IRCCyN

10:00-10:20 ThA05.1

Optimal Periodic Control of Power Harvesting Tethered Airplanes: How to Fly Fast without Wind and without Propellor?, pp. 2527-2532.

Gillis, Joris	Katholieke Univ. Leuven
Goos, Jan	Katholieke Univ. Leuven
Geebelen, Kurt	KU Leuven
Swevers, Jan	K. U. Leuven
Diehl, Moritz	Katholieke Univ. Leuven

10:20-10:40 ThA05.2

Fault Tolerant Control Based on Adaptive Control Allocation with a Multiple Effectors Aircraft Application, pp. 2533-2538.

Liu, Chunsheng	Nanjing Univ. of Aeronautics and Astronautics
Zhu, Xinzhong	Nanjing Univ. of Aeronautics and Astronautics
Bin, Jiang	Coll. of Automation Engineering, Nanjing Univ. of Aeronautics

10:40-11:00 ThA05.3

Adaptive Failure Compensation for Coaxial Rotor Helicopter under Propeller Failure, pp. 2539-2544.

Kapoor, Dhruv	Indian Inst. of Tech. Guwahati
Deb, Dipankar	Indian Inst. of Tech. Guwahati
Sahai, Amal	Indian Inst. of Tech. Guwahati
Bangar, Harshit	Indian Inst. of Tech. Guwahati

11:00-11:20 ThA05.4

Control of 3 DOF Helicopter: A Novel Autopilot Scheme Based on

Adaptive Sliding Mode Control, pp. 2545-2550.

Odelga, Marcin Ec. Centrale de Nantes
Chriette, Abdelhamid Ec. Centrale de Nantes, IRCCyN
Plestan, Franck Ec. Centrale de Nantes-IRCCyN

11:20-11:40 ThA05.5

Capturability Analysis of a Three-Dimensional Guidance Law with Angular Acceleration Input, pp. 2551-2556.

Urakubo, Takateru Kobe Univ.
Kanade, Takeo Carnegie Mellon Univ.

11:40-12:00 ThA05.6

Adaptive Glide Slope Control for Autonomous Airdrop Systems, pp. 2557-2562.

Ward, Michael Georgia Tech.
Costello, Mark Georgia Tech.

ThA06 Harricana
Stability of Nonlinear Systems I (Regular Session)

Chair: Aldrich, Jack California Inst. of Tech.
Co-Chair: Rodrigues, Luis Concordia Univ.

10:00-10:20 ThA06.1

Lyapunov Stabilization of Spinning Multibody Systems Driven by an Active/passive PD-Feedback Control Law, pp. 2563-2570.

Aldrich, Jack California Inst. of Tech.
Ploen, Scott Jet Propulsion Lab.

10:20-10:40 ThA06.2

Dynamic Lyapunov Functions: Properties and Applications, pp. 2571-2576.

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

10:40-11:00 ThA06.3

A New Method to Estimate a Guaranteed Subset of the Domain of Attraction for Non-Polynomial Systems, pp. 2577-2582.

Saleme, Ahmed Univ. of Wuppertal
Tibken, Bernd Univ. of Wuppertal

11:00-11:20 ThA06.4

A Generalized Sector Bound Approach to Feedback Stabilization of Nonlinear Control Systems, pp. 2583-2588.

Alvergue, Luis Louisiana State Univ.
Gu, Guoxiang Louisiana State Univ.
Acharya, Sumanta Louisiana State Univ.

11:20-11:40 ThA06.5

On Stability Analysis for Systems Containing Repeated Scalar Slope-Restricted Nonlinearities, pp. 2589-2594.

Turner, Matthew C. Univ. of Leicester
Kerr, Murray Lawrence Deimos Space
Sofrony, Jorge Ivan Univ. Nacional de Colombia

11:40-12:00 ThA06.6

Global Stabilization of a Class of Upper-Triangular Systems Using a Generalized Homogeneous Method, pp. 2595-2600.

Tian, Weisong Univ. of Texas at San Antonio
Qian, Chunjiang Univ. of Texas at San Antonio
Du, Haibo Southeast Univ.
Frye, Michael Univ. of the Incarnate Word

ThA07 Chaudiere

Control Applications I (Regular Session)

Chair: Banavar, Ravi N. Indian Inst. of Tech.
Co-Chair: Gorinevsky, Dimitry Stanford Univ.

10:00-10:20 ThA07.1

Amplitude and Phase Control in Active Suppression of Combustion Instability, pp. 2601-2608.

Gorinevsky, Dimitry Stanford Univ.
Overman, Nick Goodrich Corp.
Goetze, Jerry L. Goodrich Corp.

10:20-10:40 ThA07.2

Energy Efficient Control for Mechanical Systems Based on Inherent Dynamical Structures, pp. 2609-2614.

Flaßkamp, Kathrin Univ. of Paderborn
Ober-Blöbaum, Sina Univ. of Paderborn

10:40-11:00 ThA07.3

Takagi-Sugeno Control of the Elevation Channel of a Twin-Rotor System Using Closed-Loop Empirical Data, pp. 2615-2620.

Azimian, Hamidreza Univ. of Western Ontario
Fatehi, Alireza K.N. Toosi Univ. of Tech.
Araabi, Babak N. Univ. of Tehran

11:00-11:20 ThA07.4

Dual Loop Control of Cable-Conduit Actuated Devices, pp. 2621-2626.

Agrawal, Varun Purdue Univ.
Peine, William J. Purdue Univ.
Yao, Bin Purdue Univ.

11:20-11:40 ThA07.5

A Smoothed GMS Friction Model Suited for Gradient-Based Friction State Estimation, pp. 2627-2632.

Boegli, Max K.U.Leuven
De Laet, Tinne K.U.Leuven
De Schutter, Joris Katholieke Univ. Leuven
Swevers, Jan K. U. Leuven

11:40-12:00 ThA07.6

A 2D-Planar Dielectrophoretic Model, pp. 2633-2638.

Simha, Harsha IIT Bombay
Banavar, Ravi N. Indian Inst. of Tech.

ThA08 Matapedia
Optimization IV (Regular Session)

Chair: Deng, Kun Univ. of Illinois,
Urbana-Champaign

Co-Chair: Malisani, Paul MINES ParisTech

10:00-10:20 ThA08.1

Constrained Biogeography-Based Optimization for Invariant Set Computation, pp. 2639-2644.

Shah, Arpit Cleveland State Univ.
Simon, Dan Cleveland State Univ.
Richter, Hanz Cleveland State Univ.

10:20-10:40 ThA08.2

On-The-Fly Model Abstraction for Controller Synthesis, pp. 2645-2650.

Rungger, Matthias Univ. of California at Los Angeles
Stursberg, Olaf Univ. of Kassel

10:40-11:00 ThA08.3

Model Reduction of Markov Chains Via Low-Rank Approximations, pp. 2651-2656.

Deng, Kun Univ. of Illinois,
Urbana-Champaign
Huang, Dayu Univ. of Illinois,
Urbana-Champaign

11:00-11:20 ThA08.4

Approximate Closed-Form Solutions to Finite-Horizon Optimal Control of Nonlinear Systems, pp. 2657-2662.

Heydari, Ali Missouri Univ. of Science and
Tech.
Balakrishnan, S.N. Missouri Univ. of Science and
Tech.

11:20-11:40 ThA08.5

Mixed Integer Optimal Compensation: Decompositions and Mean-Field Approximations, pp. 2663-2668.

Bauso, Dario Univ. di Palermo
Zhu, Quanyan Univ. of Illinois,
Urbana-Champaign
Basar, Tamer Univ. of Illinois,
Urbana-Champaign

11:40-12:00 ThA08.6

A Constructive Interior Penalty Method for Optimal Control Problems with State and Input Constraints, pp. 2669-2676.

Malisani, Paul MINES ParisTech
Chaplais, Francois MINES ParisTech
Petit, Nicolas MINES ParisTech

ThA09 Saint-Charles
Identification I (Regular Session)

Chair: Akcay, Huseyin Anadolu Univ.
Co-Chair: D'Amato, Anthony Univ. of Michigan

10:00-10:20 ThA09.1

Frequency Domain Subspace-Based Identification of Discrete-Time Singular Power Spectra from Uniformly Spaced Measurements, pp. 2677-2682.

Akcay, Huseyin Anadolu Univ.

10:20-10:40 ThA09.2

TS-RLS Algorithm for Pseudo-Linear Regressive Models, pp. 2683-2688.

Ding, Rui Jiangnan Univ.
Duan, Honghong Jiangnan Univ.

10:40-11:00 ThA09.3

Nuclear Norm Minimization Methods for Frequency Domain Subspace Identification, pp. 2689-2694.

Smith, Roy S. Swiss Federal Inst. Tech. (ETH)

11:00-11:20 ThA09.4

Regularized Spectrum Estimation in Spaces Induced by Stable Spline Kernels, pp. 2695-2700.

Bottegal, Giulio Univ. OF PADOVA
Pillonetto, Gianluigi Univ. of Padova

11:20-11:40 ThA09.5

Interpretation of Non-Parametric Estimates of Time-Varying Systems, pp. 2701-2706.

Ludvig, Daniel Rehabilitation Inst. of Chicago
Perreault, Eric Northwestern Univ.

11:40-12:00 ThA09.6

FIR-Based Phase Matching for Robust Retrospective-Cost Adaptive Control, pp. 2707-2712.

Sumer, Dogan Univ. of Michigan - Ann Arbor
Holzel, Matthew Univ. of Michigan
D'Amato, Anthony Univ. of Michigan
Bernstein, Dennis S. Univ. of Michigan

ThA10 Saint-Maurice
Systems Biology I (Regular Session)

Chair: Jayawardhana, Bayu Univ. of Groningen
Co-Chair: Del Vecchio, Massachusetts Institute of Tech.
Domitilla

10:00-10:20 ThA10.1

On the Graph and Systems Analysis of Reversible Chemical Reaction Networks with Mass Action Kinetics, pp. 2713-2718.

Rao, Shodhan Univ. of Groningen
Jayawardhana, Bayu Univ. of Groningen
van der Schaft, Arjan J. Univ. of Groningen

10:20-10:40 ThA10.2

Topology Estimation of Gene Regulatory Networks with Relative Expression Level Variations, pp. 2719-2724.

Zhou, Tong Tsinghua Univ.
Wang, Ya-Li Tsinghua Univ.

10:40-11:00 ThA10.3

Determining Transcription Factor Profiles from Fluorescent Reporter Systems Involving Regularization of Inverse Problems, pp. 2725-2730.

Bansal, Loveleena Texas A&M Univ.
Chu, Yunfei Texas A&M Univ.
Laird, Carl Damon Texas A&M Univ.
Hahn, Juergen Rensselaer Pol. Inst.

11:00-11:20 ThA10.4

Stochastic Analysis of Retroactivity in Transcriptional Networks through Singular Perturbation, pp. 2731-2736.

Ghaemi, Reza MIT
Del Vecchio, Domitilla Massachusetts Institute of Tech.

11:20-11:40 ThA10.5

Boolean Network Model of Oxidative Stress Response Pathways, pp. 2737-2742.

Sridharan, Sriram Texas A&M Univ.
Layek, Ritwik Texas A&M Univ.
Datta, Aniruddha Texas A&M Univ.
S Venkatraj, Vijay Texas A&M Univ.

11:40-12:00 ThA10.6

Design Tradeoffs in a Synthetic Gene Control Circuit for Metabolic Networks, pp. 2743-2748.

Oyazun, Diego A. Imperial Coll. London
Stan, Guy-Bart Vincent Imperial Coll. London

ThA11 Saguenay
Human-In-The-Loop Control (Regular Session)

Chair: Surana, Amit United Tech. Res. Center
Co-Chair: Yi, Jingang Rutgers Univ.

10:00-10:20 ThA11.1

Control Design of Electrically-Assisted Steering Systems for Bicycles with Child Restraint Seats, pp. 2749-2754.

Matsuzawa, Shunsuke	Tokyo Denki Univ.
Sato, Naonari	Tokyo Denki Univ.
Iwase, Masami	Tokyo Denki Univ.

10:20-10:40 ThA11.2

Stability Analysis of Human Rider's Balance Control of Stationary Bicycles, pp. 2755-2760.

Soubakhsh, Damoon	MIT
Zhang, Yang	Rutgers Univ.
Yi, Jingang	Rutgers Univ.

10:40-11:00 ThA11.3

A Full Hybrid Electric Bike: How to Increase Human Efficiency, pp. 2761-2766.

Spagnol, Pierfrancesco	Pol. di Milano
Alli, Giovanni	Pol. di Milano
Lisanti, Paolo	Univ. di Bergamo
Todeschini, Fabio	Pol. di Milano
Savaresi, Sergio M.	Pol. Di Milano
Spelta, Cristiano	Univ. degli studi di Bergamo
Morelli, Andrea	MAPEI Sport Service

11:00-11:20 ThA11.4

Adaptive Attention Allocation in Human-Robot Systems, pp. 2767-2774.

Srivastava, Vaibhav	Univ. of California Santa Barbara
Surana, Amit	United Tech. Res. Center
Bullo, Francesco	Univ. California at Santa Barbara

11:20-11:40 ThA11.5

Effects of Input Shaping on Manual Tracking with Oscillatory Controlled-Element Dynamics, pp. 2775-2780.

Potter, James Jackson	Georgia Inst. of Tech.
Singhose, William	Georgia Inst. of Tech.

11:40-12:00 ThA11.6

Evaluation of a Customizable Haptic Feedback System for Ground Vehicle Steer-By-Wire Interfaces, pp. 2781-2787.

Mandhata, Uday	The Mathworks
Jensen, Matthew	Clemson Univ.
Wagner, John R.	Clemson Univ.
Switzer, Fred	Clemson Univ.
Dawson, Darren M.	Clemson Univ.
Summers, Joshua	Clemson Univ.

ThA12 Hochelaga 6
Process Control Research, Education and Practice I (Invited Session)

Chair: Edgar, Thomas F.	Univ. of Texas at Austin
Co-Chair: Doyle, Francis	Univ. of California at Santa Barbara
Organizer: Shah, Sirish L.	Univ. of Alberta
Organizer: Bonvin, Dominique	EPFL
Organizer: Edgar, Thomas F.	Univ. of Texas at Austin
Organizer: Henson, Michael A.	Univ. of Massachussetts

10:00-10:20 ThA12.1

Use of Model Predictive Control to Enhance the Flexibility of Thermal Energy Storage Cooling Systems (I), pp. 2788-2793.

Cole, Wesley Joseph	Univ. of Texas - Austin
Edgar, Thomas F.	Univ. of Texas at Austin
Novoselac, Atila	Univ. of Texas at Austin

10:20-10:40 ThA12.2

Multistate PLS for Continuous Processes (I), pp. 2794-2799.

Dunia, Ricardo	The Univ. of Texas at Austin
Edgar, Thomas F.	Univ. of Texas at Austin
Blevins, Terrence	Emerson Process Management
Wojsznis, Wilhelm K.	Emerson Process Management

10:40-11:00 ThA12.3

Control Performance Monitoring Via Model Residual Assessment (I), pp. 2800-2805.

Sun, Zhijie	Univ. of Southern California
Qin, S. Joe	Univ. of Southern California
Singhal, Ashish	Praxair, Inc.
Megan, Lawrence	Praxair

11:00-11:20 ThA12.4

Exploiting Local Quasiconvexity for Gradient Estimation in Modifier-Adaptation Schemes (I), pp. 2806-2811.

Bunin, Gene	Ec. Pol. Fédérale de Lausanne (EPFL)
Francois, Gregory	Ec. Pol. Federale de Lausanne
Bonvin, Dominique	EPFL

11:20-11:40 ThA12.5

Design of a Model Predictive Controller for Interface Level Regulation in Oil Sands Separation Cells (I), pp. 2812-2817.

Narang, Anuj	Univ. of Alberta
Shah, Sirish L.	Univ. of Alberta
Chen, Tongwen	Univ. of Alberta
Shukeir, Eliyya	Suncor Energy Inc
Kadali, Ramesh	Suncor Energy Inc.

11:40-12:00 ThA12.6

Bio-Inspired Hybrid Control of Pulse-Coupled Oscillators and Application to Synchronization of a Wireless Network (I), pp. 2818-2823.

Núñez, Felipe	Univ. of California, Santa Barbara
Wang, Yongqiang	Univ. of California, Santa Barbara
Doyle, Francis	Univ. of California at Santa Barbara

ThA13 Hochelaga 5
Control of Networks (Regular Session)

Chair: Pan, Yan	Bell Lab. Alcatel-Lucent
Co-Chair: Sinopoli, Bruno	Carnegie Mellon Univ.

10:00-10:20 ThA13.1

Oscillation Analysis for a Quasi-Ring Optical Network, pp. 2824-2829.

Wang, Zheng	Univ. of Toronto
Tsai, Jimmy	Univ. of Toronto
Pavel, Lacra	Univ. of Toronto
Pan, Yan	Bell Lab. Alcatel-Lucent
Kilper, Daniel C.	Bell Lab.

10:20-10:40 ThA13.2

Uncooperative Multi-Agent Communication Network Control, Hybrid LQ Approach, pp. 2830-2835.

Shtessel, Yuri B.	Univ. of Alabama at Huntsville
Cosby, J. Alan	Univ. of Alabama in Huntsville
Bordetsky, Alexander	Naval Postgraduate School

10:40-11:00 ThA13.3

Energy-Aware Wireless Networked Control Using Radio-Mode

Management (I), pp. 2836-2841.

Cardoso de Castro, Nicolas INRIA
Canudas de Wit, Carlos CNRS, GIPSA-Lab.
Garin, Federica INRIA

11:00-11:20 ThA13.4

Impulsive Control for a Class of Delayed Parabolic Complex Networks, pp. 2842-2847.

Wang, Jinliang Beijing Univ. of Aeronautics & Astronautics
Wu, Huai-Ning BeihangUniversity(BeijingUniversit
yofAeronauticsandAstronau tics

11:20-11:40 ThA13.5

Optimal Control of Logical Control Network with Noisy Inputs, pp. 2848-2853.

Yang, Meng Peking Univ.
Chu, Tianguang Peking Univ.

11:40-12:00 ThA13.6

Compensation-Based Control for Lossy Communication Networks, pp. 2854-2859.

Gommans, T.M.P. Eindhoven Univ. of Tech.
Heemels, W.P.M.H. Eindhoven Univ. of Tech.
Bauer, Nicolas William Univ. of Tech. Eindhoven
Van De Wouw, Nathan Eindhoven Univ. of Tech.

ThA14 Hochelaga 4

Advanced Control of Spark Ignited Engines (Invited Session)

Chair: Mohammadpour, Javad Univ. of Houston
Co-Chair: Canova, Marcello The Ohio State Univ.
Organizer: Mohammadpour, Javad Univ. of Houston
Organizer: Canova, Marcello The Ohio State Univ.
Organizer: Scacchioli, Annalisa New York Univ. Pol. Inst.
Organizer: Wang, Yue-Yun General Motors Company
Organizer: Shim, Taehyun Univ. of Michigan-Dearborn
Organizer: Shilpiekandula, Vijay Mitsubishi Electrical Res. Lab.

10:00-10:20 ThA14.1

Sliding Mode Control with Bounded Inputs and Its Application to Automotive Coldstart Emissions Reduction (I), pp. 2860-2865.

L. Azad, Nasser Univ. of Waterloo
Sanketi, Pannag Google Inc.
Hedrick, Karl Univ. of California at Berkeley

10:20-10:40 ThA14.2

Lyapunov-Based Constrained Engine Torque Control Using Electronic Throttle and Variable Cam Timing (I), pp. 2866-2871.

Feru, Emanuel Eindhoven Univ. of Tech.
Lazar, Mircea Eindhoven Univ. of Tech.
Gielen, Rob Eindhoven Univ. of Tech.
Kolmanovsky, Ilya V. The Univ. of Michigan
Di Cairano, Stefano Mitsubishi Electric Res. Lab.

10:40-11:00 ThA14.3

IMC Based Wastegate Control Using a First Order Model for Turbocharged Gasoline Engine (I), pp. 2872-2877.

Karnik, Amey Ford Motor Company
Jankovic, Mrdjan Ford Res. & Advanced Engineering

11:00-11:20 ThA14.4

Motion Control of a Hydraulic Free-Piston Engine (I), pp. 2878-2883.

Li, Ke Univ. of Minnesota
Sadighi, Ali Univ. of Minnesota
Sun, Zongxuan Univ. of Minnesota

11:20-11:40 ThA14.5

A High Gain Observer for Enclosed Mass Estimation in a Spark Ignited Engine, pp. 2884-2889.

Rivas Caicedo, Maria Adelina Gipsa Lab. Renault
Witrant, Emmanuel Univ. Joseph Fourier
Sename, Olivier Grenoble Inst. of Tech.
Higelin, Pascal PRISME, Orleans Univ.

11:40-12:00 ThA14.6

Air and Fuel-Path Coordinated Control for Advanced Combustion Mode Transitions in Diesel Engines (I), pp. 2890-2895.

Yan, Fengjun The Ohio State Univ.
Wang, Junmin The Ohio State Univ.

ThA15 Hochelaga 3

Driver Assistance Systems (Regular Session)

Chair: Gaspar, Peter Computer & Automation Inst. of HAS
Co-Chair: Scacchioli, Annalisa New York Univ. Pol. Inst.

10:00-10:20 ThA15.1

Safe Semi-Autonomous Control with Enhanced Driver Modeling, pp. 2896-2903.

Vasudevan, Ramanarayan Univ. of California Berkeley
Shia, Victor UC Berkeley
Gao, Yiqi Univ. of California, Berkeley
Cervera-Navarro, Ricardo Univ. of California Berkeley
Bajcsy, Ruzena Univ. of Pennsylvania
Borrelli, Francesco University of California at Berkeley

10:20-10:40 ThA15.2

Long-Term Trajectory Classification and Prediction of Commercial Vehicles for the Application in Advanced Driver Assistance Systems, pp. 2904-2909.

Otto, Carola Daimler AG
Puente León, Fernando Karlsruhe Inst. of Tech.
Wirmitzer, Jan Daimler AG

10:40-11:00 ThA15.3

Controller Development Using Optimal Torque Distribution for Driver Handling Assistance (I), pp. 2910-2915.

Fallah, Mohammad Saber Univ. of Waterloo
Khajepour, Amir Univ. of Waterloo
Fidan, Baris Univ. of Waterloo
Chen, Shih-Ken General Motors
Litkouhi, Bakhtiar General Motors Company

11:00-11:20 ThA15.4

Design of an Integrated Control for Driver Assistance Systems Based on LPV Methods, pp. 2916-2921.

Gaspar, Peter Computer & Automation Inst. of HAS
Nemeth, Balazs Computer and Automation Res. Inst.
Bokor, Jozsef MTA SZTAKI Hungarian Acad. of Sciences

11:20-11:40	ThA15.5
<i>Invariant Set Based Variable Headway Time Vehicle Longitudinal Control Assistance</i> , pp. 2922-2927.	
Mammar, Said	Univ. d'Evry LSC-CNRS-FRE2494
Ait Oufroukh, Naima	IBISC, Univ. d'Evry
Yacine, Zadjiga	IBISC, Univ. d'Evry
Ichalal, Dalil	Univ. d'Evry Val d'Essonne, IBISC Lab.
Nouveliere, Lydie	IBISC

11:40-12:00	ThA15.6
<i>Design and Implementation of an Integrated Multi-Functional Autonomous Parking System with Fuzzy Logic Controller</i> , pp. 2928-2933.	
Wang, Yu	National Univ. of Singapore
Zhu, Xiaoxi	National Univ. of Singapore

ThA16	Hochelaga 2
Power Systems II (Regular Session)	

Chair: Ersal, Tulga	Univ. of Michigan
Co-Chair: Roozbehani, Mardavij	Massachusetts Inst. of Tech.

10:00-10:20	ThA16.1
<i>The Reliability Value of Storage in a Volatile Environment</i> , pp. 2934-2939.	
Parandehgheibi, Ali	MIT
Roozbehani, Mardavij	Massachusetts Inst. of Tech.
Ozdoglar, Asu	MIT
Dahleh, Munther A.	Massachusetts Inst. of Tech.

10:20-10:40	ThA16.2
<i>Fault-Tolerant Control of Power Grids for Security and Availability</i> , pp. 2940-2946.	
Wu, Neng Eva	Binghamton Univ.
Ruschmann, Matthew	Binghamton Univ.

10:40-11:00	ThA16.3
<i>Safe Protocol for Controlling Power Consumption by a Heterogeneous Population of Loads</i> , pp. 2947-2952.	
Kundu, Soumya	Univ. of Michigan, Ann Arbor, USA
Sinityn, Nikolai	Los Alamos National Lab.

11:00-11:20	ThA16.4
<i>Investigating Controller Performance in Hybrid SOFC Systems with Unknown Nonlinearities (I)</i> , pp. 2953-2958.	
Das, Tuhin	Univ. of Central Florida
Nowak, William	Rochester Inst. of Tech. Rochester, NY

11:20-11:40	ThA16.5
<i>Model Predictive Control for Power Flows in Networks with Limited Capacity</i> , pp. 2959-2964.	
Biegel, Benjamin	Aalborg Univ.
Stoustrup, Jakob	Aalborg Univ.
Bendtsen, Jan Dimon	Aalborg Univ.
Andersen, Palle	Aalborg Univ.

11:40-12:00	ThA16.6
<i>On the Effect of DC Source Voltage on Inverter-Based Frequency and Voltage Regulation in a Military Microgrid</i> , pp. 2965-2971.	
Ersal, Tulga	Univ. of Michigan
Ahn, Changsun	Univ. of Michigan

Hiskens, Ian A.	Univ. of Michigan
Peng, Huei	Univ. of Michigan
Stefanopoulou, Anna G.	Univ. of Michigan
Stein, Jeffrey L.	Univ. of Michigan

ThA18	Marquette
Estimation and Control of DPS IV (Invited Session)	

Chair: Demetriou, Michael A.	Worcester Pol. Inst.
Co-Chair: Schuster, Eugenio	Lehigh Univ.
Organizer: Demetriou, Michael A.	Worcester Pol. Inst.

10:00-10:20	ThA18.1
<i>Analytic Linearization of PDE's through Lie Symmetries (I)</i> , pp. 2972-2977.	
Menini, Laura	Univ. di Roma 'Tor Vergata'
Tornambe, Antonio	Univ. Di Roma Tor Vergata

10:20-10:40	ThA18.2
<i>D1-Input-To-State Stability of a Time-Varying Nonhomogeneous Diffusive Equation Subject to Boundary Disturbances (I)</i> , pp. 2978-2983.	
Bribiesca Argomedo, Federico	GIPSA-Lab.
Witrant, Emmanuel	Univ. Joseph Fourier
Prieur, Christophe	CNRS

10:40-11:00	ThA18.3
<i>Spatial Gradient Measurement through Length Scale Estimation for the Tracking of a Gaseous Source (I)</i> , pp. 2984-2989.	
Court, Jeffrey	Worcester Pol. Inst.
Demetriou, Michael A.	Worcester Pol. Inst.
Gatsonis, Nikolaos	Worcester Pol. Inst.

11:00-11:20	ThA18.4
<i>Model-Based Networked Control of Spatially Distributed Systems with Measurement Delays (I)</i> , pp. 2990-2995.	
Yao, Zhiyuan	Univ. of California, Davis
El-Farra, Nael H.	Univ. of California, Davis

11:20-11:40	ThA18.5
<i>Backstepping Control of the Plasma Current Profile in the DIII-D Tokamak (I)</i> , pp. 2996-3001.	
Boyer, Mark D.	Lehigh Univ.
Barton, Justin	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
Luce, Timothy	General Atomics
Ferron, J. R.	General Atomics
Walker, Michael L.	General Atomics
Humphreys, D.A.	General Atomics
Penafior, Benjamin P.	General Atomics
Johnson, Robert D.	General Atomics

11:40-12:00	ThA18.6
<i>Adaptive Observers with Projection Operator and L1 Adaptive Controllers for Infinite Dimensional Systems (I)</i> , pp. 3002-3007.	
Natarajan, Vivek	Univ. of Illinois, Urbana-Champaign
Bentsman, Joseph	Univ. of Illinois at Urbana-Champaign

ThA19	Jolliet
Renewable Energy Systems (Invited Session)	

Chair: Chen, Dongmei the Univ. of Texas at Austin
 Co-Chair: Das, Tuhin Univ. of Central Florida
 Organizer: Chen, Dongmei the Univ. of Texas at Austin
 Organizer: Das, Tuhin Univ. of Central Florida

10:00-10:20 ThA19.1

Model Predictive Control for Wind Turbine Load Reduction Including Wake Meandering Modelling (I), pp. 3008-3013.

Yang, Zhongzhou Univ. of Wisconsin-Milwaukee
 Li, Yaoyu Univ. of Texas at Dallas
 Seem, John E. Johnson Controls Inc.

10:20-10:40 ThA19.2

Control of a Variable Ratio Gearbox and Mechanical Brake to Maximize Wind Energy Production (I), pp. 3014-3019.

Hall, John Univ. of Texas - Austin, Department of Mechanical Engineering
 Chen, Dongmei the Univ. of Texas at Austin

10:40-11:00 ThA19.3

Neighbor-Communication Model Predictive Control and HVAC Systems (I), pp. 3020-3025.

Elliott, Matthew Texas A&M Univ.
 Rasmussen, Bryan Texas A&M Univ.

11:00-11:20 ThA19.4

A New Control Strategy for Smoothing of Wind Farm Output Using Short-Term Ahead Wind Speed Prediction and Flywheel Energy Storage System (I), pp. 3026-3031.

Islam, Farzana The Petroleum Inst.
 Hasanien, Hany. M. Ain Shams Univ.
 Al-Durra, Ahmed The Petroleum Inst.
 Muyeen, S.M. The Petroleum Inst.

11:20-11:40 ThA19.5

Modeling and Control of a Novel Compressed Air Energy Storage System for Offshore Wind Turbine (I), pp. 3032-3037.

Saadat, Mohsen Univ. of Minnesota
 Li, Perry Y. Univ. of Minnesota

11:40-12:00 ThA19.6

Impact of Wind Farm Placement on Inter-Area Oscillations in Large Power Systems, pp. 3038-3043.

Gayme, Dennice The Johns Hopkins Univ.
 Chakraborty, Aranya North Carolina State Univ.

ThA20 Duluth
Control and Estimation for Energy Efficient Buildings (Invited Session)

Chair: Barooah, Prabir Univ. of Florida
 Co-Chair: Mehta, Prashant G. Univ. of Illinois, Urbana-Champaign

Organizer: Barooah, Prabir Univ. of Florida
 Organizer: Mehta, Prashant G. Univ. of Illinois, Urbana-Champaign

10:00-10:20 ThA20.1

Mean-Field Control for Energy Efficient Buildings (I), pp. 3044-3049.

Deng, Kun Univ. of Illinois, Urbana-Champaign
 Barooah, Prabir Univ. of Florida
 Mehta, Prashant G. Univ. of Illinois, Urbana-Champaign

10:20-10:40 ThA20.2

Scalable Scheduling of Building Control Systems for Peak Demand Reduction (I), pp. 3050-3055.

Nghiem, Truong X. Univ. of Pennsylvania
 Behl, Madhur Univ. of Pennsylvania
 Mangharam, Rahul Univ. of Pennsylvania
 Pappas, George J. Univ. of Pennsylvania

10:40-11:00 ThA20.3

Online Building Thermal Parameter Estimation Via Unscented Kalman Filtering (I), pp. 3056-3062.

Radecki, Peter Cornell Univ.
 Hency, Brandon Cornell Univ.

11:00-11:20 ThA20.4

Zone-Level Control Algorithms Based on Occupancy Information for Energy Efficient Buildings (I), pp. 3063-3068.

Goyal, Siddharth Univ. of Florida
 Ingley, Herbert Univ. of Florida
 Barooah, Prabir Univ. of Florida

11:20-11:40 ThA20.5

Modeling and Optimization of a Combined Cooling, Heating and Power Plant System (I), pp. 3069-3074.

Chandan, Vikas Univ. of Illinois
 Do, Anh-Tuan UCI
 Jin, Baoduo Univ. of California, Irvine
 Jabbari, Faryar Univ. of California at Irvine
 Brouwer, Jack National Fuel Cell Res. Center, Univ. of California at
 Akrotirianakis, Ioannis Siemens Corp. Res. Princeton, NJ
 Chakraborty, Amit Siemens Corp. Res.
 Alleyne, Andrew G. Univ. of Illinois, Urbana-Champaign

11:40-12:00 ThA20.6

Fast Stochastic Predictive Control for Building Temperature Regulation (I), pp. 3075-3080.

Ma, Yudong UC Berkeley CA USA
 Borrelli, Francesco University of California at Berkeley

ThA21 Mackenzie
Energy Markets (Regular Session)

Chair: Warrington, Joseph ETH Zurich, Switzerland
 Co-Chair: Lavaei, Javad Stanford Univ.

10:00-10:20 ThA21.1

Competitive Equilibria in Electricity Markets with Nonlinearities, pp. 3081-3088.

Lavaei, Javad Stanford Univ.
 Sojoudi, Somayeh California Inst. of Tech.

10:20-10:40 ThA21.2

Distributed MPC for Controlling Micro-CHPs in a Network, pp. 3089-3094.

Larsen, Gunn Kristine Holst Univ. of Groningen
 Trip, Sebastian Univ. of Groningen
 van Foreest, Nicky Univ. of Groningen
 Scherpen, Jacqueliën M.A. Univ. of Groningen

10:40-11:00 ThA21.3

Market Based Approach for Solving Optimal Power Flow Problem in Smart Grid, pp. 3095-3100.

HomChaudhuri, Baisravan	Univ. of Cincinnati
Kumar, Manish	Univ. of Cincinnati
Devabhaktuni, Vijay	Univ. of Toledo

11:00-11:20 ThA21.4

A Market Mechanism for Solving Multi-Period Optimal Power Flow Exactly on AC Networks with Mixed Participants, pp. 3101-3107.

Warrington, Joseph	ETH Zurich, Switzerland
Goulart, Paul J.	ETH Zurich
Mariethoz, Sebastien	ETH Zurich
Morari, Manfred	ETH Zurich

11:20-11:40 ThA21.5

Robust Integer Optimization and Scheduling Problems for Large Electricity Consumers, pp. 3108-3113.

Vujanic, Robin	ETH Zurich, Switzerland
Mariethoz, Sebastien	ETH Zurich
Goulart, Paul J.	ETH Zurich
Morari, Manfred	ETH Zurich

11:40-12:00 ThA21.6

Modelling and Hierarchical Hybrid Optimal Control of Prosumers for Improved Integration of Renewable Energy Sources into the Grid, pp. 3114-3119.

Mariethoz, Sebastien	ETH Zurich
Morari, Manfred	ETH Zurich

ThA22 Saint-Francois
Systems and Control Aspects in Wind Energy (Tutorial Session)

Chair: Fagiano, Lorenzo	Pol. di Torino/Univ. California at Santa Barbara
Co-Chair: Pao, Lucy Y.	Univ. of Colorado at Boulder
Organizer: Fagiano, Lorenzo	Pol. di Torino/Univ. California at Santa Barbara
Organizer: Pao, Lucy Y.	Univ. of Colorado at Boulder

10:00-10:40 ThA22.1

A Tutorial of Wind Turbine Control for Supporting Grid Frequency through Active Power Control (I), pp. 3120-3131.

Aho, Jacob	Univ. of Colorado at Boulder
Buckspan, Andrew	Univ. of Colorado at Boulder
Laks, Jason	Univ. of Colorado at Boulder
Fleming, Paul	National Renewable Energy Lab.
Dunne, Fiona	Univ. of Colorado Boulder
Churchfield, Matthew	National Renewable Energy Lab.
Pao, Lucy Y.	Univ. of Colorado Boulder
Johnson, Kathryn	Colorado School of Mines

10:40-11:20 ThA22.2

Airborne Wind Energy: An Overview (I), pp. 3132-3143.

Fagiano, Lorenzo	Pol. di Torino/Univ. California at Santa Barbara
Milanese, Mario	Modelway srl

11:20-11:40 ThA22.3

Selling Wind Power in Electricity Markets: The Status Today, the Opportunities Tomorrow (I), pp. 3144-3147.

Bitar, Eilyan	Cornell Univ.
Poolla, Kameshwar	Univ. of California at Berkeley

11:40-12:00 ThA22.4

Control of Floating Wind Turbines (I), pp. 3148-3153.

van der Veen, Gijs	Delft Univ. of Tech.
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Couchman, Ian	Vestas Tech. R&D
Bowyer, R.O.	Vestas Tech. R&D

ThB01 Saint Laurent
Multi-Robot Systems (Regular Session)

Chair: Zhang, Fumin	Georgia Inst. of Tech.
Co-Chair: Morgansen, Kristi A.	Univ. of Washington

14:00-14:20 ThB01.1

Cooperative Search with Autonomous Vehicles in a 3D Aquatic Testbed, pp. 3154-3160.

Keeter, Matthew	Harvey Mudd Coll.
Moore, Daniel	Harvey Mudd Coll.
Muller, Ryan	Harvey Mudd Coll.
Nieters, Eric	Harvey Mudd Coll.
Flenner, Jennifer	Claremont Graduate Univ. and China Lake Naval Air Warfare C
Martonosi, Susan	Harvey Mudd Coll.
Bertozzi, Andrea L.	Univ. of California Los Angeles
Percus, Allon G.	Claremont Graduate Univ.
Levy, Rachel	Harvey Mudd Coll.

14:20-14:40 ThB01.2

Design of Adaptive Neural Fuzzy Formation Controller for Multi-Robot Systems, pp. 3161-3166.

Chang, Yeong-Hwa	Chang Gung Univ.
Chan, Wei-Shou	Chang Gung Univ.
Yang, Cheng-Yuan	Chang Gung Univ.
Chang, Chia-Wen	Chang Gung Univ.
Chung, Tzu-Chi	Chang Gung Univ.

14:40-15:00 ThB01.3

Decentralized Topology Control for Robotic Networks with Limited Field of View Sensors, pp. 3167-3172.

Di Paola, Donato	Univ. "Roma Tre"
De Asmundis, Roberta	Univ. of Rome "La Sapienza"
Gasparri, Andrea	Univ. of "Roma Tre"
Rizzo, Alessandro	Pol. di Bari

15:00-15:20 ThB01.4

Formation Control of Wheeled Robots with Vision-Based Position Measurement, pp. 3173-3178.

Poonawala, Hasan	Univ. of Texas at Dallas
Satici, Aykut C	Univ. of Texas at Dallas
Gans, Nicholas	Univ. of Texas at Dallas
Spong, Mark W.	Univ. of Texas at Dallas

15:20-15:40 ThB01.5

Multiserver Queueing for Supervisory Control of Autonomous Vehicles, pp. 3179-3185.

Powel, Nathan D.	Univ. of Washington
Morgansen, Kristi A.	Univ. of Washington

ThB02 Gatineau
Hybrid and Switched Systems II (Regular Session)

Chair: Wu, Fen	North Carolina State Univ.
Co-Chair: Salapaka, Srinivasa	Univ. of Illinois

14:00-14:20 ThB02.1

Switching Control Synthesis for Discrete-Time Switched Linear Systems Via Modified Lyapunov-Metzler Inequalities, pp. 3186-3191.

Duan, Chang	North Carolina State Univ.
Wu, Fen	North Carolina State Univ.
14:20-14:40	ThB02.2
<i>Improving the Performance of Linear Systems by Adding a Hybrid Loop: The Output Feedback Case</i> , pp. 3192-3197.	
Fichera, Francesco	CNRS; LAAS; Univ. de Toulouse; UPS, INSA, INP, ISAE
Prieur, Christophe	CNRS
Tarbouriech, Sophie	LAAS-CNRS
Zaccarian, Luca	Univ. di Roma, Tor Vergata
14:40-15:00	ThB02.3
<i>Distributed Model Predictive Control of Switched Nonlinear Systems</i> , pp. 3198-3203.	
Heidarinejad, Mohsen	UCLA
Liu, Jinfeng	Univ. of Alberta
Christofides, Panagiotis D.	Univ. of California at Los Angeles
15:00-15:20	ThB02.4
<i>H-Infinity Control for Stochastic Switched Delay Systems with Missing Measurements: An Average Dwell Time Approach (I)</i> , pp. 3204-3209.	
Wang, Dong	Dalian Univ. of Tech.
Shi, Peng	Univ. of Glamorgan
Wang, Wei	Dalian Univ. of Tech.
Karimi, Hamid Reza	Univ. of Agder
Lian, Jie	Dalian Univ. of Tech.
15:20-15:40	ThB02.5
<i>Maximizing Transport in Open Loop for Flashing Ratchets</i> , pp. 3210-3215.	
Roychowdhury, Subhrajit	Univ. of Minnesota
Salapaka, Srinivasa	Univ. of Illinois
Salapaka, Murti V.	Univ. of Minnesota, Minneapolis
ThB03 Bersimis	
Enabling Control in High Speed Scanning Probe Microscopy (Invited Session)	
Chair: Andersson, Sean	Boston Univ.
Co-Chair: Clayton, Garrett	Villanova Univ.
Organizer: Andersson, Sean	Boston Univ.
Organizer: Clayton, Garrett	Villanova Univ.
Organizer: Fleming, Andrew J.	Univ. of Newcastle
Organizer: Zou, Qingze	Rutgers, the State Univ. of New Jersey
14:00-14:20	ThB03.1
<i>Fast Detection Based on Semi-Transient Signals in AFM (I)</i> , pp. 3216-3221.	
Huang, Peng	Boston Univ.
Andersson, Sean	Boston Univ.
14:20-14:40	ThB03.2
<i>Estimation of Tip-Sample Interaction in Tapping Mode AFM Using a Neural-Network Approach (I)</i> , pp. 3222-3227.	
Toghraee, Alireza	Missouri Univ. of Science and Tech.
Bristow, Douglas A.	Missouri Univ. of Science & Tech.
Balakrishnan, S.N.	Missouri Univ. of Science and Tech.
14:40-15:00	ThB03.3
<i>Atomic Force Microscopy Control System for Electrostatic Measurements Based on Mechanical and Electrical Modulation (I)</i> ,	

pp. 3228-3233.	
Belikov, Sergey	NT-MDT Development
Alexander, John	NT-MDT Development
Magonov, Sergei	NT-MDT Development
Yermolenko, Ivan	NT-MDT Development

15:00-15:20	ThB03.4
<i>A Control-Based Approach to Indentation Quantification in Broadband and In-Liquid Nanomechanical Measurement Using Atomic Force Microscope (I)</i> , pp. 3234-3239.	
Ren, Juan	Rutgers Univ.
Zou, Qingze	Rutgers, the State Univ. of New Jersey

15:20-15:40	ThB03.5
<i>Automatic Lateral Resonance Identification from Cantilever Deflection Information in High Speed Atomic Force Microscopy (I)</i> , pp. 3240-3246.	
Burns, Daniel	Massachusetts Inst. of Tech.
Fantner, Georg Ernest	Massachusetts Inst. of Tech.
Youcef-Toumi, Kamal	Massachusetts Inst. of Tech.

ThB04 Peribonka	
Aerospace Applications II (Regular Session)	
Chair: Rathinam, Sivakumar	Texas A & M Univ.
Co-Chair: Joshi, Suresh M.	NASA Langley Res. Ctr.

14:00-14:20	ThB04.1
<i>Almost Global Stabilization of a Vertical Take-Off and Landing Aircraft in Hovered Flight</i> , pp. 3247-3252.	
Casau, Pedro	Inst. Superior Tecnico
Cabecinhas, David	Inst. Superior Tecnico
Silvestre, Carlos	Inst. Superior Tecnico

14:20-14:40	ThB04.2
<i>Nonlinear Control of Underactuated Vehicles with Uncertain Position Measurements and Application to Visual Servoing</i> , pp. 3253-3259.	
de Plinval, Henry	ONERA
Morin, Pascal	UPMC
Mouyon, Philippe	ONERA- Toulouse

14:40-15:00	ThB04.3
<i>A Gust-Attenuation Robust H_∞ Output-Feedback Control Design for Unmanned Autonomous Helicopters</i> , pp. 3260-3265.	
Wang, Jun	south china Univ. of Tech.
Pei, Hai-Long	South China Univ. of Tech.
He, Yuebang	south china Univ. of Tech.
Sun, Tairen	South China Univ. of Tech.
Su, Weizhou	South China Univ. of Tech.

15:00-15:20	ThB04.4
<i>Route Planning Algorithms for Unmanned Aerial Vehicles with Refueling Constraints (I)</i> , pp. 3266-3271.	
Sundar, Kaarthik	Texas A&M Univ.
Rathinam, Sivakumar	Texas A & M Univ.

15:20-15:40	ThB04.5
<i>Range and Endurance Maximization of a Direct Methanol Fuel Cell Powered Mini Air Vehicle Using Stochastic Drift Counteraction Optimal Control</i> , pp. 3272-3277.	
Balasubramanian, Kiran	Univ. of Michigan
Kolmanovsky, Ilya V.	The Univ. of Michigan
Saha, Bhaskar	Palo Alto Res. Center

ThB05 Richelieu
Formation Flying for Autonomous Aircraft (Regular Session)

Chair: Zhang, Youmin Concordia Univ.
Co-Chair: Chen, Ben M. National Univ. of Singapore

14:00-14:20 ThB05.1

Task Assignment for Cooperating UAVs under Radio Propagation Path Loss Constraints, pp. 3278-3283.

Grøtli, Esten Ingar Norwegian Univ. of Science & Tech.

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

14:20-14:40 ThB05.2

Formation Flight of Unmanned Rotorcraft Based on Robust and Perfect Tracking Approach, pp. 3284-3290.

Wang, Biao National Univ. of Singapore

Dong, Xiangxu National Univ. of Singapore

Chen, Ben M. National Univ. of Singapore

Lee, Tong Heng National Univ. of Singapore

Phang, Swee King National Univ. of Singapore

14:40-15:00 ThB05.3

Trajectory Planning and Re-Planning for Fault Tolerant Formation Flight Control of Quadrotor Unmanned Aerial Vehicles, pp. 3291-3296.

Chamseddine, Abbas Concordia Univ.

Zhang, Youmin Concordia Univ.

Rabbath, Camille Alain Defence R&D Canada

15:00-15:20 ThB05.4

Optimal Leader Allocation in UAV Formation Pairs under No-Cost Switching, pp. 3297-3302.

Richert, Dean Univ. of California, San Diego

Cortes, Jorge Univ. of California, San Diego

15:20-15:40 ThB05.5

Distributed and Cooperative Estimation of Formation Flight of Unmanned Vehicles Subject to Faults and Unreliable Information, pp. 3303-3308.

Azizi, Seyyedmohsen Concordia Univ.

Khorasani, Khashayar Concordia Univ.

ThB06 Harricana
Stability of Nonlinear Systems II (Regular Session)

Chair: Zhu, J. Jim Ohio Univ.

Co-Chair: Ahmadi, Amir Ali MIT

14:00-14:20 ThB06.1

Singular Perturbation Margin for Nonlinear Time-Invariant Systems, pp. 3309-3315.

Yang, Xiaojing Ohio Univ.

Zhu, J. Jim Ohio Univ.

14:20-14:40 ThB06.2

Generalized Gain Margin for Nonlinear Systems, pp. 3316-3321.

Yang, Xiaojing Ohio Univ.

Zhu, J. Jim Ohio Univ.

14:40-15:00 ThB06.3

On the Estimation and Control of the Domain of Attraction through Rational Lyapunov Functions, pp. 3322-3327.

Chesi, Graziano Univ. of Hong Kong

15:00-15:20 ThB06.4

Stability of an Iterative Dynamical System, pp. 3328-3333.

Wang, Liming Columbia Univ.

Schonfeld, Dan Univ. of Illinois at Chicago

15:20-15:40 ThB06.5

On the Difficulty of Deciding Asymptotic Stability of Cubic Homogeneous Vector Fields, pp. 3334-3339.

Ahmadi, Amir Ali MIT

ThB07 Chaudiere
Fluid Systems (Regular Session)

Chair: Lemos, Joao M. Inesc-id

Co-Chair: Di Meglio, Florent MINES ParisTech

14:00-14:20 ThB07.1

Modeling and Control of Artificial Bladder Enabled by Ionic Polymer-Metal Composite, pp. 3340-3345.

Chen, Zheng Univ. of Virginia

Um, Tae Univ. of California, Berkeley

Bart-Smith, Hilary Univ. of Virginia

14:20-14:40 ThB07.2

Control of a Water Delivery Canal with Cooperative Distributed MPC, pp. 3346-3351.

Igreja, José Manuel Cardoso Inst. Superior de Engenharia de Lisboa

Lemos, Joao M. Inesc-id

Cadete, Filipe INESC-ID

Rato, Luís Univ. de Évora

Rijo, Manuel Univ. de Évora

14:40-15:00 ThB07.3

Stability and Asymptotic Observers of Binary Distillation Processes Described by Nonlinear Convection/diffusion Models, pp. 3352-3358.

Dudret, Stéphane Air Liquide

Beauchard, Karine CNRS, CMLS, Ec. Pol.

Ammouri, Fouad Air Liquide

Rouchon, Pierre Mines ParisTech

15:00-15:20 ThB07.4

Turbulent Drag Reduction by Transverse Wall Oscillations, pp. 3359-3364.

Moarref, Rashad Univ. of Minnesota

Jovanovic, Mihailo Univ. of Minnesota

15:20-15:40 ThB07.5

Backstepping Stabilization of an Underactuated 3D Times 3D Linear Hyperbolic System of Fluid Flow Transport Equations, pp. 3365-3370.

Di Meglio, Florent Univ. of California, San Diego

Krstic, Miroslav Univ. of California, San Diego

Vazquez, Rafael Univ. de Sevilla

Petit, Nicolas MINES ParisTech

ThB08 Matapedia
Extremum Seeking (Regular Session)

Chair: Pavel, Lacra Univ. of Toronto

Co-Chair: Gans, Nicholas Univ. of Texas at Dallas

14:00-14:20 ThB08.1

An Analytic Framework for Decentralized Extremum Seeking Control, pp. 3371-3376.

Kvaternik, Karla Univ. of Toronto
Pavel, Lacra Univ. of Toronto

14:20-14:40 ThB08.2

Simplex Guided Extremum Seeking Control for Real-Time Optimization, pp. 3377-3382.

Zhang, Yinghua The Univ. of Texas at Dallas
Gans, Nicholas Univ. of Texas at Dallas

14:40-15:00 ThB08.3

Power Optimization for Photovoltaic Micro-Converters Using Multivariable Gradient-Based Extremum-Seeking, pp. 3383-3388.

Ghaffari, Azad Joint Doctoral Programs between San DiegoStateUniversityandUnive
Seshagiri, Sridhar San Diego State Univ.
Krstic, Miroslav Univ. of California, San Diego

15:00-15:20 ThB08.4

Demodulation Considerations in Extremum Seeking Control Loops, pp. 3389-3395.

Deschenes, Jean-Sebastien Univ. du Quebec a Rimouski

15:20-15:40 ThB08.5

Extremum Seeking Control of Cooling Tower for Self-Optimizing Efficient Operation of Chilled Water Systems, pp. 3396-3401.

Li, Xiao Univ. of Wisconsin Milwaukee
Li, Yaoyu Univ. of Texas at Dallas
Seem, John E. Johnson Controls Inc.
Li, Pengfei Univ. of Wisconsin-Milwaukee

ThB09 Saint-Charles
Identification II (Regular Session)

Chair: Buchholz, Michael Univ. Ulm
Co-Chair: Sootla, Aivar Lund Univ.

14:00-14:20 ThB09.1

Matrix-Wise Approach for Identification of Multi-Mode Switched ARX Models with Noise, pp. 3402-3407.

Nazari, Sohail Univ. of Alberta
Zhao, Qing Univ. of Alberta
Huang, Biao Univ. of Alberta

14:20-14:40 ThB09.2

Recursive Subspace Identification of Linear Parameter-Varying Systems, pp. 3408-3414.

Buchholz, Michael Univ. Ulm
Werner, Samuel Univ. Ulm

14:40-15:00 ThB09.3

Separable Gradient Estimation Algorithm for Hammerstein Systems Based on Decompositions, pp. 3415-3420.

Ding, Feng Jiangnan Univ.

15:00-15:20 ThB09.4

Minimal LPV State-Space Realization Driven Set-Membership Identification, pp. 3421-3426.

Cerone, Vito Pol. di Torino
Piga, Dario Delft Univ. of Tech.
Regruto, Diego Pol. di Torino
Tóth, Roland Delft Univ. of Tech.

15:20-15:40 ThB09.5

Convenient Representations of Structured Systems for Model Order Reduction, pp. 3427-3432.

Sootla, Aivar Lund Univ.
Rantzer, Anders Lund Univ.

ThB10 Saint-Maurice
Biological Systems (Regular Session)

Chair: Franco, Elisa Univ. of California at Riverside
Co-Chair: Mehta, Prashant G. Univ. of Illinois, Urbana-Champaign

14:00-14:20 ThB10.1

Filtering with Rhythms: Application to Estimation of Gait Cycle, pp. 3433-3438.

Tilton, Adam Univ. of Illinois, Urbana-Champaign
Hsiao-Weckler, Elizabeth Univ. of Illinois at Urbana-Champaign
Mehta, Prashant G. Univ. of Illinois, Urbana-Champaign

14:20-14:40 ThB10.2

On Biological Pattern Formation by Contact Inhibition, pp. 3439-3444.

Arcak, Murat Univ. of California, Berkeley

14:40-15:00 ThB10.3

Analysis of a Negative Feedback Biochemical Oscillator, pp. 3445-3450.

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

15:00-15:20 ThB10.4

Analysis and Control Techniques for the Compass Gait with a Torso Walking on Stochastically Rough Terrain, pp. 3451-3458.

Chen, Min-Yi Univ. of California, Santa Barbara
Byl, Katie Univ. of California at Santa Barbara

15:20-15:40 ThB10.5

Optimal Turning Gait for Undulatory Locomotion, pp. 3459-3464.

Kohannim, Saba Univ. of California Los Angeles
Iwasaki, Tetsuya UCLA

ThB11 Saguenay
Haptics and Teleoperation (Regular Session)

Chair: Basanez, Luis Univ. Pol. de Catalunya
Co-Chair: Winck, Ryder Georgia Inst. of Tech.

14:00-14:20 ThB11.1

Robust Performance Control Design for Bilateral Teleoperation under Time-Varying Bounded Operator and Environment Dynamics, pp. 3465-3470.

López Martínez, César Eindhoven Univ. of Tech.
Augusto
Molengraft, René van de Eindhoven Univ. of Tech.
Steinbuch, Maarten Eindhoven Univ. of Tech.

14:20-14:40 ThB11.2

A Nonlinear Spring Model of Hydraulic Actuator for Passive Controller Design in Bilateral Tele-Operation, pp. 3471-3476.

Durbha, Venkat Univ. of Minnesota, Minneapolis
Li, Perry Y. Univ. of Minnesota

14:40-15:00 ThB11.3

Passive Velocity Filtering for Haptic Applications with Wave Control, pp. 3477-3483.

Yasrebi, Naser	Univ. of Victoria
Constantinescu, Daniela	Univ. of Victoria

15:00-15:20 ThB11.4

A Control Loop Structure Based on Semi-Nonnegative Matrix Factorization for Input-Coupled Systems, pp. 3484-3489.

Winck, Ryder	Georgia Inst. of Tech.
Kim, Jingu	Georgia Inst. of Tech.
Book, Wayne J.	Georgia Inst. of Tech.
Park, Haesun	Georgia Inst. of Tech.

15:20-15:40 ThB11.5

Output-Feedback Control of Nonlinear Bilateral Teleoperators, pp. 3490-3495.

Sarras, Ioannis	-
Nuño, Emmanuel	Univ. of Guadalajara
Kinnaert, Michel	Univ. Libre de Bruxelles
Basanez, Luis	Univ. Pol. de Catalunya

ThB12 Hochelaga 6
Process Control Research, Education and Practice II (Invited Session)

Chair: Shah, Sirish L.	Univ. of Alberta
Co-Chair: Bonvin, Dominique	EPFL
Organizer: Shah, Sirish L.	Univ. of Alberta
Organizer: Bonvin, Dominique	EPFL
Organizer: Edgar, Thomas F.	Univ. of Texas at Austin
Organizer: Henson, Michael A.	Univ. of Massachusetts

14:00-14:20 ThB12.1

Minimal State Representation for Fluid-Fluid Reaction Systems (I), pp. 3496-3502.

Bhatt, Nirav	Ec. Pol. Fédérale de Lausanne
Amrhein, Michael	Online Control Ltd.
Srinivasan, B.	Ec. Pol. Montreal
Muellhaupt, Philippe	Ec. Pol. Fed. de Lausanne
Bonvin, Dominique	EPFL

14:20-14:40 ThB12.2

Computationally Efficient Globally Linearizing Control of a CSTR and the Tennessee Eastman Problem Using Quadratic Perturbation Models (I), pp. 3503-3508.

Deshpande, Shraddha S.	Walchand Coll. of Engineering
Joy, Preet	Indian Inst. of Tech. Bombay
Patwardhan, Sachin C	IIT Bombay

14:40-15:00 ThB12.3

Habituating Multiple Model Predictive Control for Blood Glucose Regulation in the ICU (I), pp. 3509-3515.

Sun, Jing	Rensselaer Pol. Inst.
Cameron, Fraser	Rensselaer Pol. Inst.
Bequette, B. Wayne	Rensselaer Pol. Inst.

15:00-15:20 ThB12.4

Bayesian Methods for Process Identification with Outliers (I), pp. 3516-3521.

Khatibisepehr, Shima	Univ. of Alberta
Huang, Biao	Univ. of Alberta

15:20-15:40 ThB12.5

Detection of Direct Causality Based on Process Data, pp. 3522-3527.

Duan, Ping	Univ. of Alberta
Yang, Fan	Tsinghua Univ.

Chen, Tongwen	Univ. of Alberta
Shah, Sirish L.	Univ. of Alberta

ThB13 Hochelaga 5
Decision and Game Theory for Network Security (Invited Session)

Chair: Zhu, Quanyan	Univ. of Illinois, Urbana-Champaign
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Co-Chair: Befekadu, Getachew	Univ. of Notre Dame
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Organizer: Zhu, Quanyan	Univ. of Illinois, Urbana-Champaign
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Organizer: Befekadu, Getachew	Univ. of Notre Dame
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Organizer: Basar, Tamer	Univ. of Illinois, Urbana-Champaign
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14:00-14:20 ThB13.1

One-Shot Control Over an AVC-Like Adversarial Channel (I), pp. 3528-3533.

Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
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Ugrinovskii, Valery	Univ. of New South Wales
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14:20-14:40 ThB13.2

Optimal Power Flow: Closing the Loop Over Corrupted Data (I), pp. 3534-3540.

Teixeira, André	KTH - Royal Inst. of Tech.
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Sandberg, Henrik	KTH Royal Inst. of Tech.
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Dán, György	KTH - Royal Inst. of Tech.
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Johansson, Karl H.	Royal Inst. of Tech.
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14:40-15:00 ThB13.3

Robust Detection in the Presence of Integrity Attacks (I), pp. 3541-3546.

Mo, Yilin	Carnegie Mellon Univ.
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Hespanha, Joao P.	Univ. of California, Santa Barbara
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Sinopoli, Bruno	Carnegie Mellon Univ.
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15:00-15:20 ThB13.4

Composite Trust in Networked Multi-Agent Systems (I), pp. 3547-3552.

Baras, John S.	Univ. of Maryland
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Jiang, Tao	Univ. of Maryland
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15:20-15:40 ThB13.5

On Resilient Consensus against Replay Attacks in Operator-Vehicle Networks (I), pp. 3553-3558.

Zhu, Minghui	Massachusetts Inst. of Tech.
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Martinez, Sonia	Univ. of California at San Diego
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ThB14 Hochelaga 4
Verification of Automotive Control Systems (Invited Session)

Chair: Krogh, Bruce H.	Carnegie Mellon Univ.
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Co-Chair: Butts, Kenneth R.	Toyota Tech. Center
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Organizer: Krogh, Bruce H.	Carnegie Mellon Univ.
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Organizer: Butts, Kenneth R.	Toyota Tech. Center
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14:00-14:20 ThB14.1

Reachability Computation of Low-Order Models for the Safety Verification of High-Order Road Vehicle Models (I), pp. 3559-3566.

Althoff, Matthias	Carnegie Mellon Univ.
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Dolan, John	Carnegie Mellon Univ.
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14:20-14:40	ThB14.2
<i>Verification of Automotive Control Applications Using S-TaLiRo (I)</i> , pp. 3567-3572.	
Fainekos, Georgios	Arizona State Univ.
Sankaranarayanan, Sriram	Univ. of Colorado, Boulder
Ueda, Koichi	Toyota Motor Engineering & Manufacturing North America, Inc.
Yazarel, Hakan	Univ. of Pennsylvania
14:40-15:00	ThB14.3
<i>Using Theorem Provers to Guarantee Closed-Loop System Properties (I)</i> , pp. 3573-3580.	
Arechiga, Nikos	Carnegie Mellon Univ.
Loos, Sarah	Carnegie Mellon Univ.
Platzer, Andre	Carnegie Mellon Univ.
Krogh, Bruce H.	Carnegie Mellon Univ.
15:00-15:20	ThB14.4
<i>Verification of Embedded Control Systems by Simulation and Program Execution Control (I)</i> , pp. 3581-3586.	
Resmerita, Stefan	Univ. of Salzburg
Pree, Wolfgang	Univ. of Salzburg
15:20-15:40	ThB14.5
<i>Early Model-Based Verification of Automotive Control System Implementation (I)</i> , pp. 3587-3592.	
Shahbakhti, Mahdi	Univ. of California, Berkeley
Li, Jieming	UC Berkeley
Hedrick, Karl	Univ. of California at Berkeley
ThB15	Hochelaga 3
Automotive Steering Control (Regular Session)	
Chair: Shim, Taehyun	Univ. of Michigan-Dearborn
Co-Chair: Lee, Seung Hi	Hanyang Univ.
14:00-14:20	ThB15.1
<i>Solving Algebraic Riccati Equation Real Time for Integrated Vehicle Dynamics Control</i> , pp. 3593-3598.	
Kunnappillil Madhusudhanan, Anil	Delft Univ. of Tech.
Corno, Matteo	Pol. di Milano
Holweg, Edward	SKF
Bonsen, Bram	TNO
14:20-14:40	ThB15.2
<i>A Comparative Study on Identification of Vehicle Inertial Parameters</i> , pp. 3599-3604.	
Zarringhalam, Reza	Univ. of Waterloo
Rezaeian, Ayyoub	Univ. of Waterloo
Khajepour, Amir	Univ. of Waterloo
Melek, William	Univ. of Waterloo
Chen, Shih-Ken	General Motors
Moshchuk, Nikolai	General Motors
14:40-15:00	ThB15.3
<i>Proximate Model Predictive Control Strategy for Autonomous Vehicle Lateral Control</i> , pp. 3605-3610.	
Lee, Seung Hi	Hanyang Univ.
Lee, Young Ok	Hanyang Univ.
Kim, Bo-Ah	Hanyang Univ.
Chung, Chung Choo	Hanyang Univ.
15:00-15:20	ThB15.4

<i>Optimum Steering Input Determination and Path-Tracking of All-Wheel Steer Vehicles on Uneven Terrains Based on Constrained Optimization</i> , pp. 3611-3616.	
Singh, Arun Kumar	IIT-Hyderabad
Ghose, Debasish	Indian Inst. of Science
Krishna, K. Madhava	IIT-Hyderabad

15:20-15:40	ThB15.5
<i>A Comparative Study of Control Algorithms for Active Trailer Steering Systems of Articulated Heavy Vehicles</i> , pp. 3617-3622.	
He, Yuping	Univ. of Ontario Inst. of Tech.
He, Yuping	Univ. of Ontario Inst. of Tech.
Ren, Jing	UOIT
Sun, Tao	UOIT

ThB16	Hochelaga 2
Power Systems III (Regular Session)	
Chair: Kumar, Manish	Univ. of Cincinnati
Co-Chair: Sou, Kin Cheong	Royal Inst. of Tech.

14:00-14:20	ThB16.1
<i>A Game-Theoretic Framework for Control of Distributed Renewable-Based Energy Resources in Smart Grids</i> , pp. 3623-3628.	
Zhu, Quanyan	Univ. of Illinois, Urbana-Champaign
Zhang, Jiangmeng	Univ. of Illinois at Urbana-Champaign
Sauer, Peter	Univ. of Illinois
Dominguez-Garcia, Alejandro	Univ. of Illinois at Urbana-Champaign
Basar, Tamer	Univ. of Illinois, Urbana-Champaign

14:20-14:40	ThB16.2
<i>Towards an Optimal Activation Pattern of Tertiary Control Reserves in the Power System of Switzerland</i> , pp. 3629-3636.	
Abbaspourtorbati, Farzaneh	ETH Zurich
Scherer, Marc	swissgrid ltd.
Ulbig, Andreas	ETH Zurich - Power Systems Lab.
Andersson, Goran	Swiss Federal Inst. of Tech.

14:40-15:00	ThB16.3
<i>Robust Distributed H-Infinity Control of Electrical Power Systems</i> , pp. 3637-3642.	
Jokic, Andrej	Eindhoven Univ. of Tech.
van der Els, Theodorus Frans	The Boston Consulting Group
Weiland, Siep	Eindhoven Univ. of Tech.

15:00-15:20	ThB16.4
<i>Real-Time Scheduling of Deferrable Electric Loads</i> , pp. 3643-3650.	
Subramanian, Anand	Univ. of California at Berkeley
Garcia, Manuel	UC Berkeley
Dominguez-Garcia, Alejandro	Univ. of Illinois at Urbana-Champaign
Callaway, Duncan	Univ. of California, Berkeley
Poolla, Kameshwar	Univ. of California at Berkeley
Varaiya, Pravin P.	Univ. of California at Berkeley

15:20-15:40	ThB16.5
<i>Detection and Identification of Data Attacks in Power System</i> , pp. 3651-3656.	
Sou, Kin Cheong	Royal Inst. of Tech.
Sandberg, Henrik	KTH Royal Inst. of Tech.

Johansson, Karl H.

Royal Inst. of Tech.

ThB20		Duluth
Building and Facility Automation (Regular Session)		
Chair: Aswani, Anil	Univ. of California at Berkeley	
Co-Chair: Li, Yaoyu	Univ. of Texas at Dallas	
14:00-14:20	ThB20.1	
<i>Decentralized Architectures for Thermal Control of Buildings</i> , pp. 3657-3662.		
Chandan, Vikas	Univ. of Illinois	
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign	
14:20-14:40	ThB20.2	
<i>Modeling and Feedback Control of Color-Tunable LED Lighting Systems</i> , pp. 3663-3668.		
Afshari, Sina	Rensselaer Pol. Inst.	
Mishra, Sandipan	Rensselaer Pol. Inst.	
Julius, Agung	Rensselaer Pol. Inst.	
Lizarralde, Fernando	Federal Univ. of Rio de Janeiro	
Wen, John T.	Rensselaer Pol. Inst.	
14:40-15:00	ThB20.3	
<i>Controller and System Design for HVAC with Thermal Energy Storage</i> , pp. 3669-3674.		
Mendoza-Serrano, David	Illinois Inst. of Tech.	
Chmielewski, Donald J.	Illinois Inst. of Tech.	
15:00-15:20	ThB20.4	
<i>Identifying Models of HVAC Systems Using Semiparametric Regression</i> , pp. 3675-3680.		
Aswani, Anil	Univ. of California at Berkeley	
Master, Neal	UC Berkeley	
Taneja, Jay	UC Berkeley	
Smith, Virginia	Univ. of Virginia	
Krioukov, Andrew	UC Berkeley	
Culler, David	UC Berkeley	
Tomlin, Claire J.	UC Berkeley	
15:20-15:40	ThB20.5	
<i>Model Predictive Control of Building Energy Systems with Balanced Model Reduction</i> , pp. 3681-3686.		
Ma, Jingran	Univ. of Southern California	
Qin, S. Joe	Univ. of Southern California	
Salsbury, Timothy	Johnson Controls, Inc.	
ThB21		Mackenzie
Finance and Optimization (Regular Session)		
Chair: Barmish, B. Ross	Univ. of Wisconsin	
Co-Chair: Tanaka, Takashi	Univ. of Illinois, Urbana-Champaign	
14:00-14:20	ThB21.1	
<i>Data-Driven Asset Allocation with Guaranteed Short-Fall Probability</i> , pp. 3687-3692.		
Calafiore, Giuseppe	Pol. di Torino	
Monastero, Bruno	Pol. di Torino	
14:20-14:40	ThB21.2	
<i>On Market-Neutral Stock Trading Arbitrage Via Linear Feedback</i> , pp. 3693-3698.		
Barmish, B. Ross	Univ. of Wisconsin	

Primbs, James A.

Stanford Univ.

14:40-15:00	ThB21.3	
<i>Optimal Hedging of Basket Options Using Smooth Payoff Functions: Comparison with Super-Hedging Strategy</i> , pp. 3699-3704.		
Yamada, Yuji	Univ. of Tsukuba	
15:00-15:20	ThB21.4	
<i>A Dynamic Pivot Mechanism with Application to Real Time Pricing in Power Systems</i> , pp. 3705-3711.		
Tanaka, Takashi	Univ. of Illinois, Urbana-Champaign	
Cheng, Albert Zi Wen	Univ. of Illinois, Urbana-Champaign	
Langbort, Cedric	Univ. of Illinois, Urbana-Champaign	
15:20-15:40	ThB21.5	
<i>Convergence Rate for Distributed Optimization Methods: Novel Bounds and Distributed Step Size Computation</i> , pp. 3712-3717.		
Sun, Yu	Univ. of Illinois, Urbana-Champaign	
Speranzon, Alberto	United Tech. Res. Center	
Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign	

ThB22		Saint-Francois
Control Systems and Parkinson's Disease (Tutorial Session)		
Chair: Middleton, Richard H.	National Univ. of Ireland Maynooth	
Co-Chair: Cloutier, Mathieu	GERAD - Department of Chemical Engineering, Ec. Montreal	
Organizer: Middleton, Richard H.	The Univ. of Newcastle	
Organizer: Cloutier, Mathieu	GERAD - Department of Chemical Engineering, Ec. Montreal	
Organizer: Wellstead, Peter E.	Hamilton Inst.	
14:00-14:20	ThB22.1	
<i>Introduction to Parkinson's Disease and a Systems Framework for Analysis of Disease (I)*.</i>		
Wellstead, Peter E.	Hamilton Inst.	
14:20-14:40	ThB22.2	
<i>The Importance of Feedback in the Modeling and Analysis of the Pathogenesis of Parkinson's Disease (I)*.</i>		
Cloutier, Mathieu	GERAD - Department of Chemical Engineering, Ec. Montreal	
14:40-15:00	ThB22.3	
<i>The Modeling of Calcium Metabolism and Its Implications for Parkinson's Disease (I)*.</i>		
Garcia, Miriam R.	Hamilton Inst. National Univ. of Ireland, Maynooth	
Francis, Febe	National Univ. of Ireland Maynooth	
Middleton, Richard H.	The Univ. of Newcastle	
15:00-15:20	ThB22.4	
<i>Control Systems Methods in Solving Disease: Opportunities, Challenges and Requirements (I)*.</i>		
Middleton, Richard H.	The Univ. of Newcastle	
15:20-15:40	ThB22.5	
<i>Panel Discussion: How Can Control Systems Methodologies Contribute to Understanding Complex Disease? (I)*.</i>		
Cloutier, Mathieu	GERAD - Department of Chemical Engineering, Ec. Montreal	

Middleton, Richard H.

The Univ. of Newcastle

ThC01	Saint Laurent
Cooperation under Communication Constraints (Invited Session)	

Chair: Rathinam, Sivakumar	Texas A & M Univ.
Co-Chair: Beard, Randy	Brigham Young Univ.
Organizer: Rathinam, Sivakumar	Texas A & M Univ.

16:00-16:20 ThC01.1

Ensuring Network Connectivity for Nonholonomic Robots During Decentralized Rendezvous (I), pp. 3718-3723.

Kan, Zhen	Univ. of Florida
Klotz, Justin	Univ. of Florida
Cheng, Teng-Hu	Univ. of Florida
Dixon, Warren E.	Univ. of Florida

16:20-16:40 ThC01.2

Multi-UAV Task Allocation with Communication Faults (I), pp. 3724-3729.

Pb, Sujit	Univ. de Porto
Sousa, Joao	Univ. Porto - Faculdade Engenharia

16:40-17:00 ThC01.3

Synthesizing Robust Communication Networks for UAVs (I), pp. 3730-3735.

Nagarajan, Harsha	Texas A & M Univ.
Rathinam, Sivakumar	Texas A & M Univ.
Darbha, Swaroop	Texas A & M Univ.
Rajagopal, K. R.	Texas A&M Univ.

17:00-17:20 ThC01.4

Rigid Body Attitude Synchronization with Communication Delays, pp. 3736-3741.

Abdessameud, Abdelkader	Univ. of Western Ontario
Tayebi, Abdelhamid	Lakehead Univ.
Polushin, Ilia G.	Western Univ.

17:20-17:40 ThC01.5

Adaptive Communication-Constrained Deployment of Mobile Robotic Networks (I), pp. 3742-3747.

Le Ny, Jerome	Univ. of Pennsylvania
Ribeiro, Alejandro	Univ. of Pennsylvania
Pappas, George J.	Univ. of Pennsylvania

17:40-18:00 ThC01.6

Synchronization of Multiple Euler-Lagrange Systems with Communication Delays, pp. 3748-3753.

Abdessameud, Abdelkader	Univ. of Western Ontario
Polushin, Ilia G.	Western Univ.
Tayebi, Abdelhamid	Lakehead Univ.

ThC02	Gatineau
Hybrid and Switched Systems III (Regular Session)	

Chair: Cervin, Anton	Lund Univ.
Co-Chair: Kaynama, Shahab	Univ. of British Columbia

16:00-16:20 ThC02.1

On Stabilization and Tracking for Switching Linear Systems, pp. 3754-3759.

Baglietto, Marco	Univ. of Genova
Battistelli, Giorgio	Univ. of Florence

Tesi, Pietro

Univ. of Genoa

16:20-16:40 ThC02.2

Stability and Worst-Case Performance Analysis of Sampled-Data Control Systems with Input and Output Jitter, pp. 3760-3765.

Cervin, Anton	Lund Univ.
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16:40-17:00 ThC02.3

A Novel Control-Schedule Codesign Method for Embedded Control Systems, pp. 3766-3771.

Reimann, Sven	Univ. of Kaiserslautern
Wu, Wei	Univ. of Kaiserslautern
Liu, Steven	Univ. of Kaiserslautern

17:00-17:20 ThC02.4

On Co-Design of Event Trigger and Quantizer for Emulation Based Control, pp. 3772-3777.

Tallapragada, Pavankumar	Univ. of Maryland, Coll. Park
Chopra, Nikhil	Univ. of Maryland, Coll. Park

17:20-17:40 ThC02.5

Feedback Control of Switched Stochastic Systems Using Uniformly Sampled Mode Information, pp. 3778-3783.

Cetinkaya, Ahmet	Tokyo Inst. of Tech.
Hayakawa, Tomohisa	Tokyo Inst. of Tech.

17:40-18:00 ThC02.6

Stability of Randomly Switched Diffusions, pp. 3784-3790.

Schioeler, Henrik	associate professor, M.Sc.EE, Ph.D.
Leth, John	Aalborg Univ.
Gholami, Mehdi	AALBORG Univ.

ThC03	Bersimis
Control Techniques for High-Speed Scanning Probe Microscopy (Invited Session)	

Chair: Andersson, Sean	Boston Univ.
Co-Chair: Clayton, Garrett	Villanova Univ.
Organizer: Andersson, Sean	Boston Univ.
Organizer: Clayton, Garrett	Villanova Univ.
Organizer: Fleming, Andrew J.	Univ. of Newcastle
Organizer: Zou, Qingze	Rutgers, the State Univ. of New Jersey

16:00-16:20 ThC03.1

Optimal Scan Trajectories for High-Speed Scanning Probe Microscopy (I), pp. 3791-3796.

Tuma, Tomas	IBM Res.
Lygeros, John	ETH Zurich
Sebastian, Abu	IBM Res.
Pantazi, Angeliki	IBM

16:20-16:40 ThC03.2

A Vibration Suppression Approach to High-Speed Atomic Force Microscopy (I), pp. 3797-3802.

Soltani Bozchalooi, Iman	Massachusetts Inst. of Tech.
Youcef-Toumi, Kamal	Massachusetts Inst. of Tech.
Burns, Daniel	Massachusetts Inst. of Tech.
Fantner, Georg Ernest	Massachusetts Inst. of Tech.

16:40-17:00 ThC03.3

Robust Damping PI Repetitive Control for Nanopositioning (I), pp. 3803-3810.

Leang, Kam K.	Univ. of Nevada, Reno
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Eielsen, Arnfinn Aas	Norwegian Univ. of Science and Tech.
Gravdahl, Jan Tommy	Norwegian Univ. of Science & Tech.

17:00-17:20 ThC03.4

Analog Implementation of a Damping and Tracking Controller for a High-Speed X-Y Nanopositioner (I), pp. 3811-3816.

Wadikhaye, Sachin	Univ. of Newcastle
Bhikkaji, Bharath	Univ. of Newcastle
Moheimani, S.O. Reza	Univ. of Newcastle
Yong, Yuen Kuan	The Univ. of Newcastle

17:20-17:40 ThC03.5

Moving Horizon Observer for Vibration Dynamics with Plant Uncertainties in Nanopositioning System Estimation, pp. 3817-3824.

Poloni, Tomas	Slovak Univ. of Tech. in Bratislava
Eielsen, Arnfinn Aas	Norwegian Univ. of Science and Tech.
Rohal-Ilkiv, Boris	Slovak Univ. of Tech. in Bratislava
Johansen, Tor Arne	Norwegian Univ. of Science & Tech.

17:40-18:00 ThC03.6

Sliding-Mode Tracking Control of Piezo-Actuated Nanopositioners, pp. 3825-3830.

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

ThC04 Peribonka

Aerospace Systems II (Regular Session)

Chair: Chong, Edwin K. P.	Colorado State Univ.
Co-Chair: Marconi, Lorenzo	Univ. di Bologna

16:00-16:20 ThC04.1

Wing Trajectory Control for Flapping-Wing Microrobots Using Combined Repetitive and Minimum-Variance Adaptive Methods, pp. 3831-3838.

Chirarattananon, Pakpong	Harvard Univ.
Perez Arancibia, Nestor Osvaldo	Harvard Univ.
Wood, Robert	Harvard Univ.

16:20-16:40 ThC04.2

Impedance Control of an Aerial Manipulator, pp. 3839-3844.

Forte, Francesco	Univ. of Bologna
Naldi, Roberto	Univ. di Bologna
Macchelli, Alessandro	Univ. of Bologna - Italy
Marconi, Lorenzo	Univ. di Bologna

16:40-17:00 ThC04.3

Dynamic UAV Path Planning for Multitarget Tracking, pp. 3845-3850.

Ragi, Shankarachary	Colorado State Univ.
Chong, Edwin K. P.	Colorado State Univ.

17:00-17:20 ThC04.4

Optimal Sequential Backward Flow Saturation for Cell Transmission Model, pp. 3851-3856.

Wei, Peng	Purdue Univ.
Meksoub, Amine	Ec. Pol.
Sun, Dengfeng	Purdue Univ.
Tang, Xiaoqiang	Tsinghua Univ.

17:20-17:40 ThC04.5

Nonlinear and Optimal Real-Time Control of a Rotary-Wing UAV, pp. 3857-3862.

Sanchez, Luis Alberto	Univ. Autonomadel Estado de Hidalgo
Santos, Omar	Univ. Autonoma del Estado de Hidalgo
Romero, Hugo	Univ. Autonoma del Estado de Hidalgo
Salazar, Sergio	UMI CNRS CINVESTAV
Lozano, Rogelio	Univ. de Tech.

17:40-18:00 ThC04.6

Nonlinear Modeling of a Miniature Fixed-Pitch Coaxial UAV, pp. 3863-3870.

Wang, Fei	National Univ. of Singapore
Phang, Swee King	National Univ. of Singapore
Cui, Jinqiang	National Univ. of Singapore
Cai, Guowei	National Univ. of Singapore
Chen, Ben M.	National Univ. of Singapore
Lee, Tong Heng	National Univ. of Singapore

ThC05 Richelieu

Formation Control (Regular Session)

Chair: Arcak, Murat	Univ. of California, Berkeley
Co-Chair: Yu, CHANGBIN (Brad)	The Australian National Univ.

16:00-16:20 ThC05.1

Multi-Agent Flocking with Random Communication Radius, pp. 3871-3876.

Martin, Samuel	Lab. Jean Kuntzmann, Univ. de Grenoble
Fazeli, Arastoo	Univ. of Pennsylvania
Jadbabaie, Ali	Univ. of Pennsylvania
Girard, Antoine	Univ. Joseph Fourier

16:20-16:40 ThC05.2

Formation Control with Size Scaling Using Relative Displacement Feedback, pp. 3877-3882.

Coogan, Samuel	Univ. of California, Berkeley
Arcak, Murat	Univ. of California, Berkeley

16:40-17:00 ThC05.3

Bearing-Only Cooperative Geo-Localization Using Miniature Air Vehicles (I), pp. 3883-3888.

Sharma, Rajnikant	US Air Force Acad.
Beard, Randy	Brigham Young Univ.
Taylor, Clark N.	Air Force Res. Lab.
Pack, Daniel J.	USAF Acad.

17:00-17:20 ThC05.4

Robust Common Reference Estimation and Formation Control for Multi-Agent Systems, pp. 3889-3894.

Rosa, Daniele	Univ. of Cagliari
Franceschelli, Mauro	Univ. of Cagliari
Giua, Alessandro	Univ. di Cagliari

17:20-17:40 ThC05.5

Topology Design for Distributed Formation Control towards Optimal Convergence Rate, pp. 3895-3900.

Huang, Huang	Beijing Inst. of Control Engineering
Yu, CHANGBIN (Brad)	The Australian National Univ.

Gusrialdi, Azwirman	Tech. Univ. of Munich
Hirche, Sandra	Tech. Univ. München

17:40-18:00 ThC05.6

Growing Optimally Rigid Formations, pp. 3901-3906.

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

ThC06 Harricana
Control of Nonlinear and Time-Varying Delay Systems (Invited Session)

Chair: Erwin, Richard Scott	Air Force Res. Lab.
Co-Chair: Sipahi, Rifat	Northeastern Univ.
Organizer: Erwin, Richard Scott	Air Force Res. Lab.

16:00-16:20 ThC06.1

Further Developments in Network Reference Governor Based Control of Constrained Systems (I), pp. 3907-3912.

Di Cairano, Stefano	Mitsubishi Electric Res. Lab.
Kolmanovsky, Ilya V.	The Univ. of Michigan

16:20-16:40 ThC06.2

Model-Free Approach to Controlling Nonlinear Systems with Single Output Delay (I), pp. 3913-3918.

Sipahi, Rifat	Northeastern Univ.
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16:40-17:00 ThC06.3

Lyapunov-Based Control of an Uncertain Euler-Lagrange System with Time-Varying Input Delay (I), pp. 3919-3924.

Fischer, Nicholas	Univ. of Florida
Kamalapurkar, Rushikesh	Univ. of Florida
Fitz-Coy, Norman	Univ. of Florida
Dixon, Warren E.	Univ. of Florida

17:00-17:20 ThC06.4

Delay-Dependent Stabilization of a Class of Nonlinear Time-Delay Systems with Time-Varying Input and State Delays (I), pp. 3925-3931.

Luna, Jose Marcio	The Univ. of New Mexico
Abdallah, Chaouki T.	Univ. of New Mexico
Erwin, Richard Scott	Air Force Res. Lab.

17:20-17:40 ThC06.5

Compensation of State-Dependent Delays under Local Stabilizability Assumption, pp. 3932-3937.

Bekiaris-Liberis, Nikolaos	Univ. of California, San Diego
Krstic, Miroslav	Univ. of California, San Diego

17:40-18:00 ThC06.6

Compensation of State-Dependent State Delay for Nonlinear Systems, pp. 3938-3943.

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

ThC07 Chaudiere
Control Applications II (Regular Session)

Chair: Canale, Massimo	Pol. di Torino
Co-Chair: Banavar, Ravi N.	Indian Inst. of Tech.

16:00-16:20 ThC07.1

Cross-Coupling Estimation for Optical Beam Stabilization, pp. 3944-3949.

O'Brien, Richard	United States Naval Acad.
Watkins, Richard J.	United States Naval Acad.
Thorp, Owen	U.S. Naval Acad.

16:20-16:40 ThC07.2

Experimental Verification of an Optical Beam Stabilizing Controller, pp. 3950-3955.

O'Brien, Richard	United States Naval Acad.
Watkins, Richard J.	United States Naval Acad.
Thorp, Owen	U.S. Naval Acad.

16:40-17:00 ThC07.3

Experimental Digital Control of a Magnetic Suspension, pp. 3956-3961.

Tanasa, Valentin	Univ. Pol. Bucharest
Normand-Cyrot, Marie-Dorothee	CNRS-Supélec

17:00-17:20 ThC07.4

Online Estimation of Model Parameters and State-Of-Charge of Lithium-Ion Battery Using Unscented Kalman Filter, pp. 3962-3967.

Partovibakhsh, Maral	Ryerson Univ.
Liu, Guangjun	Ryerson Univ.

17:20-17:40 ThC07.5

D-Optimal Experimental Design for Calibration Deterministic Errors of DTG, pp. 3968-3973.

Fu, Li	Beihang Univ.
Yang, Xi	Beihang Univ.
Wang, Lingling	Beihang Univ.
Hu, Jianghai	Purdue Univ.

ThC08 Matapedia
Optimization and Routing (Regular Session)

Chair: Kumar, Manish	Univ. of Cincinnati
Co-Chair: Langbort, Cedric	Univ. of Illinois, Urbana-Champaign

16:00-16:20 ThC08.1

Strategic Dynamic Vehicle Routing with Spatio-Temporal Dependent Demands, pp. 3974-3979.

Feijer, Diego	Massachusetts Inst. of Tech.
Savla, Ketan	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.

16:20-16:40 ThC08.2

Ant Colony Optimization Technique to Solve the Min-Max Multi Depot Vehicle Routing Problem, pp. 3980-3985.

Venkata Narasimha, Koushik S	Univ. of Cincinnati
Kumar, Manish	Univ. of Cincinnati
Kivelevitch, Elad	Univ. of Cincinnati

16:40-17:00 ThC08.3

Stochastic Dynamic Programming Control Policies for Fuel Efficient In-Traffic Driving, pp. 3986-3991.

McDonough, Kevin	Univ. of Michigan
Kolmanovsky, Ilya V.	The Univ. of Michigan
Filev, Dimitre P.	Ford Motor Company
Yanakiev, Diana	Ford Motor Company
Szwabowski, Steve	Ford Motor Company
Michellini, John	Ford Motor Company

17:00-17:20	ThC08.4
<i>Optimising Ferry Routes</i> , pp. 3992-3997.	
Wilson, David I.	Auckland Univ. of Tech.
17:20-17:40	ThC08.5
<i>Micro-Ferry Scheduling Problem with Time Windows</i> , pp. 3998-4003.	
Burger, Mernout	Delft Univ. of Tech.
De Schutter, Bart	Delft Univ. of Tech.
Hellendoorn, Hans	Delft Univ. of Tech.
17:40-18:00	ThC08.6
<i>Linear Programming Based Routing Design for a Positive Compartmental System with Nonlinear Flow Rates and Piecewise Constant Capacity Constraints</i> , pp. 4004-4009.	
Dousse, Nicolas	UIUC
Arneson, Heather	Univ. of Illinois, Urbana-Champaign
Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
ThC09	Saint-Charles
Identification III (Regular Session)	
Chair: Poulin, Eric	Univ. Laval
Co-Chair: Silvestre, Carlos	Inst. Superior Tecnico
16:00-16:20	ThC09.1
<i>Ultrasonic Flow Meter for Propellant On-Orbit Gauging Based on Folded Multi-Tone Phase Measurement: Model Analysis</i> , pp. 4010-4015.	
Chen, Yong	National Univ. of Defense Tech.
Fu, Juan	Department of Aerospace and Material Engineering
Huang, Yiyong	Department of Aerospace and Material Engineering
Zhao, Yong	Coll. of Aerospace and Materials Engineering
Cao, Lu	Coll. of Aerospace and Materials Engineering
Chen, Xiaoqian	National Univ. of Defense Tech.
Fan, Jinhua	National Univ. of Defense Tech.
16:20-16:40	ThC09.2
<i>Nonlinear Identification for Control of Low Pressure Die Casting</i> , pp. 4016-4021.	
Shi, Xinmei	UBC
Maijer, Daan	The Univ. of British Columbia
Dumont, Guy A.	Univ. of British Columbia
16:40-17:00	ThC09.3
<i>Multivariable Predictive Control of a Pilot Flotation Column</i> , pp. 4022-4027.	
Calisaya, Danny	Univ. Laval
Poulin, Eric	Univ. Laval
Desbiens, Andre	Univ. Laval
del Villar, René	Univ. Laval
Riquelme-Diaz, Alberto	Univ. Laval
17:00-17:20	ThC09.4
<i>Gain Characteristics Estimation for Data-Driven Control Design and Extension Theorem</i> , pp. 4028-4033.	
Saeki, Masami	Hiroshima Univ.
17:20-17:40	ThC09.5
<i>Hierarchical Network Identification of Large-Scale Systems -</i>	

<i>Homogeneous Case</i> , pp. 4034-4039.	
Kojima, Chiaki	Univ. of Tokyo
Hashimoto, Ryuta	The Univ. of Tokyo
Nakano, Shisei	The Univ. of Tokyo
17:40-18:00	ThC09.6
<i>HRF Model Selection in Fmri Using Kalman Filtering</i> , pp. 4040-4045.	
Rosa, Paulo Andre Nobre	Inst. Superior Tecnico, Lisbon
Silvestre, Carlos	Inst. Superior Tecnico
Figueiredo, Patrícia	Inst. Superior Técnico

ThC10	Saint-Maurice
Modern Control Approaches in Human Behavior and Medicine (Invited Session)	
Chair: Rivera, Daniel E.	Arizona State Univ.
Co-Chair: Davison, Daniel E.	Univ. of Waterloo
Organizer: Rivera, Daniel E.	Arizona State Univ.
Organizer: Davison, Daniel E.	Univ. of Waterloo

16:00-16:20	ThC10.1
<i>A Control-Theory Reward-Based Approach to Behavior Modification in the Presence of Social-Norm Pressure and Conformity Pressure (I)</i> , pp. 4046-4052.	
Davison, Daniel E.	Univ. of Waterloo
Vanderwater, Ruth-Anne	Univ. of Waterloo
Zhou, ZhongKai(Kevin)	Univ. of Waterloo

16:20-16:40	ThC10.2
<i>Resistance Evolution in HIV - Modeling When to Intervene (I)</i> , pp. 4053-4058.	
Peinado Cortes, Liliana Mabel	Univ. of Delaware
Zurkowski, Ryan	Univ. of Delaware

16:40-17:00	ThC10.3
<i>A Dynamical Systems Model for Improving Gestational Weight Gain Behavioral Interventions (I)</i> , pp. 4059-4064.	
Dong, Yuwen	Arizona State Univ.
Rivera, Daniel E.	Arizona State Univ.
Thomas, Diana	Montclair State Univ.
Navarro-Barrientos, J.-Emeterio	GFal
Downs, Danielle	Penn State Univ.
Savage, Jennifer	Penn State Univ.
Collins, Linda M	Penn State

17:00-17:20	ThC10.4
<i>Challenges and Progress in the Development of a Closed-Loop Artificial Pancreas (I)</i> , pp. 4065-4071.	
Bequette, B. Wayne	Rensselaer Pol. Inst.

17:20-17:40	ThC10.5
<i>Influencing Emotional Behavior in a Social Network (I)</i> , pp. 4072-4077.	
Kan, Zhen	Univ. of Florida
Shea, John	Univ. of Florida
Dixon, Warren E.	Univ. of Florida

17:40-18:00	ThC10.6
<i>Controlling AIDS Progression in Patients with Rapid HIV Dynamics</i> , pp. 4078-4083.	
Hadjiandreou, Marios Michael	Univ. OF CYPRUS

ThC11	Saguenay
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Vision-Based Control (Regular Session)	
Chair: Xi, Ning	Michigan State Univ.
Co-Chair: Cenedese, Angelo	Univ. of Padova
16:00-16:20	ThC11.1
<i>Drag Reduction of the Plane Poiseuille Flow by Partitioned Visual Servo Control</i> , pp. 4084-4089.	
Dao, Xuan Quy	INRIA Rennes-Bretagne Atlantique
Collewet, Christophe	Cemagref
16:20-16:40	ThC11.2
<i>Compressive Feedback Based Non-Vector Space Control</i> , pp. 4090-4095.	
Zhao, Jianguo	Michigan State Univ.
Song, Bo	Michigan State Univ.
Xi, Ning	Michigan State Univ.
Lai, King Wai Chiu	Michigan State Univ.
Chen, Hongzhi	Michigan State Univ.
Qu, Chengeng	Michigan State Univ.
16:40-17:00	ThC11.3
<i>On Triangulation Algorithms in Large Scale Camera Network Systems</i> , pp. 4096-4101.	
Masiero, Andrea	Univ. di Padova
Cenedese, Angelo	Univ. of Padova
17:00-17:20	ThC11.4
<i>Overcoming Occlusions in Eye-In-Hand Visual Search</i> , pp. 4102-4107.	
Radmard, Sina	Univ. of British Columbia
Meger, David	Univ. of British Columbia
Croft, Elizabeth	UBC
Little, James Joseph	Univ. of British Columbia
17:20-17:40	ThC11.5
<i>Curvilinear Velocity Estimation Using Low-Quality Stereo-Vision Systems and a Gyrometer</i> , pp. 4108-4115.	
Zarrouati, Nadege	DGA
Hillion, Mathieu	Ec. des Mines de Paris
Petit, Nicolas	MINES ParisTech
17:40-18:00	ThC11.6
<i>SO(3)-Invariant Asymptotic Observers for Dense Depth Field Estimation Based on Visual Data and Known Camera Motion</i> , pp. 4116-4123.	
Zarrouati, Nadege	DGA
Aldea, Emanuel	SYSNAV
Rouchon, Pierre	Mines ParisTech
ThC12 Hochelaga 6	
Nonlinear Predictive Control (Regular Session)	
Chair: Liu, Jinfeng	Univ. of California, Los Angeles
Co-Chair: Hamzi, Boumediene	Imperial Coll.
16:00-16:20	ThC12.1
<i>Managing Performance and Resources in Software Systems Using Nonlinear Predictive Control</i> , pp. 4124-4129.	
Patikirikorala, Tharindu	Swinburne Univ. of Tech.
Wang, Liuping	Rmit Univ.
16:20-16:40	ThC12.2
<i>A Demonstration of Generalized TSK Model for Nonlinear Model Predictive Control</i> , pp. 4130-4135.	

Chen, Haoxian	Oklahoma State Univ.
Rhinehart, R. Russell	Oklahoma State Univ.
16:40-17:00	ThC12.3
<i>Composite Fast-Slow MPC Design for Nonlinear Singularly Perturbed Systems: Stability Analysis</i> , pp. 4136-4141.	
Christofides, Panagiotis D.	Univ. of California at Los Angeles
Liu, Jinfeng	Univ. of Alberta
Heidarinejad, Mohsen	UCLA
Chen, Xianzhong	Univ. of California, Los Angeles
17:00-17:20	ThC12.4
<i>Empirical Estimators for Stochastically Forced Nonlinear Systems: Observability, Controllability and the Invariant Measure</i> , pp. 4142-4148.	
Bouvrre, Jake	Duke Univ.
Hamzi, Boumediene	Imperial Coll.
17:20-17:40	ThC12.5
<i>Choice of the Control Horizon in an NMPC Strategy for the Full-State Control of Nonholonomic Systems</i> , pp. 4149-4154.	
Fruchard, Matthieu	Univ. of Orleans
Allibert, Guillaume	I3S
Courtial, Estelle	Pol. Loire Valley Univ.
17:40-18:00	ThC12.6
<i>A Hierarchical Distributed Economic NMPC Architecture Based on Neighboring-Extremal Updates</i> , pp. 4155-4160.	
Wolf, Inga Janina	RWTH Aachen Univ.
Scheu, Holger	RWTH Aachen Univ.
Marquardt, Wolfgang	RWTH Aachen Univ.
ThC13 Hochelaga 5	
Connectivity and Location in Distributed Networks (Regular Session)	
Chair: Pan, Selina	Univ. of California, Berkeley
Co-Chair: Lygeros, John	ETH Zurich
16:00-16:20	ThC13.1
<i>Securing Multiagent Systems against a Sequence of Intruder Attacks</i> , pp. 4161-4166.	
Abbas, Waseem	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
16:20-16:40	ThC13.2
<i>Pursuit, Evasion, and Defense in the Plane</i> , pp. 4167-4173.	
Pan, Selina	Univ. of California, Berkeley
Huang, Haomiao	Stanford Univ.
Ding, Jerry	Univ. of California - Berkeley
Zhang, Wei	The Ohio State Univ.
Stipanovic, Dusan M.	Univ. of Illinois, Urbana-Champaign
Tomlin, Claire J.	UC Berkeley
16:40-17:00	ThC13.3
<i>Simultaneous Source Localization and Boundary Mapping for Contaminants</i> , pp. 4174-4179.	
Menon, Prathyush P	Univ. of Exeter
Ghose, Debasish	Indian Inst. of Science
17:00-17:20	ThC13.4
<i>Establishing Connectivity in Proximity Networks</i> , pp. 4180-4185.	
Dai, Ran	Univ. of Washinton
Maximoff, Joshua	Unviersity of Washington

Mesbahi, Mehran	Univ. of Washington
17:20-17:40	ThC13.5
<i>A Connectivity Preserving Containment Control Strategy for Unicycles with Static Leaders</i> , pp. 4186-4191.	
Ajorlou, Amir	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.
Jadbabaie, Ali	Univ. of Pennsylvania
17:40-18:00	ThC13.6
<i>Stochastic Localization of Sources Using Autonomous Underwater Vehicles</i> , pp. 4192-4197.	
Huck, Stephan Marc	ETH Zurich
Hokayem, Peter	ABB Switzerland Ltd.
Chatterjee, Debasish	Indian Inst. of Tech. Bombay
Lygeros, John	ETH Zurich

ThC14	Hochelaga 4
Modeling and Optimal Control for Diesel Engines (Invited Session)	

Chair: Alberer, Daniel	Johannes Kepler Univ. Linz
Co-Chair: Tunestål, Per	Lund Univ. Faculty of Engineering
Organizer: Alberer, Daniel	Johannes Kepler Univ. Linz
Organizer: Tunestål, Per	Lund Univ. Faculty of Engineering
Organizer: Del Re, Luigi	Johannes Kepler Univ. Linz

16:00-16:20 ThC14.1

Direct Data-Driven Control of a Diesel Engine Airpath (I), pp. 4198-4203.

Formentin, Simone	Pol. di Milano
Hirsch, Markus	Johannes Kepler Univ.
Savaresi, Sergio M.	Pol. Di Milano
Del Re, Luigi	Johannes Kepler Univ. Linz

16:20-16:40 ThC14.2

Approximate Optimal Control of the Air Path of a Diesel Engine (I), pp. 4204-4209.

Sassano, Mario	Imperial Coll. London
Passenbrunner, Thomas Ernst	Johannes Kepler Univ. Linz
Hirsch, Markus	Johannes Kepler Univ.
Del Re, Luigi	Johannes Kepler Univ. Linz
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome

16:40-17:00 ThC14.3

Steady State Fuel Consumption Optimization through Feedback Control of Estimated Cylinder Individual Efficiency (I), pp. 4210-4214.

Lewander, Magnus	Haldor Topsoe
Widd, Anders	Lund Univ.
Johansson, Bengt	Lund Inst. of Tech.
Tunestål, Per	Lund Univ. Faculty of Engineering

17:00-17:20 ThC14.4

Reliable Reference Determination for Diesel Engine Emission Control (I), pp. 4215-4220.

Waschl, Harald	Johannes Kepler Univ.
Alberer, Daniel	Johannes Kepler Univ. Linz
Del Re, Luigi	Johannes Kepler Univ. Linz
Kerschbaummayr, Andreas	BMW Motoren GmbH

17:20-17:40 ThC14.5

Set-Point Regulation of an EGR Valve Using a FORE with Hybrid Input Bias Estimation (I), pp. 4221-4226.

Panni, Francesco Saverio	Univ. of Rome, Tor Vergata
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Alberer, Daniel	Johannes Kepler Univ. Linz
Zaccarian, Luca	Univ. di Roma, Tor Vergata

17:40-18:00 ThC14.6

Optimal Experimental Design for Mechanistic Nonlinear Dynamic Models Using Multisine Inputs: Application to a Diesel Engine (I), pp. 4227-4232.

Stamati, Ioanna	Katholieke Univ. Leuven
Telen, Dries	K.U. Leuven
Logist, Filip	Katholieke Univ. Leuven
Van Derlinden, Eva	K.U. Leuven
Hirsch, Markus	Johannes Kepler Univ.
Passenbrunner, Thomas Ernst	Johannes Kepler Univ. Linz
Van Impe, Jan F.M.	Katholieke Univ. Leuven

ThC15	Hochelaga 3
Ground Vehicle Systems I (Regular Session)	

Chair: Brennan, Sean	Penn State Univ.
Co-Chair: Westervelt, Eric R.	General Electric

16:00-16:20 ThC15.1

Path-Tracking for Ground Vehicles with Bounded Steering Angle and Steering Rate - Optimal Control Approach, pp. 4233-4238.

Polotski, Vladimir	Neptec Design Group
Sasiadek, Jurek Z	Carleton Univ.

16:20-16:40 ThC15.2

Predictive Control for Agile Semi-Autonomous Ground Vehicles Using Motion Primitives, pp. 4239-4244.

Gray, Andrew	Univ. of California, Berkeley
Gao, Yiqi	Univ. of California, Berkeley
Lin, Theresa	Univ. of California - Berkeley
Hedrick, Karl	Univ. of California at Berkeley
Tseng, Eric	Ford Motor Company
Borrelli, Francesco	University of California at Berkeley

16:40-17:00 ThC15.3

Investigation of the Effect of Continuously Variable Transmissions on Ground Robot Powertrain Efficiency, pp. 4245-4250.

Pentzer, Jesse	The Pennsylvania State Univ.
Brennan, Sean	The Pennsylvania State Univ.

17:00-17:20 ThC15.4

Robust Model Predictive Control for Automated Trajectory Tracking of an Unmanned Ground Vehicle, pp. 4251-4256.

Bahadorian, Mitra	The Univ. of New South Wales
Savkovic, Borislav	The Univ. of New South Wales
Eaton, Ray	The Univ. of New South Wales
Hesketh, Timothy	Univ. of New South Wales

17:20-17:40 ThC15.5

Model Predictive Traction Control for Robots on Slippery 3D Terrains, pp. 4257-4262.

Panathula, Chandrasekhara	Univ. of Alabama in Huntsville
Bharath	
Fahimi, Farbod	Univ. of Alabama in Huntsville
Shtessel, Yuri B.	Univ. of Alabama at Huntsville

17:40-18:00 ThC15.6

Road-Map Assisted Standoff Tracking of Moving Ground Vehicle Using Nonlinear Model Predictive Control, pp. 4263-4268.

Oh, Hyondong	Cranfield Univ.
Kim, Seungkeun	Chungnam National Univ.

Tsourdos, Antonios
White, Brian A.

Cranfield Univ.
Cranfield Univ.

ThC16		Hochelaga 2
Energy Generation, Storage and Integration Systems (Invited Session)		
Chair: Soroush, Masoud		Drexel Univ.
Co-Chair: Chmielewski, Donald J.		Illinois Inst. of Tech.
Organizer: Soroush, Masoud		Drexel Univ.
Organizer: Chmielewski, Donald J.		Illinois Inst. of Tech.
16:00-16:20		ThC16.1
<i>Mathematical Modeling and Steady-State Analysis of a Co-Ionic-Conducting Solid Oxide Fuel Cell (I)</i> , pp. 4269-4274.		
Bavarian, Mona		Drexel Univ.
Soroush, Masoud		Drexel Univ.
Kevrekidis, Yannis		Princeton Univ.
Benziger, Jay		Princeton Univ.
16:20-16:40		ThC16.2
<i>Model-Based Simultaneous Optimization of Multiple Design Parameters for Lithium-Ion Batteries for Maximization of Energy Density (I)</i> , pp. 4275-4280.		
De, Sumitava		Washington Univ. at St. Louis
Northrop, Paul W.C.		Washington Univ. in St. Louis
Ramadesigan, Venkatasailanathan		Washington Univ. in St. Louis
Braatz, Richard D.		Massachusetts Inst. of Tech.
Subramanian, Venkat R.		Washington Univ. in St. Louis
16:40-17:00		ThC16.3
<i>Controller Design for Dispatch of IGCC Power Plants (I)</i> , pp. 4281-4286.		
Yang, Ming-Wei		Illinois Inst. of Tech.
Omell, Benjamin		Illinois Inst. of Tech.
Chmielewski, Donald J.		Illinois Inst. of Tech.
17:00-17:20		ThC16.4
<i>Modeling and Control of a Water Gas Shift Membrane Reactor for Hydrogen Production (I)</i> , pp. 4287-4292.		
Georgis, Dimitrios		Univ. of Minnesota
Lima, Fernando V.		Univ. of Minnesota
Almansoori, Ali		The Petroleum Inst.
Daoutidis, Prodromos		Univ. of Minnesota
17:20-17:40		ThC16.5
<i>Balancing of Battery Networks Via Constrained Optimal Control</i> , pp. 4293-4298.		
Danielson, Claus		Univ. of California, Berkeley
Borrelli, Francesco		University of California at Berkeley
Oliver, Douglas		Ford Motor Company
Anderson, R. Dyche		Ford Motor Company
Kuang, Ming L.		Ford Motor Co.
Phillips, Anthony M.		Ford Motor Co.
17:40-18:00		ThC16.6
<i>An LPV Control Approach for a Fuel Cell Power Generator Air Supply System</i> , pp. 4299-4304.		
Hernandez-Torres, David		Univ. de Grenoble
Sename, Olivier		Grenoble Inst. of Tech.
Riu, Delphine		Grenoble INP/ G2Elab

ThC17		Grand Salon
Controls and Art (Invited Session)		
Chair: LaViers, Amy		Georgia Inst. of Tech.
Co-Chair: Leonard, Naomi Ehrich		Princeton Univ.
Organizer: LaViers, Amy		Georgia Inst. of Tech.
Organizer: Leonard, Naomi Ehrich		Princeton Univ.
16:00-16:20		ThC17.1
<i>Visual Tracking of Human Visitors under Variable-Lighting Conditions for a Responsive Audio Art Installation (I)</i> , pp. 4305-4312.		
Godbehere, Andrew		Univ. of California at Berkeley
Matsukawa, Akihiro		Univ. of California, Berkeley
Goldberg, Ken		UC Berkeley
16:20-16:40		ThC17.2
<i>Feed-Forward Parameter Identification for Precise Periodic Quadcopter Motions (I)</i> , pp. 4313-4318.		
Schoellig, Angela		ETH Zurich
Wiltsche, Clemens		ETH Zurich
D'Andrea, Raffaello		ETH
16:40-17:00		ThC17.3
<i>The Control Theory of Motion-Based Communication: Problems in Teaching Robots to Dance (I)</i> , pp. 4319-4326.		
Baillieul, John		Boston Univ.
Ozcimder, Kayhan		Boston Univ.
17:00-17:20		ThC17.4
<i>Style Based Robotic Motion (I)</i> , pp. 4327-4332.		
LaViers, Amy		Georgia Inst. of Tech.
Egerstedt, Magnus		Georgia Inst. of Tech.
17:20-17:40		ThC17.5
<i>In the Dance Studio: Analysis of Human Flocking (I)</i> , pp. 4333-4338.		
Leonard, Naomi Ehrich		Princeton Univ.
Young, George Forrest		Princeton Univ.
Hochgraf, Kelsey		Princeton Univ.
Swain, Daniel		Princeton Univ.
Trippe, Aaron		Princeton Univ.
Chen, Willa		Princeton Univ.
Marshall, Susan		Princeton Univ.
17:40-18:00		ThC17.6
<i>Generating Music from Flocking Dynamics (I)</i> , pp. 4339-4344.		
Huepe, Cristian		Unaffiliated - Cristian Huepe Lab. Inc.
Cadiz, Rodrigo		Center for Res. in Audio Tech. Music Inst. and
Colasso, Marco		Center for Res. in Audio Tech. Music Inst. Pont
ThC18		Marquette
Distributed Parameter Systems (Regular Session)		
Chair: Chakravorty, Suman		Texas A&M Univ.
Co-Chair: Jovanovic, Mihailo		Univ. of Minnesota
16:00-16:20		ThC18.1
<i>Stabilization of an ODE-Schrodinger Cascade</i> , pp. 4345-4350.		
Ren, Beibei		Univ. of California, San Diego

Wang, Jun-Min Krstic, Miroslav	Beijing Inst. of Tech. Univ. of California, San Diego	Poulsen, Niels Kjølstad Niemann, Henrik	Tech. Univ. of Denmark Tech. Univ. of Denmark
16:20-16:40	ThC18.2	17:00-17:20	ThC19.4
<i>Generic 3D Swimmers in a Perfect Fluid Are Controllable</i> , pp. 4351-4356.		<i>Wind Turbines Fault Detection and Identification Using Set-Valued Observers</i> , pp. 4399-4404.	
Chambrion, Thomas Munnier, Alexandre	Univ. of Nancy The Univ. of British Columbia	Casau, Pedro Rosa, Paulo Andre Nobre Silvestre, Carlos	Inst. Superior Tecnico Inst. Superior Tecnico, Lisbon Inst. Superior Tecnico
16:40-17:00	ThC18.3	17:20-17:40	ThC19.5
<i>Computation of Empirical Eigenfunctions of Parabolic PDEs with Time-Varying Domain</i> , pp. 4357-4362.		<i>An Experimental Test Set-Up for Launch/recovery of an Airborne Wind Energy (AWE) System</i> , pp. 4405-4410.	
Izadi, Mojtaba Dubljevic, Stevan	Univ. of Alberta Univ. of Alberta	Geebelen, Kurt Ahmad, Hammad Vukov, Milan Gros, Sebastien Swevers, Jan Diehl, Moritz	KU Leuven K.U.Leuven KULeuven KU Leuven K. U. Leuven Katholieke Univ. Leuven
17:00-17:20	ThC18.4	17:40-18:00	ThC19.6
<i>A Randomly Perturbed Iterative Proper Orthogonal Decomposition Technique for Filtering Distributed Parameter Systems</i> , pp. 4363-4368.		<i>Robust Control for a Complete Wind Energy Conversion System Via High Order Sliding Mode</i> , pp. 4411-4416.	
Yu, Dan Chakravorty, Suman	Texas A&M Univ. Texas A&M Univ.	Rosas Reyes, Jose Roberto Canedo, Jose M. Loukianov, Alexander G.	CINVESTAV CINVESTAV CINVESTAV IPN GDI
17:20-17:40	ThC18.5	ThC20 Duluth	
<i>Slow-Fast Decomposition of an Inertialess Flow of Viscoelastic Fluids</i> , pp. 4369-4374.		Uncertainty Management in Electric Power Systems and the Grid (Invited Session)	
Lieu, Binh K. Jovanovic, Mihailo	Univ. of Minnesota Univ. of Minnesota	Chair: Gayme, Dennice Co-Chair: Topcu, Ufuk Organizer: Gayme, Dennice Organizer: Topcu, Ufuk	California Inst. of Tech. California Inst. of Tech. The Johns Hopkins Univ. California Inst. of Tech.
17:40-18:00	ThC18.6	16:00-16:20	ThC20.1
<i>Guaranteed Cost Distributed Fuzzy Control Design for a Class of Nonlinear First-Order Hyperbolic PDE Systems</i> , pp. 4375-4380.		<i>Risk Limiting Dispatch of Wind Power (I)</i> , pp. 4417-4422.	
Wang, Jun-Wei Wu, Huai-Ning	Beihang Univ. BeihangUniversity(BeijingUniversit yofAeronauticsandAstronau tics	Rajagopal, Ram Bitar, Eilyan Wu, Felix F. Varaiya, Pravin P.	Stanford Univ. Cornell Univ. the Univ. of Hong Kong Univ. of California at Berkeley
ThC19	Jolliet	16:20-16:40	ThC20.2
Wind Energy Systems (Regular Session)		<i>Frequency-Based Load Control in Power Systems (I)</i> , pp. 4423-4430.	
Chair: Tabatabaeipour, Seyedmojtaba	Aalborg Univ.	Zhao, Changhong Topcu, Ufuk Low, Steven	California Inst. of Tech. California Inst. of Tech. California Inst. of Tech.
Co-Chair: Loukianov, Alexander G.	CINVESTAV IPN GDI	16:40-17:00	ThC20.3
16:00-16:20	ThC19.1	<i>Risk-Mitigated Optimal Power Flow for Wind Powered Grids (I)</i> , pp. 4431-4437.	
<i>A Multi-Objective Optimization Approach to Active Power Control of Wind Farms</i> , pp. 4381-4386.		Sjödin, Anna Emma Maria Gayme, Dennice Topcu, Ufuk	KTH Royal Inst. of Tech. The Johns Hopkins Univ. California Inst. of Tech.
Zou, Jianxiao	Univ. of Electronic Science and Tech. of China	17:00-17:20	ThC20.4
Yao, Junping	Univ. of Electronic Science and Tech. of China	<i>Optimal Sharing of Quantity Risk for a Coalition of Wind Power Producers Facing Nodal Prices (I)</i> , pp. 4438-4445.	
Zou, Qingze	Rutgers, the State Univ. of New Jersey	Bitar, Eilyan Baeyens, Enrique Khargonekar, Pramod P. Poolla, Kameshwar	Cornell Univ. Fundación CARTIF Univ. of Florida Univ. of California at Berkeley
Xu, Hongbing	Univ. of Electronic Science and Tech. of China	16:40-17:00	ThC19.2
16:20-16:40	ThC19.2	<i>Fault Detection of a Benchmark Wind Turbine Using Interval Analysis</i> , pp. 4387-4392.	
Tabatabaeipour, Seyed Mojtaba	Aalborg Univ.	16:40-17:00	ThC19.3
Odgaard, Peter Fogh Bak, Thomas	KK electronic a/s Aalborg Univ.	<i>Robust Model Predictive Control of a Wind Turbine</i> , pp. 4393-4398.	
16:40-17:00	ThC19.3	Mirzaei, Mahmood	Tech. Univ. of Denmark

Varaiya, Pravin P.	Univ. of California at Berkeley
17:20-17:40	ThC20.5
<i>Wide-Area Damping Control of Power Systems Using Clustering and FACTS-Based Redesigns (I)</i> , pp. 4446-4451.	
Chakraborty, Aranya	North Carolina State Univ.
17:40-18:00	ThC20.6
<i>Inverse-Affine Dependence of Recovery-Time Sensitivities on Critical Disturbance Parameters: A Nonlinear Dynamics Explanation (I)</i> , pp. 4452-4456.	
Roy, Sandip	Washington State Univ.
Hiskens, Ian A.	Univ. of Michigan
ThC21	Mackenzie
Control Education (Regular Session)	
Chair: Vogel-Heuser, Birgit	Tech. Univ. of Munich
Co-Chair: Hill, Rick	Univ. of Detroit Mercy
16:00-16:20	ThC21.1
<i>Root Locus Design with CPISL Compensation and the Parallel Inner Loop Form</i> , pp. 4457-4462.	
Messner, William	Carnegie Mellon Univ.
Krishnamurthy, Yamuna	Carnegie Mellon Univ.
16:20-16:40	ThC21.2
<i>Usability Evaluation on Teaching and Applying Model-Driven Object Oriented Approaches for PLC Software</i> , pp. 4463-4469.	
Vogel-Heuser, Birgit	Tech. Univ. of Munich
Braun, Steven	TUM, Inst. of Automation and Information Systems
Obermeier, Martin	TUM, Inst. of Automation and Information Systems
Jobst, Fabian	Univ. of Education Weingarten
Schweizer, Karin	Univ. of Education Weingarten
16:40-17:00	ThC21.3
<i>Development of an Introductory Course on the Modeling and Control of Advanced Electric Vehicles</i> , pp. 4470-4477.	
Hill, Rick	Univ. of Detroit Mercy
17:00-17:20	ThC21.4
<i>A Low-Cost Microcontroller-In-The-Loop Platform for Controls Education</i> , pp. 4478-4483.	
Krauss, Ryan	Southern Illinois Univ. Edwardsville
Croxell, Jeffrey	Southern Illinois Univ. Edwardsville
17:20-17:40	ThC21.5
<i>PWATOOLS: A MATLAB Toolbox for Piecewise-Affine Controller Synthesis</i> , pp. 4484-4489.	
Zamani Fekri, Mohsen	Concordia Univ.
Samadi, Behzad	Concordia Univ.
Rodrigues, Luis	Concordia Univ.
17:40-18:00	ThC21.6
<i>Static Characteristics of Nonlinear Systems under Presence of Measurement Noises</i> , pp. 4490-4495.	
Gessing, Ryszard	Silesian Univ. of Tech.

ThC22
Hedged-Like Stock Trading from a Control Theoretic Point of View (Tutorial Session)

Chair: Primbs, James A.	Stanford Univ.
Co-Chair: Barmish, B. Ross	Univ. of Wisconsin
Organizer: Primbs, James A.	Stanford Univ.
Organizer: Barmish, B. Ross	Univ. of Wisconsin
16:00-16:20	ThC22.1
<i>An Introduction to Hedged-Like Stock Trading from a Control Theoretic Point of View (I)</i> , pp. 4496-4497.	
Primbs, James A.	Stanford Univ.
Barmish, B. Ross	Univ. of Wisconsin
16:20-16:40	ThC22.2
<i>Single Period Methods (I)*.</i>	
Primbs, James A.	Stanford Univ.
16:40-17:00	ThC22.3
<i>Robust Control Inspired Approaches (I)*.</i>	
Barmish, B. Ross	Univ. of Wisconsin
17:00-17:20	ThC22.4
<i>Dynamic Optimal Control Methods (I)*.</i>	
Primbs, James A.	Stanford Univ.
17:20-18:00	ThC22.5
<i>Panel Discussion (I)*.</i>	
Barmish, B. Ross	Univ. of Wisconsin
Primbs, James A.	Stanford Univ.
Kantor, Jeffrey C.	Univ. of Notre Dame
Rohrs, Charles E.	Massachusetts Inst. of Tech.
Calafiore, Giuseppe	Pol. di Torino
Yamada, Yuji	Univ. of Tsukuba

Technical Program for Friday June 29, 2012

FrP1	Grand Salon/Marquette
Accomplishments and Prospects of Control (Plenary Session)	
Chair: Samad, Tariq	Honeywell Lab.
Co-Chair: Tilbury, Dawn M.	Univ. of Michigan
08:30-09:30	FrP1.1
<i>Accomplishments and Prospects of Control*</i> .	
Astrom, Karl J.	Lund Inst. of Tech.
FrA01	Saint Laurent
Multi-Agent Systems I (Regular Session)	
Chair: Rabbath, Camille Alain	Defence R&D Canada
Co-Chair: Zhang, Youmin	Concordia Univ.
10:00-10:20	FrA01.1
<i>Multi-Agent Perimeter Patrolling Subject to Mobility Constraints</i> , pp. 4498-4503.	
Alberton, Riccardo	Univ. of Padova
Carli, Ruggero	Univ. of Padova
Cenedese, Angelo	Univ. of Padova
Schenato, Luca	Univ. of Padova
10:20-10:40	FrA01.2
<i>Cooperative Control of Multi-Agent Systems with Event-Based Communication</i> , pp. 4504-4509.	
Demir, Ozan	Ruhr-Univ. Bochum
Lunze, Jan	Ruhr-Univ. Bochum
10:40-11:00	FrA01.3
<i>Distributed Coverage Optimization in a Network of Mobile Agents Subject to Measurement Error</i> , pp. 4510-4515.	
Habibi, Jalal	Concordia Univ.
Mahboubi, Hamid	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.
11:00-11:20	FrA01.4
<i>On Global Consensus of Linear Multi-Agent Systems Subject to Input Saturation</i> , pp. 4516-4521.	
Meng, Ziyang	Shanghai Jiao Tong Univ.
Lin, Zongli	Univ. of Virginia
Zhao, Zhiyun	Shanghai Jiao Tong Univ.
11:20-11:40	FrA01.5
<i>Decentralized Sweep Coverage Algorithm for Uncertain Region of Multi-Agent Systems</i> , pp. 4522-4527.	
Zhai, Chao	Acad. of Mathematics and Systems Science, Chinese Acad. Sc
Hong, Yiguang	Chinese Acad. of Sciences
11:40-12:00	FrA01.6
<i>Distributed Chance-Constrained Task Allocation for Autonomous Multi-Agent Teams</i> , pp. 4528-4533.	
Ponda, Sameera	MIT
Johnson, Luke	MIT
How, Jonathan P.	MIT
FrA02	Gatineau
Optimal Control of Switched-Mode Hybrid Dynamical Systems (Invited Session)	

Chair: Wardi, Yorai	Georgia Inst. of Tech.
Co-Chair: Almer, Stefan	ETH Zuerich
Organizer: Wardi, Yorai	Georgia Inst. of Tech.
10:00-10:20	FrA02.1
<i>On an Extension of the Hybrid Minimum Principle to Systems on Lie Groups (I)</i> , pp. 4534-4539.	
Taringoo, Farzin	McGill Univ.
Caines, Peter E.	McGill Univ.
10:20-10:40	FrA02.2
<i>Optimal Planning on Register Automata (I)</i> , pp. 4540-4545.	
Fu, Jie	Univ. of Delaware
Tanner, Herbert	Univ. of Delaware
10:40-11:00	FrA02.3
<i>Algorithm for Optimal Mode Scheduling in Switched Systems (I)</i> , pp. 4546-4551.	
Wardi, Yorai	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
11:00-11:20	FrA02.4
<i>Projection-Based Switched System Optimization (I)</i> , pp. 4552-4557.	
Caldwell, Timothy	Northwestern Univ.
Murphey, Todd	Northwestern Univ.
11:20-11:40	FrA02.5
<i>Robust Tracking Control of Pulse-Width Modulated Systems through Multi-Frequency Averaging (I)</i> , pp. 4558-4563.	
Almer, Stefan	ETH Zuerich
Mariethoz, Sebastien	ETH Zurich
Morari, Manfred	ETH Zurich
11:40-12:00	FrA02.6
<i>Stability of Interconnected Switched Systems Using QSR Dissipativity with Multiple Supply Rates</i> , pp. 4564-4569.	
McCourt, Michael J.	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame
FrA03	Bersimis
Mechatronics (Regular Session)	
Chair: Hill, Rick	Univ. of Detroit Mercy
Co-Chair: Tang, Yan	Embry-Riddle Aeronautical Univ.
10:00-10:20	FrA03.1
<i>A Multi-Axial Electromagnetically Actuated Punch for Cutting Micro-Components</i> , pp. 4570-4575.	
Dagen, Matthias	Leibniz Univ.
Riva, Mauro H.	Inst. of Mechatronic Systems, Leibniz Univ. Hannover
Heimann, Bodo	Univ. of Hannover
Ortmaier, Tobias	Inst. of Mechatronic Systems, Leibniz Univ. Hannover
Wager, Christian	Inst. of Metal Forming and Metal-Forming Machines, Leibniz U
Krimm, Richard	Inst. of Metal Forming and Metal-Forming Machines, Leibniz U
Behrens, Bernd-Arno	Inst. of Metal Forming and Metal-Forming Machines, Leibniz U
10:20-10:40	FrA03.2
<i>Robust Predictive Control Design for Optimal Wet-Clutch</i>	

Engagement, pp. 4576-4581.

Dutta, Abhishek	Ghent Univ.
De Keyser, Robin M.C.	Univ. of Gent
Ionescu, Clara	Ghent Univ.
Stoev, Julian	Flanders' MECHATRONICS Tech. Centre
Pinte, Gregory	Flanders' Mechatronics Tech. Centre
Symens, Wim	FMTC

10:40-11:00 FrA03.3

Inertially Stabilized Platforms Using Two Gyroscopic Measures and Sensitivity Analysis to Unmodeled Motion, pp. 4582-4587.

Battistel, Andrei	Federal Univ. of Rio de Janeiro
Lizarralde, Fernando	Federal Univ. of Rio de Janeiro
Hsu, Liu	COPPE/UFRJ

11:00-11:20 FrA03.4

A Modified Discrete-Time Sliding Mode Control for Proximate Time-Optimal Servomechanisms, pp. 4588-4593.

Kim, Wonhee	Hanyang Univ.
Jeong, Ji Young	Hanyang Univ.
Chung, Chung Choo	Hanyang Univ.

11:20-11:40 FrA03.5

Synchronization of Tool Tip and Tool Orientation Contour Errors in Five-Axis Machining, pp. 4594-4598.

Mohammad, Abd El Khalick	Toyohashi Univ. of Tech.
Uchiyama, Naoki	Toyohashi Univ. of Tech.
Shigenori, Sano	Toyohashi Univ. of Tech.

FrA04 Peribonka
Aerospace Systems III (Regular Session)

Chair: Grip, Håvard Fjær	Washington State Univ.
Co-Chair: Yamasaki, Takeshi	National Defense Acad.

10:00-10:20 FrA04.1

Generalized Dynamic Inversion Control for Aircraft Constrained Trajectory Tracking Applications, pp. 4599-4606.

Hameduddin, Ismail	King Abdulaziz Univ.
Bajodah, Abdulrahman H.	King Abdulaziz Univ.

10:20-10:40 FrA04.2

A Nonlinear Observer for Integration of GNSS and IMU Measurements with Gyro Bias Estimation, pp. 4607-4612.

Grip, Håvard Fjær	Washington State Univ.
Fossen, Thor I.	Norwegian Univ. of Science and Tech.
Johansen, Tor Arne	Norwegian Univ. of Science & Tech.
Saberi, Ali	Washington State Univ.

10:40-11:00 FrA04.3

Intercepting Maneuvering Target with Specified Impact Angle by Modified SDRE Technique, pp. 4613-4618.

Bardhan, Rajarshi	IISc
Ghose, Debasish	Indian Inst. of Science

11:00-11:20 FrA04.4

Constraint Enforcement and Robust Tube-Based Control for Scramjet-Powered Hypersonic Vehicles with Significant Uncertainties, pp. 4619-4624.

Sridharan, Srikanth	Arizona State Univ.
Rodriguez, Armando A.	Arizona State Univ.

Dickeson, Jeffrey	Arizona State Univ.
Soloway, Don	NASA

11:20-11:40 FrA04.5

The Design and Analyse of Non-Singular Terminal Adaptive Fuzzy Sliding-Mode Controller, pp. 4625-4630.

Cao, Lu	Coll. of Aerospace and Materials Engineering
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Chen, Yong	National Univ. of Defense Tech.
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Chen, Xiaoqian	National Univ. of Defense Tech.
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Zhao, Yong	Coll. of Aerospace and Materials Engineering
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Fan, Jinhua	National Univ. of Defense Tech.
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11:40-12:00 FrA04.6

Terminal Intercept Guidance and Autopilot for Aircraft Defense against an Attacking Missile Via 3D Sliding Mode Approach, pp. 4631-4636.

Yamasaki, Takeshi	National Defense Acad.
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Balakrishnan, S.N.	Missouri Univ. of Science and Tech.
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FrA05 Richelieu
Quadrotor Control (Regular Session)

Chair: Aswani, Anil	Univ. of California at Berkeley
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Co-Chair: Lozano, Rogelio	Univ. de Tech.
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10:00-10:20 FrA05.1

Quad-Rotor Switching Control: An Application for the Task of Path Following, pp. 4637-4642.

Garcia Carrillo, Luis Rodolfo	Univ. of California, Santa Barbara
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Flores, Gerardo	Univ. of Tech. of Compiègne
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Sanahuja, Guillaume	Univ. de Tech. de Compiègne
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Lozano, Rogelio	Univ. de Tech.
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10:20-10:40 FrA05.2

Continuous Reactive-Based Position-Attitude Control of Quadrotors, pp. 4643-4648.

Sanchez, Anand	CINVESTAV
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Parra-Vega, Vicente	CINVESTAV
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Tang, Chinpei	Univ. of Texas at Dallas
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Oliva-Palomo, Fatima	CINVESTAV
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Carlos, Izaguirre-Espinosa	CINVESTAV
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10:40-11:00 FrA05.3

Nonlinear Robust Tracking Control of a Quadrotor UAV on SE(3), pp. 4649-4654.

Lee, Taeyoung	George Washington Univ.
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Leok, Melvin	Univ. of California, San Diego
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McClamroch, N. Harris	Univ. of Michigan
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11:00-11:20 FrA05.4

Path Following Controller for a Quadrotor Helicopter, pp. 4655-4660.

Roza, Ashton	Univ. of Toronto
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Maggiore, Manfredi	Univ. of Toronto
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11:20-11:40 FrA05.5

Extensions of Learning-Based Model Predictive Control for Real-Time Application to a Quadrotor Helicopter, pp. 4661-4666.

Aswani, Anil	Univ. of California at Berkeley
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Bouffard, Patrick	UC Berkeley
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Tomlin, Claire J.	UC Berkeley
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11:40-12:00 FrA05.6

Johansson, Karl H.	Royal Inst. of Tech.
11:00-11:20	FrA08.4
<i>Sparse Feedback Synthesis Via the Alternating Direction Method of Multipliers</i> , pp. 4765-4770.	
Lin, Fu	Univ. of Minnesota
Fardad, Makan	Syracuse Univ.
Jovanovic, Mihailo	Univ. of Minnesota

11:20-11:40	FrA08.5
<i>Quickest Seizure Onset Detection in Drug-Resistant Epilepsy</i> , pp. 4771-4776.	
Santaniello, Sabato	Johns Hopkins Univ.
Burns, Samuel	Johns Hopkins Univ.
Sarma, Sridevi	Johns Hopkins Univ.

11:40-12:00	FrA08.6
<i>On the Optimal Synchronization of Oscillator Networks Via Sparse Interconnection Graphs</i> , pp. 4777-4782.	
Fardad, Makan	Syracuse Univ.
Lin, Fu	Univ. of Minnesota
Jovanovic, Mihailo	Univ. of Minnesota

FrA09	Saint-Charles
Filtering I (Regular Session)	

Chair: Yamakita, Masaki	Tokyo Inst. of Tech.
Co-Chair: Celikovskiy, Sergej	Inst. of Information Theory and Automation

10:00-10:20	FrA09.1
<i>A Resilient Extended Kalman Filter for Discrete-Time Nonlinear Stochastic Systems with Sensor Failures</i> , pp. 4783-4788.	
Wang, Xin	Oregon Inst. of Tech.
Yaz, Edwin	Marquette Univ.
Jeong, Chung Seop	Marquette Univ.
Yaz, Yvonne	Milwaukee School of Engineering

10:20-10:40	FrA09.2
<i>Kalman Filter under Nonlinear System Transformations</i> , pp. 4789-4794.	
Dolinsky, Kamil	Czech Tech. Univ. in Prague
Celikovsky, Sergej	Inst. of Information Theory and Automation

10:40-11:00	FrA09.3
<i>Stability Analysis and Application of Kalman Filtering with Irregularly Sampled Measurements</i> , pp. 4795-4800.	
Fang, Huazhen	Univ. of California, San Diego
de Callafon, Raymond A.	Univ. of California, San Diego

11:00-11:20	FrA09.4
<i>Ensemble Kalman Filtering of Out-Of-Sequence Measurements for Continuous-Time Model</i> , pp. 4801-4806.	
Pornsarayouth, Sirichai	Tokyo Inst. of Tech.
Yamakita, Masaki	Tokyo Inst. of Tech.

11:20-11:40	FrA09.5
<i>Robust Filtering for Continuous-Time Uncertain Nonlinear Systems with an Integral Quadratic Constraint</i> , pp. 4807-4812.	
Kallapur, Abhijit	Univ. of New South Wales at the Australian Defence Force Academy
Vladimirov, Igor G.	UNSW@ADFA
Petersen, Ian	Univ. of New South Wales at the Australian Defence Force Academy

11:40-12:00	FrA09.6
<i>Non-Stationary Kalman Filter Parametrization of Subspace Models with Applications to MPC</i> , pp. 4813-4818.	
Zhao, Yu	Univ. of Southern California
Sun, Zhijie	Univ. of Southern California
Qin, S. Joe	Univ. of Southern California
Chai, Tianyou	Northeastern Univ.

FrA10	Saint-Maurice
Biomedical and Human Systems (Regular Session)	

Chair: Freeman, Christopher T.	Univ. of Southampton
Co-Chair: Ames, Aaron	Texas A&M Univ.

10:00-10:20	FrA10.1
<i>A Gravity Compensation-Based Upper Limb Rehabilitation Robot</i> , pp. 4819-4824.	
Hsu, Li-Chun	NTU
Wang, Wei-Wen	National Taiwan Univ.
Lee, Guan De	NTU
Liao, Yi-Wen	NTU
Fu, Li-Chen	National Taiwan Univ.
Lai, Jin-shin	Coll. of Medicine, National Taiwan Univ.

10:20-10:40	FrA10.2
<i>FES Based Rehabilitation of the Upper Limb Using Input/Output Linearization and ILC</i> , pp. 4825-4830.	
Freeman, Christopher T.	Univ. of Southampton
Tong, Daisy	Univ. of Southampton
Meadmore, Katie	Univ. of Southampton
Hughes, Ann-Marie	Univ. of Southampton
Rogers, Eric	Univ. of Southampton
Burridge, Jane	Univ. of Southampton

10:40-11:00	FrA10.3
<i>Extending Two-Dimensional Human-Inspired Bipedal Robotic Walking to Three Dimensions through Geometric Reduction</i> , pp. 4831-4836.	
Sinnet, Ryan	Texas A&M Univ.
Ames, Aaron	Texas A&M Univ.

11:00-11:20	FrA10.4
<i>Whole-Body Trajectory Optimization for Humanoid Falling</i> , pp. 4837-4842.	
Wang, Jiuguang	Carnegie Mellon Univ.
Whitman, Eric C.	Carnegie Mellon Univ.
Stilman, Mike	Georgia Tech.

11:20-11:40	FrA10.5
<i>Outputs of Human Walking for Bipedal Robotic Controller Design</i> , pp. 4843-4848.	
Jiang, Shu	Texas A&M Univ.
Patrick, Shawanee	Texas A&M Univ.
Zhao, Huihua	Texas A&M Univ.
Ames, Aaron	Texas A&M Univ.

11:40-12:00	FrA10.6
<i>Adaptive Observer-Based Controller Design for a Class of Nonlinear Systems with Application to Image Guided Control of Steerable Needles</i> , pp. 4849-4854.	
Motaharifar, Mohammad	Amirkabir Univ. of Tech.
Talebi, H.A.	Amirkabir Univ.

Afshar, Ahmad Amir-kabir Univ. of Tech.
 Abdullahi, Farzaneh Concordia Univ.

He, Qinghua Tuskegee Univ.
 Wang, Jin Auburn Univ.
 Galicia, Hector Auburn Univ.
 Stuber, John Texas Inst.
 Gill, Bhalinder Micron Tech.

FrA11 Saguenay
Mobile Robots (Regular Session)

Chair: Gupta, Shalabh Univ. of Connecticut
 Co-Chair: Woolsey, Craig Virginia Tech.

10:00-10:20 FrA11.1

Motion Planning for a Novel Rolling Robot with Three Sliders, pp. 4855-4860.

Su, Baiquan Beijing Univ. of Aeronautics and Astronautics
 Wang, Tianmiao Beijing Univ. of Astronautics and Aeronautics

10:20-10:40 FrA11.2

Navigation Functions in Topologically Complex 3-D Workspaces, pp. 4861-4866.

Loizou, Savvas Cyprus Univ. of Tech.

10:40-11:00 FrA11.3

Multi-Resolution Navigation of Mobile Robots with Complete Coverage of Unknown and Complex Environments, pp. 4867-4872.

Jin, Xin The Pennsylvania State Univ.
 Gupta, Shalabh Univ. of Connecticut
 Luff, Jacqueline Pennsylvania State Univ.
 Ray, Asok Pennsylvania State Univ.

11:00-11:20 FrA11.4

Disturbance Rejection in Dubins Path Planning, pp. 4873-4878.

Wolek, Artur Virginia Tech.
 Woolsey, Craig Virginia Tech.

11:20-11:40 FrA11.5

On the Design of Robust Intelligent Controllers with Application to Mobile Robot Tracking, pp. 4879-4884.

Biglarbegan, Mohammad www.uoguelph.ca

11:40-12:00 FrA11.6

Proportional Heading Control for Planar Navigation: The Chaplygin Beanie and Fishlike Robotic Swimming, pp. 4885-4890.

Kelly, Scott Univ. of North Carolina at Charlotte
 Fairchild, Michael UNC Charlotte
 Hassing, Peter Univ. of North Carolina at Charlotte
 Tallapragada, Phanindra Univ. of North Carolina, Charlotte

FrA12 Hochelaga 6
Process Control I (Regular Session)

Chair: He, Qinghua Tuskegee Univ.
 Co-Chair: Ydstie, B. Erik Carnegie Mellon

10:00-10:20 FrA12.1

Hybrid Intelligent Optimal Control for Flotation Processes, pp. 4891-4896.

Li, Haibo northeastern Univ.
 Chai, Tianyou Northeastern Univ.
 Zhang, Liyan Northeastern Univ.

10:20-10:40 FrA12.2

Statistics Pattern Analysis Based Virtual Metrology for Plasma Etch Processes, pp. 4897-4902.

10:40-11:00 FrA12.3

Plantwide Control of Chemical Looping Combustion (I), pp. 4903-4908.

McFarland, Timothy Carnegie Mellon Univ.
 Ydstie, B. Erik Carnegie Mellon

11:00-11:20 FrA12.4

Model-Based Estimation and Control of In/Out-Flux During Drilling, pp. 4909-4914.

Hauge, Espen NTNU
 Aamo, Ole Morten NTNU
 Godhavn, John-Morten Statoil ASA

11:20-11:40 FrA12.5

Attenuation of Heave-Induced Pressure Oscillations in Offshore Drilling Systems, pp. 4915-4920.

Mahdianfar, Hessam Norwegian Univ. of Science and Tech. (NTNU)
 Aamo, Ole Morten NTNU
 Pavlov, Alexey Statoil R&D Center

FrA13 Hochelaga 5
Networked Control Systems I (Regular Session)

Chair: Annaswamy, Anuradha Massachusetts Inst. of Tech.
 Co-Chair: Hamadeh, Abdullah Univ. of Waterloo
 Omar

10:00-10:20 FrA13.1

Adaptive Switching Controllers for Systems with Hybrid Communication Protocols, pp. 4921-4926.

Voit, Harald Tech. Univ. München
 Annaswamy, Anuradha Massachusetts Inst. of Tech.
 Schneider, Reinhard TU Munich
 Goswami, Dip TU Munich
 Chakraborty, Samarjit TU Munich

10:20-10:40 FrA13.2

Guaranteed Cost Control for Multi-Sensor Networked Control Systems Using Historical Data, pp. 4927-4932.

Huang, Ji Univ. of Victoria
 Shi, Yang Univ. of Victoria

10:40-11:00 FrA13.3

Information-Driven Self-Deployment and Dynamic Sensor Coverage for Mobile Sensor Networks, pp. 4933-4938.

Jalalkamali, Parisa Dartmouth Coll.
 Olfati-Saber, Reza Dartmouth Coll.

11:00-11:20 FrA13.4

Experimental Validation of a New Moving Horizon Estimator Approach for Networked Control Systems with Unsynchronized Clocks, pp. 4939-4944.

Philipp, Peter Tech. Univ. München
 Altmannshofer, Simon Tech. Univ. München

11:20-11:40 FrA13.5

Designing Synchronization Protocols in Networks of Coupled Nodes under Uncertainty, pp. 4945-4950.

Dhawan, Andrew	Univ. of Waterloo
Hamadeh, Abdullah Omar	Univ. of Waterloo
Ingalls, Brian P.	Univ. of Waterloo

11:40-12:00 FrA13.6

Distributed Finite-Time Cooperative Tracking of Networked Lagrange Systems Via Local Interactions, pp. 4951-4956.

Meng, Ziyang	Shanghai Jiao Tong Univ.
Lin, Zongli	Univ. of Virginia

FrA14 Hochelega 4
Estimation in Diesel Engines and Aftertreatment Systems (Invited Session)

Chair: Wang, Yue-Yun	General Motors Company
Co-Chair: Mohammadpour, Javad	Univ. of Houston
Organizer: Wang, Yue-Yun	General Motors Company
Organizer: Mohammadpour, Javad	Univ. of Michigan
Organizer: Canova, Marcello	The Ohio State Univ.
Organizer: Shim, Taehyun	Univ. of Michigan-Dearborn
Organizer: Scacchioli, Annalisa	New York Univ. Pol. Inst.
Organizer: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.

10:00-10:20 FrA14.1

Air-To-Fuel Ratio Control with Adaptive Estimation of Biofuel Content for Diesel Engine LNT Regeneration (I), pp. 4957-4962.

Chen, Xuefei	Michigan State Univ.
Wang, Yue-Yun	General Motors Company
Haskara, Ibrahim	GM Res. & Development
Zhu, Guoming	Michigan State Univ.

10:20-10:40 FrA14.2

Oxygen Fraction Estimation for Diesel Engines Utilizing Variable Intake Valve Actuation (I), pp. 4963-4968.

Kocher, Lyle	Purdue Univ.
Stricker, Karla	Purdue Univ.
Van Alstine, Dan	Purdue Univ. School of Mechanical Engineering
Koerberlein, Edward	Purdue Univ. School of Mechanical Engineering
Shaver, Gregory M.	Purdue Univ.

10:40-11:00 FrA14.3

A Kalman Filter Estimator for a Diesel Oxidation Catalyst During Active Regeneration of a CPF (I), pp. 4969-4974.

Surenahalli, Harsha	Michigan Tech. Univ.
Parker, Gordon G.	Michigan Tech. Univ.
Johnson, John H.	Michigan Tech. Univ.
Devarakonda, Maruthi	Pacific Northwest National Lab.

11:00-11:20 FrA14.4

Energy-Based and Oxygen-Based Biodiesel Blend Level Estimation Methods for Diesel Engines (I), pp. 4975-4980.

Zhao, Junfeng	Ohio State Univ.
Wang, Junmin	The Ohio State Univ.

11:20-11:40 FrA14.5

Model-Based Estimation of Injected Urea Quantity and Diagnostics for SCR Urea Injection System (I), pp. 4981-4986.

Wang, Yue-Yun	General Motors Company
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Sun, Yu	Res. and Development Center, General Motors
Gady, Kevin	General Motors Company

11:40-12:00 FrA14.6

Control-Oriented Modeling of Thermal Behaviors for a Diesel Oxidation Catalyst, pp. 4987-4992.

Chen, Pingen	Ohio State Univ.
Wang, Junmin	The Ohio State Univ.

FrA15 Hochelega 3
Ground Vehicle Systems II (Regular Session)

Chair: Chalhoub, Nabil G.	Wayne State Univ.
Co-Chair: Wang, Junmin	The Ohio State Univ.

10:00-10:20 FrA15.1

In-Wheel Motor Electric Ground Vehicle Energy Management Strategy for Maximizing the Travel Distance (I), pp. 4993-4998.

Li, Xiaodong	Dalian Univ. of Tech.
Chen, Yan	Ohio State Univ.
Wang, Junmin	The Ohio State Univ.

10:20-10:40 FrA15.2

A Branch-And-Bound Algorithm for Energy-Efficient Control Allocation with Applications to Planar Motion Control of Electric Ground Vehicles, pp. 4999-5004.

Chen, Yan	Ohio State Univ.
Wang, Junmin	The Ohio State Univ.

10:40-11:00 FrA15.3

Lyapunov Based Control of Hybrid Energy Storage System in Electric Vehicles (I), pp. 5005-5010.

El Fadil, Hassan	Ibn Tofail Univ. Kénitra.
Giri, Fouad	Univ. of Caen Basse-Normandie
Guerrero, J.M.	Univ. Pol. de Catalunya

11:00-11:20 FrA15.4

Robust Controller for Wheeled Mobile Robots, pp. 5011-5016.

Chalhoub, Nabil G.	Wayne State Univ.
Matta, Sherif	Wayne State Univ.

11:20-11:40 FrA15.5

LPV Quadratic Energy-Motion Regulators of Electric Scooters, pp. 5017-5022.

Hong, Boe-Shong	National Chung Cheng Univ.
Hu, Han-Min	National Chung Cheng Univ.
Chen, Hsuan-Po	National Chung Cheng Univ.
Lin, Tsu-Yu	National Chung Cheng Univ.
Su, Wen-Jui	National Chung Cheng University
Wu, Mei-Hung	Nanhua Univ.

FrA16 Hochelega 2
Control of Fusion Plasmas in Tokamaks (Invited Session)

Chair: Walker, Michael L.	General Atomics
Co-Chair: Schuster, Eugenio	Lehigh Univ.
Organizer: Walker, Michael L.	General Atomics
Organizer: Schuster, Eugenio	Lehigh Univ.

10:00-10:20 FrA16.1

Robust Adaptive Control of the Sawtooth Instability in Nuclear Fusion (I), pp. 5023-5028.

Bolder, Joost	Eindhoven Univ. of Tech.
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Witvoet, Gert	Eindhoven Univ. of Tech.
De Baar, Marco	FOM
Van De Wouw, Nathan	Eindhoven Univ. of Tech.
Haring, Mark	Norwegian Univ. of Science and Tech.
Westerhof, Egbert	FOM
Doelman, Niek	TNO Science and Industry
Steinbuch, Maarten	Eindhoven Univ. of Tech.
10:20-10:40	FrA16.2
<i>Model-Based Decoupling Control of Tokamak Plasmas (I)</i> , pp. 5029-5036.	
Walker, Michael L.	General Atomics
10:40-11:00	FrA16.3
<i>Multivariable Robust Control of the Plasma Rotational Transform Profile for Advanced Tokamak Scenarios in DIII-D (I)</i> , pp. 5037-5042.	
Shi, Wenyu	Lehigh Univ.
Wehner, William	Lehigh Univ.
Barton, Justin	Lehigh Univ.
Boyer, Mark D.	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
Moreau, Didier	CEA
Luce, Timothy	General Atomics
Ferron, J. R.	General Atomics
Walker, Michael L.	General Atomics
Humphreys, D.A.	General Atomics
Penaflo, Benjamin P.	General Atomics
Johnson, Robert D.	General Atomics
11:00-11:20	FrA16.4
<i>Adaptive Nonlinear Burn Control in Tokamak Fusion Reactors (I)</i> , pp. 5043-5048.	
Boyer, Mark D.	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
11:20-11:40	FrA16.5
<i>Optimal Feedback Control of the Poloidal Magnetic Flux Profile in the DIII-D Tokamak Based on Identified Plasma Response Models (I)</i> , pp. 5049-5054.	
Wehner, William	Lehigh Univ.
Shi, Wenyu	Lehigh Univ.
Schuster, Eugenio	Lehigh Univ.
Moreau, Didier	CEA
Walker, Michael L.	General Atomics
Ferron, J. R.	General Atomics
Luce, Timothy	General Atomics
Humphreys, D.A.	General Atomics
Penaflo, Benjamin P.	General Atomics
Johnson, Robert D.	General Atomics
11:40-12:00	FrA16.6
<i>Real-Time Period Determination for Relaxation Oscillators Using Wavelets (I)</i> , pp. 5055-5060.	
van Berkel, Matthijs	Eindhoven Univ. of Tech. FOM DIFFER
Witvoet, Gert	Eindhoven Univ. of Tech.
De Baar, Marco	FOM
Nuij, Pieter Waltherus Jozef Maria	Eindhoven Univ. of Tech.
ter Morsche, Hennie	Eindhoven Univ. of Tech.
Steinbuch, Maarten	Eindhoven Univ. of Tech.

FrA17	Grand Salon
Filtering and Control in Quantum Systems (Invited Session)	
Chair: Sridharan, Srinivas	Univ. of California, San Diego
Co-Chair: Somaraju, Ram Abhinav	Vrije Univ. Brussel
Organizer: Sridharan, Srinivas	Univ. of California, San Diego
Organizer: Li, Jr-Shin	Washington Univ. in St. Louis
10:00-10:20	FrA17.1
<i>The Role of Singular Control in Frictionless Atom Cooling in a Harmonic Trapping Potential (I)</i> , pp. 5061-5066.	
Stefanatos, Dionisis	Washington Univ.
Li, Jr-Shin	Washington Univ. in St. Louis
10:20-10:40	FrA17.2
<i>Squeezing Enhancement of Degenerate Parametric Amplifiers Via Coherent Feedback Control (I)</i> , pp. 5067-5072.	
Chuanxin, Bian	The Hong Kong Pol. Univ.
Zhang, Guofeng	The Hong Kong Pol. Univ.
Lee, Heung Wing Joseph	the Hong Kong Pol. Univ.
10:40-11:00	FrA17.3
<i>Robust Stability of Uncertain Quantum Systems (I)</i> , pp. 5073-5077.	
Petersen, Ian	Univ. of New South Wales at the Australian Defence Force Acad.
Ugrinovskii, Valery	Univ. of New South Wales
James, Matthew R.	Australian National Univ.
11:00-11:20	FrA17.4
<i>Optimal Rotation of a Qubit under Dynamic Measurement and Velocity Control (I)</i> , pp. 5078-5083.	
Sridharan, Srinivas	Univ. of California, San Diego
11:20-11:40	FrA17.5
<i>Design and Stability of Discrete-Time Quantum Filters with Measurement Imperfections (I)</i> , pp. 5084-5089.	
Somaraju, Ram Abhinav	Vrije Univ. Brussel
Dotsenko, Igor	Ec. Normale Supérieure
Sayrin, Clément	Lab. Kastler Brossel, Ec. Normale Supérieure, UPMC, CNR
Rouchon, Pierre	Mines ParisTech
11:40-12:00	FrA17.6
<i>Control of Inhomogeneous Ensembles in the Presence of a Random Periodic Drift (I)</i> , pp. 5090-5095.	
Owrutsky, Philip	Harvard Univ.
Khaneja, Navin	Harvard Univ.
FrA18	Marquette
Distributed Sensors (Regular Session)	
Chair: Aghdam, Amir G.	Concordia Univ.
Co-Chair: Zhang, Fumin	Georgia Inst. of Tech.
10:00-10:20	FrA18.1
<i>Maximum Life Span Strategy for Target Tracking in Mobile Sensor Networks</i> , pp. 5096-5101.	
Mahboubi, Hamid	Concordia Univ.
Masoudimansour, Walid	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.
Sayrafian-Pour, Kamran	National Inst. of Standard & Tech.
Marbukh, Vladimir	National Inst. of Standards and Tech.

10:20-10:40	FrA18.2
<i>Distributed Optimization for Radar Mission Coordination</i> , pp. 5102-5107.	
Severson, Tracie	Univ. of Maryland
Paley, Derek A.	Univ. of Maryland
10:40-11:00	FrA18.3
<i>Optimal Placement of Bearing-Only Sensors for Target Localization</i> , pp. 5108-5113.	
Zhao, Shiyu	National Univ. of Singapore
Chen, Ben M.	National Univ. of Singapore
Lee, Tong Heng	National Univ. of Singapore
11:00-11:20	FrA18.4
<i>Coordinated Sensing and Tracking for Mobile Camera Platforms</i> , pp. 5114-5119.	
Ding, Chong	Univ. of California, Riverside
Morye, Akshay	Univ. of California, Riverside
Farrell, Jay	Univ. of California Riverside
Roy-Chowdhury, Amit K.	Univ. of California, Riverside
11:20-11:40	FrA18.5
<i>Distributed Multi-Camera Synchronization for Smart-Intruder Detection</i> , pp. 5120-5125.	
Spindler, Markus	ETH Zurich
Pasqualetti, Fabio	Univ. of California, Santa Barbara
Bullo, Francesco	Univ. California at Santa Barbara
11:40-12:00	FrA18.6
<i>Autonomous Calibration Algorithms for Networks of Cameras</i> , pp. 5126-5131.	
Borra, Domenica	Pol. Univ. of Turin
Lovisari, Enrico	Univ. of Padova
Carli, Ruggero	Univ. of Padova
Fagnani, Fabio	Pol. Di Torino
Zampieri, Sandro	Univ. di Padova
FrA19	Jolliet
Fault Detection I (Regular Session)	
Chair: Mukherjee, Kushal	Pennsylvania State Univ.
Co-Chair: Gadsden, Stephen Andrew	McMaster Univ.
10:00-10:20	FrA19.1
<i>Symbolic Transient Time-Series Analysis for Fault Detection in Aircraft Gas Turbine Engines</i> , pp. 5132-5137.	
Sarkar, Soumalya	Pennsylvania State Univ.
Mukherjee, Kushal	Pennsylvania State Univ.
Sarkar, Soumik	United Tech. Res. Center
Ray, Asok	Pennsylvania State Univ.
10:20-10:40	FrA19.2
<i>A Geometric Approach for Fault Detection and Isolation of Stator Short Circuit Failure in a Single Asynchronous Machine</i> , pp. 5138-5145.	
Khelouat, Samir	Ec. Pol. of Algiers
Benalia, Atallah	ENSEA
Boukhetala, Djamel	Ec. Nationale Pol.
Laleg, Taous Meriem	King Abdullah Univ. of Science and Tech. (KAUST)
10:40-11:00	FrA19.3
<i>Observer Based Leak Diagnosis for Pneumatic Systems in</i>	

Commercial Vehicles, pp. 5146-5151.

Nagel, Tim	Univ. of Kaiserslautern
Elarfaoui, Tarik	Univ. of Kaiserslautern
Liu, Steven	Univ. of Kaiserslautern

11:00-11:20 FrA19.4

Mathematical Modeling and Fault Detection and Diagnosis of an Electrohydrostatic Actuator, pp. 5152-5159.

Gadsden, Andrew	McMaster Univ.
Song, Yu	McMaster Univ.
Habibi, Saeid	McMaster Univ.

11:20-11:40 FrA19.5

A Novel Fault Reconstruction Approach to Satellite Attitude Control Via Learning Unknown Input Observer and \mathcal{H}_∞ Techniques, pp. 5160-5162.

Jia, Qing-Xian	Harbin Inst. of Tech.
Zhang, Ying-Chun	Harbin Inst. of Tech.
Chen, Wen	Wayne State Univ.
Shen, Yi	Harbin Inst. of Tech.

11:40-12:00 FrA19.6

A Novel Foot Slip Detection Algorithm Using Unscented Kalman Filter Innovation, pp. 5163-5168.

Okita, Nori	Penn State Univ.
Sommer, Hj	Pennsylvania State Univ.

FrA20 Duluth
Linear Systems I (Regular Session)

Chair: Chen, YangQuan	Utah State Univ.
Co-Chair: Najson, Federico	Univ. de la República

10:00-10:20 FrA20.1

Remarks on Fractional Order Control Systems, pp. 5169-5173.

Zhang, Xuefeng	Northeastern Univ.
Chen, YangQuan	Utah State Univ.

10:20-10:40 FrA20.2

A Convex Approach to Generalized Fixed Order Interpolation, pp. 5174-5181.

Feng, Chao	Pennsylvania State Univ.
Lagoa, Constantino M.	Pennsylvania State Univ.
Sznaier, Mario	Northeastern Univ.

10:40-11:00 FrA20.3

On the Zero Properties of Linear Discrete-Time Systems with Multirate Outputs, pp. 5182-5187.

Zamani, Mohsen	Australian National Univ.
Anderson, Brian D.O.	Australian National Univ.

11:00-11:20 FrA20.4

The Kalman-Yakubovich-Popov Lemma for Discrete-Time Positive Linear Systems, pp. 5188-5193.

Najson, Federico	Univ. de la República
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11:20-11:40 FrA20.5

Signal-To-Noise Ratio Limitations in Structured Feedback Control, pp. 5194-5201.

Rojas, Alejandro J.	Univ. de Concepción
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11:40-12:00 FrA20.6

Kronecker Products of Defective Matrices: Some Spectral Properties and Their Implications on the Observability of Complex Dynamics, pp. 5202-5207.

Xue, Mengran	Washington State Univ.
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Roy, Sandip

Washington State Univ.

Morari, Manfred

ETH Zurich

Jones, Colin Neil

École Pol. Fédérale de Lausanne
(EPFL)

FrA21	Mackenzie
Robust Control I (Regular Session)	

Chair: Tchaikovsky, Michael	Inst. of Control Sciences of Russian Acad. of Sciences
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Co-Chair: Regruto, Diego	Pol. di Torino
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10:00-10:20	FrA21.1
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Static Output Feedback Anisotropic Controller Design by LMI-Based Approach: General and Special Cases, pp. 5208-5213.

Tchaikovsky, Michael	Inst. of Control Sciences of Russian Acad. of Sciences
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10:20-10:40	FrA21.2
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Robust Decentralized Output Regulation for Uncertain Heterogeneous Systems, pp. 5214-5219.

De Persis, Claudio	Univ. of Groningen
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Liu, Hui	Univ. of Groningen, The Netherlands
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Cao, Ming	Univ. of Groningen
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10:40-11:00	FrA21.3
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Efficient Robust Policy Optimization, pp. 5220-5227.

Atkeson, Christopher G.	Carnegie Mellon Univ.
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11:00-11:20	FrA21.4
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Delay-Dependent Robust Stability and Stabilization of Uncertain Fuzzy Descriptor Systems with Time Delay, pp. 5228-5233.

Ines, Abidi	MIS/UPJV
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El Hajjaji, Ahmed	Univ. of Picardie-Jules Verne
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Bosche, Jerome	Univ. of Amiens
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Mourad, Kchaou	ENIS Sfax
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11:20-11:40	FrA21.5
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An LMI Solution for a Class of Robust Open-Loop Problems, pp. 5234-5239.

Bayon, Benoit	Ec. Centrale de Lyon
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Scorletti, Gerard	Ec. Centrale de Lyon
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Blanco, Eric	Ec. Centrale de Lyon
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11:40-12:00	FrA21.6
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Robust Pole Placement for Plants with Semialgebraic Parametric Uncertainty, pp. 5240-5245.

Cerone, Vito	Pol. di Torino
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Piga, Dario	Delft Univ. of Tech.
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Regruto, Diego	Pol. di Torino
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FrA22	Saint-Francois
Theory and Practice of Fast Model Predictive Control (Tutorial Session)	

Chair: Jones, Colin Neil	École Pol. Fédérale de Lausanne (EPFL)
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Co-Chair: Diehl, Moritz	Katholieke Univ. Leuven
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Organizer: Jones, Colin Neil	École Pol. Fédérale de Lausanne (EPFL)
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Organizer: Boyd, Stephen P.	Stanford Univ.
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Organizer: Diehl, Moritz	Katholieke Univ. Leuven
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10:00-10:20	FrA22.1
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Code Generation for Real-Time First Order Methods : FiOrdOs (I).*

Richter, Stefan	ETH Zurich
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Ullmann, Fabian	ETH Zurich
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10:20-10:40	FrA22.2
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Disciplined Convex Programming and CVX (I).*

Grant, Michael	CVX Res.
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Boyd, Stephen P.	Stanford Univ.
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10:40-11:00	FrA22.3
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Automatic Generation of High-Speed Solvers: CVXGEN (I).*

Mattingley, Jacob	Stanford Univ.
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Wang, Yang	Stanford
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Boyd, Stephen P.	Stanford Univ.
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11:00-11:40	FrA22.4
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Numerical Methods for Fast Nonlinear MPC on Embedded Hardware (I).*

Diehl, Moritz	Katholieke Univ. Leuven
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Ferreau, Hans Joachim	K.U. Leuven
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Houska, Boris	Imperial Coll. London
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Vukov, Milan	KULeuven
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Swevers, Jan	K. U. Leuven
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11:40-12:00	FrA22.5
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Predictive Control of Power Electronics : An Industrial Perspective (I).*

Papafotiou, Georgios	ABB Switzerland
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Geyer, Tobias	ABB Corp. Res.
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Oikonomou, Nikolaos	ABB Switzerland
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Kieferndorf, Frederick	ABB Switzerland
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FrB01	Saint Laurent
Multi-Agent Systems II (Regular Session)	

Chair: Warnick, Sean	Brigham Young Univ.
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Co-Chair: Yucelen, Tansel	Georgia Inst. of Tech.
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13:30-13:50	FrB01.1
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Information Space Receding Horizon Control for Multiple Agents, pp. 5246-5251.

Sunberg, Zachary	Texas A&M Univ.
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Chakravorty, Suman	Texas A&M Univ.
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Erwin, Richard Scott	Air Force Res. Lab.
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13:50-14:10	FrB01.2
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Distributed Coordination of Multi-Agent Systems for Coverage Problem in Presence of Obstacles, pp. 5252-5257.

Mahboubi, Hamid	Concordia Univ.
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Sharifi, Farid	Concordia Univ.
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Aghdam, Amir G.	Concordia Univ.
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Zhang, Youmin	Concordia Univ.
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14:10-14:30	FrB01.3
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Characterization of Link Failures in Multi-Agent Systems under the Agreement Protocol, pp. 5258-5263.

Rahimian, Mohammad Amin	Concordia Univ.
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Ajorlou, Amir	Concordia Univ.
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Aghdam, Amir G.	Concordia Univ.
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14:30-14:50	FrB01.4
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Control of Multiagent Systems under Persistent Disturbances, pp. 5264-5269.

Yucelen, Tansel	Georgia Inst. of Tech.
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Egerstedt, Magnus	Georgia Inst. of Tech.
14:50-15:10	FrB01.5
<i>Distributed Real-Time Fault Detection and Isolation for Cooperative Multi-Agent Systems</i> , pp. 5270-5275.	
Guo, Meng	Royal Inst. of Tech. (KTH)
Dimarogonas, Dimos V.	Royal Inst. of Tech.
Johansson, Karl H.	Royal Inst. of Tech.
15:10-15:30	FrB01.6
<i>Distributed Decision Propagation in Mobile Agent Networks</i> , pp. 5276-5281.	
Sarkar, Soumik	United Tech. Res. Center
Mukherjee, Kushal	Pennsylvania State Univ.
Ray, Asok	Pennsylvania State Univ.

FrB02	Gatineau
Discrete Event and Hybrid Systems (Regular Session)	

Chair: Leduc, Ryan	McMaster Univ.
Co-Chair: Shi, Peng	Univ. of Glamorgan
13:30-13:50	FrB02.1
<i>Stabilization of a Class of Slowly Switched Positive Linear Systems: State-Feedback Control (I)</i> , pp. 5282-5286.	
Zhao, Xudong	Coll. of Information and Control Engineering, ChinaUniversity
Zhang, Lixian	Harbin Inst. of Tech.
Shi, Peng	Univ. of Glamorgan
Karimi, Hamid Reza	Univ. of Agder
13:50-14:10	FrB02.2
<i>Sampled-Data Controller Implementation</i> , pp. 5287-5293.	
Wang, Yu	McMaster Univ.
Leduc, Ryan	McMaster Univ.
14:10-14:30	FrB02.3
<i>The Motion Grammar Calculus for Context-Free Hybrid Systems</i> , pp. 5294-5301.	
Dantam, Neil	Georgia Inst. of Tech.
Stilman, Mike	Georgia Tech.
14:30-14:50	FrB02.4
<i>Temporal Logic Control of Switched Affine Systems with an Application in Fuel Balancing</i> , pp. 5302-5309.	
Nilsson, Petter	Royal Inst. of Tech.
Ozay, Necmiye	California Inst. of Tech.
Topcu, Ufuk	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.
14:50-15:10	FrB02.5
<i>Networked Priced Timed Automata for Energy-Efficient Factory Automation</i> , pp. 5310-5317.	
Mechs, Sebastian	Univ. of Tech. Clausthal
Müller, Jörg P.	Clausthal Univ. of Tech.
Lamparter, Steffen	Siemens AG
Peschke, Joern	Siemens AG
15:10-15:30	FrB02.6
<i>On the Formation of Community Structures from Homophilic Relationships</i> , pp. 5318-5323.	
Guerrero, Katerine	Univ. de Nariño, Univ. Mariana
Finke, Jorge	Pontificia Univ. Javeriana

FrB03	Bersimis
Flexible Structures (Regular Session)	
Chair: Heertjes, Marcel	Eindhoven Univ. of Tech.
Co-Chair: Tliba, Sami	Univ. Paris-Sud
13:30-13:50	FrB03.1
<i>Model-Based Feedforward for Inferential Motion Systems, with Application to a Prototype Lightweight Motion System</i> , pp. 5324-5329.	
Ronde, Michael	Eindhoven Univ. of Tech.
Molengraft, René van de	Eindhoven Univ. of Tech.
Steinbuch, Maarten	Eindhoven Univ. of Tech.
13:50-14:10	FrB03.2
<i>Vibration Damping of a Flexible Beam with Saturated Control</i> , pp. 5330-5335.	
Tliba, Sami	Univ. Paris-Sud
14:10-14:30	FrB03.3
<i>Nonlinear PDE Observer Design for a Flexible Two-Link Manipulator</i> , pp. 5336-5341.	
Zhang, Linjun	BeiHang Univ. Univ.
Liu, Jinkun	Beihang Univ.
14:30-14:50	FrB03.4
<i>Modeling and Characterization of the Impact of Control Surface Free-Play on Flutter for an All Moving Surface</i> , pp. 5342-5347.	
Whitmer, Christopher E.	VSI Aerospace Inc.
Kelkar, Atul	VSI Aerospace, Inc.
Vaidya, Umesh	Iowa State Univ.
Vogel, Jerald M.	Iowa State Univ.
Chaussee, Denny	VSI Aerospace, Inc.
Ford, Christopher	VSI Aerospace, Inc.
14:50-15:10	FrB03.5
<i>Plant Enhancements in Motion Systems by Modal Control (I)</i> , pp. 5348-5353.	
Durango-Galvan, Saudith	Eindhoven Univ. of Tech.
Estela	Eindhoven Univ. of Tech.
Heertjes, Marcel	Eindhoven Univ. of Tech.
Dunand, Remy	National Inst. of Applied Sciences, INSA, Strasbourg
15:10-15:30	FrB03.6
<i>Time-Optimal Output Transitions for Minimum Phase Systems: A Frequency Domain Approach to Post-Actuation</i> , pp. 5354-5359.	
Haggerty, Jennifer	Univ. at Buffalo
Singh, Tarunraj	State Univ. of New York at Buffalo
FrB04	Peribonka
Variable-Structure/sliding Mode Control I (Regular Session)	
Chair: Su, Wu-Chung	National Chung-Hsing Univ.
Co-Chair: Shtessel, Yuri B.	Univ. of Alabama at Huntsville
13:30-13:50	FrB04.1
<i>Boundary Stabilization and Matched Disturbance Rejection of Hyperbolic PDE Systems: A Sliding-Mode Approach</i> , pp. 5360-5365.	
Cheng, Meng-Bi	National Chung Hsing Univ.
Su, Wu-Chung	National Chung-Hsing Univ.
13:50-14:10	FrB04.2
<i>Average Dwell Time Condition of Unknown Switched Linear Systems with Variable Structure Adaptive Backstepping Control</i> , pp. 5366-5371.	
Chiang, Ming-Li	National Taiwan Univ.

Fu, Li-Chen	National Taiwan Univ.
14:10-14:30	FrB04.3
<i>Set-Membership Estimation Improvement Applying HOSM Differentiators</i> , pp. 5372-5376.	
Efimov, Denis	INRIA - LNE
Fridman, Leonid M.	National Autonomous Univ. of Mexico
Raïssi, Tarek	Conservatoire National des Arts et Métiers
Zolghadri, Ali	Univ. Bordeaux I
14:30-14:50	FrB04.4
<i>Extremum Seeking Control Via Sliding Modes and Periodic Switching Function Applied to Raman Optical Amplifiers</i> , pp. 5377-5382.	
Peixoto, Alessandro Jacoud	Federal Univ. of Rio de Janeiro (UFRJ)
Oliveira, Tiago Roux	State Univ. of Rio de Janeiro
14:50-15:10	FrB04.5
<i>A Variational Characterization of the Sliding Mode Control Processes</i> , pp. 5383-5388.	
Azhmyakov, Vadim	CINVESTAV
Poznyak, Alexander S.	CINVESTAV-IPN
15:10-15:30	FrB04.6
<i>Phase and Gain Margins in Systems with SMC/HOSM</i> , pp. 5389-5394.	
Rosales Martínez, José Antonio	UNAM
Shtessel, Yuri B.	Univ. of Alabama at Huntsville
Fridman, Leonid M.	National Autonomous Univ. of Mexico
FrB05	Richelieu
Marine Vehicles I (Regular Session)	
Chair: Khalil, Hassan K.	Michigan State Univ.
Co-Chair: Batista, Pedro	Inst. Superior Técnico, Univ. Técnica de Lisboa
13:30-13:50	FrB05.1
<i>A Two-Step Control Strategy for Docking of Autonomous Underwater Vehicles</i> , pp. 5395-5400.	
Batista, Pedro	Inst. Superior Técnico, Univ. Técnica de Lisboa
Silvestre, Carlos	Inst. Superior Técnico
Oliveira, Paulo Jorge	Inst. Superior Técnico
13:50-14:10	FrB05.2
<i>A Topological Map Based Approach to Long Range Operation of an Unmanned Surface Vehicle</i> , pp. 5401-5407.	
Gadre, Aditya	Virginia Tech.
Du, Shu	Virginia Tech.
Stilwell, Daniel J.	Virginia Pol. Inst. & State Univ.
14:10-14:30	FrB05.3
<i>Passivity-Based Controller Design for Stabilization of Underwater Gliders</i> , pp. 5408-5413.	
Zhang, Feitian	Michigan State Univ.
Tan, Xiaobo	Michigan State Univ.
Khalil, Hassan K.	Michigan State Univ.
14:30-14:50	FrB05.4
<i>Valve-PWM Control of Integrated Pump-Valve Propulsion Systems for Highly Maneuverable Underwater Vehicles</i> , pp. 5414-5420.	

Mazumdar, Anirban	MIT
Asada, H. Harry	Massachusetts Inst. of Tech.
14:50-15:10	FrB05.5
<i>Advanced Nonlinear Control of an Offshore Boom Crane</i> , pp. 5421-5426.	
Fang, Yongchun	Nankai Univ.
Wang, Pengcheng	robot Inst. Nankai Univ.
15:10-15:30	FrB05.6
<i>Integral LOS Guidance for Horizontal Path Following of Underactuated Autonomous Underwater Vehicles in the Presence of Vertical Ocean Currents</i> , pp. 5427-5434.	
Caharija, Walter	NTNU
Pettersen, Kristin Y.	Norwegian Univ. of Science and Tech.
Gravdahl, Jan Tommy	Norwegian Univ. of Science & Tech.
Børhaug, Even	Norwegian Univ. of Science and Tech.
FrB06	Harricana
Time-Delay Systems II (Regular Session)	
Chair: Insperger, Tamas	Budapest Univ. of Tech. and Ec.
Co-Chair: Zhang, Youmin	Concordia Univ.
13:30-13:50	FrB06.1
<i>Global Output Feedback Stabilization of a Class of Upper-Triangular Systems with Input Delay</i> , pp. 5435-5439.	
Du, Haibo	Southeast Univ.
Qian, Chunjiang	Univ. of Texas at San Antonio
Li, Shihua	Southeast Univ.
Frye, Michael	Univ. of the Incarnate Word
13:50-14:10	FrB06.2
<i>Act-And-Wait Control of Discrete Systems with Random Delays</i> , pp. 5440-5443.	
Ghasemi, Mohammadreza	Texas A&M
Zhao, Siming	Texas A&M Univ.
Insperger, Tamas	Budapest Univ. of Tech. and Ec.
Kalmar-Nagy, Tamas	Univ. of Illinois at Urbana-Champaign
14:10-14:30	FrB06.3
<i>Stability Analysis of Discrete-Time Positive Switched Linear Delay Systems</i> , pp. 5444-5449.	
Liu, Xingwen	Southwest Univ. for Nationalities
Lam, James	The Univ. of Hong Kong
14:30-14:50	FrB06.4
<i>Reciprocal Convex Approach to Delay-Dependent Stability of Uncertain Discrete-Time Systems with Time-Varying Delay</i> , pp. 5450-5453.	
Krishnan, Ramakrishnan	Indian Inst. of Tech.
Ray, Goshaidas	I.I.T
14:50-15:10	FrB06.5
<i>State-Feedback Stabilization of Linear Systems Subject to Time-Varying Input Delays, Actuator Saturation, and Bounded Disturbances</i> , pp. 5454-5459.	
Fan, Jinhua	National Univ. of Defense Tech.
Zhang, Youmin	Concordia Univ.
Zheng, Zhiqiang	National Univ. of Defense Tech.
15:10-15:30	FrB06.6

Stability Criteria for Uncertain Piecewise Affine Time-Delay Systems, pp. 5460-5465.

Duan, Shiming Univ. of Michigan
 Ni, Jun Univ. of Michigan
 Ulsoy, A. Galip Univ. of Michigan

FrB07 Chaudiere
Robotics (Regular Session)

Chair: Aschemann, Harald Univ. of Rostock
 Co-Chair: Liu, Steven Univ. of Kaiserslautern

13:30-13:50 FrB07.1

Smooth and Time-Optimal Trajectory Planning for Robot Manipulators, pp. 5466-5471.

Müller, Peter Univ. of Kaiserslautern
 Boucherit, Ryad Wilhelm Büchner Hochschule
 Liu, Steven Univ. of Kaiserslautern

13:50-14:10 FrB07.2

Adaptive Regional Feedback Control of Robotic Manipulator with Uncertain Kinematics and Depth Information, pp. 5472-5477.

Li, Xiang Nanyang Tech. Univ.
 Cheah, C.C. Nanyang Tech. Univ.

14:10-14:30 FrB07.3

An Active Disturbance Rejection Controller for a Parallel Robot Via Generalized Proportional Integral Observers, pp. 5478-5483.

Ramirez-Neria, Mario Inst. Tecnológico de Tláhuac
 Sira-Ramirez, Hebertt CINVESTAV
 Rodriguez-Angeles, Alejandro Mexican Petroleum Inst.
 Luviano-Juárez, Alberto UPIITA - IPN Mexico

14:30-14:50 FrB07.4

P-Type ILC with Phase Lead Compensation for a Pneumatically Driven Parallel Robot, pp. 5484-5489.

Schindele, Dominik Univ. of Rostock
 Aschemann, Harald Univ. of Rostock

14:50-15:10 FrB07.5

Point-To-Point Liquid Container Transfer Via a PPR Robot with Sloshing Suppression, pp. 5490-5494.

Reyhanoglu, Mahmut Embry Riddle Aeronautical Univ.
 Rubio Hervas, Jaime Embry-Riddle Aeronautical Univ.

15:10-15:30 FrB07.6

Experimentally Validated Repetitive-Predictive Control of a Robot Arm with Constraints, pp. 5495-5500.

Wang, Liuping Rmit Univ.
 Freeman, Christopher T. Univ. of Southampton
 Chai, Shan Royal Melbourne Inst. of Tech.
 Rogers, Eric Univ. of Southampton

FrB08 Matapedia
Optimal Control II (Regular Session)

Chair: Bamieh, Bassam Univ. of California at Santa Barbara
 Co-Chair: Seiler, Peter Univ. of Minnesota

13:30-13:50 FrB08.1

A Frequency Domain Method for Optimal Periodic Control, pp. 5501-5506.

Epperlein, Jonathan P. Univ. of California, Santa Barbara
 Bamieh, Bassam Univ. of California at Santa

Barbara

13:50-14:10 FrB08.2

Online Adaptive Optimal Control for Bilinear Systems, pp. 5507-5512.

Luo, Biao Beihang Univ.
 Wu, Huai-Ning BeihangUniversity(BeijingUniversit
 yofAeronauticsandAstronau tics

14:10-14:30 FrB08.3

H-Infinity Model Matching Design for Fractional FOPDT Systems, pp. 5513-5518.

Padula, Fabrizio Univ. of Brescia
 Vilanova, Ramon Univ. Autonoma de Barcelona
 Visioli, Antonio Univ. of Brescia

14:30-14:50 FrB08.4

Lossless Convexification of Control Constraints for a Class of Nonlinear Optimal Control Problems, pp. 5519-5525.

Blackmore, Lars Space Exploration Tech.
 Acikmese, Behcet Jet Propulsion Lab.
 Carson, John M. NASA Jet Propulsion Lab.

14:50-15:10 FrB08.5

On the Equivalence between Dissipativity and Optimality of Nonlinear Controllers for Discontinuous Dynamical Systems, pp. 5526-5531.

Sadikhov, Teymur Georgia Inst. of Tech.
 Haddad, Wassim M. Georgia Inst. of Tech.

15:10-15:30 FrB08.6

Performance Limits with Preview Information and Actuator Rate Constraints, pp. 5532-5537.

Seiler, Peter Univ. of Minnesota
 Balas, Gary J. Univ. of Minnesota
 Ozdemir, Ahmet Arda Univ. of Minnesota

FrB09 Saint-Charles
Filtering II (Regular Session)

Chair: Lin, Zhiyun Zhejiang Univ.
 Co-Chair: Singh, Tarunraj State Univ. of New York at Buffalo

13:30-13:50 FrB09.1

A Discontinuous Mean-Square Filter for Stochastic Differential Systems, pp. 5538-5543.

Hernandez-Fabian, Rocio CINVESTAV-IPN, Campus Guadalajara

Basin, Michael V. Autonomous Univ. of Nuevo Leon
 Loukianov, Alexander G. CINVESTAV IPN GDI

13:50-14:10 FrB09.2

Multiple Sensor Estimation Using the Sparse Gauss-Hermite Quadrature Information Filter, pp. 5544-5549.

Jia, Bin Mississippi State Univ.
 Xin, Ming Mississippi State Univ.
 Cheng, Yang Mississippi State Univ.

14:10-14:30 FrB09.3

Scaling Parameter in Unscented Transform: Analysis and Specification, pp. 5550-5555.

Straka, Ondrej Univ. of West Bohemia
 Dunik, Jindrich Univ. of West Bohemia
 Simandl, Miroslav Univ. of West Bohemia in Pilsen

14:30-14:50 FrB09.4

The Conjugate Unscented Transform - an Approach to Evaluate Multi-Dimensional Expectation Integrals, pp. 5556-5561.

Adurthi, Nagavenkat	Univ. at Buffalo
Singla, Puneet	Univ. at Buffalo
Singh, Tarunraj	State Univ. of New York at Buffalo

14:50-15:10 FrB09.5

Sensor Scheduling Based on Permissible Consecutive Observation Loss, pp. 5562-5567.

Wang, Chen	Zhejiang Univ.
Lin, Zhiyun	Zhejiang Univ.
Yan, Gangfeng	Zhejiang Univ.

15:10-15:30 FrB09.6

Fuzzy Sampled-Data H-Infinity Filtering for Systems with Time-Varying Delay and Variable Sampling Period, pp. 5568-5573.

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

FrB10 Saint-Maurice
Biomedical Systems (Regular Session)

Chair: Leonhardt, Steffen Aachen Univ.
Co-Chair: Lemos, Joao M. Inesc-id

13:30-13:50 FrB10.1

Model Predictive Control for a Multi-Compartment Respiratory System, pp. 5574-5579.

Li, Hanco	Georgia Inst. of Tech.
Haddad, Wassim M.	Georgia Inst. of Tech.

13:50-14:10 FrB10.2

A Hierarchical Modeling Algorithm for Respiration Induced Tumor Motion Modeling, pp. 5580-5585.

Jin, Cheng	Univ. at Buffalo
Singla, Puneet	Univ. at Buffalo
Singh, Tarunraj	State Univ. of New York at Buffalo

14:10-14:30 FrB10.3

Glucose-Insulin Model of Glucose Metabolism in Acute Diabetic Swine Based on Luenberger Observer, pp. 5586-5591.

Lunze, Katrin	RWTH Aachen Univ.
Walter, Marian	RWTH Aachen Univ.
Leonhardt, Steffen	RWTH Aachen Univ.

14:30-14:50 FrB10.4

Towards Tumor Growth Control Subject to Reduced Toxicity, pp. 5592-5597.

Hadjiandreou, Marios Michael	Univ. OF CYPRUS
Mitsis, Georgios D.	Univ. of Cyprus

14:50-15:10 FrB10.5

A Set-Valued Observer Approach to Multiple-Model Adaptive Control of Neuromuscular Blockade, pp. 5598-5603.

Rosa, Paulo Andre Nobre	Inst. Superior Tecnico, Lisbon
Lemos, Joao M.	Inesc-id
Mendonça, Teresa	Fac. de Ciências da Univ. do Porto
Silvestre, Carlos	Inst. Superior Tecnico

15:10-15:30 FrB10.6

A Predictor-Based Compensation for Electromechanical Delay During Neuromuscular Electrical Stimulation-II, pp. 5604-5609.

Sharma, Nitin	Univ. of Alberta
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FrB11 Saguenay

Fuzzy Systems (Regular Session)

Chair: Fadali, Mohammed Univ. of Nevada
Sami

Co-Chair: Jayasiri, Awantha Memorial Univ. of Newfoundland

13:30-13:50 FrB11.1

On Fuzzy Observer for Systems with Both Continuous and Discrete Measurements, pp. 5610-5615.

Guillén-Flores, Carmen	Centro de Investigación y de Estudios Avanzados del Inst. Po
Castillo-Toledo, Bernardino	CINVESTAV-GDL, Mexico
Garcia-Sandoval, Juan Paulo	Univ. DE GUADALAJARA
Gonzalez Alvarez, Victor	Univ. De Guadalajara

13:50-14:10 FrB11.2

Observer Design for Discrete Type-1 and Type-2 TSK Fuzzy Systems, pp. 5616-5621.

Fadali, Mohammed Sami	Univ. of Nevada
Jafarzadeh, Saeed	Univ. of Nevada Reno

14:10-14:30 FrB11.3

Stable Fuzzy-Adaptive Control Using an Introspective Algorithm, pp. 5622-5627.

Masaud, Khalid	Univ. of Calgary
Macnab, Chris	Univ. of Calgary

14:30-14:50 FrB11.4

Robust Control for Fuzzy Singular Perturbed Unified Model, pp. 5628-5633.

Yuan, Yuan	Tsinghua Univ.
Fuchun, Sun	Tsinghua Univ.
Liu, Huaping	Tsinghua Univ.
Xu, Bin	Northwestern Pol. Univ.

14:50-15:10 FrB11.5

Stability and Control of Continuous TSK Fuzzy Systems, pp. 5634-5639.

Jafarzadeh, Saeed	Univ. of Nevada Reno
Fadali, Mohammed Sami	Univ. of Nevada

15:10-15:30 FrB11.6

Fuzzy Opinion Dynamics, pp. 5640-5645.

Oliva, Gabriele	Univ. Roma Tre of Rome, Italy
Gasparri, Andrea	Univ. of "Roma Tre"

FrB12 Hochelaga 6

Process Control II (Regular Session)

Chair: Mhaskar, Prashant McMaster Univ.
Co-Chair: Golshan, Masoud McMaster Univ.

13:30-13:50 FrB12.1

Model Predictive Quality Control of Batch Processes (I), pp. 5646-5651.

Aumi, Siam	McMaster Univ.
Corbett, Brandon	McMaster Univ.
Mhaskar, Prashant	McMaster Univ.

13:50-14:10 FrB12.2

Control Oriented Identification of Batch Processes Using Latent Variable Models, pp. 5652-5657.

Golshan, Masoud	McMaster Univ.
MacGregor, John F.	McMaster Univ.

14:10-14:30	FrB12.3
<i>Control of Delayed Recycling Systems with an Unstable Pole at Forward Path</i> , pp. 5658-5663.	
Marquez Rubio, Juan Francisco	SEPI-ESIME Culhuacán.
del Muro-Cuellar, Basilio	Inst. Pol. Nacional
Sename, Olivier	Grenoble Inst. of Tech.

14:30-14:50	FrB12.4
<i>Monitoring of Low-Level PID Control Loops</i> , pp. 5664-5669.	
Akradej, Leosirikul	UCLA
Chilin, David	Univ. of California, Los Angeles
Liu, Jinfeng	Univ. of Alberta
Davis, James F.	UCLA
Christofides, Panagiotis D.	Univ. of California at Los Angeles

14:50-15:10	FrB12.5
<i>Adaptive Data-Based Model Predictive Control of Batch Systems (I)</i> , pp. 5670-5675.	
Aumi, Siam	McMaster Univ.
Mhaskar, Prashant	McMaster Univ.

FrB13	Hochelaga 5
Networked Control Systems II (Regular Session)	

Chair: Han, Qing-Long	Central Queensland Univ.
Co-Chair: Shi, Yang	Univ. of Victoria

13:30-13:50	FrB13.1
<i>Network-Based Static Output Feedback Tracking Control for a Class of Systems</i> , pp. 5676-5681.	
Zhang, Dawei	Central Queensland Univ.
Han, Qing-Long	Central Queensland Univ.
Jia, Xinchun	Shanxi Univ.

13:50-14:10	FrB13.2
<i>Observer-Based Tracking Controller Design for Networked Predictive Control Systems with Uncertain Markov Delays</i> , pp. 5682-5687.	
Zhang, Hui	Univ. of Victoria
Shi, Yang	Univ. of Victoria
Xu, Minqiang	Harbin Inst. of Tech.
Cui, Hutao	Harbin Inst. of Tech.

14:10-14:30	FrB13.3
<i>Observer Based Self-Triggered Control of Linear Plants with Unknown Disturbances</i> , pp. 5688-5693.	
Almeida, João	Inst. Superior Técnico, Tech. Univ. of Lisbon
Silvestre, Carlos	Inst. Superior Tecnico
Pascoal, Antonio Manuel	Inst. Superior Tecnico

14:30-14:50	FrB13.4
<i>Observer-Based Continuous-Time Networked Control Systems Design</i> , pp. 5694-5699.	
Wang, Yu-Long	Central Queensland Univ.
Han, Qing-Long	Central Queensland Univ.

14:50-15:10	FrB13.5
<i>Decentralized Static Output-Feedback Control Via Networked Communication</i> , pp. 5700-5705.	
Bauer, Nicolas William	Univ. of Tech. Eindhoven
Donkers, M.C.F.	Eindhoven Univ. of Tech.
Van De Wouw, Nathan	Eindhoven Univ. of Tech.
Heemels, W.P.M.H.	Eindhoven Univ. of Tech.

15:10-15:30	FrB13.6
<i>Quantized Output Synchronization of Networked Passive Systems with Event-Driven Communication</i> , pp. 5706-5711.	
Yu, Han	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame

FrB14	Hochelaga 4
Turbofan and Diesel Engine Control and Sensing (Regular Session)	

Chair: Del Re, Luigi	Johannes Kepler Univ. Linz
Co-Chair: Kotman, Philipp	Robert Bosch GmbH; Vienna Univ. of Tech.

13:30-13:50	FrB14.1
<i>Prioritization-Based Constrained Trajectory Planning for a Nonlinear Turbocharged Air System with EGR</i> , pp. 5712-5717.	
Kotman, Philipp	Robert Bosch GmbH; Vienna Univ. of Tech.
Bitzer, Matthias	Bosch Company
Kugi, Andreas	Vienna Univ. of Tech.

13:50-14:10	FrB14.2
<i>Prediction-Based Trajectory Tracking of External Gas Recirculation for Turbocharged SI Engines</i> , pp. 5718-5724.	
Bresch-Pietri, Delphine	MINES ParisTech
Leroy, Thomas	IFPEN
Chauvin, Jonathan	IFP
Petit, Nicolas	MINES ParisTech

14:10-14:30	FrB14.3
<i>Generalized Predictive Control of a Turbocharged Diesel Engine</i> , pp. 5725-5730.	
Mendoza-Soto, José Luis	Univ. Nacional Autónoma de México
Alvarez-Icaza, Luis	Univ. Nacional Autónoma de México

14:30-14:50	FrB14.4
<i>Single-Zone Diesel PPC Modeling for Control</i> , pp. 5731-5736.	
Widd, Anders	Lund Univ.
Tunestål, Per	Lund Univ. Faculty of Engineering
Akesson, Johan	Lund Univ.
Johansson, Rolf	Lund Univ.

14:50-15:10	FrB14.5
<i>Virtual Sensors for Transient Diesel Soot and NOX Emissions: Neuro-Fuzzy Model Tree with Automatic Relevance Determination</i> , pp. 5737-5744.	
Johri, Rajit	Univ. of Michigan
Salvi, Ashwin	Univ. of Michigan
Filipi, Zoran	Clemson Univ.

15:10-15:30	FrB14.6
<i>Speed Control of Hydrodynamic Dynamometers for Internal Combustion Engine Test Benches</i> , pp. 5745-5750.	
Passenbrunner, Thomas Ernst	Johannes Kepler Univ. Linz
Trogmann, Hannes	Johannes Kepler Univ. Linz
Kokal, Helmut	AVL
Del Re, Luigi	Johannes Kepler Univ. Linz

FrB15	Hochelaga 3
Traffic Modeling and Control (Invited Session)	

Chair: Nuñez, Alfredo	Delft Univ. of Tech.
Co-Chair: Burger, Mernout	Delft Univ. of Tech.
Organizer: De Schutter, Bart	Delft Univ. of Tech.
Organizer: Nuñez, Alfredo	Delft Univ. of Tech.

13:30-13:50 FrB15.1

Driver Support and Cooperative Systems Control Design (I), pp. 5751-5756.

Wang, Meng	Delft Univ. of Tech.
Hoogendoorn, Serge	Delft Univ. of Tech.
Daamen, Winnie	Delft Univ. of Tech.
Hoogendoorn, Raymond	Delft Univ. of Tech. - Civil Engineering and Geoscienc
van Arem, Bart	Delft Univ. of Tech.

13:50-14:10 FrB15.2

Model Predictive Perimeter Control for Urban Areas with Macroscopic Fundamental Diagrams (I), pp. 5757-5762.

Haddad, Jack	ÉCOLE POL. FÉDÉRALE DE LAUSANNE (EPFL)
Ramezani, Mohsen	EPFL
Geroliminis, Nikolas	Urban Transport Systems Lab. EPFL

14:10-14:30 FrB15.3

Analysis and Design of Equilibrium Points for the Cell-Transmission Traffic Model (I), pp. 5763-5768.

Pisarski, Dominik	INRIA GRENOBLE
Canudas de Wit, Carlos	CNRS, GIPSA-Lab.

14:30-14:50 FrB15.4

Optimal Control of Freeway Networks Based on the Link Node Cell Transmission Model (I), pp. 5769-5774.

Muralidharan, Ajith	Univ. of California at Berkeley
Horowitz, Roberto	Univ. of California at Berkeley

14:50-15:10 FrB15.5

Service Level-Oriented Route Guidance for Overlapping Routes in Road Networks: A Comparison with MPC (I), pp. 5775-5782.

Landman, Ramon Leonardus	Delft Univ. of Tech.
Hegyi, Andreas	Delft Univ. of Tech.
Hoogendoorn, Serge	Delft Univ. of Tech.

FrB16
Control of Energy Systems (Invited Session) Hochelaga 2

Chair: Schuster, Eugenio	Lehigh Univ.
Co-Chair: Walker, Michael L.	General Atomics
Organizer: Schuster, Eugenio	Lehigh Univ.
Organizer: Walker, Michael L.	General Atomics

13:30-13:50 FrB16.1

Power Delivery to a Current Source and Reduction of Voltage Harmonics for Inverters (I), pp. 5783-5788.

Zhong, Qing-Chang	The Univ. of Sheffield
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13:50-14:10 FrB16.2

An Integrated Approach towards Structural and LPV Controller Design in Wind Turbines (I), pp. 5789-5794.

Shirazi, Farzad	Univ. of Houston
Grigoriadis, Karolos M.	Univ. of Houston
Viassolo, Daniel	Vestas

14:10-14:30 FrB16.3

Detection of Excessive Wind Turbine Tower Oscillations Fore-Aft and

Sideways (I), pp. 5795-5800.

Knudsen, Torben	Aalborg Univ. Denmark
Bak, Thomas	Aalborg Univ.
Tabatabaeipour, Seyed Mojtaba	Aalborg Univ.

14:30-14:50 FrB16.4

Anti-Windup LPV Control of Pitch Actuators in Wind Turbines (I), pp. 5801-5806.

Meisami-Azad, Mona	Univ. of Houston
Mohammadpour, Javad	Univ. of Michigan
Grigoriadis, Karolos M.	Univ. of Houston

14:50-15:10 FrB16.5

Adaptive Control Algorithm for Improving Power Capture of Wind Turbines in Turbulent Winds (I), pp. 5807-5812.

Diaz-Guerra, Lluis	Pol. Univ. of Catalonia
Adegas, Fabiano Daher	Aalborg Univ.
Stoustrup, Jakob	Aalborg Univ.

15:10-15:30 FrB16.6

Modeling and Control Design for a Prototype Lighter-Than-Air Wind Energy System, pp. 5813-5818.

Vermillion, Christopher	Altaeros Energies
Grunnagle, Jerome	Univ. of Michigan
Kolmanovsky, Ilya V.	The Univ. of Michigan

FrB17
Quantum Control (Regular Session) Grand Salon

Chair: Chambrion, Thomas	Univ. of Nancy
Co-Chair: Aghdam, Amir G.	Concordia Univ.

13:30-13:50 FrB17.1

Periodic Control Laws for Bilinear Quantum Systems with Discrete Spectrum, pp. 5819-5824.

Boussaïd, Nabile	Univ. de Franche-Comté
Caponigro, Marco	Rutgers Univ.
Chambrion, Thomas	Univ. of Nancy

13:50-14:10 FrB17.2

Implementation of Logical Gates on Infinite Dimensional Quantum Oscillators, pp. 5825-5830.

Boussaïd, Nabile	Univ. de Franche-Comté
Caponigro, Marco	Rutgers Univ.
Chambrion, Thomas	Univ. of Nancy

14:10-14:30 FrB17.3

Deterministic Generation of the Bell States Via Real-Time Quantum Measurement-Based Feedback, pp. 5831-5836.

Vu, Thanh Long	National Univ. of Singapore
Ge, Shuzhi Sam	Univ. of Electronic Science and Tech. of China
Hang, Chang Chieh	National Univ. of Singapore

14:30-14:50 FrB17.4

Sampled-Data LQG Control for a Class of Linear Quantum Systems, pp. 5837-5842.

Maalouf, Aline I.	Univ. of New South Wales at ADFA
Petersen, Ian	Univ. of New South Wales at the Australian Defence Force Acad.

14:50-15:10 FrB17.5

Laser Cavity Squeezing Using Optimal Servo Controller in

Optomechanical Sensors, pp. 5843-5848.

Salehizadeh, Mohammad Concordia Univ.
Habibi, Jalal Concordia Univ.
Aghdam, Amir G. Concordia Univ.
Kabir, M. Z. Concordia Univ.

15:10-15:30 FrB17.6

Synthesis of Optimal Ensemble Controls for Linear Systems Using the Singular Value Decomposition, pp. 5849-5854.

Zlotnik, Anatoly Washington Univ.
Li, Jr-Shin Washington Univ. in St. Louis

FrB18 Marquette
Optimization, Synthesis, and Convergence in Distributed Networks (Regular Session)

Chair: Johansson, Karl H. Royal Inst. of Tech.
Co-Chair: Darbha, Swaroop Texas A & M Univ.

13:30-13:50 FrB18.1

Robustness of Information Diffusion Algorithms to Locally Bounded Adversaries, pp. 5855-5861.

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

13:50-14:10 FrB18.2

Resilient Consensus Control for Linear Systems in a Noisy Environment, pp. 5862-5867.

Biswas, Saroj K. Temple Univ.
Ferrese, Frank Naval Surface Warfare Center
Dong, Qing Naval Surface Warfare Center
Bai, Li Temple Univ.

14:10-14:30 FrB18.3

Separable Optimal Cooperative Control Problems, pp. 5868-5873.

Kim, Jong-Han Stanford Univ.
Lall, Sanjay Stanford Univ.

14:30-14:50 FrB18.4

Bounding Procedure for Stochastic Dynamic Programs with Application to the Perimeter Patrol Problem, pp. 5874-5880.

Kalyanam, Krishnamoorthy Infocitex Corp.
Darbha, Swaroop Texas A & M Univ.
Pachter, Meir AFIT/ENG
Chandler, Phillip R. USAF
Park, Myoungkuk Texas A&M Univ.

14:50-15:10 FrB18.5

Distributed Convergence to Nash Equilibria by Adversarial Networks with Undirected Topologies, pp. 5881-5886.

Gharesifard, Bahman Univ. of California San Diego
Cortes, Jorge Univ. of California, San Diego

15:10-15:30 FrB18.6

Stochastic Target Interception in Non-Convex Domain Using MILP, pp. 5887-5893.

Shende, Apoorva Virginia Tech.
Bays, Matthew Virginia Tech.
Stilwell, Daniel J. Virginia Pol. Inst. & State Univ.

FrB19 Jolliet
Fault Detection II (Regular Session)

Chair: Khorasani, Khashayar Concordia Univ.

Co-Chair: Cristofaro, Andrea Univ. of Camerino

13:30-13:50 FrB19.1

Fault Detection and Isolation of Dissipative Parabolic PDEs: Finite-Dimensional Geometric Approach, pp. 5894-5899.

Baniamerian, Amir Concordia Univ.
Khorasani, Khashayar Concordia Univ.

13:50-14:10 FrB19.2

A Decentralized Fault Prognosis Scheme for Nonlinear Interconnected Discrete-Time Systems, pp. 5900-5905.

Ferdowsi, Hasan Missouri Univ. of Science and Tech.
Jagannathan, Sarangapani Missouri Univ. of Science & Tech.
Lathamaheswari Raja, Deepthi Missouri Univ. of Science and Tech.
Shreeya Tech.

14:10-14:30 FrB19.3

Distributed Fault Detection and Isolation with Imprecise Network Models, pp. 5906-5911.

Shames, Iman The Royal Inst. of Tech.
Teixeira, André KTH - Royal Inst. of Tech.
Sandberg, Henrik KTH Royal Inst. of Tech.
Johansson, Karl H. Royal Inst. of Tech.

14:30-14:50 FrB19.4

Hybrid Control Design for Fault Accommodation in Sampled-Data Systems, pp. 5912-5917.

Cristofaro, Andrea Univ. of Camerino
Pettinari, Silvia Univ. of Camerino

14:50-15:10 FrB19.5

New Fault Detection Filter Design Approach for Continuous-Time Switched Systems (I), pp. 5918-5923.

Dongsheng, Du Nanjing Univ. of Aeronautics and Astronautics
Bin, Jiang Coll. of Automation Engineering, NanjingUniversityofAeronautics
Shi, Peng Univ. of Glamorgan
Karimi, Hamid Reza Univ. of Agder

15:10-15:30 FrB19.6

Fault Diagnosis Using Contribution Plots with Missing Data Approach, pp. 5924-5929.

Liu, Jialin Fortune Inst. of Tech.
Shen, Jui-Fu New Materials Res. & Development Department, ChinaSteel Corp.
Chen, Ding-Sou New Materials Res. & Development Department, China Steel Cor
Lee, Ming-Wei New Materials Res. & Development Department, China Steel Cor

FrB20 Duluth
Linear Systems II (Regular Session)

Chair: Lawrence, Douglas A. Ohio Univ.
Co-Chair: Peet, Matthew M. Illinois Inst. of Tech.

13:30-13:50 FrB20.1

Stability Condition of Linear Time-Invariant Distributed-Order Dynamic Systems, pp. 5930-5935.

Jiao, Zhuang Tsinghua Univ.
Chen, YangQuan Utah State Univ.

Zhong, Yisheng	Tsinghua Univ.
13:50-14:10	FrB20.2
<i>On Output Feedback Stabilization for Linear Impulsive Systems</i> , pp. 5936-5941.	
Lawrence, Douglas A.	Ohio Univ.
14:10-14:30	FrB20.3
<i>Intermittent Output Tracking for Linear Single-Input Single-Output Non-Minimum-Phase Systems</i> , pp. 5942-5947.	
Jafari, Rouhollah	Michigan State Univ.
Mukherjee, Ranjan	Michigan State Univ.
14:30-14:50	FrB20.4
<i>Decentralized Computation for Robust Stability Analysis of Large State-Space Systems Using Poly's Theorem</i> , pp. 5948-5954.	
Kamyar, Reza	Illinois Inst. of Tech.
Peet, Matthew M.	Illinois Inst. of Tech.
14:50-15:10	FrB20.5
<i>An Exact Convex Solution to Receding Horizon Control</i> , pp. 5955-5960.	
Essick, Ray	Univ. of Illinois at Urbana-Champaign
Lee, Ji-Woong	Pennsylvania State Univ.
Dullerud, Geir E.	Univ. of Illinois, Urbana-Champaign
15:10-15:30	FrB20.6
<i>On the Stability of Weakly Observable Markov Jump Linear Systems with Bounded Long Run Average Cost</i> , pp. 5961-5965.	
Barbosa, Brenno G.	Univ. de Sao Paulo
Costa, Eduardo F.	Univ. São Paulo, Inst. de Ciências Matemáticas e de Computaç
FrB21	Mackenzie
Robust Control II (Regular Session)	
Chair: Hencey, Brandon	Cornell Univ.
Co-Chair: Ebihara, Yoshio	Kyoto Univ.
13:30-13:50	FrB21.1
<i>A Youla-Based, State Space Approach to the Parameterization of H2 Suboptimal, Regulating Controllers</i> , pp. 5966-5971.	
Wong, Daniel	Cornell Univ.
Hencey, Brandon	Cornell Univ.
13:50-14:10	FrB21.2
<i>Robust Stability Analysis Based on Discrete-Time FIR Scaling</i> , pp. 5972-5979.	
Hosoe, Yohei	Kyoto Univ.
Hagiwara, Tomomichi	Kyoto Univ.
14:10-14:30	FrB21.3
<i>Loop-Shaping Controller Design for Nonlinear Systems Using the Contoured Robust Controller Bode (CRCBode) Plot</i> , pp. 5980-5985.	
Taylor, Jd	Carnegie Mellon Univ.
Gentilini, Iacopo	Carnegie Mellon Univ.
Messner, William	Carnegie Mellon Univ.
14:30-14:50	FrB21.4
<i>On Existence of Periodic Solutions for Stable Interval Plants with Odd, Sector Type Nonlinearities</i> , pp. 5986-5991.	
Mukherjee, Dwaipayam	Indian Inst. of Science
Ghose, Debasish	Indian Inst. of Science
14:50-15:10	FrB21.5

Optimal L1-Controller Synthesis for Positive Systems and Its Robustness Properties, pp. 5992-5997.

Ebihara, Yoshio	Kyoto Univ.
Peaucelle, Dimitri	LAAS-CNRS, Univ. de Toulouse
Arzelier, Denis	LAAS-CNRS
15:10-15:30	FrB21.6
<i>Multiple Model Robust Dynamic Programming</i> , pp. 5998-6004.	
Whitman, Eric C.	Carnegie Mellon Univ.
Atkeson, Christopher G.	Carnegie Mellon Univ.

FrB22 Saint-Francois
Cooperative and Distributed Control (Regular Session)

Chair: Polushin, Ilia G.	Univ. of Western Ontario
Co-Chair: Choi, Jongeun	Michigan State Univ.

13:30-13:50 FrB22.1

Distributed Command Governor Strategies for Constrained Coordination of Multi-Agent Networked Systems, pp. 6005-6010.

Tedesco, Francesco	Univ. della Calabria
Casavola, Alessandro	Univ. Della Calabria
Garone, Emanuele	Univ. Libre de Bruxelles

13:50-14:10 FrB22.2

Scalable, MDP-Based Planning for Multiple, Cooperating Agents, pp. 6011-6016.

Redding, Joshua	Massachusetts Inst. of Tech.
Ure, Nazim Kemal	Massachusetts Inst. of Tech.
How, Jonathan P.	MIT
Vavrina, Matthew	The Boeing Company
Vian, John L	The Boeing Company

14:10-14:30 FrB22.3

Distributed Synthesis and Control of Constrained Linear Systems, pp. 6017-6022.

Conte, Christian	ETH Zurich
Voellmy, Niklaus Roman	ETH Zürich
Zeilinger, Melanie N.	École Pol. Fédérale de Lausanne (EPFL)
Morari, Manfred	ETH Zurich
Jones, Colin Neil	École Pol. Fédérale de Lausanne (EPFL)

14:30-14:50 FrB22.4

Nash Equilibrium Design and Coordination in Hierarchical Systems, pp. 6023-6028.

Karpowicz, Michal	NASK
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14:50-15:10 FrB22.5

Visibility-Limited Coverage Control Using Nonsmooth Optimization, pp. 6029-6034.

Marier, Jean-Samuel	Numerica Tech. Inc.
Rabbath, Camille Alain	Defence R&D Canada
Lechevin, Nicolas	Defence R&D Canada

15:10-15:30 FrB22.6

Estimation Based Cooperative Guidance Controller for 3-D Target Tracking with Multiple UAVs, pp. 6035-6040.

Ahmed, Mousumi	The Univ. of Texas at Arlington
Subbarao, Kamesh	The Univ. of Texas, Arlington

FrC01 Saint Laurent

Multi-Vehicle and Agent-Based Systems (Regular Session)

Chair: Aghdam, Amir G. Concordia Univ.
 Co-Chair: Ghahesifard, Bahman Univ. of California San Diego

16:00-16:20 FrC01.1

On Disturbance Propagation in Vehicle Platoon Control Systems, pp. 6041-6046.

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

16:20-16:40 FrC01.2

Scalable ϵ -Optimal Self-Organization in Communicating Swarms Using Implicit Probabilistic Automata, pp. 6047-6052.

Chattopadhyay, Ishanu Cornell Univ.

16:40-17:00 FrC01.3

Leader Selection Via the Manipulability of Leader-Follower Networks, pp. 6053-6058.

Kawashima, Hiroaki Kyoto Univ. / Georgia Inst. of Tech.
 Egerstedt, Magnus Georgia Inst. of Tech.

17:00-17:20 FrC01.4

On the Robustness of Large 1-D Network of Double Integrator Agents, pp. 6059-6064.

Hao, He Univ. of Florida
 Yin, Huibing Univ. of Illinois, Urbana-Champaign
 Kan, Zhen Univ. of Florida

17:20-17:40 FrC01.5

Robotic Swarming Over the Internet, pp. 6065-6070.

Gilles, Jerome Univ. of California Los Angeles (UCLA)
 Sharma, Balaji Univ. of Cincinnati
 Ferenc, William Harvey Mudd Coll.
 Kastein, Hannah Harvey Mudd Coll.
 Lieu, Lauren Harvey Mudd Coll.
 Wilson, Ryan Univ. of California Los Angeles
 Huang, Yuan (Rick) Univ. of California Los Angeles
 Bertozzi, Andrea L. Univ. of California Los Angeles
 HomChaudhuri, Baisravan Univ. of Cincinnati
 Ramakrishnan, Subramanian Villanova Univ.
 Kumar, Manish Univ. of Cincinnati

17:40-18:00 FrC01.6

Spacecraft Synchronization in the Presence of Attitude Constrained Zones, pp. 6071-6076.

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

FrC02 Gatineau**Discrete Event Systems (Regular Session)**

Chair: Hill, Rick Univ. of Detroit Mercy
 Co-Chair: Lesage, Jean-jacques Ens Cachan

16:00-16:20 FrC02.1

Robust Failure Prognosis of Partially Observed Discrete Event Systems, pp. 6077-6082.

Takai, Shigemasa Osaka Univ.

16:20-16:40 FrC02.2

Decentralized Opacity of Discrete Event Systems, pp. 6083-6088.

Paoli, Andrea Univ. of Bologna
 Lin, Feng Wayne State Univ.

16:40-17:00 FrC02.3

A General Architecture for Decentralized Supervisory Control of Fuzzy Discrete Event Systems, pp. 6089-6094.

Jayasiri, Awantha Memorial Univ. of Newfoundland
 Mann, George K. I. Memorial Univ. of Newfoundland
 Gosine, Raymond G. Memorial Univ. of Newfoundland

17:00-17:20 FrC02.4

Identification of Industrial Automation Systems: Building Compact and Expressive Petri Net Models from Observable Behavior, pp. 6095-6101.

Estrada Vargas, Ana Paula CINVESTAV
 Lesage, Jean-jacques Ens Cachan
 Lopez-Mellado, Ernesto CINVESTAV

17:20-17:40 FrC02.5

Bisimilarity Enforcing Supervisory Control of Nondeterministic Discrete Event Systems, pp. 6102-6107.

Sun, Yajuan National Univ. of Singapore
 Lin, Hai Univ. of Notre Dame

17:40-18:00 FrC02.6

Invariant Weak Simulation and Analysis of Parameterized Networks, pp. 6108-6113.

Zibaeenejad, M. Hadi Univ. of Waterloo
 Thistle, John G. Univ. of Waterloo

FrC03 Bersimis**Structure and Vibration Control (Regular Session)**

Chair: Sternad, Mikael Uppsala Univ.
 Co-Chair: Pozo, Francesc Univ. Pol. de Catalunya

16:00-16:20 FrC03.1

Gain Scheduling for Semiactive MR Dampers, pp. 6114-6119.

Fu, Tat S Univ. of New Hampshire
 Johnson, Erik A Univ. of Southern California

16:20-16:40 FrC03.2

Adaptive Control Design of Structural Systems, pp. 6120-6125.

Acho, Leonardo EUETIB-Univ. Pol. de Catalunya
 Pujol, Gisela Univ. Pol. de Catalunya - BarcelonaTech

16:40-17:00 FrC03.3

Discrete-Time Static Output-Feedback Semi-Decentralized H-Infinity Controller Design: An Application to Structural Vibration Control, pp. 6126-6131.

Palacios-Quifonero, Francisco Univ. Pol. de Catalunya (UPC)
 Rubió-Massegú, Josep Univ. Pol. de Catalunya
 Rossell, Josep M. Univ. Pol. de Catalunya (UPC)
 Karimi, Hamid Reza Univ. of Agder

17:00-17:20 FrC03.4

Hybrid RNC-Isolation of Structures under Near-Fault Earthquakes, pp. 6132-6139.

Ismail, Mohammed Zagazig Univ.
 Pozo, Francesc Univ. Pol. de Catalunya
 Rodellar, Jose Tech. Univ. of Catalonia

17:20-17:40	FrC03.5
<i>MIMO Design of Active Noise Controllers for Car Interiors: Extending the Silenced Region at Higher Frequencies</i> , pp. 6140-6147.	
Berthilsson, Simon	Uppsala Univ.
Barkefors, Annea	Uppsala Univ.
Sternad, Mikael	Uppsala Univ.
17:40-18:00	FrC03.6
<i>Comparison of SMC Control and SDRE Approaches for Flutter Suppression in a Nonlinear Wing Section</i> , pp. 6148-6153.	
Elhami, M. Reza	Imam Hossein Univ.
Fatehi Narab, Mahdi	Imam Hossein Univ.
FrC04	Peribonka
Variable-Structure/sliding Mode Control II (Regular Session)	
Chair: Richter, Hanz	Cleveland State Univ.
Co-Chair: Punta, Elisabetta	National Res. Council of Italy
16:00-16:20	FrC04.1
<i>Optimal Gain for the Super-Twisting Differentiator in the Presence of Measurement Noise</i> , pp. 6154-6159.	
Angulo, Marco Tulio	National Autonomous Univ. of Mexico
Moreno, Jaime A.	Univ. Nacional Autonoma de Mexico-UNAM
Fridman, Leonid M.	National Autonomous Univ. of Mexico
16:20-16:40	FrC04.2
<i>An Equivalent Control Based Sliding Mode Observer Using High Order Uniform Robust Sliding Operators</i> , pp. 6160-6165.	
Sánchez-Torres, Juan Diego	CINVESTAV-IPN GDL
Loukianov, Alexander G.	CINVESTAV IPN GDI
Moreno, Jaime A.	Univ. Nacional Autonoma de Mexico-UNAM
Drakunov, Sergey	Embry-Riddle Aeronautical Univ.
16:40-17:00	FrC04.3
<i>Control Design with Output Constraints: Multi-Regulator Sliding Mode Approach with Override Logic</i> , pp. 6166-6171.	
Richter, Hanz	Cleveland State Univ.
17:00-17:20	FrC04.4
<i>Output Feedback Adaptive Twist Control: A Lyapunov Design</i> , pp. 6172-6177.	
Kochalummoottil, Jose	Univ. of Alabama, Huntsville
Shtessel, Yuri B.	Univ. of Alabama at Huntsville
Moreno, Jaime A.	Univ. Nacional Autonoma de Mexico-UNAM
Fridman, Leonid M.	National Autonomous Univ. of Mexico
17:20-17:40	FrC04.5
<i>Sliding Mode Control Based on Observers for Uncertain Nonlinear Systems</i> , pp. 6178-6183.	
Bartolini, Giorgio	Univ. of Cagliari
Punta, Elisabetta	National Res. Council of Italy
17:40-18:00	FrC04.6
<i>Swarm Aggregation Using Artificial Potential Field and Fuzzy Sliding Mode Control with Adaptive Tuning Technique</i> , pp. 6184-6189.	
Ravindranathan Nair, Ranjith	Indian Inst. of Tech. Kanpur
Behera, Laxmidhar	Indian Inst. of Tech. Kanpur

FrC05	Richelieu
Marine Vehicles II (Regular Session)	
Chair: Leonessa, Alexander	Virginia Tech.
Co-Chair: Kelly, Scott	Univ. of North Carolina at Charlotte
16:00-16:20	FrC05.1
<i>Laser Based Rangefinder for Underwater Applications</i> , pp. 6190-6195.	
Cain, Chris	Virginia Tech.
Leonessa, Alexander	Virginia Tech.
16:20-16:40	FrC05.2
<i>Pipeline Tracking for Fully-Actuated Autonomous Underwater Vehicle Using Visual Servo Control</i> , pp. 6196-6202.	
Krupinski, Szymon	Cybernetix
Allibert, Guillaume	I3S
Hua, Minh-Duc	I3S UNS-CNRS
Hamel, Tarek	Univ. de Nice Sophia Antipolis
16:40-17:00	FrC05.3
<i>Incorporating Input Saturation for Underactuated Surface Vessel Trajectory Tracking Control</i> , pp. 6203-6208.	
Siramdasu, Yaswanth	Univ. of Alabama in Huntsville
Fahimi, Farbod	Univ. of Alabama in Huntsville
17:00-17:20	FrC05.4
<i>Particle Filter ROV Navigation Using Hydroacoustic Position and Speed Log Measurements</i> , pp. 6209-6215.	
Zhao, Bo	Norwegian Univ. of Science and Tech.
Blanke, Mogens	Tech. Univ. of Denmark
Skjetne, Roger	Norwegian Univ. of Science and Tech.
17:20-17:40	FrC05.5
<i>Depth Control of Autonomous Underwater Vehicles Using Indirect Robust Control Method</i> , pp. 6216-6221.	
Pan, Hejia	Mississippi State Univ.
Xin, Ming	Mississippi State Univ.
17:40-18:00	FrC05.6
<i>Multiple Model Adaptive Wave Filtering for Dynamic Positioning of Marine Vessels</i> , pp. 6222-6228.	
Hassani, Vahid	Tech. Univ. of Lisbon
Sorensen, Asgeir Johan	Norwegian Univ. of Sci and Tech.
Pascoal, Antonio Manuel	Inst. Superior Tecnico
Aguiar, A. Pedro	Inst. Superior Tecnico, Tech. Univ. of Lisbon
FrC06	Harricana
Time-Delay Systems III (Regular Session)	
Chair: Niculescu, Silviu-Iulian	CNRS-Supelec
Co-Chair: Gielen, Rob	Eindhoven Univ. of Tech.
16:00-16:20	FrC06.1
<i>Some Remarks on Lyapunov-Krasovskii Functionals and Reduction Approach for Input Delay Compensation</i> , pp. 6229-6234.	
Mazenc, Frederic	EPI INRIA DISCO
Niculescu, Silviu-Iulian	CNRS-Supelec
Krstic, Miroslav	Univ. of California, San Diego
16:20-16:40	FrC06.2

Monitoring Delayed Systems Using the Smith Predictor, pp. 6235-6239.

Montenbruck, Jan Maximilian Univ. of Duisburg-Essen
Brennan, Sean The Pennsylvania State Univ.

16:40-17:00 FrC06.3

Some Remarks on Puiseux Series for Multiple Imaginary Characteristic Roots of Linear Time-Delay Systems, pp. 6240-6245.

Li, Xu-Guang Northeastern Univ. Liaoning, China

Niculescu, Silviu-Iulian CNRS-Supelec

Cela, Arben Paris East Univ. ESIEE Paris

Wang, Hong-Hai Northeastern Univ.

17:00-17:20 FrC06.4

Construction of Invariant Families of Sets for Linear Systems with Delay, pp. 6246-6251.

Rakovic, Sasa V. Univ. of Maryland,

Gielen, Rob Eindhoven Univ. of Tech.

Lazar, Mircea Eindhoven Univ. of Tech.

17:20-17:40 FrC06.5

Network Realizability for Interconnected Systems Over Arbitrary One-Step Delay Networks, pp. 6252-6257.

Andalam, Satya Mohan Vamsi Iowa State Univ.

Elia, Nicola Iowa State Univ.

FrC07 Chaudiere
Control of Cranes (Regular Session)

Chair: Uchiyama, Naoki Toyohashi Univ. of Tech.

Co-Chair: Shilpiekandula, Vijay Mitsubishi Electrical Res. Lab.

16:00-16:20 FrC07.1

Residual Load Sway Suppression for Rotary Cranes Using Only S-Curve Boom Horizontal Motion, pp. 6258-6263.

Uchiyama, Naoki Toyohashi Univ. of Tech.

Ouyang, Huimin Toyohashi Univ. Tech.

Shigenori, Sano Toyohashi Univ. of Tech.

16:20-16:40 FrC07.2

Experimental Validation of Nonlinear MPC on an Overhead Crane Using Automatic Code Generation, pp. 6264-6269.

Vukov, Milan KULeuven

Van Loock, Wannes Katholieke Univ. Leuven

Houska, Boris Univ. of Leuven

Ferreau, Hans Joachim K.U. Leuven

Swevers, Jan K. U. Leuven

Diehl, Moritz Katholieke Univ. Leuven

16:40-17:00 FrC07.3

Initial Investigations of Hand-Motion Crane Control with Double-Pendulum Payloads, pp. 6270-6275.

Peng, Kelvin Chen Chih Georgia Inst. of Tech.

Singhose, William Georgia Inst. of Tech.

Gurleyuk, Sirri Sunay Zonguldak Karaelmas Univ.

17:00-17:20 FrC07.4

A Novel Nonlinear Coupling Control Approach for Overhead Cranes: Theory and Implementation, pp. 6276-6281.

Sun, Ning Nankai Univ.

Fang, Yongchun Nankai Univ.

Zhang, Xuebo Nankai Univ.

17:20-17:40 FrC07.5

Load Positioning in the Presence of Base Vibrations, pp. 6282-6287.

Shilpiekandula, Vijay Mitsubishi Electrical Res. Lab.

Bortoff, Scott A. Mitsubishi Electric Res. Lab.

17:40-18:00 FrC07.6

On the Second Order Sliding Mode Control of a Parametrically Excited Overhead-Crane, pp. 6288-6293.

Vazquez, Carlos Univ. Nacional Autonoma de Mexico

Fridman, Leonid M. National Autonomous Univ. of Mexico

Collado, Joaquin CINVESTAV

FrC08 Matapedia

Decentralized Control (Regular Session)

Chair: Stoustrup, Jakob Aalborg Univ.

Co-Chair: Kristalny, Maxim Lund Univ.

16:00-16:20 FrC08.1

Control Configuration Selection for Multivariable Descriptor Systems, pp. 6294-6299.

Shaker, Hamidreza Department of Energy Tech. AalborgUniversity,Denmark

Stoustrup, Jakob Aalborg Univ.

16:20-16:40 FrC08.2

A Markov Chain Approach to Probabilistic Swarm Guidance, pp. 6300-6307.

Acikmese, Behcet Jet Propulsion Lab.

Bayard, David S. California Inst. of Tech.

16:40-17:00 FrC08.3

A Scalable Method for Continuous-Time Distributed Control Synthesis, pp. 6308-6313.

Martensson, Karl Lund Univ.

Rantzer, Anders Lund Univ.

17:00-17:20 FrC08.4

Optimal Controller Synthesis for the Decentralized Two-Player Problem with Output Feedback, pp. 6314-6321.

Lessard, Laurent Lund Univ.

Lall, Sanjay Stanford Univ.

17:20-17:40 FrC08.5

Dynamic Programming Solutions for Decentralized State-Feedback LQG Problems with Communication Delays, pp. 6322-6327.

Lamperski, Andrew California Inst. of Tech.

Doyle, John C. California Inst. of Tech.

17:40-18:00 FrC08.6

On the Fully Decentralized Two-Block H_{∞} Model Matching with One-Sided Dynamics, pp. 6328-6333.

Kristalny, Maxim Lund Univ.

Shah, Parikshit Massachusetts Inst. of Tech.

FrC09 Saint-Charles

Filtering III (Regular Session)

Chair: Mehta, Prashant G. Univ. of Illinois, Urbana-Champaign

Co-Chair: Guerreiro, Bruno J. N. Inst. Superior Tecnico

16:00-16:20 FrC09.1

Sensor-Based Simultaneous Localization and Mapping - Part II: Online Inertial Map and Trajectory Estimation, pp. 6334-6339.

Guerreiro, Bruno J. N.	Inst. Superior Tecnico
Batista, Pedro	Inst. Superior Técnico, Univ. Técnica de Lisboa
Silvestre, Carlos	Inst. Superior Tecnico
Oliveira, Paulo Jorge	Inst. Superior Técnico

16:20-16:40 FrC09.2

Vision-Based Spacecraft Relative Navigation Using the Sparse Gauss-Hermite Quadrature Filter, pp. 6340-6345.

Jia, Bin	Mississippi State Univ.
Xin, Ming	Mississippi State Univ.
Cheng, Yang	Mississippi State Univ.

16:40-17:00 FrC09.3

A Comparison of Loosely-Coupled Mode and Tightly-Coupled Mode for INS/VMS, pp. 6346-6351.

Wang, Qingzhe	Beijing Inst. of Tech.
Fu, Mengyin	Department of Automatic Control, Beijing Inst. of Technology
Deng, Zhihong	Beijing Inst. of Tech.
Ma, Hongbin	Beijing Inst. of Tech.

17:00-17:20 FrC09.4

Sensor-Based Simultaneous Localization and Mapping - Part I: GAS Robocentric Filter, pp. 6352-6357.

Guerreiro, Bruno J. N.	Inst. Superior Tecnico
Batista, Pedro	Inst. Superior Técnico, Univ. Técnica de Lisboa
Silvestre, Carlos	Inst. Superior Tecnico
Oliveira, Paulo Jorge	Inst. Superior Técnico

17:20-17:40 FrC09.5

Polynomial Chaos Based Method for State and Parameter Estimation, pp. 6358-6363.

Madankan, Reza	State Univ. of New York at Buffalo
Singla, Puneet	Univ. at Buffalo
Singh, Tarunraj	State Univ. of New York at Buffalo
Scott, Peter	Univ. at Buffalo

FrC10 Saint-Maurice
Large-Scale Systems (Regular Session)

Chair: Ito, Hiroshi	Kyushu Inst. of Tech.
Co-Chair: Scattolini, Riccardo	Pol. di Milano

16:00-16:20 FrC10.1

Distributed Predictive Control for Tracking Constant References, pp. 6364-6369.

Betti, Giulio	Dipartimento di Elettronica e Informazione, Pol. di Milan
Farina, Marcello	Pol. di Milano
Scattolini, Riccardo	Pol. di Milano

16:20-16:40 FrC10.2

On the Explicit Solution of Communication Topology Design for Distributed Control of Large-Scale Interconnected Systems, pp. 6370-6375.

Gusrialdi, Azwirman	Tech. Univ. of Munich
Hirche, Sandra	Tech. Univ. München

16:40-17:00 FrC10.3

Extending Small Gain and Passivity Theory for Large-Scale System Interconnections, pp. 6376-6381.

Griggs, Wynita M.	National Univ. of Ireland, Maynooth
Sajja, Surya Shraavan Kumar	NUI Maynooth
Anderson, Brian D.O.	Australian National Univ.
Shorten, Robert	Nat. Univ. of Ireland

17:00-17:20 FrC10.4

A Decomposition-Based Approach to Stability Analysis of Large-Scale Stochastic Systems, pp. 6382-6387.

Rufino Ferreira, Ana Sofia	Univ. of California, Berkeley
Arcak, Murat	Univ. of California, Berkeley
Sontag, Eduardo D.	Rutgers Univ.

17:20-17:40 FrC10.5

Mean Field Games in Cognitive Radio Networks, pp. 6388-6393.

Tembine, Hamidou	SUPELEC
Tempone, Raul F.	KAUST
Vilanova, Pedro	KAUST

17:40-18:00 FrC10.6

An liss Formulation for Establishing Robust Stability of Dynamical Networks with Neutral, Retarded and Communication Delay, pp. 6394-6399.

Ito, Hiroshi	Kyushu Inst. of Tech.
Mazenc, Frederic	EPI INRIA DISCO

FrC11 Saguenay
Neural Networks (Regular Session)

Chair: Consolini, Luca	Univ. of Parma
Co-Chair: Campa, Giampiero	Mathworks

16:00-16:20 FrC11.1

LMI-Based Boundedness Analysis of Neuro-Adaptive Controllers, pp. 6400-6405.

Campa, Giampiero	MathWorks
Fravolini, Mario Luca	Univ. Di Perugia

16:20-16:40 FrC11.2

Decentralized Adaptive Neural Network State and Output Feedback Control of a Class of Interconnected Nonlinear Discrete-Time Systems, pp. 6406-6411.

Mehraeen, Shahab	Louisiana State Univ.
Jagannathan, Sarangapani	Missouri Univ. of Science & Tech.

16:40-17:00 FrC11.3

State and Output Feedback-Based Adaptive Optimal Control of Nonlinear Continuous-Time Systems in Strict Feedback Form, pp. 6412-6417.

Zargarzadeh, Hassan	Missouri Univ. of Science and Tech. (MST)
Dierks, Travis	DRS Sustainment Systems, Inc.
Jagannathan, Sarangapani	Missouri Univ. of Science & Tech.

17:00-17:20 FrC11.4

Dynamic Neural Network-Based Global Output Feedback Tracking Control for Uncertain Second-Order Nonlinear Systems, pp. 6418-6423.

Dinh, Huyen T.	Univ. of Florida
Bhasin, Shubhendu	Indian Inst. of Tech.
Kim, Dohee	Univ. of Florida
Dixon, Warren E.	Univ. of Florida

17:20-17:40 FrC11.5

Nonlinear Optimal Control of Stochastic Recurrent Neural Networks with Multiple Time Delays, pp. 6424-6429.

Liu, Ziqian	SUNY Maritime				rue
Wang, Qunjing	Anhui Univ.		Leducq, Denis	CEMAGREF, 1 rue Pierre-Gilles de Gennes, Antony, 92160, France	
Ansari, Nirwan	NJIT				
Schurz, Henri	SIU				
17:40-18:00	FrC11.6		17:40-18:00	FrC12.6	
<i>Limit Cycle Perturbations for Parametric Modulation of Central Pattern Generators</i> , pp. 6430-6435.			<i>Flexible Function Block for PLC-Based Implementation of the Balance-Based Adaptive Controller</i> , pp. 6467-6472.		
Consolini, Luca	Univ. of Parma		Klopot, Tomasz	Silesian Univ. of Technology	
Lini, Gabriele	Univ. of Parma		Czeczot, Jacek	Silesian Univ. of Technology	
			Klopot, Witold	Institute of Automatic Control, Silesian Univ. of Tech.	
FrC12		Hochelaga 6	FrC13		Hochelaga 5
Process Control III (Regular Session)			Networked Control Systems III (Regular Session)		
Chair: Boulet, Benoit	McGill Univ.		Chair: Mo, Yilin	Carnegie Mellon Univ.	
Co-Chair: Forgione, Marco	Delft Univ. of Tech.		Co-Chair: Wang, Xiaofeng	Univ. of Illinois at Urbana-Champaign	
16:00-16:20	FrC12.1		16:00-16:20	FrC13.1	
<i>Eco-Efficiency and Control Loop Configuration for Recycle Systems</i> , pp. 6436-6441.			<i>Event-Based Model Predictive Control for the Cooperation of Distributed Agents</i> , pp. 6473-6478.		
Munir, Tajammal Munir	The Univ. of Auckland		Eqtami, Alina	National Tech. Univ. of Athens	
Yu, Wei	Univ. of Auckland		Dimarogonas, Dimos V.	Royal Inst. of Tech.	
Young, Brent	The Univ. of Auckland		Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens	
Wilson, David I.	Auckland Univ. of Tech.				
16:20-16:40	FrC12.2		16:20-16:40	FrC13.2	
<i>Identification and Control of a Wastewater Treatment Pilot by Catalytic Ozonation</i> , pp. 6442-6447.			<i>Distributed Least Square with Intermittent Communications</i> , pp. 6479-6484.		
Abouzlam, Manhal	Univ. de Poitiers		Wang, Jing	iowa state Univ.	
Ouvrard, Régis	Univ. de Poitiers		Elia, Nicola	Iowa State Univ.	
Mehdi, Driss	ESIP-LAII				
Pontlevoy, Florence	Univ. de Poitiers		16:40-17:00	FrC13.3	
Gombert, Bertrand	Univ. de Poitiers		<i>Decentralized Model-Based Event-Triggered Control of Networked Systems</i> , pp. 6485-6490.		
Karpel Vel Leitner, Nathalie	Univ. de Poitiers		Garcia, Eloy	Univ. of Notre Dame	
O.B. Boukari, Sahidou	Univ. de Poitiers		Antsaklis, Panos J.	Univ. of Notre Dame	
16:40-17:00	FrC12.3		17:00-17:20	FrC13.4	
<i>Application of the Watanabe-Modified Smith Predictor Control Technique in Thermoforming</i> , pp. 6448-6454.			<i>Quasi-Decentralized Control of Integrated Process Networks with Multiple Communication Delays (I)</i> , pp. 6491-6496.		
Modirnia, Rahi	McGill Univ.		Wan, Wei	Univ. of California, Davis	
Boulet, Benoit	McGill Univ.		El-Farra, Nael H.	Univ. of California, Davis	
17:00-17:20	FrC12.4		17:20-17:40	FrC13.5	
<i>Iterative Learning Control of Supersaturation in Batch Cooling Crystallization</i> , pp. 6455-6460.			<i>A Decoupled Design in Distributed Control of Uncertain Networked Control Systems</i> , pp. 6497-6502.		
Forgione, Marco	Delft Univ. of Tech.		Wang, Xiaofeng	Univ. of Illinois at Urbana-Champaign	
Mesbah, Ali	Delft Univ. of Tech.		Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign	
Bombois, Xavier	Delft Univ. of Tech.				
Van den Hof, Paul M.J.	Eindhoven Univ. of Tech.		17:40-18:00	FrC13.6	
17:20-17:40	FrC12.5		<i>Stochastic Optimal Controller Design for Unknown Networked Control System under TCP</i> , pp. 6503-6508.		
<i>Steady-State and Stability Analysis of a Population Balance Based Nonlinear Ice Cream Crystallization Model</i> , pp. 6461-6466.			Xu, Hao	Missouri Univ. of Science and Tech.	
Casenave, Céline	INRA-INRIA MODEMIC Res. Team		Jagannathan, Sarangapani	Missouri Univ. of Science & Tech.	
Dochain, Denis	Univ. Catholique de Louvain				
Alvarez, Graciela	CEMAGREF, 1 rue Pierre-Gilles de Gennes, Antony, 92160, France		FrC14		Hochelaga 4
Benkhelifa, Hayat	AgroParisTech, UMR n°1145 Ingenierie-Procedes-Aliments,		Automotive Vehicle Motion Control (Regular Session)		
Flick, Denis	AgroParisTech, UMR n°1145 Ingenierie-Procedes-Aliments, 16		Chair: Basset, Michel	Univ. de Haute-Alsace	
			Co-Chair: Mammari, Said	Univ. d'Evry LSC-CNRS-FRE2494	

16:00-16:20	FrC14.1
<i>Coupled Longitudinal and Lateral Control Strategy Improving Lateral Stability for Autonomous Vehicle</i> , pp. 6509-6514.	
Attia, Rachid	Univ. de Haute-Alsace
Orjuela, Rodolfo	Univ. Haute-Alsace, UHA
Basset, Michel	Univ. de Haute-Alsace
16:20-16:40	FrC14.2
<i>Lane Keeping Control for Autonomous 4WS4WD Vehicles Subject to Wheel Slip Constraint</i> , pp. 6515-6520.	
Chen, Changfang	BUAA
Jia, Yingmin	Beihang Univ.
Du, Junping	Beijing Univ. of Posts and Telecommunications
Yu, Fashan	Henan Pol. Univ.
16:40-17:00	FrC14.3
<i>Sliding Surface Vehicle Envelope Control: A Cooperative Design between Controller and Envelope (I)</i> , pp. 6521-6526.	
Bobier, Carrie G.	Stanford Univ.
Gerdes, J. Christian	Stanford Univ.
17:00-17:20	FrC14.4
<i>Robust Yaw Motion Controller for Improving the Stability of a Plug-In Hybrid Vehicle</i> , pp. 6527-6532.	
Mpetshi Woto, Doudou	Univ. of Valenciennes et du Hainaut Cambrésis
Delprat, Sebastien	Univ. of Valenciennes
17:20-17:40	FrC14.5
<i>Piecewise Affine Output Feedback Controller for Vehicle Lane Keeping</i> , pp. 6533-6538.	
Benine-Neto, André	LIVIC-IFSTTAR
Mammar, Said	Univ. d'Evry LSC-CNRS-FRE2494
17:40-18:00	FrC14.6
<i>Dynamic Performance Enhancement of Vehicles with Controlled Momentum Wheel System</i> , pp. 6539-6544.	
Diba, Fereydoon	Univ. of Ontario Inst. of Tech.
Esmailzadeh, Ebrahim	Univ. of Ontario Inst. of Tech.
FrC15	Hochelaga 3
Traffic Control: Getting There Safer and Faster (Regular Session)	
Chair: Lemarchand, Antoine	Gipsa-Lab.
Co-Chair: Vahidi, Ardalan	Clemson Univ.
16:00-16:20	FrC15.1
<i>Distributed Identification of the Cell Transmission Traffic Model: A Case Study (I)</i> , pp. 6545-6550.	
Rinaldi, Marco	Univ. of Pavia
Capisani, Luca	Univ. of Pavia, ITALY
Ferrara, Antonella	Univ. of Pavia
Nuñez, Alfredo	Delft Univ. of Tech.
Hajiahmadi, Mohammad	Delft Univ. of Tech.
De Schutter, Bart	Delft Univ. of Tech.
16:20-16:40	FrC15.2
<i>Dynamical Operating Mode Estimation for an on Ramp Neighborhood under Normal Traffic Conditions</i> , pp. 6551-6556.	
Lemarchand, Antoine	Gipsa-Lab.
Martinez Molina, John Jairo	GIPSA-Lab. GRENOBLE-INP
Koenig, Damien	Grenoble-INP
16:40-17:00	FrC15.3

<i>Reducing Idling at Red Lights Based on Probabilistic Prediction of Traffic Signal Timings (I)</i> , pp. 6557-6562.	
Mahler, Grant	Clemson Univ.
Vahidi, Ardalan	Clemson Univ.
17:00-17:20	FrC15.4
<i>Platoon Based Model for Urban Traffic Control</i> , pp. 6563-6568.	
Marinica, Nicolae Emanuel	Univ. of Ghent
Boel, Rene K.	Univ. of Ghent
17:20-17:40	FrC15.5
<i>Platooning Control of Autonomous Nonholonomic Mobile Robots in a Human-Robot Coexisting Environment</i> , pp. 6569-6574.	
Della Vedova, Marco L.	Univ. of Pavia
Rubagotti, Matteo	Univ. of Trento
Facchinetti, Tullio	Univ. of Pavia
Ferrara, Antonella	Univ. of Pavia
17:40-18:00	FrC15.6
<i>Decentralized Range-Based Linear Motion Estimation in Acyclic Vehicle Formations with Fixed Topologies</i> , pp. 6575-6580.	
Viegas, Daniel	Inst. for Systems and Robotics / Inst.
Batista, Pedro	Inst. Superior Técnico, Univ. Técnica de Lisboa
Oliveira, Paulo Jorge	Inst. Superior Técnico 501507930
Silvestre, Carlos	Inst. Superior Tecnico
FrC16	Hochelaga 2
Energy System Control (Regular Session)	
Chair: Hall, John	Univ. of Texas - Austin, Department of Mechanical Engineering
Co-Chair: Ersal, Tulga	Univ. of Michigan
16:00-16:20	FrC16.1
<i>Anti-Windup Scheme for Current Control of Shunt Active Filters</i> , pp. 6581-6587.	
Tilli, Andrea	Univ. of Bologna
Conficoni, Christian	Alma Mater Studiorum, Univ. of Bologna
16:20-16:40	FrC16.2
<i>Modelling and Robust Model Predictive Control of an Unstable Thermoacoustic System with Constraints</i> , pp. 6588-6595.	
Jarmolowitz, Fabian	RWTH Aachen Univ.
Groß-Weege, Christopher	Inst. of Automatic Control of RWTH Aachen Univ.
Lammersen, Thomas	Inst. of Automatic Control of RWTH Aachen Univ.
Shariati, Sadaf	Inst. of Automatic Control of RWTH Aachen Univ.
Abel, Dirk	RWTH Aachen Univ.
16:40-17:00	FrC16.3
<i>Model-Based Predictive Control Strategy for a Solid Oxide Fuel Cell System Integrated with a Turbocharger</i> , pp. 6596-6601.	
Oh, So-ryeok	Univ. of Michigan
Sun, Jing	Univ. of Michigan
Dobbs, Herb	US Army TARDEC
King, Joel	US Army TARDEC
17:00-17:20	FrC16.4
<i>Nonlinear Model Predictive Load Frequency Control</i> , pp. 6602-6607.	

Liu, Xiangjie	North China Electric Power Univ.
Kong, Xiaobing	North China Electric Power Univ.
Deng, Xizhi	Nari-relays Electric Co.,Ltd

17:20-17:40 FrC16.5

On the Robust Linear Control of the "buck-Buck" Converter: An Active Disturbance Rejection Approach, pp. 6608-6613.

Sira-Ramirez, Hebertt	CINVESTAV
Leyva-Ramos, Jesus	Inst. Potosino de Investigacion Cientifica y Tecnologica

FrC18 Marquette
Oscillators, Nonlinear Dynamics, and Synchronization (Regular Session)

Chair: Mesbahi, Mehran	Univ. of Washington
Co-Chair: Gillespie, Brent	Univ. of Michigan

16:00-16:20 FrC18.1

Cooperative Control of Nonlinear Multi-Agent Systems with Only Relative Position Measurements, pp. 6614-6619.

Mei, Jie	Harbin Inst. of Tech. Shenzhen Graduate School
Ren, Wei	Univ. of California, Riverside
Ma, Guangfu	Harbin Inst. of Tech.

16:20-16:40 FrC18.2

Asynchronous Distributed Averaging Using Double Linear Iterations, pp. 6620-6625.

Liu, Ji	Yale Univ.
Morse, A. Stephen	Yale Univ.

16:40-17:00 FrC18.3

Stability Analysis of Nonlinear Networks Via M-Matrix Theory: Beyond Linear Consensus, pp. 6626-6631.

Chapman, Airlie	Univ. of Washington
Mesbahi, Mehran	Univ. of Washington

17:00-17:20 FrC18.4

Distributed Finite-Time Tracking Control for Harmonic Oscillators Via Output Feedback Control, pp. 6632-6637.

Zhang, Yanjiao	Peking Univ.
Yang, Ying	Peking Univ.
Zhao, Yu	Peking Univ. Beijing

17:20-17:40 FrC18.5

String Instability Analysis of Heterogeneous Coupled Oscillator Systems, pp. 6638-6643.

Yu, Bo	Univ. of Michigan, Ann Arbor
Freudenberg, James S.	Univ. of Michigan
Gillespie, Brent	Univ. of Michigan

17:40-18:00 FrC18.6

Undamped Nonlinear Consensus Using Integral Lyapunov Functions, pp. 6644-6649.

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

FrC19 Jolliet
Fault Detection III (Regular Session)

Chair: Liu, Steven	Univ. of Kaiserslautern
Co-Chair: Mhaskar, Prashant	McMaster Univ.

16:00-16:20 FrC19.1

Nonlinear Dynamic Process Monitoring Based on Kernel Partial Least Squares, pp. 6650-6654.

Wen, Qiaojun	Zhejiang Univ.
Ge, Zhiqiang	Zhejiang Univ.
Song, Zhi-Huan	Zhejiang Univ.

16:20-16:40 FrC19.2

A New Object-Oriented Fault Detection and Isolation Strategy Based on Bond-Graph Formalism, pp. 6655-6660.

Simon, Stefan	Univ. of Kaiserslautern
Liu, Steven	Univ. of Kaiserslautern

16:40-17:00 FrC19.3

Isolation and Handling of Sensor Faults in Nonlinear Systems, pp. 6661-6666.

Du, Miao	McMaster Univ.
Mhaskar, Prashant	McMaster Univ.

17:00-17:20 FrC19.4

Active Fault Isolation of Nonlinear Systems, pp. 6667-6672.

Du, Miao	McMaster Univ.
Mhaskar, Prashant	McMaster Univ.

17:20-17:40 FrC19.5

Multistate PCA for Continuous Processes, pp. 6673-6678.

Dunia, Ricardo	The Univ. of Texas at Austin
Kumar, Vinay	The Univ. of Texas at Austin
Edgar, Thomas F.	Univ. of Texas at Austin
Blevins, Terrence	Emerson Process Management
Wojsznis, Wilhelm K.	Emerson Process Management

17:40-18:00 FrC19.6

A Generalized Delay-Timer for Alarm Triggering, pp. 6679-6684.

Adnan, Naseeb Ahmed	Univ. of Alberta
Cheng, Yue	Univ. of Alberta
Izadi, Iman	Honeywell Process Solutions
Chen, Tongwen	Univ. of Alberta

FrC20 Duluth
Linear Systems III (Regular Session)

Chair: Valcher, Maria Elena	Univ. di Padova
Co-Chair: Fichera, Francesco	CNRS; LAAS; Univ. de Toulouse; UPS, INSA, INP, ISAE

16:00-16:20 FrC20.1

Zero-Controllability and Dead-Beat Control of Discrete-Time Behaviors, pp. 6685-6690.

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

16:20-16:40 FrC20.2

Guaranteed Cost Gain-Scheduled Control of Two-Dimensional Discrete-Time Linear Parameter-Varying Systems, pp. 6691-6696.

de Souza, Carlos E.	LNCC
Osowsky, Jefferson	National Lab. for Scientific Computing

16:40-17:00 FrC20.3

Controller Design and Gauss-Lucas Theorem, pp. 6697-6701.

Knap, Michael Jason	Tennessee State Univ.
Keel, L. H.	Tennessee State Univ.
Bhattacharyya, Shankar P.	Texas A & M Univ.

17:00-17:20	FrC20.4
<i>Low Order Controller with Regional Pole Placement</i> , pp. 6702-6707.	
Datta, Subashish	Indian Inst. of Tech. Bombay
Chakraborty, Debraj	Indian Inst. of Tech. Bombay
Belur, Madhu N.	Indian Inst. of Tech. Bombay
17:20-17:40	FrC20.5
<i>Forward-Integration Riccati-Based Output-Feedback Control of Linear Time-Varying Systems</i> , pp. 6708-6714.	
Weiss, Avishai	Univ. of Michigan
Kolmanovsky, Ilya V.	The Univ. of Michigan
Bernstein, Dennis S.	Univ. of Michigan
17:40-18:00	FrC20.6
<i>Constrained Periodic Spacecraft Relative Motion Using Non-Negative Polynomials</i> , pp. 6715-6720.	
Deaconu, Georgia	LAAS - CNRS
Louembet, Christophe	LAAS-CNRS
Theron, Alain	LAAS-CNRS
FrC21	Mackenzie
Robust Control III (Regular Session)	
Chair: Sun, Zongxuan	Univ. of Minnesota
Co-Chair: Rabbath, Camille Alain	Defence R&D Canada
16:00-16:20	FrC21.1
<i>Robust Nonlinear Generalised Minimum Variance Control</i> , pp. 6721-6726.	
Hur, Sung-ho	Univ. of Strathclyde
Grimble, Michael John	Univ. of Strathclyde
16:20-16:40	FrC21.2
<i>Robust Stabilizer Design for Linear Time Varying Internal Model Based Control</i> , pp. 6727-6732.	
Song, Xingyong	General Motors Res. Center
Wang, Yu	Univ. of Minnesota -twin cities
Sun, Zongxuan	Univ. of Minnesota
16:40-17:00	FrC21.3
<i>A Mean Value Theorem Approach to Robust Control Design for Uncertain Nonlinear Systems</i> , pp. 6733-6738.	
Rehman, Obaid Ur	Univ. of New South Wales at Australian DefenceForceAcademy
Petersen, Ian	Univ. of New South Wales at the AustralianDefenceForceAcad.
Fidan, Baris	Univ. of Waterloo
17:00-17:20	FrC21.4
<i>A Two DOF Gain Scheduled Frequency Shaped LQ Controller for Narrow Tilting Vehicles</i> , pp. 6739-6744.	
Mourad, Lama	Ec. des mines de Nantes
Claveau, Fabien	IRCCyN - UMR CNRS 6597
Chevrel, Philippe	IRCCyN / Ec. des Mines de Nantes
17:20-17:40	FrC21.5
<i>A Robust Feasibility Problem for the Design of a Reference Governor</i> , pp. 6745-6750.	
Li, Yuping	The Univ. of Melbourne
De Schutter, Bart	Delft Univ. of Tech.
17:40-18:00	FrC21.6
<i>Preservation of Dissipativity under Multirate Sampling with Application</i>	

to *Nonlinear H^∞ Control*, pp. 6751-6756.

Beikzadeh, Hossein
Marquez, Horacio J.

Univ. of Alberta
Univ. of Alberta

FrC22	Saint-Francois
Observers (Regular Session)	
Chair: Ohtsuka, Toshiyuki	Osaka Univ.
Co-Chair: Darouach, Mohamed	Univ. Henri Poincare-Nancy
16:00-16:20	FrC22.1
<i>Necessary Condition for Local Observability of Discrete-Time Polynomial Systems</i> , pp. 6757-6762.	
Kawano, Yu	Osaka Univ.
Ohtsuka, Toshiyuki	Osaka Univ.
16:20-16:40	FrC22.2
<i>Unknown Input High-Gain Observer for Internal Combustion Engine Test Benches</i> , pp. 6763-6768.	
Passenbrunner, Thomas Ernst	Johannes Kepler Univ. Linz
Trogmann, Hannes	Johannes Kepler Univ. Linz
Del Re, Luigi	Johannes Kepler Univ. Linz
16:40-17:00	FrC22.3
<i>Estimation of Input Impulses by Means of Continuous Finite Memory Observers</i> , pp. 6769-6774.	
Mattsson, Per	Uppsala Univ.
Medvedev, Alexander V.	Uppsala Univ.
17:00-17:20	FrC22.4
<i>An Augmented Observer for the Distributed Estimation Problem for LTI Systems</i> , pp. 6775-6780.	
Park, Shinkyu	Univ. of Maryland Coll. Park
Martins, Nuno C.	Univ. of Maryland
17:20-17:40	FrC22.5
<i>Observer Based Controller Synthesis for Singular Systems Directly in the Frequency Domain</i> , pp. 6781-6786.	
Ezzine, Montassar	Ec. Nationale d'Ingénieurs de Monastir
Souley Ali, Harouna	CRAN UMR 7039 CNRS
Darouach, Mohamed	Univ. Henri Poincare-Nancy
Messaoud, Hassani	Ec. Nationale d'Ingénieurs de Monastir
17:40-18:00	FrC22.6
<i>Zonotopic Set-Membership Estimation for Interval Dynamic Systems</i> , pp. 6787-6792.	
Le, Vu Tuan Hieu	SUPELEC Systems Sciences (E3S)
Alamo, Teodoro	Univ. de Sevilla
Camacho, Eduardo F.	Univ. of Sevilla
Stoica, Cristina Nicoleta	SUPELEC Systems Sciences (E3S)
Dumur, Didier	Ec. Supérieure d'Electricite

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