2011 American Control Conference

(ACC 2011)

San Francisco, California, USA
29 June – 1 July 2011

Pages 1-803

IEEE Catalog Number: CFP11ACC-PRT
ISBN: 978-1-4577-0080-4

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Chair: Shoureshi, Rahmat	Univ. of Denver
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Nelson, John D.	Lockheed Martin Space Systems Company

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Chair: Cheng, Marvin	West Virginia Univ.
Co-Chair: Adetola, Veronica	United Tech. Res. Center
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Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
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Sun, Hui	Univ. of Illinois, Urbana-Champaign
Zhu, Quanyan	Univ. of Illinois, Urbana-Champaign
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
Basar, Tamer	Univ. of Illinois, Urbana-Champaign
10:30-10:50	WeA01.4
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Luo, Ying	Utah State Univ.
Chen, YangQuan	Utah State Univ.
Pi, Youguo	South China Univ. of Tech. China
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Balakrishnan, S.N.	Missouri Univ. of Science and Tech.
Tang, Lie	Missouri Univ. of Science and Tech.
Landers, Robert G.	Missouri Univ. of Science and Tech.
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Adetola, Veronica	United Tech. Res. Center
Lehrer, Devon	Queens' Univ.
Guay, Martin	Queen's Univ.

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Chair: Lacy, Seth L.	Air Force Res. Lab.
Co-Chair: Spall, James C.	Johns Hopkins Univ.
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Materassi, Donatello	Univ. of Minnesota

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Lacy, Seth L. — Air Force Res. Lab.
Babuska, Vit — Sandia National Lab.
Miller, Daniel N. — Univ. of California San Diego

10:10-10:30 WeA02.3

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Hill, Stacy D. — Johns Hopkins Univ.
Spall, James C. — Johns Hopkins Univ.
Maranzano, Coire Joseph — Johns Hopkins Univ. Applied Physics Lab.

10:30-10:50 WeA02.4

Mean-Square Optimal Controller for Stochastic Polynomial Systems with Multiplicative Noise, pp. 54-59.

Basin, Michael V. — Autonomous Univ. of Nuevo Leon
Shi, Peng — Univ. of Glamorgan
Soto Perez, Pedro Marcelo — Autonomous Univ. of Nuevo Leon

10:50-11:10 WeA02.5

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Korda, Milan — Czech Tech. Univ. in Prague
Cigler, Jiri — Czech Tech. Univ. in Prague

11:10-11:30 WeA02.6

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Basin, Michael V. — Autonomous Univ. of Nuevo Leon
Elvira Ceja, Jose Santiago — CINVESTAV-IPN, Campus Guadalajara
Sanchez, Edgar N. — CINVESTAV

WeA03 — Franciscan C

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Chair: Zambrano, Darine — Univ. of Uppsala
Co-Chair: Rogers, Eric — Univ. of Southampton

09:30-09:50 WeA03.1

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van Wingerden, Jan-Willem — Delft Univ. of Tech.
Verhaegen, Michel — Delft Univ. of Tech.

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Tayamon, Soma — Uppsala Univ.
Carlsson, Bengt — Uppsala Univ.
Wigren, Torbjorn — Uppsala Univ.

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Liu, Yanjun — Jiangnan Univ.
Ding, Feng — Jiangnan Univ.
Shi, Yang — Univ. of Victoria

10:30-10:50 WeA03.4

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Markovsky, Ivan — Univ. of Southampton
Freeman, Christopher T. — Univ. of Southampton
Rogers, Eric — Univ. of Southampton

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Huang, Biao	Univ. of Alberta
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Garrido, Rubén	Cinvestav-IPN
Concha Sánchez, Antonio	Centro de Investigación y de Estudios Avanzados del IPN

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Co-Chair: Beling, Peter	U. Virginia
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Lu, Xiaosong	Carleton Univ.
Schwartz, Howard M.	Carleton Univ.
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Beling, Peter	U. Virginia
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Jiang, Chong	Univ. of Illinois at Urbana-Champaign
Srikant, R	Univ. of Illinois, Urbana-Champaign
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Wen, Yicheng	Penn State Univ.
Ray, Asok	Pennsylvania State Univ.
Phoha, Shashi	Pennsylvania State Univ.
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Banerjee, Ashis	Massachusetts Inst. of Tech.
Ono, Masahiro	MIT
Roy, Nicholas	Massachusetts Inst. of Tech.
Williams, Brian	MIT
11:10-11:30	WeA04.6
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Ahmed, Nisar R.	Cornell Univ.
Campbell, Mark E.	Cornell Univ.

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Chair: Mohammadpour, Javad	Univ. of Houston
Co-Chair: Farhood, Mazen	Virginia Tech.
Organizer: Mohammadpour, Javad	Univ. of Houston
Organizer: Farhood, Mazen	Virginia Tech.
Organizer: Tóth, Roland	Delft Univ. of Tech.

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Ali, Ahsan — Inst. of Control Systems, Hamburg Univ. of Tech.
Abbas, Hossam Seddik — Assiut Uinveristy
Werner, Herbert — Hamburg Univ. of Tech.

09:50-10:10 WeA05.2

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Tóth, Roland — Univ. of California at Berkeley
van de Wal, Marc — ASML
Heuberger, Peter S.C. — Delft Univ. of Tech.
Van den Hof, Paul M.J. — Delft Univ. of Tech.

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Laurain, Vincent — Nancy-Univ.
Gilson, Marion — Nancy-Univ.
Tóth, Roland — Univ. of California at Berkeley
Garnier, Hugues — Nancy-Univ.

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LPV Subspace Identification Using a Novel Nuclear Norm Regularization Method (I), pp. 165-170.

Gebraad, Pieter Marinus Otto — Delft Univ. of Tech.
van Wingerden, Jan-Willem — Delft Univ. of Tech.
van der Veen, Gijs — Delft Univ. of Tech.
Verhaegen, Michel — Delft Univ. of Tech.

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Cerone, Vito — Pol. di Torino
Piga, Dario — Pol. di Torino
Regruto, Diego — Pol. di Torino

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Bendtsen, Jan Dimon — Aalborg Univ.
Trangbaek, Klaus — Aalborg Univ.

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Chair: Nonaka, Kenichiro — Tokyo City Univ.
Co-Chair: Edwards, Christopher — Univ. of Leicester

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McNinch, Lucas — Villanova Univ.
Ashrafiuon, Hashem — Villanova Univ.

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Chang, Yeong-Hwa — Chang Gung Univ.
Wu, Chun-I — Chang Gung Univ.
Chen, Hung-Chih — Chang Gung Univ.
Chang, Chia-Wen — Chang Gung Univ.
Lin, Hung-Wei — Lee-Ming Inst. of Tech.

10:10-10:30 WeA06.3

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Menon, Prathyush P — Univ. of Exeter
Edwards, Christopher — Univ. of Leicester

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Nonaka, Kenichiro — Tokyo City Univ.
Sugizaki, Hirokazu — Tokyo City Univ.

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Boiko, Igor — Univ. of Calgary

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Chair: Seiler, Peter — Univ. of Minnesota
Co-Chair: Wu, Neng Eva — Binghamton Univ.

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Wheeler, Timothy J. — Univ. of California, Berkeley
Seiler, Peter — Univ. of Minnesota
Packard, Andrew K. — Univ. of California at Berkeley
Balas, Gary J. — Univ. of Minnesota

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Sarkar, Soumik — Pennsylvania State Univ.
Singh, Dheeraj — Pennsylvania State Univ.
Srivastav, Abhishek — United Tech. Res. Center
Ray, Asok — Pennsylvania State Univ.

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Bokor, Jozsef — Hungarian Acad. of Sciences
Vanek, Balint — Univ. of Minnesota
Balas, Gary J. — Univ. of Minnesota

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Ruschmann, Matthew — Binghamton Univ.
Wu, Neng Eva — Binghamton Univ.

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Isom, Joshua D. — United Tech. Res. Center
LaBarre, Bob — United Tech. Res. Center

11:10-11:30 WeA07.6

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Gholami, Mehdi — AALBORG Univ.
Henrik, Schioler — Aalborg Univ.
Bak, Thomas — Aalborg Univ.

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Chair: Giri, Fouad — Univ. de Caen
Co-Chair: Kawanishi, Michihiro — Toyota Tech. Inst.

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Hameduddin, Ismail — King Abdulaziz Univ.
Bajodah, Abdulrahman H. — King Abdulaziz Univ.

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Naitali, Abdessamad	IEEE
Giri, Fouad	Univ. de Caen
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Jafari, Rouhollah	Michigan State Univ.
Mathis, Frank	Michigan State Univ.
Mukherjee, Ranjan	Michigan State Univ.
10:30-10:50	WeA08.4
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Mathis, Frank	Michigan State Univ.
Jafari, Rouhollah	Michigan State Univ.
Mukherjee, Ranjan	Michigan State Univ.
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Kottenstette, Nicholas	Vanderbilt Univ.
LeBlanc, Heath	ISIS, Vanderbilt Univ.
Eyisi, Emeka	ISIS, Vanderbilt Univ.
Koutsoukos, Xenofon	Vanderbilt Univ.
11:10-11:30	WeA08.6
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Jennawasin, Tanagorn	Toyota Tech. Inst.
Kawanishi, Michihiro	Toyota Tech. Inst.
Narikiyo, Tatsuo	Toyota Tech. Inst.

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Chair: Hayakawa, Tomohisa	Tokyo Inst. of Tech.
Co-Chair: Franze', Giuseppe	Univ. Degli Studi della Calabria
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Mayhew, Christopher G.	Robert Bosch LLC
Teel, Andrew R.	Univ. of California at Santa Barbara
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Pak, Sangil	Tokyo Inst. of Tech.
Hayakawa, Tomohisa	Tokyo Inst. of Tech.
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Mayhew, Christopher G.	Robert Bosch LLC
Sanfelice, Ricardo G.	Univ. of Arizona
Teel, Andrew R.	Univ. of California at Santa Barbara
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Famularo, Domenico	Univ. degli Studi della Calabria
Franze', Giuseppe	Univ. Degli Studi della Calabria
Furfaro, Angelo	Univ. degli Studi della Calabria
Mattei, Massimiliano	Seconda Univ. di Napoli

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Lahijanian, Morteza	Boston Univ.
Andersson, Sean	Boston Univ.
Belta, Calin	Boston Univ.

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Chair: Porumamilla, Hemanth	California Pol. State Univ.
Co-Chair: Dixon, Warren E.	Univ. of Florida
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Swigart, John	Stanford Univ.
Lall, Sanjay	Stanford Univ.
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Porumamilla, Hemanth	California Pol. State Univ.
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Ding, Jie	Missouri Univ. of Science and Tech.
Balakrishnan, S.N.	Missouri Univ. of Science and Tech.
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Andalam, Satya Mohan Vamsi	Iowa State Univ.
Elia, Nicola	Iowa State Univ.
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Yelchuru, Ramprasad	Norwegian Univ. of Science and Tech.
Skogestad, Sigurd	Norwegian Univ. of Science & Tech.
11:10-11:30	WeA10.6
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Theodorou, Evangelos	Univ. of Southern California
Todorov, Emanuel	Univ. of Washington
Valero-Cuevas, Francisco	Univ. of Southern California

WeA11	Golden Gate 1
Modeling, Estimation, and Control of Batteries for HEV, PHEV, and EV Applications I (Invited Session)	
Chair: Chaturvedi, Nalin A.	Robert Bosch LLC
Co-Chair: Krstic, Miroslav	Univ. of California, San Diego
Organizer: Chaturvedi, Nalin A.	Robert Bosch LLC
Organizer: Krstic, Miroslav	Univ. of California, San Diego
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Shi, Ying	Pennsylvania State Univ.
Prasad, Githin	Pennsylvania State Univ.
Shen, Zheng	Pennsylvania State Univ.
Rahn, Christopher D.	Penn State Univ.
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Forman, Joel	Univ. of Michigan
Moura, Scott	Univ. of Michigan, Ann Arbor

Stein, Jeffrey L.	Univ. of Michigan
Fathy, Hosam K.	Penn State Univ.

10:10-10:30	WeA11.3

A Nonlinear Adaptive Observer Approach for State of Charge Estimation of Lithium-Ion Batteries (I), pp. 370-375.

Li, Yonghua	Ford Motor Company
Anderson, R. Dyche	Ford Motor Company
Song, Jing	Ford Motor Company
Phillips, Anthony M.	Ford Motor Co.
Wang, Xu	Ford Motor Company

10:30-10:50	WeA11.4

Neutron Imaging of Lithium Concentration in Battery Pouch Cells (I), pp. 376-381.

Siegel, Jason B.	Univ. of Michigan
Stefanopoulou, Anna G.	Univ. of Michigan
Lin, Xinfan	Univ. of Michigan
Gorsich, David	U.S. Army Tank Automotive \\ Res. Dev \& Engr Center (TARDEC)

10:50-11:10	WeA11.5

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Klein, Reinhardt	Robert Bosch LLC
Chaturvedi, Nalin A.	Robert Bosch LLC
Christensen, Jake	Robert Bosch LLC
Ahmed, Jasim	Program Manager
Findeisen, Rolf	OVG Univ. Magdeburg
Kojic, Aleksandar	Robert Bosch Res. and Tech. Center

11:10-11:30	WeA11.6

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Lee, Tae-Kyung	The Univ. of Michigan
Kim, Youngki	Univ. of Michigan
Stefanopoulou, Anna G.	Univ. of Michigan
Filipi, Zoran	Univ. of Michigan

WeA12	Golden Gate 2
Engine Modeling and Control (Invited Session)	
Chair: Mohammadpour, Javad	Univ. of Houston
Co-Chair: Javaherian, Hossein	GM R&D
Organizer: Mohammadpour, Javad	Univ. of Houston
Organizer: Onori, Simona	Ohio State Univ.
Organizer: Karnik, Amey	Ford Motor Company
Organizer: Vermillion, Christopher	Altaeros Energies
Organizer: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.

09:30-09:50	WeA12.1

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Meyer, Jason	Ohio State Univ.
Midlam-Mohler, Shawn	Ohio State Univ.
Yurkovich, Stephen	Univ. of Texas at Dallas

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Dynamic Gain-Scheduling Controller Design for Port-Fuel-Injection Processes (I), pp. 402-407.

White, Andrew	Michigan State Univ.
Choi, Jongeun	Michigan State Univ.
Zhu, Guoming	Michigan State Univ.

10:10-10:30	WeA12.3

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Heinzen, Adam	Univ. of Minnesota Twin Cities
Gillella, Pradeep Kumar	Univ. of Minnesota, Twin Cities
Sun, Zongxuan	Univ. of Minnesota

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Zope, Rohit	Univ. of Houston
Franchek, Matthew A.	Univ. of Houston
Grigoriadis, Karolos M.	Univ. of Houston
Surnilla, Gopichandra	Ford Motor Company
Smith, Stephen	Ford Motor Company
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Widd, Anders	Lund Univ.
Liao, Hsien-Hsin	Stanford
Gerdes, J. Christian	Stanford Univ.
Tunestål, Per	Lund Univ. Faculty of Engineering
Johansson, Rolf	Lund Univ.
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Gerasimov, Dmitry	Saint-Petersburg State Univ. ofInformationTechnologies, Mec
Javaherian, Hossein	GM R&D
Nikiforov, Vladimir O.	St. State Univ. of Information Tech. Mechanicsand O

WeA13	Golden Gate 3
Aerospace I (Regular Session)	
Chair: Masoud, Ahamd A.	KFUPM
Co-Chair: Louembet, Christophe	LAAS-CNRS
09:30-09:50	WeA13.1
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Masoud, Ahamd A.	KFUPM
09:50-10:10	WeA13.2
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MacMynowski, Douglas G.	California Inst. of Tech.
Bjorklund, Mattias	KTH
10:10-10:30	WeA13.3
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Yildiz, Yildiray	UCSC, NASA Ames Res. Center
Kolmanovsky, Ilya V.	The Univ. of Michigan
Acosta, Diana	NASA Ames Res. Center
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Lee, Unsik	Univ. of Washington
Mesbahi, Mehran	Univ. of Washington
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Deaconu, Georgia	LAAS-CNRS
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Kalyanam, Krishnamoorthy	Air Force Res. Lab.
Pachter, Meir	AFIT/ENG
Chandler, Phillip R.	USAF
Casbeer, David W.	Air Force Res. Lab.
Darbha, Swaroop	Texas A & M Univ.

WeA14	Golden Gate 4
Cooperative Control I (Regular Session)	
Chair: Farrell, Jay	Univ. of California Riverside
Co-Chair: Hu, Guoqiang	Kansas State Univ.
09:30-09:50	WeA14.1
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Renzaglia, Alessandro	INRIA Rhone-Alpes
Doitsidis, Lefteris	Tech. Educational Inst. of Crete
Martinelli, Agostino	INRIA
Kosmatopoulos, Elias	Democritus Univ. Thrace & ITI/CERTH
09:50-10:10	WeA14.2
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Morye, Akshay	Univ. of California, Riverside
Ding, Chong	Univ. of California, Riverside
Song, Bi	Univ. of California, Riverside
Roy-Chowdhury, Amit K.	Univ. of California, Riverside
Farrell, Jay	Univ. of California Riverside
10:10-10:30	WeA14.3
Density-Based Control of Multiple Robots, pp. 481-486.	
Zhao, Sheng	Univ. of California, Riverside
Ramakrishnan, Subramanian	Univ. of Cincinnati
Kumar, Manish	Univ. of Cincinnati
10:30-10:50	WeA14.4
Simultaneous Stabilization and Synchronization for Multiple Systems of Non-Identical Agents, pp. 487-492.	
Darabi Sahneh, Faryad	Kansas State Univ.
Hu, Guoqiang	Kansas State Univ.
10:50-11:10	WeA14.5
Visual Feedback Leader-Following Pose Synchronization: Convergence Analysis, pp. 493-498.	
Ibuki, Tatsuya	Tokyo Inst. of Tech.
Hatanaka, Takeshi	Tokyo Inst. of Tech.
Fujita, Masayuki	Tokyo Inst. of Tech.
Spong, Mark W.	Univ. of Texas at Dallas
11:10-11:30	WeA14.6
A Connectivity Preserving Containment Control Strategy for a Network of Single Integrator Agents, pp. 499-501.	
Ajorlou, Amir	Concordia Univ.
Momeni, Ahmadreza	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.

WeA15	Golden Gate 5
Networked Control Systems I (Regular Session)	
Chair: Seuret, Alexandre	CNRS
Co-Chair: Berg, Jordan M.	Texas Tech. Univ.
09:30-09:50	WeA15.1
Modeling and Control of Closed-Loop Networked PLC-Systems, pp. 502-508.	
Ghanaim, Abouelabbas	Saarland Univ.
Frey, Georg	Saarland Univ.
09:50-10:10	WeA15.2
Control of Synchronization for Multi-Agent Systems in Acceleration Motion with Additional Analysis of Formation Control, pp. 509-514.	
Zhang, Haopeng	Texas Tech. Univ.
Pothuwila, Kalana	Texas Tech. Univ.
Hui, Qing	Texas Tech. Univ.

Yang, Ran	Sun Yat-Sen Univ.
Berg, Jordan M.	Texas Tech. Univ.

10:10-10:30 WeA15.3

Stabilization of Distributed Networked Control Systems with Minimal Communications Network, pp. 515-520.

Razeghi-Jahromi, Mohammad	Univ. of Rochester
Seyedi, Alireza	Univ. of Rochester

10:30-10:50 WeA15.4

Optimal Linear Control for Channels with Signal-To-Noise Ratio Constraints, pp. 521-526.

Johannesson, Erik	Lund Univ.
Rantzer, Anders	Lund Univ.
Bernhardsson, Bo M.	Lund Inst. of Tech.

10:50-11:10 WeA15.5

Decentralized Robust Control Via Quadratically Invariant Model Projection, pp. 527-532.

Kim, Jong-Han	Stanford Univ.
Lall, Sanjay	Stanford Univ.
Merrill, Walt	Scientific Monitoring, Inc
Behbahani, Alireza	Air Force Res. Lab.

11:10-11:30 WeA15.6

Stability Analysis of Networked Control Systems with Asynchronous Sampling and Input Delay, pp. 533-538.

Seuret, Alexandre	CNRS

WeA16 Golden Gate 6

Mechanical Systems/Robotics I (Regular Session)

Chair: Nielsen, Christopher	Univ. of Waterloo
Co-Chair: Mukherjee, Ranjan	Michigan State Univ.

09:30-09:50 WeA16.1

Approximate Output Regulation for a Spherical Inverted Pendulum, pp. 539-544.

Postelnik, Leron	Univ. of Auckland
Liu, Guangyu	The Univ. of Auckland
Stol, Karl	Univ. of Auckland
Swain, Akshya	Univ. of Auckland

09:50-10:10 WeA16.2

A Study of Crane Operator Performance Comparing PD-Control and Input Shaping, pp. 545-550.

Vaughan, Joshua	Georgia Inst. of Tech.
Karajgikar, Ajeya	Georgia Inst. of Tech.
Singhose, William	Georgia Inst. of Tech.

10:10-10:30 WeA16.3

Path Following for Mechanical Systems: Experiments and Examples, pp. 551-556.

Hladio, Andre	Univ. of Waterloo
Nielsen, Christopher	Univ. of Waterloo
Wang, David	Univ. of Waterloo

10:30-10:50 WeA16.4

Fuzzy Control of a Four-Rope-Driven Level-Adjustment Robot Considering All Constrained Situations, pp. 557-562.

Zhang, Jianhong	Inst. of Automation, Chinese Acad. of Sciences
Yi, Jianqiang	China Acad. of Sciences
Tan, Xiangmin	Key Lab. of Complex SystemsandIntelligentScience,Inst.
Yu, Yi	Inst. of Automation, Chinese Acad. of Sciences

10:50-11:10 WeA16.5

Stable Grasping Control Method of Dual-Fingered Robot Hands for Force Angle Optimization and Position Regulation, pp. 563-569.

Song, Seung Kwan	Yonsei Univ.
Park, Jin Bae	Yonsei Univ.
Choi, Yoon Ho	Kyonggi Univ.

11:10-11:30	WeA16.6
Balance Maintenance of the Synthetic-Wheel Biped in the Presence of Impulsive Disturbances, pp. 570-575.	
Jafari, Rouhollah	Michigan State Univ.
Mukherjee, Ranjan	Michigan State Univ.

WeA17	Golden Gate 7
Smart Grid Challenges and Issues (Industrial Session)	
Chair: Khorrami, Farshad	Pol. Inst. of NYU
Co-Chair: Robinett, Rush	Sandia National Lab.
09:30-11:30	WeA17.1
*Panel Discussion**.	
Piasecki, Ray	General Electric
Godbole, Dattaprabodh N.	Honeywell Lab.
Amberkar, Sanket	Cisco Systems
Robinett, Rush	Sandia National Lab.
Fardanesh, Bruce	NY Power Authority

WeA18	Golden Gate 8
Control of Nanoscale Self-Assembly (Tutorial Session)	
Chair: Grover, Martha	Georgia Inst. of Tech.
Co-Chair: Shapiro, Benjamin	Univ. of Maryland
Organizer: Grover, Martha	Georgia Inst. of Tech.
Organizer: Shapiro, Benjamin	Univ. of Maryland
09:30-09:50	WeA18.1
*Direct Measurements of Tunable Interactions, Dynamics, and Structure in Microscopic Systems (I)**.	
Bevan, Michael	Johns Hopkins Univ.
09:50-10:10	WeA18.2
*Deterministic Nanoscale Control: Flow Control of Cells and Quantum Dots to Nanometer Precision (I)**.	
Shapiro, Benjamin	Univ. of Maryland
10:10-10:30	WeA18.3
*Stochastic Modeling of Micro and Nano Scale Many-Body Systems (I)**.	
Ford, David	Univ. of Massachusetts Amherst
10:30-10:50	WeA18.4
*Model Reduction and Stochastic Control of Many-Body Nanoscale Systems (I)**.	
Grover, Martha	Georgia Inst. of Tech.
10:50-11:30	WeA18.5
*Panel Discussion (I)**.	
Bevan, Michael	Johns Hopkins Univ.
Shapiro, Benjamin	Univ. of Maryland
Grover, Martha	Georgia Inst. of Tech.
Ford, David	Univ. of Massachusetts Amherst

WeB01	Franciscan A
Adaptive Control II (Regular Session)	
Chair: Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
Co-Chair: Liu, Yu	Cummins, Inc
13:10-13:30	WeB01.1
Neuroadaptive Fault-Tolerant Control of High Speed Trains with Input Nonlinearities and Actuator Failures (I), pp. 576-581.	
Song, Qi	Beijing Jiaotong Univ.
Song, Yong Duan	Beijing Jitao Univ.

13:30-13:50	WeB01.2
L1 Adaptive Controller for Quantized Systems, pp. 582-587.	
Sun, Hui	Univ. of Illinois, Urbana-Champaign
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
Basar, Tamer	Univ. of Illinois, Urbana-Champaign
13:50-14:10	WeB01.3
Adaptive Control for Focusing of Optical Drive Read/Write Heads, pp. 588-593.	
Tsao, Tsu-Chin	Univ. of California, Los Angeles
Gibson, James Steven	Univ. of California, Los Angeles
Chiu, Kuo-Chih	National Cheng Kung Univ. Tainan, TAIWAN
Chen, Shean-Jen	National Cheng Kung Univ.
14:10-14:30	WeB01.4
L1 Adaptive Controller for Nonlinear Reference Systems, pp. 594-599.	
Wang, Xiaofeng	Univ. of Illinois at Urbana-Champaign
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
14:30-14:50	WeB01.5
A Multivariable MRAC Design for Aircraft Systems under Failure and Damage Conditions, pp. 600-605.	
Guo, Jiaxing	Univ. of Virginia
Liu, Yu	Cummins, Inc
Tao, Gang	Univ. of Virginia
14:50-15:10	WeB01.6
A Discrete-Time Multivariable State Feedback MRAC Design with Application to Linearized Aircraft Models with Damage, pp. 606-611.	
Maiti, Deepyaman	Univ. of Virginia
Guo, Jiaxing	Univ. of Virginia
Tao, Gang	Univ. of Virginia

WeB02	Franciscan B
Stochastic Systems II (Regular Session)	
Chair: Basin, Michael V.	Autonomous Univ. of Nuevo Leon
Co-Chair: Yuksel, Serdar	Queen's Univ.
13:10-13:30	WeB02.1
Mean-Square Filter Design for Nonlinear Polynomial Systems with Poisson Noise, pp. 612-617.	
Basin, Michael V.	Autonomous Univ. of Nuevo Leon
Maldonado, Juan Jose	Autonomous Univ. of Nuevo León
13:30-13:50	WeB02.2
Discrete-Time Local Dynamic Programming, pp. 618-625.	
Berniker, Max	Northwestern Univ.
Kording, Konrad	Northwestern Univ.
13:50-14:10	WeB02.3
Mean-Square Joint State and Parameter Estimation for Uncertain Nonlinear Polynomial Stochastic Systems, pp. 626-631.	
Basin, Michael V.	Autonomous Univ. of Nuevo Leon
Loukianov, Alexander G.	CINVESTAV IPN GDI
Hernandez-Gonzalez, Miguel	Centro de investigacion y estudios avanzados
14:10-14:30	WeB02.4
Sliding Mode Mean-Module Filter Design for Polynomial Systems, pp. 632-636.	
Basin, Michael V.	Autonomous Univ. of Nuevo Leon
Rodriguez-Ramirez, Pablo Cesar	Autonomous Univ. of Nuevo Leon
14:30-14:50	WeB02.5
Optimization and Convergence of Observation Channels in Stochastic Control, pp. 637-642.	
Yuksel, Serdar	Queen's Univ.
Linder, Tamas	Queen's Univ.

14:50-15:10	WeB02.6
Risk-Sensitive Control under a Class of Denial-Of-Service Attack Models, pp. 643-648.	
Befekadu, Getachew	Univ. of Notre Dame
Gupta, Vijay	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame

WeB03	Franciscan C
Identification II (Regular Session)	
Chair: Novara, Carlo	Pol. di Torino
Co-Chair: Kahveci, Nazli E.	-

13:10-13:30	WeB03.1
Exact Topology Identification of Large-Scale Interconnected Dynamical Systems from Compressive Observations, pp. 649-656.	
Molazem Sanandaji, Borhan	Colorado School of Mines
Vincent, Tyrone L.	Colorado School of Mines
Wakin, Michael	Colorado School of Mines

13:30-13:50	WeB03.2
Frequency Identification of Nonparametric Hammerstein Systems with Backlash Nonlinearity, pp. 657-662.	
Brouri, Adil	EMI
Giri, Fouad	Univ. de Caen
Rochdi, Youssef	Univ. Cadi Ayyad/ FSTG /LSET
Chaoui, F.Z.	ENSET

13:50-14:10	WeB03.3
Sparse Identification of Nonlinear Functions and Parametric Set Membership Optimality Analysis, pp. 663-668.	
Novara, Carlo	Pol. di Torino

14:10-14:30	WeB03.4
Iterative Solutions for General Coupled Matrix Equations with Real Coefficients, pp. 669-674.	
Xie, Li	Jiangnan Univ.
Yang, Huizhong	Jiangnan Univ.
Liu, Yanjun	Jiangnan Univ.
Ding, Feng	Jiangnan Univ.

14:30-14:50	WeB03.5
A Rank Minimization Approach to Trajectory (In)Validation, pp. 675-680.	
Sznaier, Mario	Northeastern Univ.
Camps, Octavia I.	Northeastern Univ.

WeB04	Franciscan D
Education (Regular Session)	
Chair: Messner, William	Carnegie Mellon Univ.
Co-Chair: Goldsmith, Peter	Univ. of Calgary

13:10-13:30	WeB04.1
A Small-Scale Cherrypicker for Experimental and Educational Use, pp. 681-686.	
Pridgen, Brice	Georgia Inst. of Tech.
Maleki, Ehsan	Georgia Inst. of Tech.
Singhose, William	Georgia Inst. of Tech.
Seering, Warren	Massachusetts Inst. of Tech.
Glauser, Urs	Zurich Univ. of Applied Sciences
Kaufmann, Lukas	Zurich Univ. of Applied Sciences

13:30-13:50	WeB04.2
A Feasibility Assessment of Using Ultrasonic Sensor Position Feedback for a Ball-And-Beam Apparatus, pp. 687-692.	
Wieneke, Jacob	Kansas State Univ.
White, Warren N.	Kansas State Univ.

13:50-14:10	WeB04.3
Root Locus Design with Complex Proportional-Integral-Lead Compensation, pp. 693-698.	
Messner, William	Carnegie Mellon Univ.
Zhang, Qi	RWTH Aachen Univ.
14:10-14:30	WeB04.4
Rational Relations for Modelling and Analyzing LTI Systems, pp. 699-704.	
Goldsmith, Peter	Univ. of Calgary
14:30-14:50	WeB04.5
"Night Comes to the Cretaceous" and Other Tales of the Decibel, pp. 705-709.	
Messner, William	Carnegie Mellon Univ.
14:50-15:10	WeB04.6
The Matching Coefficients PID Controller, pp. 710-715.	
Hauksdottir, Anna Soffia	Univ. of Iceland
Sigurdsson, Sven Th.	Univ. of Iceland

WeB05	Continental 1
LPV Systems Control and Estimation (Invited Session)	
Chair: Mohammadpour, Javad	Univ. of Houston
Co-Chair: Tóth, Roland	Univ. of California at Berkeley
Organizer: Mohammadpour, Javad	Univ. of Houston
Organizer: Tóth, Roland	Delft Univ. of Tech.
Organizer: Farhood, Mazen	Virginia Tech.
13:10-13:30	WeB05.1
Robust Model Predictive Control for LPV Systems with Delayed State Using Relaxation Matrices (I), pp. 716-721.	
Jeong, Seong Cheol	Pohang Univ. of Science And Tech.
Ji, Dae Hyun	Mobile communication Div. Digital Media and Communications,
Lee, Sangmoon	Daegu Univ.
Won, Sangchul	Pohang Univ. of Science & Tech.
13:30-13:50	WeB05.2
Observer Synthesis for a Class of Descriptor LPV Systems (I), pp. 722-726.	
Astorga-Zaragoza, Carlos M.	CENIDET
Theilliol, Didier	Nancy Univ.
Ponsart, Jean-Christophe	Nancy Univ. - Univ. Henri Poincare
Rodrigues, Mickael	Univ. LYON 1
13:50-14:10	WeB05.3
Mixed Parametric/Unstructured LFT Modeling for Robust Controller Design (I), pp. 727-732.	
Pfifer, Harald	German Aerospace Center - DLR
Hecker, Simon	German Aerospace Center - DLR
14:10-14:30	WeB05.4
Freeway Ramp Metering: An LPV Set Theoretical Analysis (I), pp. 733-738.	
Luspay, Tamás	Computer and Automation Res. Inst. Hungarian Acad. of
Kulcsar, Balazs	Chalmers Univ. of Tech.
Peni, Tamas	Hungarian Acad. of Sciences
Varga, István	Systems and Control Lab.
14:30-14:50	WeB05.5
Structured Control of Affine Linear Parameter Varying Systems (I), pp. 739-744.	
Adegas, Fabiano Daher	Aalborg Univ.
Stoustrup, Jakob	Aalborg Univ.
14:50-15:10	WeB05.6
Flexible Aircraft Reduced-Order LPV Model Generation from a Set of Large-Scale LTI Models, pp. 745-750.	
Poussot-Vassal, Charles	ONERA
Roos, Clément	ONERA / DCSD

WeB06	Continental 2
Variable Structure II (Regular Session)	
Chair: Boiko, Igor	Univ. of Calgary
Co-Chair: Ashrafiuon, Hashem	Villanova Univ.
13:10-13:30	WeB06.1
Direct Control Based on Sliding Mode Techniques for Multicell Chopper, pp. 751-756.	
Amet, Leonardo	ENSEA, Ec.
Ghanes, Malek	ENSEA
Barbot, Jean Pierre	ENSEA
13:30-13:50	WeB06.2
Analysis of Chattering in Sliding Mode Control Systems with Continuous Boundary Layer Approximation of Discontinuous Control, pp. 757-762.	
Boiko, Igor	Univ. of Calgary
13:50-14:10	WeB06.3
Sliding Mode Observers for Sensorless Control of Current-Fed Induction Motors, pp. 763-768.	
Bullo, Daniele	Univ. degli Studi di Pavia
Ferrara, Antonella	Univ. of Pavia
Rubagotti, Matteo	Univ. of Trento
14:10-14:30	WeB06.4
Loop Gain Adjustment for Second Order Sliding Modes, pp. 769-774.	
Rosales Martínez, José Antonio	UNAM
Boiko, Igor	Univ. of Calgary
Fridman, Leonid M.	National Autonomous Univ. of Mexico
14:30-14:50	WeB06.5
Neuroadaptive Variable Structure Control of Mass Transit Trains, pp. 775-779.	
Gu, Qing	National Key Lab. of rail traffic control and safety,Beijing Jiao
Tang, Tao	Beijing Jiaotong Univ.
Song, Yong Duan	Beijing Jitao Univ.

WeB07	Continental 3
Fault Detection and Accomodation II (Regular Session)	
Chair: Martinez-Guerra, Rafael	CINVESTAV-IPN
Co-Chair: Savla, Ketan	Massachusetts Inst. of Tech.
13:10-13:30	WeB07.1
A Case Study in Robust Quickest Detection for Hidden Markov Models, pp. 780-785.	
Atwi, Aliaa	MIT
Savla, Ketan	Massachusetts Inst. of Tech.
Dahleh, Munther A.	Massachusetts Inst. of Tech.
13:30-13:50	WeB07.2
Computing Detection Delays in Industrial Alarm Systems, pp. 786-791.	
Adnan, Naseeb Ahmed	Univ. of Alberta
Izadi, Iman	Matrikon Inc.
Chen, Tongwen	Univ. of Alberta
13:50-14:10	WeB07.3
Model-Based Adaptive Frequency Estimator for Gear Crack Fault Detection, pp. 792-797.	
McDonald, Geoffrey Lyall	Univ. of Alberta
Zhao, Qing	Univ. of Alberta
14:10-14:30	WeB07.4
Optimal Partitioning of Ultrasonic Data for Fatigue Damage Detection, pp. 798-803.	
Singh, Dheeraj	Pennsylvania State Univ.
Sarkar, Soumik	Pennsylvania State Univ.
Gupta, Shalabh	Pennsylvania State Univ.
Ray, Asok	Pennsylvania State Univ.

14:30-14:50	WeB07.5
Integrated Fault Diagnosis and Robust Safe-Parking for Fault-Tolerant Control of Nonlinear Systems, pp. 804-809.	
Du, Miao	McMaster Univ.
Nease, Jake	McMaster Univ.
Mhaskar, Prashant	McMaster Univ.
14:50-15:10	WeB07.6
Fault Diagnosis in Nonlinear Dynamical Systems Based on Left Invertibility Condition: A Real–time Application to Three-Tank System, pp. 810-815.	
Mata, Juan Luis	CINVESTAV-IPN
Martinez-Guerra, Rafael	CINVESTAV-IPN
Rincon-Pasaye, Jose-Juan	CINVESTAV

WeB08	Continental 7
Nonlinear Systems II (Regular Session)	
Chair: Newman, Brett	Old Dominion Univ.
Co-Chair: Loria, Antonio	CNRS
13:10-13:30	WeB08.1
Multi-Variable Iterative Tuning of a Variable Gain Controller with Application to a Scanning Stage System, pp. 816-820.	
Heertjes, Marcel	Eindhoven Univ. of Tech.
Tepe, Tufan	eindhoven Univ. of Tech.
Nijmeijer, Hendrik	Eindhoven Univ. of Tech.
13:30-13:50	WeB08.2
Generalized Frequency Response of the Nonlinear Second Order System, pp. 821-826.	
Omran, Ashraf	Old Dominion Univ.
Newman, Brett	Old Dominion Univ.
13:50-14:10	WeB08.3
Rotational Motion Control Design for Cart-Pendulum System with Lebesgue Sampling, pp. 827-832.	
Ohsaki, Hiroshi	Tokyo Denki Univ.
Iwase, Masami	Tokyo Denki Univ.
Hatakeyama, Shoshiro	Tokyo Denki Univ.
14:10-14:30	WeB08.4
PD+ Based Output Feedback Attitude Control of Rigid Bodies with Improved Performance, pp. 833-838.	
Schlanbusch, Rune	Narvik Univ. Coll.
Loria, Antonio	CNRS
Kristiansen, Raymond	Narvik Univ. Coll.
Nicklasson, Per Johan	Narvik Univ. Coll.
14:30-14:50	WeB08.5
Computationally Implementable Sufficient Conditions for the Synchronisation of Coupled Dynamical Systems with Time Delays in the Coupling, pp. 839-844.	
August, Elias	ETH
Wang, Yongqiang	Univ. of California, Santa Barbara
Doyle, Francis	Univ. of California at Santa Barbara
Lu, James	ETHZ
Koeppl, Heinz	ETH Zuerich
14:50-15:10	WeB08.6
Can Thermodynamics Be Used to Design Control Systems?, pp. 845-850.	
Hui, Qing	Texas Tech. Univ.

WeB09	Continental 8
Hybrid Systems II (Regular Session)	
Chair: Almer, Stefan	ETH Zuerich
Co-Chair: Sanfelice, Ricardo G.	Univ. of Arizona

13:10-13:30	WeB09.1
Necessary and Sufficient Conditions for Quasiconvexity of a Class of Mixed-Integer Quadratic Programs with Applications in Hybrid MPC, pp. 851-856.	
Almer, Stefan	ETH Zuerich
Mariethoz, Sebastien	ETH Zurich
Morari, Manfred	ETH Zurich
13:30-13:50	WeB09.2
Complexity Reduction of Robust Model Predictive Controller for Uncertain Piecewise Affine Systems, pp. 857-862.	
Thomas, Jean	Beni-Suef Univ.
13:50-14:10	WeB09.3
Hybrid Output Regulation for Minimum Phase Linear Systems, pp. 863-868.	
Cox, Nicholas	Univ. of California, Santa Barbara
Teel, Andrew R.	Univ. of California at Santa Barbara
Marconi, Lorenzo	Univ. di Bologna
14:10-14:30	WeB09.4
Tracking Control for Hybrid Systems Via Embedding of Known Reference Trajectories, pp. 869-874.	
Sanfelice, Ricardo G.	Univ. of Arizona
Biemond, J. J. Benjamin	Eindhoven Univ. of Tech.
Van De Wouw, Nathan	Eindhoven Univ. of Tech.
Heemels, Maurice	Eindhoven Univ. of Tech.
14:30-14:50	WeB09.5
Synergistic Potential Functions for Hybrid Control of Rigid-Body Attitude, pp. 875-880.	
Mayhew, Christopher G.	Robert Bosch LLC
Teel, Andrew R.	Univ. of California at Santa Barbara
14:50-15:10	WeB09.6
Optimization of Multiagent Systems with Increasing State Dimensions: Hybrid LQ Approach, pp. 881-887.	
Galván Guerra, Rosalba	CINVESTAV-IPN Zacatenco
Azhmyakov, Vadim	CINVESTAV
Egerstedt, Magnus	Georgia Inst. of Tech.

WeB10	Continental 9
Optimal Control II (Regular Session)	
Chair: Rodrigues, Luis	Concordia Univ.
Co-Chair: Chung, Hoam	Monash Univ.
13:10-13:30	WeB10.1
Optimal Periodic Patrolling Trajectories of UUVs Guarding a Channel, pp. 888-893.	
Chung, Hoam	Monash Univ.
Polak, Elijah	Univ. of California
Royset, Johannes	Univ. of California
Sastry, Shankar	Univ. of California at Berkeley
13:30-13:50	WeB10.2
Dynamic Disturbance Attenuation and Approximate Optimal Control for Fully Actuated Mechanical Systems, pp. 894-899.	
Sassano, Mario	Imperial Coll. London
Astolfi, Alessandro	Imperial Coll. & Univ. of Rome
13:50-14:10	WeB10.3
Optimal Control of a Third Order Nonlinear System Based on an Inverse Optimality Method, pp. 900-904.	
Abedinpour Fallah, Mehdi	Concordia Univ.
Rodrigues, Luis	Concordia Univ.
14:10-14:30	WeB10.4
Optimal Reachability Sets Using Generalized Independent Parameters, pp. 905-912.	
Holzinger, Marcus	Univ. of Colorado at Boulder
Scheeres, Daniel	The Univ. of Colorado
Hauser, John	Univ. of Colorado at Boulder

14:30-14:50	WeB10.5
LQR Performance Index Distribution with Uncertain Boundary Conditions, pp. 913-920.	
Holzinger, Marcus	Univ. of Colorado at Boulder
Scheeres, Daniel	The Univ. of Colorado
14:50-15:10	WeB10.6
Optimal Boundary Control & Estimation of Diffusion-Reaction PDEs, pp. 921-928.	
Moura, Scott	Univ. of Michigan, Ann Arbor
Fathy, Hosam K.	Penn State Univ.

WeB11	Golden Gate 1
Modeling, Estimation, and Control of Batteries for HEV, PHEV, and EV Applications II (Invited Session)	
Chair: Chaturvedi, Nalin A.	Robert Bosch LLC
Co-Chair: Krstic, Miroslav	Univ. of California, San Diego
Organizer: Chaturvedi, Nalin A.	Robert Bosch LLC
Organizer: Krstic, Miroslav	Univ. of California, San Diego
13:10-13:30	WeB11.1
Robust Demand-Side Plug-In Electric Vehicle Load Control for Renewable Energy Management (I), pp. 929-934.	
Bashash, Saeid	The Univ. of Michigan
Fathy, Hosam K.	Penn State Univ.
13:30-13:50	WeB11.2
Online Estimation of an Electric Vehicle Lithium-Ion Battery Using Recursive Least Squares with Forgetting (I), pp. 935-940.	
Hu, Xiaosong	Univ. of michigan
Sun, Feng-chun	Beijing Inst. of Tech.
Zou, Yuan	Beijing Inst. of Tech.
Peng, Huei	Univ. of Michigan
13:50-14:10	WeB11.3
Li-Ion Battery Parameter Estimation for State of Charge (I), pp. 941-946.	
Tang, Xidong	General Motors
Mao, Xiaofeng	General Motors
Lin, Jian	Chrysler Group, LLC
Koch, Brian	General Motors
14:10-14:30	WeB11.4
Capacity Estimation for Li-Ion Batteries (I), pp. 947-952.	
Tang, Xidong	General Motors
Mao, Xiaofeng	General Motors
Lin, Jian	Chrysler Group, LLC
Koch, Brian	General Motors
14:30-14:50	WeB11.5
Battery Swapping Modularity Design for Plug-In HEVs Using the Augmented Lagrangian Decomposition Method, pp. 953-958.	
Li, Shifang	Univ. of Michigan
Kolmanovsky, Ilya V.	The Univ. of Michigan
Ulsoy, A. Galip	Univ. of Michigan
14:50-15:10	WeB11.6
PDE Model for Thermal Dynamics of a Large Li-Ion Battery Pack (I), pp. 959-964.	
Smyshlyaev, Andrey	Univ. of California at San Diego
Krstic, Miroslav	Univ. of California, San Diego
Chaturvedi, Nalin A.	Robert Bosch LLC
Ahmed, Jasim	Program Manager
Kojic, Aleksandar	Robert Bosch Res. and Tech. Center

WeB12	Golden Gate 2
Powertrain Systems Modeling and Control (Invited Session)	
Chair: Mohammadpour, Javad	Univ. of Houston
Co-Chair: Di Cairano, Stefano	Ford Motor Company
Organizer: Mohammadpour, Javad	Univ. of Houston
Organizer: Onori, Simona	Ohio State Univ.
Organizer: Karnik, Amey	Ford Motor Company
Organizer: Vermillion, Christopher	Altaeros Energies
Organizer: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.
13:10-13:30	WeB12.1
Cycle-To-Cycle Estimation and Control of Multiple Pulse Profiles for a Piezoelectric Fuel Injector (I), pp. 965-972.	
Satkoski, Chris	Purdue Univ.
Biggs, Scott	Purdue Univ.
Shaver, Gregory M.	Purdue Univ.
Ruikar, Neha	Purdue Univ.
13:30-13:50	WeB12.2
A Two-Zone Control Oriented SI-HCCI Hybrid Combustion Model for the HIL Engine Simulation (I), pp. 973-978.	
Yang, Xiaojian	Michigan State Univ.
Zhu, Guoming	Michigan State Univ.
13:50-14:10	WeB12.3
Modeling and Control of an Electric Variable Valve Timing System for SI and HCCI Combustion Mode Transition (I), pp. 979-984.	
Ren, Zhen	Michigan State Univ.
Zhu, Guoming	Michigan State Univ.
14:10-14:30	WeB12.4
A Survey on Diagnostics Methods for Automotive Engines (I), pp. 985-990.	
Mohammadpour, Javad	Univ. of Houston
Franchek, Matthew A.	Univ. of Houston
Grigoriadis, Karolos M.	Univ. of Houston
14:30-14:50	WeB12.5
A Model-Based Methodology for Estimating Engine Cylinder Pressure Imbalance for Combustion Feedback Control Applications (I), pp. 991-996.	
Al-Durra, Ahmed	The Ohio State Univ.
Fiorentini, Lisa	The Ohio State Univ.
Canova, Marcello	The Ohio State Univ.
Yurkovich, Stephen	Univ. of Texas at Dallas
14:50-15:10	WeB12.6
Hybrid Powertrain Control with a Rapid Prototyping Research Platform (I), pp. 997-1002.	
Wang, Yu	Univ. of Minnesota -twin cities
Song, Xingyong	Univ. of Minnesota, Twin Cities
Sun, Zongxuan	Univ. of Minnesota

WeB13	Golden Gate 3
Aerospace II (Regular Session)	
Chair: Sasiadek, Jurek Z	Carleton Univ.
Co-Chair: Kolmanovsky, Ilya V.	The Univ. of Michigan
13:10-13:30	WeB13.1
On the Non-Robustness of Inconsistent Quaternion-Based Attitude Control Systems Using Memoryless Path-Lifting Schemes, pp. 1003-1008.	
Mayhew, Christopher G.	Robert Bosch LLC
Sanfelice, Ricardo G.	Univ. of Arizona
Teel, Andrew R.	Univ. of California at Santa Barbara

13:30-13:50	WeB13.2
A Stochastic Drift Counteraction Optimal Control Approach to Glider Flight Management, pp. 1009-1014.	
Kolmanovsky, Ilya V.	The Univ. of Michigan
Menezes, Amor A.	Univ. of Michigan

13:50-14:10	WeB13.3
Adaptive Attitude Control for a Small Satellite with Integrated Singularity Avoidance and Momentum Management, pp. 1015-1020.	
Kim, Dohee	Univ. of Florida
Leve, Frederick	Air Force Res. Lab.
Fitz-Coy, Norman	Univ. of Florida
Dixon, Warren E.	Univ. of Florida

14:10-14:30	WeB13.4
Extended Kalman Filtering for Flexible Joint Space Robot Control, pp. 1021-1026.	
Ulrich, Steve	Carleton Univ.
Sasiadek, Jurek Z	Carleton Univ.

14:30-14:50	WeB13.5
Inertial Measurements Based Dynamic Attitude Estimation and Velocity-Free Attitude Stabilization, pp. 1027-1032.	
Tayebi, Abdelhamid	Lakehead Univ.
Roberts, Andrew	Univ. of Western Ontario
Benallegue, Abdelaziz	Univ. of Versailles St Quentin

14:50-15:10	WeB13.6
Vision Based Trajectory Tracking of Space Debris in Close Proximity Via Integrated Estimation and Control, pp. 1033-1038.	
Li, Ni	Univ. of Central Florida
Xu, Yunjun	Univ. of Central Florida
Basset, Gareth	Univ. of Central Florida
Fitz-Coy, Norman	Univ. of Florida

WeB14	Golden Gate 4
Cooperative Control II (Regular Session)	
Chair: Hovareshti, Pedram	Univ. of Maryland
Co-Chair: Morbidi, Fabio	Northwestern Univ.

13:10-13:30	WeB14.1
Self-Triggered Coordination of Robotic Networks for Optimal Deployment, pp. 1039-1044.	
Nowzari, Cameron	Univ. of California, San Diego
Cortes, Jorge	Univ. of California, San Diego

13:30-13:50	WeB14.2
UAV Flocking with Wind Gusts: Adaptive Topology and Model Reduction, pp. 1045-1050.	
Chapman, Airlie	Univ. of Washington
Mesbahi, Mehran	Univ. of Washington

13:50-14:10	WeB14.3
Motif-Based Communication Network Formation for Task Specific Collaboration in Complex Environments, pp. 1051-1056.	
Baras, John S.	Univ. of Maryland
Hovareshti, Pedram	Univ. of Maryland
Chen, Hua	Univ. of Maryland, Coll. Park

14:10-14:30	WeB14.4
Adaptive Backstepping-Based Synchronization of Networked Uncertain Lagrangian Systems, pp. 1057-1062.	
Zhang, Wenlin	Stevens Inst. of Tech.
Wang, Zheng	Stevens Inst. Tech.
Guo, Yi	Stevens Inst. of Tech.

14:30-14:50	WeB14.5
A Distributed Control for Multiple Photovoltaic Generators in Distribution Networks, pp. 1063-1068.	
Xin, Huanhai	Zhejiang Univ.
Qu, Zhihua	Univ. of Central Florida

Chen, Lin	Hangzhou Municipal beaurea of Electric Power
Qi, Donglian	Coll. of Electrical Engineering, Zhejiang Univ.
Gan, Deqiang	Zhejiang Univ.
Lu, Zehan	Coll. of Electrical Engineering, Zhejiang Univ.

14:50-15:10 WeB14.6

Estimation and Control of UAV Swarms for Distributed Monitoring Tasks, pp. 1069-1075.

Morbidi, Fabio	Univ. of Texas at Arlington
Freeman, Randy	Northwestern Univ.
Lynch, Kevin M.	Northwestern Univ.

WeB15 Golden Gate 5

Networked Control Systems II (Regular Session)

Chair: Egerstedt, Magnus	Georgia Inst. of Tech.
Co-Chair: Olfati-Saber, Reza	Dartmouth Coll.

13:10-13:30 WeB15.1

Network Discovery: An Estimation Based Approach, pp. 1076-1081.

Chowdhary, Girish	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
Johnson, Eric N.	Georgia Inst. of Tech.

13:30-13:50 WeB15.2

Hierarchical Assembly of Leader-Asymmetric, Single-Leader Networks, pp. 1082-1087.

Abbas, Waseem	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.

13:50-14:10 WeB15.3

A Note to Robustness Analysis of the Hybrid Consensus Protocols, pp. 1088-1093.

Zhang, Haopeng	Texas Tech. Univ.
Mullen, Sean	Texas Tech. Univ.
Hui, Qing	Texas Tech. Univ.

14:10-14:30 WeB15.4

Adaptive Stabilization of Model-Based Networked Control Systems, pp. 1094-1099.

Garcia, Eloy	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame

14:30-14:50 WeB15.5

Collaborative Target Tracking Using Distributed Kalman Filtering on Mobile Sensor Networks, pp. 1100-1105.

Olfati-Saber, Reza	Dartmouth Coll.
Jalalkamali, Parisa	Dartmouth Coll.

14:50-15:10 WeB15.6

An Innovative Packet-Splitting Approach for Kalman Filtering Over Lossy Networks, pp. 1106-1111.

Wu, Junfeng	Hong Kong Univ. of Science and Tech.
Shi, Ling	Hong Kong Univ. of Science and Tech.
Xie, Lihua	Nanyang Tech. Univ.

WeB16 Golden Gate 6

Mechanical Systems/Robotics II (Regular Session)

Chair: Yu, Wen	CINVESTAV-IPN
Co-Chair: Polat, Ilhan	Delft Univ. of Tech.

13:10-13:30 WeB16.1

Unified Approach to Trajectory Tracking and Set-Point Control for a Front-Axle Driven Car-Like Mobile Robot, pp. 1112-1117.

Michalek, Maciej	Poznan Univ. of Tech.
Kozlowski, Krzysztof R.	Poznan Univ. of Tech.

13:30-13:50	WeB16.2
A Grasping Force Optimization Algorithm with Dynamic Torque Constraints for Multi-Fingered Robotic Hands, pp. 1118-1123.	
Lippiello, Vincenzo	Univ. di Napoli Federico II
Siciliano, Bruno	Univ. degli Studi di Napoli Federico II
Villani, Luigi	Univ. di Napoli Federico II
13:50-14:10	WeB16.3
PID Admittance Control for an Upper Limb Exoskeleton, pp. 1124-1129.	
Yu, Wen	CINVESTAV-IPN
Rosen, Jacob	Univ. of California Santa Cruz
Li, Xiaoou	CINVESTAV-IPN
14:10-14:30	WeB16.4
Experimental Evaluation of Model Predictive Control of Ball and Beam Systems, pp. 1130-1132.	
Hara, Naoyuki	Osaka Prefecture Univ.
Takahashi, Masaaki	Osaka Prefecture Univ.
Konishi, Keiji	Osaka Prefecture Univ.
14:30-14:50	WeB16.5
Bilateral Control of Master-Slave Manipulators with Constant Time Delay, pp. 1133-1138.	
Forouzantabar, Ahmad	Science and Res. Branch, Islamic Azad Univ.
Talebi, H.A.	Amirkabir Univ.
Khaki Sedigh, Ali	K.N. Toosi Univ. of Tech.
14:50-15:10	WeB16.6
Stability Analysis of Bilateral Teleoperation Systems with Time-Varying Environments, pp. 1139-1144.	
Polat, Ilhan	Delft Univ. of Tech.

WeB17	Golden Gate 7
Smart Grid and Demonstration Projects (Industrial Session)	
Chair: Schoenwald, David A.	Sandia National Lab.
Co-Chair: Genc, Sahika	General Electric Global Res. Center
13:10-13:30	WeB17.1
*Pacific Northwest Smart Grid Demonstration Project – Transactive Energy Control**.	
Melton, Ronald B.	Battelle – Pacific Northwest Division
13:30-13:50	WeB17.2
*Smart Grid Demonstration Projects - a View from Boeing**.	
Overman, Thomas	The Boeing Company
Sackman, Ronald	Boeing
Henley, Mark	Boeing
13:50-14:10	WeB17.3
A Coordinated Optimization Approach to Volt/VAr Control for Large Power Distribution Networks, pp. 1145-1150.	
Krok, Michael J	General Electric Global Res.
Genc, Sahika	General Electric Global Res. Center
14:10-14:30	WeB17.4
*Use of Commercial and Industrial Loads for Ancillary Services**.	
Koch, Edward	Honeywell
14:30-14:50	WeB17.5
The Use of Electric Circuit Simulation for Power Grid Dynamics, pp. 1151-1156.	
Schoenwald, David A.	Sandia National Lab.
Munoz-Ramos, Karina	Sandia National Lab.
McLendon, William	Sandia National Lab.
Russo, Thomas	Sandia National Lab.
14:50-15:10	WeB17.6
*Dynamic Smart Energy and Power Systems Research and Development**.	
Brouwer, Jack	National Fuel Cell Res. Center, Univ. of California at Irvine
Mueller, Fabian	Univ. of California, Irvine

WeB18	Golden Gate 8
In Situ Sensing, Metrology, and Control in Semiconductor Manufacturing (Tutorial Session)	
Chair: Grover, Martha	Georgia Inst. of Tech.
Co-Chair: Edgar, Thomas F.	Univ. of Texas at Austin
Organizer: Grover, Martha	Georgia Inst. of Tech.
Organizer: Edgar, Thomas F.	Univ. of Texas at Austin
13:10-13:50	WeB18.1
*In Situ Sensing, Metrology, and Control in Semiconductor Manufacturing -- Overview (I)**.	
Edgar, Thomas F.	Univ. of Texas at Austin
13:50-14:10	WeB18.2
*Virtual Metrology and Yield Prediction (I)**.	
Moyne, James	Univ. of Michigan
14:10-14:30	WeB18.3
*Estimation Methods for in Situ Optical Sensing (I)**.	
Grover, Martha	Georgia Inst. of Tech.
14:30-14:50	WeB18.4
*Estimation in High-Mix Production Environments (I)**.	
Vincent, Tyrone L.	Colorado School of Mines
Poolla, Kameshwar	Univ. of California at Berkeley
14:50-15:10	WeB18.5
Panel Discussion	

WeC01	Franciscan A
Adaptive Control III (Regular Session)	
Chair: Ariyur, Kartik B.	Purdue Univ.
Co-Chair: Tao, Gang	Univ. of Virginia
15:30-15:50	WeC01.1
Adaptive Control of Piecewise Linear Systems with Applications to NASA GTM, pp. 1157-1162.	
Sang, Qian	Univ. of Virginia
Tao, Gang	Univ. of Virginia
15:50-16:10	WeC01.2
Output Feedback Adaptive Stabilization and Command Following for Minimum Phase Dynamical Systems with Unmatched Uncertainties, pp. 1163-1168.	
Yucelen, Tansel	Georgia Inst. of Tech.
Haddad, Wassim M.	Georgia Inst. of Tech.
16:10-16:30	WeC01.3
Self-Organizing Approximation Based Control with L1 Transient Performance Guarantees, pp. 1169-1175.	
Farrell, Jay	Univ. of California Riverside
Chen, Yiming	Univ. of California, Riverside
16:30-16:50	WeC01.4
On the Extremum Seeking of Model Reference Adaptive Control in Higher-Dimensional Systems, pp. 1176-1181.	
Haghi, Poorya	Purdue Univ.
Ariyur, Kartik B.	Purdue Univ.
16:50-17:10	WeC01.5
L1 Adaptive Output Feedback Controller for Minimum Phase Systems, pp. 1182-1187.	
Kharisov, Evgeny	Univ. of Illinois at Urbana-Champaign (UIUC)
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign

17:10-17:30 WeC01.6

Retrospective Cost Adaptive Control for Nonminimum-Phase Systems with Uncertain Nonminimum-Phase Zeros Using Convex Optimization, pp. 1188-1193.

Morozov, Alexey — Univ. of Michigan
D'Amato, Anthony — Univ. of Michigan
Hoagg, Jesse B. — Univ. of Kentucky
Bernstein, Dennis S. — Univ. of Michigan

WeC02 Franciscan B

Algebraic and Geometric Methods (Regular Session)

Chair: Menini, Laura — Univ. di Roma 'Tor Vergata'
Co-Chair: Zattoni, Elena — Univ. of Bologna

15:30-15:50 WeC02.1

Symmetries and First Integrals for Nonlinear Discrete-Time Systems, pp. 1194-1199.

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

15:50-16:10 WeC02.2

Geometric Tracking Control of the Attitude Dynamics of a Rigid Body on SO(3), pp. 1200-1205.

Lee, Taeyoung — Florida Inst. of Tech.

16:10-16:30 WeC02.3

On a Sufficient Condition for Observability of Nonlinear Switched Systems and Observer Design Strategy, pp. 1206-1211.

Shim, Hyungbo — Seoul National Univ.
Tanwani, Aneel — Univ. of Illinois at Urbana-Champaign

16:30-16:50 WeC02.4

Geometric Methods for Invariant Zero Cancellation in Discrete-Time Non-Strictly-Proper Linear Multivariable Systems, pp. 1212-1217.

Marro, Giovanni — Univ. of Bologna
Zattoni, Elena — Univ. of Bologna

16:50-17:10 WeC02.5

Polytopic Control Invariant Sets for Differential Inclusion Systems: A Viability Theory Approach, pp. 1218-1223.

Fiacchini, Mirko — LAAS-CNRS Toulouse
Tarbouriech, Sophie — LAAS-CNRS
Prieur, Christophe — Gipsa-Lab.

WeC03 Franciscan C

Identification III (Regular Session)

Chair: Yamakita, Masaki — Tokyo Inst. of Tech.
Co-Chair: Lagoa, Constantino M. — Pennsylvania State Univ.

15:30-15:50 WeC03.1

A Robust-Control-Relevant Perspective on Model Order Selection, pp. 1224-1229.

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

15:50-16:10 WeC03.2

An Improved Algebraic Geometric Solution to the Identification of Switched ARX Models with Noise, pp. 1230-1235.

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

16:10-16:30 WeC03.3

Input Design for Hybrid System Identification for Accurate Estimation of Submodel Regions, pp. 1236-1241.

Suzuki, Hiroshi — Tokyo Inst. of Tech.
Yamakita, Masaki — Tokyo Inst. of Tech.

16:30-16:50	WeC03.4
Consistent Identification of Hammerstein Systems Using an Ersatz Nonlinearity, pp. 1242-1246.	
Ali, Asad	Univ. of Michigan
D'Amato, Anthony	Univ. of Michigan
Holzel, Matthew	Univ. of Michigan
Kukreja, Sunil, L.	NASA Dryden Flight Res. Center
Bernstein, Dennis S.	Univ. of Michigan
16:50-17:10	WeC03.5
Hammerstein Systems Parameters Bounding through Sparse Polynomial Optimization, pp. 1247-1252.	
Cerone, Vito	Pol. di Torino
Piga, Dario	Pol. di Torino
Regruto, Diego	Pol. di Torino
17:10-17:30	WeC03.6
Identifying Stable Fixed Order Systems from Time and Frequency Response Data, pp. 1253-1259.	
Feng, Chao	Pennsylvania State Univ.
Lagoa, Constantino M.	Pennsylvania State Univ.
Sznaier, Mario	Northeastern Univ.

WeC04	Franciscan D
Sensor Fusion (Regular Session)	
Chair: Gans, Nicholas	Univ. of Texas at Dallas
Co-Chair: Hussein, Islam	Worcester Pol. Inst.
15:30-15:50	WeC04.1
Navigation System for Ground Vehicles Using Temporally Interconnected Observers, pp. 1260-1267.	
Bristeau, Pierre-Jean	MINES ParisTech
Petit, Nicolas	MINES ParisTech
15:50-16:10	WeC04.2
Categorical Soft Data Fusion Via Variational Bayesian Importance Sampling, with Applications to Cooperative Search, pp. 1268-1273.	
Ahmed, Nisar R.	Cornell Univ.
Sample, Eric	Cornell Univ.
Ho, Ken	Univ. of Sydney
Hoossainy, Tauhira	Cornell Univ.
Campbell, Mark E.	Cornell Univ.
16:10-16:30	WeC04.3
Information Fusion for Object & Situation Assessment in Sensor Networks, pp. 1274-1279.	
Srivastav, Abhishek	United Tech. Res. Center
Wen, Yicheng	Penn State Univ.
Hendrick, Evan	Pennsylvania State Univ.
Chattopadhyay, Ishanu	Penn State
Ray, Asok	Pennsylvania State Univ.
Phoha, Shashi	Pennsylvania State Univ.
16:30-16:50	WeC04.4
Multiple Vehicle Bayesian-Based Domain Search with Intermittent Information Sharing, pp. 1280-1285.	
Wang, Yue	Worcester Pol. Inst.
Hussein, Islam	Worcester Pol. Inst.
16:50-17:10	WeC04.5
On Sensor Fusion for Head Tracking in Augmented Reality Applications, pp. 1286-1291.	
Ercan, Ali	Ozyegin Univ.
Erdem, A. Tanju	Ozyegin Univ.

17:10-17:30 WeC04.6

Localization through Fusion of Discrete and Continuous Epipolar Geometry with Wheel and IMU Odometry, pp. 1292-1298.

Shen, Jinglin — Univ. of Texas at Dallas
Tick, David — Univ. of Texas at Dallas
Gans, Nicholas — Univ. of Texas at Dallas

WeC05 Continental 1

LMI and LPV Applications (Regular Session)

Chair: Pagilla, Prabhakar R. — Oklahoma State Univ.
Co-Chair: Koroglu, Hakan — King Fahd Univ. of Petroleum and Minerals

15:30-15:50 WeC05.1

A Descriptor System Approach to Estimating Domain of Attraction for Non-Polynomial Systems Via LMI Optimizations, pp. 1299-1304.

Ichihara, Hiroyuki — Meiji Univ.

15:50-16:10 WeC05.2

Improved Conditions for Reduced-Order H-Infinity Filter Design As a Static Output Feedback Problem, pp. 1305-1310.

Borges, Renato A. — Univ. of Campinas
R. Calliero, Taís — Univ. of Campinas
Oliveira, Ricardo C. L. F. — Univ. of Campinas - UNICAMP
Peres, Pedro L. D. — Univ. of Campinas

16:10-16:30 WeC05.3

Robust Nonlinear Least Squares Via Consecutive LMI Optimizations, pp. 1311-1312.

Koroglu, Hakan — King Fahd Univ. of Petroleum and Minerals
Weiland, Siep — Eindhoven Univ. of Tech.

16:30-16:50 WeC05.4

On Higher Order Derivatives of Lyapunov Functions, pp. 1313-1314.

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

16:50-17:10 WeC05.5

Linear Parameter Varying Controllers for the ADMIRE Aircraft Longitudinal Dynamics, pp. 1315-1320.

Ameho, Yann — ISAE-SUPAERO
Prempain, Emmanuel — Univ. of Leicester

17:10-17:30 WeC05.6

Input-State Model Matching for Multirate Systems, pp. 1321-1326.

Cimino, Mauro — Oklahoma State Univ.
Pagilla, Prabhakar R. — Oklahoma State Univ.

WeC06 Continental 2

Control Applications I (Regular Session)

Chair: Johnson, Kathryn — Colorado School of Mines
Co-Chair: Bohn, Christian — Tech. Univ. Clausthal

15:30-15:50 WeC06.1

Global TCF Based Contouring Controller Design for an Industrial Biaxial Precision Gantry with Accurate Parameter Estimations, pp. 1327-1332.

Hu, Chuxiong — Zhejiang Univ.
Yao, Bin — Purdue Univ.
Wang, Qingfeng — Zhejiang Univ.

15:50-16:10 WeC06.2

Combined State-Parameter Estimation for Shallow Water Equations, pp. 1333-1339.

Rafiee, Mohammad — Univ. of California, Berkeley
Tinka, Andrew — Univ. of California at Berkeley
Thai, Jerome — Columbia Univ.
Bayen, Alexandre M. — Univ. of California at Berkeley

16:10-16:30	WeC06.3
A Frequency-Tunable LPV Controller for Narrowband Active Noise and Vibration Control, pp. 1340-1345.	
Ballesteros, Pablo	Inst. of Electrical Information Tech.
Bohn, Christian	Tech. Univ. Clausthal
16:30-16:50	WeC06.4
A Holistic and Optimal Approach for Data Center Cooling Management, pp. 1346-1351.	
Zhou, Rongliang	Hewlett-Packard Company
Wang, Zhikui	Hewlett-Packard Company
Bash, Cullen	Hewlett-Packard Company
McReynolds, Alan	Hewlett-Packard Company
Hoover, Christopher	Google
Shih, Rocky	Hewlett-Packard Company
Kumari, Niru	Hewlett-Packard Company
Sharma, Ratnesh	NEC Lab. America, Inc.
16:50-17:10	WeC06.5
Thermodynamics-Based Optimization and Control of Vapor-Compression Cycle Operation: Optimization Criteria, pp. 1352-1357.	
Jain, Neera	Univ. of Illinois, Urbana-Champaign
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
17:10-17:30	WeC06.6
Actuator Sizing of a Quadruple Pendulum for Advanced Gravitational Wave Detectors, pp. 1358-1363.	
Shapiro, Brett	Massachusetts Inst. of Tech.
Mavalvala, Nergis	Massachusetts Inst. of Tech.
Youcef-Toumi, Kamal	Massachusetts Inst. of Tech.

WeC07	Continental 3
Fault Detection and Accomodation III (Regular Session)	
Chair: Zak, Stanislaw H.	Purdue Univ.
Co-Chair: Edwards, Christopher	Univ. of Leicester
15:30-15:50	WeC07.1
Unknown Input and Sensor Fault Estimation Using Sliding-Mode Observers, pp. 1364-1369.	
Kalsi, Karanjit	Pacific Northwest National Lab.
Hui, Stefen	San Diego State Univ.
Zak, Stanislaw H.	Purdue Univ.
15:50-16:10	WeC07.2
Reconstruction of Actuator Fault for a Class of Nonlinear Systems Using Sliding Mode Observer, pp. 1370-1375.	
Zhang, Jian	The Univ. of Auckland
Swain, Akshya	Univ. of Auckland
Nguang, Sing Kiong	The Univ. of Auckland
16:10-16:30	WeC07.3
A Game Theoretic Multiple-Fault Detection Filter, pp. 1376-1383.	
Murray, Emmanuell	Univ. of California - Los Angeles
Speyer, Jason L.	Univ. of California at Los Angeles
16:30-16:50	WeC07.4
Oscillatory Failure Case Detection for Aircraft Using an Adaptive Sliding Mode Differentiator Scheme, pp. 1384-1389.	
Alwi, Halim	Univ. of Leicester
Edwards, Christopher	Univ. of Leicester
16:50-17:10	WeC07.5
Performance Metrics for Fault Detection and Isolation Filters, pp. 1390-1395.	
Pandita, Rohit	Univ. of Minnesota
Balas, Gary J.	Univ. of Minnesota
Bokor, Jozsef	MTA SZTAKI Hungarian Acad. of Sciences

17:10-17:30 WeC07.6

Fault Detection and Diagnosis of an Electrohydrostatic Actuator Using a Novel Interacting Multiple Model Approach, pp. 1396-1401.

Gadsden, Stephen Andrew — McMaster Univ.
McCullough, Kevin — McMaster Univ.
Habibi, Saeid — McMaster Univ.

WeC08 Continental 7

Nonlinear Systems III (Regular Session)

Chair: Malisoff, Michael — Louisiana State Univ.
Co-Chair: Iwase, Masami — Tokyo Denki Univ.

15:30-15:50 WeC08.1

Computation of Limit Cycles in Lur'e System, pp. 1402-1407.

Iannelli, Luigi — Univ. of Sannio in Benevento
Vasca, Francesco — Univ. of Sannio
Sessa, Valentina — Univ. of Sannio

15:50-16:10 WeC08.2

Improving Transient Stability of Multi–Machine Power Systems: Synchronization Via Immersion of a Pendular System, pp. 1408-1413.

Dib, Wissam — IFP New Energy
Ortega, Romeo — LSS-SUPELEC
Astolfi, Alessandro — Imperial Coll. & Univ. of Rome
Hill, David J. — The Australian National Univ.

16:10-16:30 WeC08.3

Controller Design for Nonlinear Systems Using the Robust Controller Bode (RCBode) Plot, pp. 1414-1419.

Taylor, Jd — Carnegie Mellon Univ.
Messner, William — Carnegie Mellon Univ.

16:30-16:50 WeC08.4

Invariance Kernels of Single-Input Planar Nonlinear Systems, pp. 1420-1425.

Maggiore, Manfredi — Univ. of Toronto
Rawn, Barry — Delft Univ. of Tech.
Lehn, Peter — Univ. of Toronto

16:50-17:10 WeC08.5

Piecewise Smooth Approximate Solutions to the Nonlinear Output Regulation PDE, pp. 1426-1427.

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

17:10-17:30 WeC08.6

On Tracking for the PVTOL Model with Bounded Feedbacks, pp. 1428-1433.

Gruszka, Aleksandra — Louisiana State Univ.
Malisoff, Michael — Louisiana State Univ.
Mazenc, Frederic — Projet INRIA DISCO

WeC09 Continental 8

Stability of Hybrid Systems (Regular Session)

Chair: Cai, Chaohong — United Tech. Res. Center
Co-Chair: Daafouz, Jamal — CRAN, UMR CNRS - Nancy Univ.

15:30-15:50 WeC09.1

Dwell-Time Approach to Input-Output Stability Properties for Discrete-Time Linear Hybrid Systems, pp. 1434-1439.

Cai, Chaohong — Pratt & Whitney

15:50-16:10 WeC09.2

Stability of Switched Block Upper-Triangular Linear Systems with Bounded Switching Delay: Application to Large Distributed Systems, pp. 1440-1445.

Matni, Nikolai — Caltech
Oishi, Meeko — Univ. of British Columbia

16:10-16:30	WeC09.3
Stability of a Class of Linear Switching Systems with Applications to Two Consensus Problems, pp. 1446-1451.	
Su, Youfeng	The Chinese Univ. of Hong Kong
Huang, Jie	The Chinese Univ. of Hong Kong
16:30-16:50	WeC09.4
Ellipsoidal Invariant Sets for Saturated Hybrid Systems, pp. 1452-1457.	
Fiacchini, Mirko	LAAS-CNRS Toulouse
Tarbouriech, Sophie	LAAS-CNRS
Prieur, Christophe	Gipsa-Lab.
16:50-17:10	WeC09.5
Stability of Switched Stochastic Dynamical Systems Driven by Brownian Motion and Markov Modulated Compound Poisson Process, pp. 1458-1463.	
Cetinkaya, Ahmet	Tokyo Inst. of Tech.
Hayakawa, Tomohisa	Tokyo Inst. of Tech.
17:10-17:30	WeC09.6
Stability of Planar Singularly Perturbed Switched Systems, pp. 1464-1469.	
El Hachemi, Fouad	CRAN CNRS Nancy Univ.
Sigalotti, Mario	INRIA Nancy - Grand Est
Daafouz, Jamal	CRAN, UMR CNRS - Nancy Univ.

WeC10	Continental 9
Optimal Control III (Regular Session)	
Chair: Sideris, Athanasios	Univ. of California at Irvine
Co-Chair: Diersing, Ronald	Univ. of Southern Indiana
15:30-15:50	WeC10.1
A Sequential Linear Quadratic Approach for Constrained Nonlinear Optimal Control, pp. 1470-1475.	
Rodriguez, Luis Alberto	Univ. of California Irvine
Sideris, Athanasios	Univ. of California at Irvine
15:50-16:10	WeC10.2
An Algorithm for State Constrained Stochastic Linear-Quadratic Control, pp. 1476-1481.	
Zhou, Zhou	Univ. of Virginia
Cogill, Randy	Univ. of Virginia
16:10-16:30	WeC10.3
Optimal "Aiming Off": Stochastic Path Planning with One-Dimensional Features, pp. 1482-1487.	
Temple, Tom	MIT
Frazzoli, Emilio	Massachusetts Inst. of Tech.
16:30-16:50	WeC10.4
Infinite-Horizon, Multiple-Cumulant Cost Density-Shaping for Stochastic Optimal Control, pp. 1488-1493.	
Zyskowski, Matthew	Univ. of Notre Dame
Diersing, Ronald	Univ. of Southern Indiana
16:50-17:10	WeC10.5
Multiplayer Nash Solution for Noncooperative Cost Density-Shaping Games, pp. 1494-1499.	
Zyskowski, Matthew	Univ. of Notre Dame
Diersing, Ronald	Univ. of Southern Indiana
17:10-17:30	WeC10.6
Distributed Kalman Filtering Using the Internal Model Average Consensus Estimator, pp. 1500-1505.	
Bai, He	UtopiaCompression
Freeman, Randy	Northwestern Univ.
Lynch, Kevin M.	Northwestern Univ.

WeC11	Golden Gate 1
Modeling and Control of Power Generation and Storage Systems (Invited Session)	
Chair: Soroush, Masoud	Drexel Univ.
Co-Chair: Stefanopoulou, Anna G.	Univ. of Michigan
Organizer: Soroush, Masoud	Drexel Univ.
Organizer: Baldea, Michael	Praxair, Inc.
15:30-15:50	WeC11.1
Steady-State Multiplicity in a Solid Oxide Fuel Cell (I), pp. 1506-1511.	
Bavarian, Mona	Drexel Univ.
Soroush, Masoud	Drexel Univ.
15:50-16:10	WeC11.2
Kinetic Monte Carlo Simulation of Surface Heterogeneity in Graphite Anodes for Lithium-Ion Batteries: Passive Layer Formation (I), pp. 1512-1517.	
Methekar, Ravi N.	Washington Univ. in St. Louis
Northrop, Paul W.C.	Washington Univ. in St. Louis
Chen, Kejia	Univ. of Illinois at Urbana-Champaign
Braatz, Richard D.	Massachusetts Inst. of Tech.
Subramanian, Venkat R.	Washington Univ. in St. Louis
16:10-16:30	WeC11.3
Control of an Energy Integrated Solid Oxide Fuel Cell System (I), pp. 1518-1523.	
Georgis, Dimitrios	Univ. of Minnesota
Jogwar, Sujit S.	Univ. of Minnesota
Almansoori, Ali S.	The Petroleum Inst.
Daoutidis, Prodromos	Univ. of Minnesota
16:30-16:50	WeC11.4
Nitrogen Blanketing Front Equilibria in Dead End Anode Fuel Cell Operation (I), pp. 1524-1529.	
Chen, Jixin	Univ. of Michigan
Siegel, Jason B.	Univ. of Michigan
Stefanopoulou, Anna G.	Univ. of Michigan
16:50-17:10	WeC11.5
Control of a Large Scale Solar Thermal Energy Storage System (I), pp. 1530-1535.	
Powell, Kody	Univ. of Texas at Austin
Edgar, Thomas F.	Univ. of Texas at Austin
17:10-17:30	WeC11.6
Optimal Power Flow with Distributed Energy Storage Dynamics, pp. 1536-1542.	
Gayme, Dennice	California Inst. of Tech.
Topcu, Ufuk	California Inst. of Tech.

WeC12	Golden Gate 2
Diesel Engine Emissions and Control (Invited Session)	
Chair: Karnik, Amey	Ford Motor Company
Co-Chair: Wang, Junmin	The Ohio State Univ.
Organizer: Karnik, Amey	Ford Motor Company
Organizer: Onori, Simona	Ohio State Univ.
Organizer: Mohammadpour, Javad	Univ. of Houston
Organizer: Vermillion, Christopher	Altaeros Energies
Organizer: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.
15:30-15:50	WeC12.1
PCA-Based Linear Parameter Varying Control of SCR Aftertreatment Systems (I), pp. 1543-1548.	
Meisami-Azad, Mona	Univ. of Houston
Mohammadpour, Javad	Univ. of Houston
Grigoriadis, Karolos M.	Univ. of Houston
Harold, Michael	Univ. of Houston
Franchek, Matthew A.	Univ. of Houston

15:50-16:10	WeC12.2
An Exhaust Manifold Pressure Estimator for a Two-Stage Turbocharged Diesel Engine (I), pp. 1549-1554.	
Chiara, Fabio	The Ohio State Univ.
Canova, Marcello	The Ohio State Univ.
Wang, Yue-Yun	General Motors Company
16:10-16:30	WeC12.3
Control-Oriented Modeling of Diesel Engine Gas Exchange (I), pp. 1555-1560.	
Kocher, Lyle	Purdue Univ.
Koeberlein, Edward	Purdue Univ. School of Mechanical Engineering
Stricker, Karla	Purdue Univ.
Van Alstine, Dan	Purdue Univ. School of Mechanical Engineering
Biller, Brandon	Purdue Univ. School of Mechanical Engineering
Shaver, Gregory M.	Purdue Univ.
16:30-16:50	WeC12.4
Control of Dual Loop EGR Air-Path Systems for Advanced Combustion Diesel Engines by a Singular Perturbation Methodology (I), pp. 1561-1566.	
Yan, Fengjun	The Ohio State Univ.
Wang, Junmin	The Ohio State Univ.
16:50-17:10	WeC12.5
Model Based Failure Detection of Diesel Particulate Filter (I), pp. 1567-1572.	
Gupta, Aniket	Univ. of Houston
Franchek, Matthew A.	Univ. of Houston
Grigoriadis, Karolos M.	Univ. of Houston
Smith, Daniel	Cummins
17:10-17:30	WeC12.6
Fuel-Assisted In-Cylinder Oxygen Fraction Transient Trajectory Shaping Control for Diesel Engine Combustion Mode Switching, pp. 1573-1578.	
Yan, Fengjun	The Ohio State Univ.
Wang, Junmin	The Ohio State Univ.

WeC13	Golden Gate 3
Flight Control (Regular Session)	
Chair: Zhu, J. Jim	Ohio Univ.
Co-Chair: Pei, Hai-Long	South China Univ. of Tech.
15:30-15:50	WeC13.1
Velocity and Heading Tracking Control for Small-Scale Unmanned Helicopters, pp. 1579-1586.	
Raptis, Ioannis	Georgia Inst. of Tech.
Valavanis, Kimon	Univ. of Denver
15:50-16:10	WeC13.2
Following Straight Line and Orbital Paths with Input Constraints, pp. 1587-1592.	
Beard, Randy	Brigham Young Univ.
Humpherys, Jeffrey	Brigham Young Univ.
16:10-16:30	WeC13.3
Trajectory Tracking Control of a Small Unmanned Helicopter Using MPC and Backstepping, pp. 1593-1597.	
Zhou, Hongbo	South China Univ. of Tech.
Pei, Hai-Long	South China Univ. of Tech.
Zhao, Yunji	School of Automation Science and Engineering, South China Univ.
16:30-16:50	WeC13.4
Sliding Mode Based Integrated Guidance and Autopilot for Chasing UAV with the Concept of Time-Scaled Dynamic Inversion, pp. 1598-1603.	
Yamasaki, Takeshi	National Defense Acad.
Balakrishnan, S.N.	Missouri Univ. of Science and Tech.
Takano, Hiroyuki	National Defense Acad.

16:50-17:10 WeC13.5

Stability Derivatives for a Flapping Wing MAV in a Hover Condition Using Local Averaging, pp. 1604-1609.

Orlowski, Christopher — Univ. of Michigan
Girard, Anouck — Univ. of Michigan, Ann Arbor

17:10-17:30 WeC13.6

6DOF Flight Control of Fixed-Wing Aircraft by Trajectory Linearization, pp. 1610-1617.

Adami, Tony — Ohio Univ.
Zhu, J. Jim — Ohio Univ.

WeC14 Golden Gate 4

Cooperative Control III (Regular Session)

Chair: How, Jonathan P. — MIT
Co-Chair: Ren, Wei — Utah State Univ.

15:30-15:50 WeC14.1

Distributed Multi-Agent Coordination: A Comparison Lemma Based Approach, pp. 1618-1623.

Cao, Yongcan — Utah State Univ.
Ren, Wei — Utah State Univ.

15:50-16:10 WeC14.2

Distributed Discrete-Time Coordinated Tracking for Networked Single-Integrator Agents under a Markovian Switching Topology, pp. 1624-1629.

Zhao, Huanyu — Nanjing Univ. of Science and Tech.
Ren, Wei — Utah State Univ.
Xu, Shengyuan — The Univ. of Hong Kong
Yuan, Deming — Nanjing Univ. of Science & Tech.

16:10-16:30 WeC14.3

3D Cooperative Localization and Mapping: Observability Analysis, pp. 1630-1635.

Cristofaro, Andrea — Univ. of Camerino
Martinelli, Agostino — INRIA

16:30-16:50 WeC14.4

Fuzzy Sliding-Mode Consensus Control for Multi-Agent Systems, pp. 1636-1641.

Chang, Yeong-Hwa — Chang Gung Univ.
Chang, Chia-Wen — Chang Gung Univ.
Chan, Wei-Shou — Chang Gung Univ.

16:50-17:10 WeC14.5

Decentralized Task Allocation with Coupled Constraints in Complex Missions, pp. 1642-1649.

Whitten, Andrew K. — MIT
Choi, Han-Lim — KAIST
Johnson, Luke — MIT Aerospace Controls Lab.
How, Jonathan P. — MIT

17:10-17:30 WeC14.6

Distributed Computation of the Average of Multiple Time-Varying Reference Signals, pp. 1650-1655.

Chen, Fei — Utah State Univ.
Cao, Yongcan — Utah State Univ.
Ren, Wei — Utah State Univ.

WeC15 Golden Gate 5

Networked Control Systems III (Regular Session)

Chair: Han, Qing-Long — Central Queensland Univ.
Co-Chair: Antunes, Duarte — Inst. Superior Tecnico, Lisbon

15:30-15:50 WeC15.1

Observer-Based Output Tracking Control for a Class of Linear Networked Control Systems, pp. 1656-1661.

Zhang, Dawei — Central Queensland Univ.
Han, Qing-Long — Central Queensland Univ.

15:50-16:10	WeC15.2
Synthesis of Dynamic Quantizers for Quantized Feedback Systems within Invariant Set Analysis Framework, pp. 1662-1667.	
Sawada, Kenji	Univ. of Electro-Communications
Shin, Seiichi	Univ. of Electro-Communciations
16:10-16:30	WeC15.3
Accelerated Gradient Methods for Networked Optimization, pp. 1668-1673.	
Ghadimi, Euhanna	KTH
Johansson, Mikael	Royal Inst. of Tech.
Shames, Iman	The Royal Inst. of Tech.
16:30-16:50	WeC15.4
Event-Triggered Real-Time Scheduling for Stabilization of Passive and Output Feedback Passive Systems, pp. 1674-1679.	
Yu, Han	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame
16:50-17:10	WeC15.5
Robust Partially Mode Delay-Dependent H-Infinity Output Feedback Control of Discrete-Time Networked Control Systems, pp. 1680-1685.	
Chae, Seunghwan	Univ. of Auckland
Huang, Dan	Shanghai Jiao Tong Univ.
Nguang, Sing Kiong	The Univ. of Auckland
17:10-17:30	WeC15.6
Stochastic Networked Control Systems with Dynamic Protocols, pp. 1686-1691.	
Antunes, Duarte	Inst. Superior Tecnico, Lisbon
Hespanha, Joao P.	Univ. of California, Santa Barbara
Silvestre, Carlos	Inst. Superior Tecnico

WeC16	Golden Gate 6
Nonholonomic Systems (Regular Session)	
Chair: Jarzebowska, Elzbieta	Warsaw Univ. of Tech.
Co-Chair: Kozlowski, Krzysztof R.	Poznan Univ. of Tech.
15:30-15:50	WeC16.1
Collision-Free Trajectory Generation of Robotic Manipulators Using Receding Horizon Strategy, pp. 1692-1697.	
Chung, Hoam	Monash Univ.
Jeon, Soo	Univ. of Waterloo
15:50-16:10	WeC16.2
Path Planning of a Dubins Vehicle for Sequential Target Observation with Ranged Sensors, pp. 1698-1703.	
Hanson, Clarence	Univ. of Michigan
Richardson, Jeremy	Univ. of Michigan
Girard, Anouck	Univ. of Michigan, Ann Arbor
16:10-16:30	WeC16.3
Algorithms for the Traveling Salesman Problem with Neighborhoods Involving a Dubins Vehicle, pp. 1704-1709.	
Isaacs, Jason T.	Univ. of California, Santa Barbara
Klein, Daniel J.	Univ. of California, Santa Barbara
Hespanha, Joao P.	Univ. of California, Santa Barbara
16:30-16:50	WeC16.4
Tracking Control of a Nonholonomic Ground Vehicle, pp. 1710-1713.	
Medina-Garciadiego, Veronica	Virginia Pol. Inst. and State Univ.
Leonessa, Alexander	Virginia Tech.
16:50-17:10	WeC16.5
A Unified Control Architecture for Navigation of Nonholonomic Systems, pp. 1714-1719.	
Jarzebowska, Elzbieta	Warsaw Univ. of Tech.

17:10-17:30	WeC16.6
A Finite-Time Tracker for Nonholonomic Systems Using Recursive Singularity-Free FTSM, pp. 1720-1725.	
Mobayen, Saleh	Tarbiat Modares Univ.
Yazdanpanah, M. J.	Tehran Univ.
Majd, Vahid Johari	Associate Professor, Tarbiat Modares Univ.

WeC17	Golden Gate 7
Unmanned Vehicle Technologies (Industrial Session)	
Chair: Krishnamurthy, Prashanth	Pol. Inst. of NYU
Co-Chair: Khorrami, Farshad	Pol. Inst. of NYU
15:30-16:10	WeC17.1
*Autonomous Navigation and Obstacle Avoidance Systems for Unmanned Vehicles**.	
Krishnamurthy, Prashanth	FarCo Tech. Inc.
Khorrami, Farshad	Pol. Inst. of NYU
16:10-16:30	WeC17.2
*Applying 3D Perception and Closed Loop Control Solutions to Large Unmanned Vehicle Applications**.	
Torrie, Mel	Autonomous Solutions, Inc.
16:30-16:50	WeC17.3
*Development of a High-Integrity Optionally Piloted Black Hawk Helicopter**.	
Cherepinsky, Igor	Sikorsky Aircraft
16:50-17:10	WeC17.4
*Feature-Based Navigation of an Autonomous Underwater Vehicle (AUV)**.	
Tangirala, Sekhar	Lockheed Martin
Debrunner, Christian	Lockheed Martin Missiles and Fire Control
Feldman, Walter	LOCKHEED MARTIN
17:10-17:30	WeC17.5
*On-Board Vision Processing/Terminal Guidance for Small UAS**.	
Barber, Blake	Procerus Tech.
Andersen, Evan	Procerus Tech.
Johnson, Neil	Procerus Tech.
Griffiths, Stephen	UAV Avionics and Vision Systems

WeC18	Golden Gate 8
An Introduction to Option Trading from a Control Perspective (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
15:30-15:50	WeC18.1
*Introduction and Stock Market Basics (I)**.	
Barmish, B. Ross	Univ. of Wisconsin
15:50-16:10	WeC18.2
*Option Basics (I)**.	
Barmish, B. Ross	Univ. of Wisconsin
16:10-16:30	WeC18.3
ACC 2011 Tutorial Session: An Introduction to Option Trading from a Control Perspective (I), pp. 1726-1728.	
Primbs, James A.	Stanford Univ.
Barmish, B. Ross	Univ. of Wisconsin
16:30-16:50	WeC18.4
*Options As Building Blocks (I)**.	
Barmish, B. Ross	Univ. of Wisconsin

16:50-17:10	WeC18.5
*Case Study and Introduction to Hedging (I)**.	
Primbs, James A.	Stanford Univ.
Barmish, B. Ross	Univ. of Wisconsin
17:10-17:30	WeC18.6
*Connections to Control (I)**.	
Primbs, James A.	Stanford Univ.

ThP1	Continental 4-6
Feedback Control of the Artificial Pancreas (Plenary Session)	
Chair: Jabbari, Faryar	Univ. of California at Irvine
08:00-09:00	ThP1.1
*Feedback Control of the Artificial Pancreas**.	
Doyle III, Francis J.	UC Santa Barbara

ThA01	Franciscan A
Adaptive Control IV (Regular Session)	
Chair: Miyasato, Yoshihiko	Inst. of Statistical Mathematics
Co-Chair: Bloom, Marc	New York Univ.
09:30-09:50	ThA01.1
L1-Adaptive Methods for Control of Patient Response to Anesthesia, pp. 1729-1735.	
Ralph, Matthew	Univ. of Illinois at Urbana-Champaign
Beck, Carolyn L.	Univ. of Illinois, Urbana-Champaign
Bloom, Marc	New York Univ.
09:50-10:10	ThA01.2
Adaptive Control with Loop Transfer Recovery: A Kalman Filter Approach, pp. 1736-1741.	
Yucelen, Tansel	Georgia Inst. of Tech.
Calise, Anthony J.	Georgia Inst. of Tech.
10:10-10:30	ThA01.3
Adaptive Operational Space Control of Redundant Robot Manipulators, pp. 1742-1747.	
Tee, Keng Peng	Inst. for Infocomm Res.
Yan, Rui	Inst. forInfocommResearch,AgencyforScience,Tech. Res.
10:30-10:50	ThA01.4
Adaptation Along Prescribed Directions, pp. 1748-1752.	
Lavretsky, Eugene	The Boeing Co.
10:50-11:10	ThA01.5
Adaptive H-Infinity Formation Control for Euler-Lagrange Systems by Utilizing Neural Network Approximators, pp. 1753-1758.	
Miyasato, Yoshihiko	Inst. of Statistical Mathematics
11:10-11:30	ThA01.6
Unfalsified Adaptive Control with Weak Cost-Detectability, pp. 1759-1764.	
Cheong, Seunggyun	UCSD

ThA02	Franciscan B
Estimation and Control of DPS I (Invited Session)	
Chair: Demetriou, Michael A.	Worcester Pol. Inst.
Co-Chair: Bentsman, Joseph	Univ. of Illinois at Urbana-Chyampaign
Organizer: Demetriou, Michael A.	Worcester Pol. Inst.
09:30-09:50	ThA02.1
Nonlinear Model Reduction for Fluid Flows (I), pp. 1765-1769.	
Sahyoun, Samir	Univ. of Tennessee
Djouadi, Seddik, M.	Univ. of Tennessee
09:50-10:10	ThA02.2
State Estimation of Spatially Distributed Processes Using Mobile Sensing Agents (I), pp. 1770-1776.	
Demetriou, Michael A.	Worcester Pol. Inst.
Ucinski, Dariusz	Univ. of Zielona Gora
10:10-10:30	ThA02.3
Robust Periodic Reference Tracking by Stable Uncertain Infinite-Dimensional Linear Systems (I), pp. 1777-1782.	
Natarajan, Vivek	Univ. of Illinois, Urbana-Champaign
Bentsman, Joseph	Univ. of Illinois at Urbana-Chyampaign

10:30-10:50	ThA02.4
Target Tracking Strategies for a Nonlinear, Flexible Aircraft-Inspired Model (I), pp. 1783-1788.	
Chakravarthy, Animesh	Univ.
Evans, Katie	Louisiana Tech. Univ.
Evers, Johnny	US Air Force
Kuhn, Lisa	Louisiana Tech. Univ.
10:50-11:10	ThA02.5
Frechet Sensitivity Analysis for Partial Differential Equations with Distributed Parameters (I), pp. 1789-1794.	
Borggaard, Jeff	Virginia Tech.
Nunes, Vitor Leite	Virginia Tech.
11:10-11:30	ThA02.6
On the Strain Feedback Control of a Flexible Robot Arm (I), pp. 1795-1800.	
Morgul, Omer	Bilkent Univ.

ThA03	Franciscan C
Filtering (Regular Session)	
Chair: Cai, Yunze	Shanghai Jiaotong Univ.
Co-Chair: Ugrinovskii, Valery	Univ. of New South Wales
09:30-09:50	ThA03.1
Robust Hinfty Filter Design Using Frequency Gridding, pp. 1801-1806.	
Seiler, Peter	Univ. of Minnesota
Vanek, Balint	Univ. of Minnesota
Bokor, Jozsef	MTA SZTAKI Hungarian Acad. of Sciences
Balas, Gary J.	Univ. of Minnesota
09:50-10:10	ThA03.2
A General Perspective on Gaussian Filtering and Smoothing: Explaining Current and Deriving New Algorithms, pp. 1807-1812.	
Deisenroth, Marc Peter	Univ. of Washington
Ohlsson, Henrik	Linköping Univ.
10:10-10:30	ThA03.3
Robust Filtering for Networked Systems with Random Transmission Delays and Packet Dropouts, pp. 1813-1818.	
Cai, Yunze	Shanghai Jiaotong Univ.
Wang, Hua O.	Boston Univ.
Tanaka, Kazuo	Univ. of Electro-Communications
Xu, Xiaoming	Shanghai Jiaotong Univ.
10:30-10:50	ThA03.4
Saturated Particle Filter, pp. 1819-1824.	
Stano, Pawel Miroslaw	Delft Univ. of Tech.
Lendek, Zsofia	Delft Univ. of Tech.
Babuska, R.	Delft Univ. of Tech.
10:50-11:10	ThA03.5
Truncated Unscented Particle Filter, pp. 1825-1830.	
Straka, Ondrej	Univ. of West Bohemia
Dunik, Jindrich	Univ. of West Bohemia
Simandl, Miroslav	Univ. of West Bohemia in Pilsen
11:10-11:30	ThA03.6
Distributed H_infty Filtering Over Randomly Switching Networks, pp. 1831-1836.	
Ugrinovskii, Valery	Univ. of New South Wales

ThA04	Franciscan D
Human-In-The-Loop Control (Regular Session)	
Chair: Frazzoli, Emilio	Massachusetts Inst. of Tech.
Co-Chair: Davison, Daniel E.	Univ. of Waterloo

09:30-09:50	ThA04.1
On Multi-UAV Scheduling for Human Operator Target Identification, pp. 1837-1842.	
Ortiz, Andres	UIUC
Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
09:50-10:10	ThA04.2
Adaptive Time Horizon Optimization in Model Predictive Control, pp. 1843-1848.	
Droge, Greg Nathanael	Georgia Inst. of Tech.
Egerstedt, Magnus	Georgia Inst. of Tech.
10:10-10:30	ThA04.3
Dynamical Queue-Based Task Management Policies for Human Operators, pp. 1849-1854.	
Savla, Ketan	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.
10:30-10:50	ThA04.4
Task Release Control for Decision Making Queues, pp. 1855-1860.	
Srivastava, Vaibhav	Univ. of California Santa Barbara
Carli, Ruggero	Univ. of Padova
Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
Bullo, Francesco	Univ. California at Santa Barbara
10:50-11:10	ThA04.5
Using Rewards to Change a Person's Behavior: A Double-Integrator Output-Feedback Dynamic Control Approach, pp. 1861-1866.	
Vanderwater, Ruth-Anne	Univ. of Waterloo
Davison, Daniel E.	Univ. of Waterloo
11:10-11:30	ThA04.6
Creation of a Driver Preference Objective Metric to Evaluate Ground Vehicle Steering Systems, pp. 1867-1872.	
Black, Jesse	Clemson Univ.
Iyasere, Erhun	Clemson Univ.
Wagner, John R.	Clemson Univ.

ThA05	Continental 1
Computational Methods (Regular Session)	
Chair: Cogill, Randy	Univ. of Virginia
Co-Chair: Cogill, Randy	Univ. of Virginia
09:30-09:50	ThA05.1
Reconciliation-Based Dynamic Cost Analysis System for a Methanol Plant, pp. 1873-1876.	
Zhao, Xia	Shanghai Jiaotong Univ.
Wu Shengxi, Wushengxi	East China Univ. of Science & Tenology
Wang, Lin	Shanghai Jiaotong Univ.
Pan, Zhaohong	Shanghai Huizhu Automation Engineering Res. Center
09:50-10:10	ThA05.2
Computing Policies and Performance Bounds for Deterministic Dynamic Programs Using Mixed Integer Programming, pp. 1877-1884.	
Cogill, Randy	Univ. of Virginia
Hindi, Haitham	Palo Alto Res. Center (PARC)
10:10-10:30	ThA05.3
Geometric Numerical Integration for Complex Dynamics of Tethered Spacecraft, pp. 1885-1891.	
Lee, Taeyoung	Florida Inst. of Tech.
Leok, Melvin	Univ. of California, San Diego
McClamroch, N. Harris	Univ. of Michigan
10:30-10:50	ThA05.4
A Chernoff Bound Approximation for Risk-Averse Integer Programming, pp. 1892-1897.	
Cogill, Randy	Univ. of Virginia
Zhou, Zhou	Univ. of Virginia

10:50-11:10	ThA05.5
On the Hyperplanes Arragements in Mixed-Integer Techniques, pp. 1898-1903.	
Stoican, Florin	SUPELEC
Prodan, Ionela	SUPELEC Systems Sciences (E3S)
Olaru, Sorin	Supelec
11:10-11:30	ThA05.6
Computationally Efficient Trajectory Optimization for Linear Control Systems with Input and State Constraints, pp. 1904-1909.	
Stumper, Jean-François	Tech. Univ. München
Kennel, Ralph	Tech. Univ. München

ThA06	Continental 2
Control Applications II (Regular Session)	
Chair: Cockburn, Juan C.	Rochester Inst. of Tech.
Co-Chair: Vincent, Tyrone L.	Colorado School of Mines
09:30-09:50	ThA06.1
LIDAR-Based FX-RLS Feedforward Control for Wind Turbine Load Mitigation, pp. 1910-1915.	
Wang, Na	Colorado School of Mines
Johnson, Kathryn	Colorado School of Mines
Wright, Alan	National Renewable Energy Lab.
09:50-10:10	ThA06.2
Advanced Traveler Information System with Communication Constraints, pp. 1916-1921.	
Kumar, Rohit	Boston Univ.
Castanon, David A.	Boston Univ.
10:10-10:30	ThA06.3
Model Predictive Control for Spacecraft Rendezvous and Docking with a Rotating/Tumbling Platform and for Debris Avoidance, pp. 1922-1927.	
Park, Hyeongjun	Univ. of Michigan
Di Cairano, Stefano	Ford Motor Company
Kolmanovsky, Ilya V.	The Univ. of Michigan
10:30-10:50	ThA06.4
Optimal Train Control: Analysis of a New Local Optimization Principle (I), pp. 1928-1933.	
Albrecht, Amie Renee	Univ. of South Australia
Howlett, Philip George	Univ. of South Australia
Pudney, Peter	Univ. of South Australia
Vu, Xuan	TTG Transportation Tech. Pty Ltd
10:50-11:10	ThA06.5
Robust Control of Predator-Prey-Hunter Systems, pp. 1934-1939.	
Cockburn, Juan C.	Rochester Inst. of Tech.
McLoud, Ken	Rochester Inst. of Tech.
Wagner, Jeffrey	Rochester Inst. of Tech.

ThA07	Continental 3
Multivariate Methods for Process Data Analysis (Invited Session)	
Chair: Hoo, Karlene	Texas Tech. Univ.
Co-Chair: Rhinehart, R. Russell	Oklahoma State Univ.
Organizer: Hoo, Karlene	Texas Tech. Univ.
Organizer: Rhinehart, R. Russell	Oklahoma State Univ.
09:30-09:50	ThA07.1
Anomaly Detection in Power Generation Plants Using Similarity-Based Modeling and Multivariate Analysis (I), pp. 1940-1945.	
Tobar, Felipe Arturo	Imperial Coll. London
Yacher, Luis	CONTAC Ingenieros Ltda.
Paredes, Rodrigo	Endesa Chile
Orchard, Marcos E.	Univ. of Chile

09:50-10:10	ThA07.2
*Model Predictive Multivariate Control (MPMC) (I)**.	
McCready, Christopher	Umetrics
10:10-10:30	ThA07.3
Application of Multivariate Batch Data Analysis for Troubleshooting of End-Point Product Quality (I), pp. 1946-1951.	
Stefanov, Zdravko	The Dow Chemical Company
Chiang, Leo	The Dow Chemical Company
10:30-10:50	ThA07.4
Multivariate Statistical Analysis to Detect Insulin Infusion Set Failure (I), pp. 1952-1957.	
Rojas, Ruben	Univ. de Los Andes
Garcia-Gabin, Winston	KTH Royal Inst. of Tech.
Bequette, B. Wayne	Rensselaer Pol. Inst.
10:50-11:10	ThA07.5
Application of Partial Least Square Regression in Uncertainty Analysis (I), pp. 1958-1962.	
Hoo, Karlene	Texas Tech. Univ.
Chen, Yingying(Sophia)	Texas Tech. Univ.
11:10-11:30	ThA07.6
Bayesian Fault Isolation in Multivariate Statistical Process Monitoring, pp. 1963-1968.	
Gorinevsky, Dimitry	Stanford Univ.

ThA08	Continental 7
Stability of Nonlinear Systems (Regular Session)	
Chair: Grip, Håvard Fjær	Washington State Univ.
Co-Chair: Jiang, Zhong-Ping	Pol. Inst. NYU
09:30-09:50	ThA08.1
Remarks on the Relationship between $mathcal{L}_p$ Stability and Internal Stability of Nonlinear Systems, pp. 1969-1970.	
Wang, Xu	Washington State Univ.
Grip, Håvard Fjær	Washington State Univ.
Saberi, Ali	Washington State Univ.
Stoorvogel, Anton A.	Univ. of Twente
Saberi, Ingmar	Princeton Univ.
09:50-10:10	ThA08.2
A Small-Gain Theorem and Construction of Sum-Type Lyapunov Functions for Networks of Iiss Systems, pp. 1971-1977.	
Ito, Hiroshi	Kyushu Inst. of Tech.
Jiang, Zhong-Ping	Pol. Inst. NYU
Dashkovskiy, Sergey	Univ. of Bremen
Rüffer, Björn Sebastian	Univ. of Paderborn
10:10-10:30	ThA08.3
Calculation of Lyapunov Exponents Using Radial Basis Function Networks for Stability Analysis of Nonlinear Control Systems, pp. 1978-1983.	
Sun, Yuming	Univ. of Manitoba
Wang, Xiangpeng	XTech Inc.
Wu, Qiong	Univ. of Manitoba
Sepehri, Nariman	Uinversity of Manitoba
10:30-10:50	ThA08.4
Input-To-State Stability for Curve Tracking Control: A Constructive Approach, pp. 1984-1989.	
Malisoff, Michael	Louisiana State Univ.
Mazenc, Frederic	Projet INRIA DISCO
Zhang, Fumin	Georgia Inst. of Tech.
10:50-11:10	ThA08.5
A Generalized Zames-Falb Multiplier, pp. 1990-1993.	
Materassi, Donatello	Univ. of Minnesota
Salapaka, Murti V.	Univ. of Minnesota, Minneapolis

11:10-11:30	ThA08.6
Enlarging Domain of Attraction of Switched Linear Systems in the Presence of Saturation Nonlinearity, pp. 1994-1999.	
Dehghan, Masood	National Univ. of Singapore
Ong, Chong-Jin	National Univ. of Singapore
Chen, Peter C. Y.	National Univ. of Singapore

ThA09	Continental 8
Switched Systems I (Regular Session)	
Chair: Sznaier, Mario	Northeastern Univ.
Co-Chair: Canudas de Wit, Carlos	CNRS, GIPSA-Lab.
09:30-09:50	ThA09.1
Adaptive Control of Piecewise Linear Systems: The Output Tracking Case, pp. 2000-2005.	
Sang, Qian	Univ. of Virginia
Tao, Gang	Univ. of Virginia
09:50-10:10	ThA09.2
Bounded Complexity L-Infinity Filters for Switched Systems, pp. 2006-2011.	
Sznaier, Mario	Northeastern Univ.
Yilmaz, Burak	Northeastern Univ.
Blanchini, Franco	Univ. degli Studi di Udine
10:10-10:30	ThA09.3
Highway Traffic Model-Based Density Estimation, pp. 2012-2017.	
Morarescu, Irinel Constantin	INPL
Canudas de Wit, Carlos	CNRS, GIPSA-Lab.
10:30-10:50	ThA09.4
A Split and Merge Algorithm for Identification of Piecewise Affine Systems, pp. 2018-2023.	
Baptista, Roberto S.	Univ. de Brasilia
Ishihara, João Yoshiyuki	Univ. of Brasília
Borges, Geovany A.	Univ. de Brasilia
10:50-11:10	ThA09.5
Single Integration Optimization of Linear Time-Varying Switched Systems, pp. 2024-2030.	
Caldwell, Timothy	Northwestern Univ.
Murphey, Todd	Northwestern Univ.
11:10-11:30	ThA09.6
An Adaptive Predictor Corrector Strategy for Output Feedback Control of Nonlinear Hybrid Process Systems, pp. 2031-2036.	
Hu, Ye	Univ. of California, Davis
El-Farra, Nael H.	Univ. of California, Davis

ThA10	Continental 9
Optimal Control IV (Regular Session)	
Chair: Jovanovic, Mihailo	Univ. of Minnesota
Co-Chair: Mukaidani, Hiroaki	Hiroshima Univ.
09:30-09:50	ThA10.1
A Mean-Field Control-Oriented Approach to Particle Filtering, pp. 2037-2043.	
Yang, Tao	Univ. of Illinois at Urbana-Champaign
Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign
Meyn, Sean	Univ. of Illinois
09:50-10:10	ThA10.2
Global Optimization of Three-Input Systems Using Multi-Unit Extremum Seeking Control, pp. 2044-2049.	
Esmaeilzadeh Azar, Farhad	Ec. Pol. Montreal
Perrier, Michel	Ec. Pol.
Srinivasan, B.	Ec. Pol. Montreal

10:10-10:30	ThA10.3
Sparsity-Promoting Optimal Control for a Class of Distributed Systems, pp. 2050-2055.	
Fardad, Makan	Syracuse Univ.
Lin, Fu	Univ. of Minnesota
Jovanovic, Mihailo	Univ. of Minnesota
10:30-10:50	ThA10.4
Hamiltonian Approach Using Partial Differential Equations for Open-Loop Stochastic Optimal Control, pp. 2056-2061.	
Palmer, Aaron	UC Santa Cruz
Milutinovic, Dejan	Univ. of California at Santa Cruz
10:50-11:10	ThA10.5
Nash Strategy for Stochastic Delay Systems, pp. 2062-2064.	
Mukaidani, Hiroaki	Hiroshima Univ.
Yamamoto, Toru	Hiroshima Univ.
Xu, Hua	Univ. of Tsukuba

ThA11	Golden Gate 1
Building Energy Systems (Invited Session)	
Chair: Hencey, Brandon	Cornell Univ.
Co-Chair: Borrelli, Francesco	Unversity of California at Berkeley
Organizer: Hencey, Brandon	Cornell Univ.
Organizer: Borrelli, Francesco	Unversity of California at Berkeley
09:30-09:50	ThA11.1
Cascaded Superheat Control with a Multiple Evaporator Refrigeration System (I), pp. 2065-2070.	
Elliott, Matthew	Texas A&M Univ.
Estrada, Carolyn	Texas A&M Univ.
Rasmussen, Bryan	Texas A&M Univ.
09:50-10:10	ThA11.2
Optimal Control Architecture Selection for Thermal Control of Buildings (I), pp. 2071-2076.	
Chandan, Vikas	Univ. of Illinois
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
10:10-10:30	ThA11.3
A Method for Model-Reduction of Nonlinear Building Thermal Dynamics (I), pp. 2077-2082.	
Goyal, Siddharth	Univ. of Florida
Barooah, Prabir	Univ. of Florida
10:30-10:50	ThA11.4
Reduced-Order Models for Control of Stratified Flows in Buildings (I), pp. 2083-2088.	
Ahuja, Sunil	United Tech. Res. Center
Surana, Amit	United Tech. Res. Center
Cliff, Eugene M.	Virginia Tech.
10:50-11:10	ThA11.5
A Distributed Predictive Control Approach to Building Temperature Regulation (I), pp. 2089-2094.	
Ma, Yudong	UC berkeley CA USA
Garrett, Andersen	Univ. of California at Berkeley
Borrelli, Francesco	Unversity of California at Berkeley
11:10-11:30	ThA11.6
A Novel Stochastic Agent-Based Model of Building Occupancy, pp. 2095-2100.	
Liao, Chenda	Univ. of Florida
Barooah, Prabir	Univ. of Florida

ThA12 Golden Gate 2

Energy Management Strategies for Hybrid Electric Vehicles (Invited Session)

Chair: Onori, Simona — Ohio State Univ.
Co-Chair: Phillips, Anthony M. — Ford Motor Co.
Organizer: Onori, Simona — Ohio State Univ.
Organizer: Karnik, Amey — Ford Motor Company
Organizer: Mohammadpour, Javad — Univ. of Houston
Organizer: Vermillion, Christopher — Altaeros Energies
Organizer: Shilpiekandula, Vijay — Mitsubishi Electrical Res. Lab.

09:30-09:50 ThA12.1

Engine Power Smoothing Energy Management Strategy for a Series Hybrid Electric Vehicle (I), pp. 2101-2106.

Di Cairano, Stefano — Ford Motor Company
Liang, Wei — Ford Motor Company
Kolmanovsky, Ilya V. — The Univ. of Michigan
Kuang, Ming L. — Ford Motor Co.
Phillips, Anthony M. — Ford Motor Co.

09:50-10:10 ThA12.2

Strategy to Minimize Fuel Consumption of Passenger Cars During Car Following Scenarios (I), pp. 2107-2112.

Li, Shengbo — Univ. of Michigan
Peng, Huei — Univ. of Michigan

10:10-10:30 ThA12.3

Real-Time Energy Management and Sensitivity Study for Hybrid Electric Vehicles (I), pp. 2113-2118.

Fu, Lina — Ohio State Univ.
Ozguner, Umit — Ohio State Univ.
Tulpule, Pinak — The Ohio State Univ.
Marano, Vincenzo — The Ohio State Univ.

10:30-10:50 ThA12.4

The Role of ITS in PHEV Performance Improvement (I), pp. 2119-2124.

Gong, Qiuming — The Ohio State Univ.
Tulpule, Pinak — The Ohio State Univ.
Marano, Vincenzo — The Ohio State Univ.
Midlam-Mohler, Shawn — Ohio State Univ.
Rizzoni, Giorgio — Ohio State Univ.

10:50-11:10 ThA12.5

Optimal Energy Management of Hybrid Electric Vehicles Including Battery Aging, pp. 2125-2130.

Serrao, Lorenzo — IFP Energies nouvelles
Onori, Simona — Ohio State Univ.
Sciarretta, Antonio — Swiss Federal Inst. of Tech.
Guezennec, Yann — Ohio State Univ.
Rizzoni, Giorgio — Ohio State Univ.

11:10-11:30 ThA12.6

Optimal Control of Hybrid Electric Vehicles with Power Split and Torque Split Strategies: A Comparative Case Study, pp. 2131-2136.

Weng, Caihao — Univ. of Michigan
Wang, Yigang — Eaton Corp.
Tsourapas, Vasilios — Eaton Corp.
Patil, Chinmaya — The Univ. of Texas at Austin
Sun, Jing — Univ. of Michigan

ThA13 Golden Gate 3

Air Traffic Control (Invited Session)

Chair: Feron, Eric — Georgia Tech.
Co-Chair: Balakrishnan, Hamsa — Massachusetts Inst. of Tech.
Organizer: Feron, Eric — Georgia Tech.
Organizer: Balakrishnan, Hamsa — Massachusetts Inst. of Tech.

09:30-09:50 ThA13.1

Decentralized Flight Path Planning for Air Traffic Management (I), pp. 2137-2142.

Zhang, Wei — Univ. of California at Berkeley
Kamgarpour, Maryam — Univ. of California, Berkeley
Sun, Dengfeng — Purdue Univ.
Tomlin, Claire J. — UC Berkeley

09:50-10:10 ThA13.2

Light Propagation Algorithm for Aircraft Trajectory Planning (I), pp. 2143-2147.

Daniel, Delahaye — ENAC
Dougui, Nour Elhouda — ENAC

10:10-10:30 ThA13.3

BETA-MESH - a Dynamic 3D Mesh Modelization (I), pp. 2148-2153.

Hadjaz, Areski — THALES AIR SYSTEMS
Marceau Caron, Gaetan — THALES AIR SYSTEMS

10:30-10:50 ThA13.4

Air Traffic Complexity and the Interacting Particle System Method: An Integrated Approach for Collision Risk Estimation (I), pp. 2154-2159.

Prandini, Maria — Pol. di Milano
Blom, Henk A.P. — National Aerospace Lab. NLR
Bakker, Bert G.J. — National Aerospace Lab. NLR

10:50-11:10 ThA13.5

Estimation of Maximum-Likelihood Discrete-Choice Models of the Runway Configuration Selection Process (I), pp. 2160-2167.

Ramanujam, Varun — Massachusetts Inst. of Tech.
Balakrishnan, Hamsa — Massachusetts Inst. of Tech.

11:10-11:30 ThA13.6

Stability of Spatially Distributed, Intersecting Aircraft Flows under Sequential Conflict Resolution Schemes (I), pp. 2168-2173.

Hand, Troy — Georgia Inst. of Tech.
Mao, Zhi-Hong — Univ. of Pittsburgh
Feron, Eric — Georgia Tech.

ThA14 Golden Gate 4

Cooperative Control IV (Regular Session)

Chair: Ren, Wei — Utah State Univ.
Co-Chair: Wang, Dan — Dalian Maritime Univ.

09:30-09:50 ThA14.1

Decentralized Cooperative Control of Autonomous Surface Vehicles with Uncertain Dynamics: A Dynamic Surface Approach, pp. 2174-2179.

Peng, Zhouhua — Dalian Maritime Univ.
Wang, Dan — Dalian Maritime Univ.
Lan, Weiyao — Xiamen Univ.
Li, Xiaoqiang — Dalian Maritime Univ.
Sun, Gang — Dalian Maritime Univ.

09:50-10:10 ThA14.2

On Distributed Maximization of Algebraic Connectivity in Robotic Networks, pp. 2180-2185.

Simonetto, Andrea — Delft Univ. of Tech.
Keviczky, Tamas — Delft Univ. of Tech.
Babuska, R. — Delft Univ. of Tech.

10:10-10:30 ThA14.3

Containment Control for Multiple Euler-Lagrange Systems with Parametric Uncertainties in Directed Networks, pp. 2186-2191.

Mei, Jie — Utah State Univ.
Ren, Wei — Utah State Univ.
Ma, Guangfu — Harbin Inst. of Tech.

10:30-10:50 ThA14.4

Distributed Coordinated Tracking with Multiple Dynamic Leaders for Double-Integrator Agents Using Only Position Measurements, pp. 2192-2197.

Li, Jianzhen — Nanjing Univ. of Science and Tech.
Ren, Wei — Utah State Univ.
Xu, Shengyuan — The Univ. of Hong Kong

10:50-11:10 ThA14.5

The Geometry of a Probabilistic Consensus of Opinion Algorithm, pp. 2198-2203.

Matei, Ion — Univ. of Maryland
Baras, John S. — Univ. of Maryland

11:10-11:30 ThA14.6

Distributed Multi-Agent Tracking and Estimation with Uncertain Agent Dynamics, pp. 2204-2209.

Li, Zhiyuan — Univ. of Illinois, Urbana-Champaign
Hovakimyan, Naira — Univ. of Illinois, Urbana-Champaign
Stipanovic, Dusan M. — Univ. of Illinois, Urbana-Champaign

ThA15 — Golden Gate 5

Networked Control Systems IV (Regular Session)

Chair: Sandberg, Henrik — Royal Inst. of Tech. (KTH)
Co-Chair: Fujioka, Hisaya — Kyoto Univ.

09:30-09:50 ThA15.1

Toward a Stability Monitoring System of an Asset-Communications Network Exposed to Malicious Attacks, pp. 2210-2215.

Lechevin, Nicolas — Defence R&D Canada
Rabbath, Camille Alain — Defence R&D Canada
Maupin, Patrick — Defence R&D Canada

09:50-10:10 ThA15.2

On the Dual Effect in State-Based Scheduling of Networked Control Systems, pp. 2216-2221.

Ramesh, Chithrupa — Royal Inst. of Tech.
Sandberg, Henrik — KTH Royal Inst. of Tech.
Bao, Lei — Royal Inst. of Tech. (KTH)
Johansson, Karl H. — Royal Inst. of Tech.

10:10-10:30 ThA15.3

Order Reduction in Optimal Event-Triggered Control Design for Linear Stochastic Systems, pp. 2222-2227.

Molin, Adam — Tech. Univ. München
Tischer, Henning — Tech. Univ. München
Hirche, Sandra — Tech. Univ. München

10:30-10:50 ThA15.4

Constructing a Bimodal Switched Lyapunov Function for Non-Uniformly Sampled-Data Feedback Systems, pp. 2228-2233.

Fujioka, Hisaya — Kyoto Univ.
Nakai, Toshiharu — Graduate School of Informatics, Kyoto Univ.

10:50-11:10 ThA15.5

Key Establishment Via Common State Information in Networked Control Systems, pp. 2234-2239.

Li, Husheng — Univ. of Tennessee
Lai, Lifeng — Univ. of Arkansas, Little Rock
Djouadi, Seddik, M. — Univ. of Tennessee
Ma, Xiao — Univ. of Tennessee

11:10-11:30 ThA15.6

Sufficient Conditions for Closed-Loop Control Over a Gaussian Relay Channel, pp. 2240-2245.

Zaidi, Syed Ali Abbas — Royal Inst. of Tech. (KTH), Sweden
Oechtering, Tobias — Royal Inst. of Tech. (KTH)
Yuksel, Serdar — Queen's Univ.
Skoglund, Mikael — Royal Inst. of Tech.

ThA16	Golden Gate 6
Control of Nanopositioning and Scanning Probe-Based Systems (Invited Session)	
Chair: Abramovitch, Daniel Y.	Agilent Lab.
Co-Chair: Andersson, Sean	Boston Univ.
Organizer: Abramovitch, Daniel Y.	Agilent Lab.
Organizer: Andersson, Sean	Boston Univ.
Organizer: Leang, Kam K.	Univ. of Nevada, Reno
Organizer: Fleming, Andrew J.	Univ. of Newcastle
Organizer: Clayton, Garrett	Villanova Univ.
Organizer: Pao, Lucy Y.	Univ. of Colorado at Boulder
Organizer: Zou, Qingze	Rutgers, the State Univ. of New Jersey
09:30-09:50	ThA16.1
Generating Images from Non-Raster Data in AFM (I), pp. 2246-2251.	
Huang, Peng	Boston Univ.
Andersson, Sean	Boston Univ.
09:50-10:10	ThA16.2
Low Latency Demodulation for Atomic Force Microscopes, Part I Efficient Real-Time Integration (I), pp. 2252-2257.	
Abramovitch, Daniel Y.	Agilent Lab.
10:10-10:30	ThA16.3
Robust H-Infinity Control in Fast Atomic Force Microscopy (I), pp. 2258-2265.	
Chuang, Ning	Univ. of New South Wales atAustralianDefenceForceAcademy
Petersen, Ian	Univ. of New South Wales at the Australian Defence Force Ac
Pota, Hemanshu R.	The Univ. of New South Wales
10:30-10:50	ThA16.4
A Comparison of ILC Architectures for Nanopositioners with Applications to AFM Raster Tracking (I), pp. 2266-2271.	
Butterworth, Jeffrey A.	Univ. of Colorado at Boulder
Pao, Lucy Y.	Univ. of Colorado at Boulder
Abramovitch, Daniel Y.	Agilent Lab.
10:50-11:10	ThA16.5
Optimal Input Design for Indentation-Based Rapid Broadband Nanomechanical Spectroscopy: Poly(dimethylsiloxane) Example (I), pp. 2272-2277.	
Xu, Zhonghua	Iowa State Univ.
Zou, Qingze	Rutgers, the State Univ. of New Jersey
11:10-11:30	ThA16.6
Design, Prototyping, Modeling and Control of a MEMS Nanopositioning Stage (I), pp. 2278-2283.	
Zhu, Yong	Griffith Univ. Australia
Bazaei, Ali	Univ. of Newcastle, Australia
Moheimani, S.O. Reza	Univ. of Newcastle
Yuce, M. R.	The Univ. of Newcastle, Australia

ThA17	Golden Gate 7
Dynamics and Control of Cellular Systems (Invited Session)	
Chair: Asada, H. Harry	Massachusetts Inst. of Tech.
Co-Chair: Del Vecchio, Domitilla	Massachusetts Insitute of Tech.
Organizer: Asada, H. Harry	Massachusetts Inst. of Tech.
Organizer: Del Vecchio, Domitilla	Massachusetts Insitute of Tech.
09:30-09:50	ThA17.1
A Quenched Oscillator Network for Pattern Formation in Gene Expression (I), pp. 2284-2289.	
Hsia, Justin	Univ. of California, Berkeley
Holtz, William Joseph	Univ. of California, Berkeley
Huang, Daniel	Univ. of California, Berkeley
Arcak, Murat	Univ. of California, Berkeley
Maharbiz, Michel	Univ. of California at Berkeley

09:50-10:10 ThA17.2

On Exponential Synchronization of Kuramoto Oscillator Networks in the Presence of Combined Global and Local Cues (I), pp. 2290-2295.

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

10:10-10:30 ThA17.3

Stochastic Strategies for Survival: Bacterial Competence in Bacillus Subtilis (I), pp. 2296-2301.

Dandach, Sandra Hala — Univ. of California, Santa Barbara
Khammash, Mustafa H. — Univ. of California at Sta. Barbara

10:30-10:50 ThA17.4

Generalised Absolute Stability and Sum of Squares (I), pp. 2302-2307.

Hancock, Edward J. — Oxford Univ.
Papachristodoulou, Antonis — Univ. of Oxford

10:50-11:10 ThA17.5

Tuning an Activator-Repressor Clock Employing Retroactivity (I), pp. 2308-2313.

Rosenberg, Alexander — Univ. of Washington, Seattle, Electrical Engineering Depart
Jayanthi, Shridhar — Univ. of Michigan
Del Vecchio, Domitilla — Massachusetts Insitute of Tech.

11:10-11:30 ThA17.6

Molecular Signaling Observer and Predictor: A Framework for Closed-Loop Control of Cell Behaviors Having Long Time Delay (I), pp. 2314-2319.

Asada, H. Harry — Massachusetts Inst. of Tech.
Wang, Yingxiao — Univ. of Illinois, Urbana-champaign
Mayalu, Michaelle — MIT

ThA18 — Golden Gate 8

Workload, Power and Cooling Control Problems in Data Centers (Tutorial Session)

Chair: Wang, Zhikui — HP
Co-Chair: Singhal, Sharad — Hewlett Packard Company
Organizer: Wang, Zhikui — Hewlett-Packard Company
Organizer: Singhal, Sharad — Hewlett Packard Company

09:30-09:50 ThA18.1

*Control and Optimization Opportunities and Challenges in Data Centers (I)**.

Singhal, Sharad — Hewlett Packard Company

09:50-10:10 ThA18.2

*Application Performance Control and Resource Management in Data Centers (I)**.

Zhu, Xiaoyun — VMware

10:10-10:30 ThA18.3

*Server Power Control in Data Centers (I)**.

Wang, Xiaorui — Univ. of Tennessee

10:30-10:50 ThA18.4

*Dynamic Cooling Control in Data Centers (I)**.

Wang, Zhikui — Hewlett-Packard Company

10:50-11:10 ThA18.5

*Integrated Workload, Power and Cooling Management in Data Centers (I)**.

Wang, Zhikui — Hewlett-Packard Company

11:10-11:30 ThA18.6

*Panel Discussion (I)**.

Singhal, Sharad — Hewlett Packard Company
Zhu, Xiaoyun — VMware
Wang, Xiaorui — Univ. of Tennessee
Wang, Zhikui — Hewlett-Packard Company

ThB01	Franciscan A
Adaptive Systems I (Regular Session)	
Chair: Balas, Mark	Univ. of Wyoming
Co-Chair: Lee, DongBin	Villanova Univ.
13:10-13:30	ThB01.1
Adaptive Failure Compensation of Hysteric Actuators in Controlling Uncertain Nonlinear Systems, pp. 2320-2325.	
Cai, Jianping	State Key Lab. of Industrial ControlTechnology,Inst. o
Wen, Changyun	Nanyang Tech. Univ.
Su, Hongye	Zhejiang Univ.
Li, Xiaodong	Beijing Res. Inst. of AutomationForMachineryIndustry
Liu, Zhitao	Zhejiang Univ.
13:30-13:50	ThB01.2
Adaptive Tracking Control of an Underactuated Aerial Vehicle, pp. 2326-2331.	
Lee, DongBin	Villanova Univ.
Nataraj, C.	Villanova Univ.
Burg, Timothy C.	Clemson Univ.
Dawson, Darren M.	Clemson Univ.
13:50-14:10	ThB01.3
Proactive Planning for Persistent Missions Using Composite Model-Reference Adaptive Control and Approximate Dynamic Programming, pp. 2332-2337.	
Redding, Joshua	Massachusetts Inst. of Tech.
Dydek, Zachary	MIT
How, Jonathan P.	MIT
Vavrina, Matthew	Boeing
Vian, John L	The Boeing Company
14:10-14:30	ThB01.4
Adaptive Control of Linear Modal Systems Using Residual Mode Filters and a Simple Disturbance Estimator, pp. 2338-2343.	
Balas, Mark	Univ. of Wyoming
Frost, Susan	NASA Ames Res. Center
14:30-14:50	ThB01.5
Cumulative Retrospective Cost Adaptive Control of Systems with Amplitude and Rate Saturation, pp. 2344-2349.	
Coffer, Benjamin James	Univ. of Michigan
Hoagg, Jesse B.	Univ. of Kentucky
Bernstein, Dennis S.	Univ. of Michigan
14:50-15:10	ThB01.6
Second Level Adaptation Using Multiple Models, pp. 2350-2355.	
Han, Zhuo	Yale Univ.
Narendra, Kumpati S.	Yale Univ.

ThB02	Franciscan B
Estimation and Control of DPS II (Invited Session)	
Chair: Demetriou, Michael A.	Worcester Pol. Inst.
Co-Chair: Krstic, Miroslav	Univ. of California, San Diego
Organizer: Demetriou, Michael A.	Worcester Pol. Inst.
13:10-13:30	ThB02.1
On the Stability of an Interconnected System of Euler-Bernoulli Beam and Heat Equation with Boundary Coupling (I), pp. 2356-2361.	
Krstic, Miroslav	Univ. of California, San Diego
Wang, Jun-Min	Beijing Inst. of Tech.
13:30-13:50	ThB02.2
A Model Based Feedback Controller for Wing-Twist Via Piezoceramic Actuation (I), pp. 2362-2367.	
Ray, Cody W.	Oregon State Univ.
Batten, Belinda A.	Oregon State Univ.
Singler, John	Missouri Univ. of Science and Tech.

13:50-14:10	ThB02.3
Bochner Integrable Solutions to Riccati Partial Differential Equations and Optimal Sensor Placement (I), pp. 2368-2373.	
Burns, John A	Virginia Tech.
Rautenberg, Carlos Nicolas	Virginia Tech.
14:10-14:30	ThB02.4
Model-Based Detection of a Moving Gaseous Source in a 2D Spatial Domain Using a Sensor-Based Grid Adaptation Approach (I), pp. 2374-2380.	
Demetriou, Michael A.	Worcester Pol. Inst.
Gatsonis, Nikolaos	Worcester Pol. Inst.
Court, Jeffrey	Worcester Pol. Inst.
14:30-14:50	ThB02.5
On Using LQG Performance Metrics for Sensor Placement (I), pp. 2381-2386.	
Borggaard, Jeff	Virginia Tech.
Burns, John A	Virginia Tech.
Zietsman, Lizette	Virginia Tech.

ThB03	Franciscan C
Estimation I (Regular Session)	
Chair: Roy, Sandip	Washington State Univ.
Co-Chair: Poulsen, Niels Kjølstad	Tech. Univ. of Denmark
13:10-13:30	ThB03.1
Correlation of Multiple Singular Observations and Initial State Estimation by Means of Probability Distributions of High Codimension, pp. 2387-2392.	
Fujimoto, Kohei	The Univ. of Colorado at Boulder
Scheeres, Daniel	The Univ. of Colorado
13:30-13:50	ThB03.2
Necessary Condition for a Petri Net Model That Incorporates Resources to Produce an Event Stream from an Unknown Initial State, pp. 2393-2398.	
Allen, Lindsay V.	Creare Inc.
Tilbury, Dawn M.	Univ. of Michigan
13:50-14:10	ThB03.3
Spectral and Graph-Theoretic Bounds on Steady-State-Probability Estimation Performance for an Ergodic Markov Chain, pp. 2399-2404.	
Xue, Mengran	Washington State Univ.
Roy, Sandip	Washington State Univ.
14:10-14:30	ThB03.4
Pitch Based Vehicle Localization Using Time Series Subsequence Matching with Multi-Scale Extrema Features, pp. 2405-2410.	
Vemulapalli, Pramod	The Pennsylvania State Univ.
Dean, Adam	Brigham Young Univ. Idaho
Brennan, Sean	Penn State Univ.
14:30-14:50	ThB03.5
Real-Time Estimation of a Ship's Attitude, pp. 2411-2416.	
Kuechler, Sebastian	Univ. of Stuttgart
Pregizer, Christoph	Inst. for System Dynamics, Univ. of Stuttgart
Eberharter, Johannes Karl	Liebherr-Werk Nenzing GmbH
Schneider, Klaus	Liebherr Werk Nenzing GmbH
Sawodny, Oliver	Univ. of Stuttgart
14:50-15:10	ThB03.6
Adaptive Disturbance Estimation for Offset-Free SISO Model Predictive Control, pp. 2417-2422.	
Huusom, Jakob Kjøbsted	Tech. Univ. of Denmark
Poulsen, Niels Kjølstad	Tech. Univ. of Denmark
Jorgensen, Sten Bay	Tech. Univ. of Denmark
Jørgensen, John Bagterp	Tech. Univ. of Denmark

ThB04	Franciscan D
Learning I (Regular Session)	
Chair: Tembine, Hamidou	SUPELEC
Co-Chair: Savla, Ketan	Massachusetts Inst. of Tech.
13:10-13:30	ThB04.1
Mean Field Stochastic Games: Convergence, Q/H-Learning and Optimality, pp. 2423-2428.	
Tembine, Hamidou	SUPELEC
13:30-13:50	ThB04.2
Quasi-Stochastic Approximation, pp. 2429-2435.	
Shirodkar, Darshan	Univ. of Illinois at Urbana Champaign
Meyn, Sean	Univ. of Illinois
13:50-14:10	ThB04.3
Stability Analysis of Transportation Networks with Multiscale Driver Decisions, pp. 2436-2441.	
Como, Giacomo	Massachusetts Inst. of Tech.
Savla, Ketan	Massachusetts Inst. of Tech.
Acemoglu, Daron	MIT
Dahleh, Munther A.	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.
14:10-14:30	ThB04.4
A Reference Free Iterative Learning Strategy for Wet Clutch Control, pp. 2442-2447.	
Depraetere, Bruno	Katholieke Univ. Leuven
Pinte, Gregory	Flanders' Mechatronics Tech. Centre
Swevers, Jan	K. U. Leuven
14:30-14:50	ThB04.5
Multi-Step-Ahead Optimal Learning Strategy for Local Model Networks with Higher Degree Polynomials, pp. 2448-2449.	
Baenfer, Oliver	Univ. of Siegen
Kampmann, Geritt	Univ. of Siegen
Nelles, Oliver	Univ. of Siegen
14:50-15:10	ThB04.6
Incorporating Prior Knowledge into Nonparametric Conditional Density Estimation, pp. 2450-2455.	
Krauthausen, Peter	Karlsruhe Inst. of Tech.
Roschani, Masoud	Karlsruhe Inst. of Tech.
Hanebeck, Uwe D.	Karlsruhe Inst. of Tech. (KIT)

ThB05	Continental 1
Modeling and Simulation I (Regular Session)	
Chair: Li, Yonghua	Ford Motor Company
Co-Chair: Liu, Xiangjie	North China Electric Power Univ.
13:10-13:30	ThB05.1
A Sudden-Release Bristle Model That Exhibits Hysteresis and Stick-Slip Friction, pp. 2456-2461.	
Drincic, Bojana	Univ. of Michigan
Bernstein, Dennis S.	Univ. of Michigan
13:30-13:50	ThB05.2
Model-In-The-Loop Development for a Fuel Cell Vehicle, pp. 2462-2467.	
Cakmakci, Melih	Bilkent Univ.
Li, Yonghua	Ford Motor Company
Liu, Shuzhen	Ford Motor Company
13:50-14:10	ThB05.3
Soft Sensing of Sodium Aluminate Solution Component Concentrations Via On-Line Clustering and Fuzzy Modeling, pp. 2468-2473.	
Wang, Wei	Northeastern Univ.
Chai, Tianyou	Northeastern Univ.

Zhao, Lijie	north eastern Univ.
Qin, S. Joe	Univ. of Southern California

14:10-14:30 ThB05.4

The Dynamic Neural Network Model of a Ultra Super-Critical Steam Boiler Unit, pp. 2474-2479.

Liu, Xiangjie	North China Electric Power Univ.
Tu, Xuewei	The Electrical and I&C Department, StateNuclearElectric Po
Hou, Guolian	North China Electric Power Univ.
Wang, Jihong	Univ. of Birmingham

14:30-14:50 ThB05.5

Modeling and PI-Fuzzy Logic Controller of the Pierburg Mechatronic Actuator, pp. 2480-2485.

Kebairi, Athmane	The Univ. of Tech. of Belfort Montbéliard (UTBM)
Becherif, Mohamed	Lab. Système et Transport SeT-UTBM
El Bagdouri, Mohammed	Univ. de Tech. de Belfort Montbéliard

14:50-15:10 ThB05.6

State Estimation for a Class of Nonlinear Differential Games Using Differential Neural Networks, pp. 2486-2491.

García Morán, Emmanuel	ITESM-CEM
Murano Labastida, Daishi Alfredo	ITESM-CEM

ThB06 Continental 2

Nonlinear Control Design for Semi-Active Civil Systems - Part I (Invited Session)

Chair: Scruggs, Jeff	Duke Univ.
Co-Chair: Wang, Yang	Georgia Inst. of Tech.
Organizer: Scruggs, Jeff	Duke Univ.
Organizer: Wang, Yang	Georgia Inst. of Tech.

13:10-13:30 ThB06.1

Parameter Varying Control of an MR Damper for Smart Base Isolation (I), pp. 2492-2497.

Shirazi, Farzad	Univ. of Houston
Grigoriadis, Karolos M.	Univ. of Houston
Song, Gangbing	Univ. of Houston

13:30-13:50 ThB06.2

Market-Based Control of Shear Structures Utilizing Magnetorheological Dampers (I), pp. 2498-2503.

Kane, Michael	Univ. of Michigan
Lynch, Jerome	Univ. of Michigan
Law, Kincho H.	Stanford Univ.

13:50-14:10 ThB06.3

Application of Pseudospectral Method in Stochastic Optimal Control of Nonlinear Structural Systems (I), pp. 2504-2509.

Song, Wei	Purdue Univ.
Dyke, Shirley J.	Purdue Univ.

14:10-14:30 ThB06.4

Control of Base-Isolated Systems Using Force Feedback (I), pp. 2510-2515.

Pozo, Francesc	Univ. Pol. de Catalunya
Rodríguez Tsouroukdissian, Arturo	Alstom-Power Wind
Acho, Leonardo	EUETIB-Univ. Pol. of Catalunya
Vidal, Yolanda	Univ. Pol. de Catalunya
Rodellar, Jose	Tech. Univ. of Catalonia

14:30-14:50 ThB06.5

Reduced-Order Modal-Domain Structural Control for Seismic Vibration Control Over Wireless Sensor Networks (I), pp. 2516-2521.

Swartz, Raymond	Michigan Tech.

14:50-15:10 ThB06.6

Peak-Gain-Bounded Design of Constrained Controllable Damping in Vibrating Structures (I), pp. 2522-2527.

Scruggs, Jeff	Duke Univ.

ThB07	Continental 3
Modeling, Control and Monitoring of Batch Process Systems (Invited Session)	
Chair: Mhaskar, Prashant	McMaster Univ.
Co-Chair: Dubljevic, Stevan	Univ. of Alberta
Organizer: Mhaskar, Prashant	McMaster Univ.
Organizer: Dubljevic, Stevan	Univ. of Alberta
13:10-13:30	ThB07.1
Application of Optimal Boundary Control to Reaction-Diffusion System with Time-Varying Spatial Domain (I), pp. 2528-2533.	
Ng, James	Univ. of Alberta
Dubljevic, Stevan	Univ. of Alberta
Aksikas, Ilyasse	Univ. of Alberta
13:30-13:50	ThB07.2
Integrating Data-Based Modeling and Nonlinear Control Tools for Batch Process Control (I), pp. 2534-2539.	
Aumi, Siam	McMaster Univ.
Mhaskar, Prashant	McMaster Univ.
13:50-14:10	ThB07.3
Data-Based Modeling and Control of Nylon-6, 6 Batch Polymerization (I), pp. 2540-2545.	
Aumi, Siam	McMaster Univ.
Corbett, Brandon	McMaster Univ.
Mhaskar, Prashant	McMaster Univ.
14:10-14:30	ThB07.4
Multivariable Model Predictive Control of Thin Film Surface Roughness and Slope: Application to a 2D Kinetic Monte-Carlo Model (I), pp. 2546-2551.	
Zhang, Xinyu	Univ. of California, Los Angeles
Orkoulas, Gerassimos	UCLA
Christofides, Panagiotis D.	Univ. of California at Los Angeles
14:30-14:50	ThB07.5
Discriminatory Learning Based Performance Monitoring of Batch Processes (I), pp. 2552-2557.	
Patel, Shailesh	Honeywell Tech. Solutions
Yelchuru, Ramprasad	Norwegian Univ. of Science and Tech.
Ryali, Srikanth	Honeywell Tech. Solutions, Bangalore
Gudi, Ravindra	IIT Bombay
14:50-15:10	ThB07.6
Optimal Control for Batch Crystallization with Size-Dependent Growth Kinetics, pp. 2558-2565.	
Bajcinca, Naim	Max-Planck Inst. for Dynamics of Complex Tech. Systems
Hofmann, Steffen	TU Berlin

ThB08	Continental 7
Observers for Nonlinear Systems (Regular Session)	
Chair: Qian, Chunjiang	Univ. of Texas at San Antonio
Co-Chair: Ball, Alexis A.	Michigan State Univ.
13:10-13:30	ThB08.1
Observer-Based Output Feedback Control of Discrete-Time Lur'e Systems with Sector-Bounded Slope-Restricted Nonlinearities, pp. 2566-2571.	
Kim, Kwang-Ki	Univ. of Illinois
Braatz, Richard D.	Massachusetts Inst. of Tech.
13:30-13:50	ThB08.2
Finite Time Convergent Observer Using Homogeneous Method, pp. 2572-2577.	
Tian, Weisong	Univ. of Texas at San Antonio
Qian, Chunjiang	Univ. of Texas at San Antonio
Frye, Michael	Univ. of the Incarnate Word

13:50-14:10	ThB08.3
Nonlinear Observer Design for Lipschitz Nonlinear Systems, pp. 2578-2583.	
Song, Bongsob	Ajou Univ.
Hedrick, Karl	Univ. of California at Berkeley
14:10-14:30	ThB08.4
Analysis of a Nonlinear High-Gain Observer in the Presence of Measurement Noise, pp. 2584-2589.	
Ball, Alexis A.	Michigan State Univ.
Khalil, Hassan K.	Michigan State Univ.
14:30-14:50	ThB08.5
Computationally Efficient GES Cascade Observer for Attitude Estimation, pp. 2590-2595.	
Batista, Pedro	Inst. Superior Técnico
Silvestre, Carlos	Inst. Superior Tecnico
Oliveira, Paulo Jorge	Inst. Superior Técnico
14:50-15:10	ThB08.6
Deadbeat Observer: Construction Via Sets, pp. 2596-2601.	
Tuna, S. Emre	Middle East Tech. Univ.

ThB09	Continental 8
Switched Systems II (Regular Session)	
Chair: Hui, Qing	Texas Tech. Univ.
Co-Chair: Najson, Federico	Univ. de la República
13:10-13:30	ThB09.1
Lyapunov-Based Semistability Analysis for Discrete-Time Switched Network Systems, pp. 2602-2606.	
Hui, Qing	Texas Tech. Univ.
13:30-13:50	ThB09.2
Functional Series Expansions for Continuous-Time Switched Systems, pp. 2607-2612.	
Duffaut Espinosa, Luis Augusto	The Johns Hopkins Univ.
Gray, W. Steven	Old Dominion Univ.
13:50-14:10	ThB09.3
Stability of Switched Linear Discrete-Time Descriptor Systems: A Commutation Condition, pp. 2613-2618.	
Zhai, Guisheng	Shibaura Inst. of Tech.
Xu, Xuping	School of Engineering, California Baptist Univ.
Ho, Daniel W. C.	City Univ. of Hong Kong
14:10-14:30	ThB09.4
Stability and Stabilizability of Special Classes of Discrete-Time Positive Switched Systems, pp. 2619-2624.	
Fornasini, Ettore	Univ. di Padova
Valcher, Maria Elena	Univ. di Padova
14:30-14:50	ThB09.5
State-Feedback Stabilizability, Optimality, and Convexity in Switched Positive Linear Systems, pp. 2625-2632.	
Najson, Federico	Univ. de la República
14:50-15:10	ThB09.6
Reach Control on Simplices by Piecewise Affine Feedback, pp. 2633-2638.	
Broucke, Mireille E.	Univ. of Toronto
Ganness, Marcus	Univ. of Toronto

ThB10	Continental 9
Optimization and Optimization Algorithms I (Regular Session)	
Chair: Notarstefano, Giuseppe	Univ. of Lecce
Co-Chair: Cao, Xumeng	Johns Hopkins Univ.

13:10-13:30	ThB10.1
A Distributed Simplex Algorithm and the Multi-Agent Assignment Problem, pp. 2639-2644.	
Bürger, Mathias	Univ. of Stuttgart
Notarstefano, Giuseppe	Univ. of Lecce
Allgower, Frank	Univ. of Stuttgart
Bullo, Francesco	Univ. California at Santa Barbara
13:30-13:50	ThB10.2
A New Approach for Signal Loss Compensation in a Vibrometer, pp. 2645-2650.	
Mayer, Sascha	Univ. of Wuppertal
Tibken, Bernd	Univ. of Wuppertal
Rembe, Christian	Pol. GmbH
13:50-14:10	ThB10.3
Lossless Convexification of Powered-Descent Guidance with Non-Convex Thrust Bound and Pointing Constraints, pp. 2651-2656.	
Carson, John M.	NASA Jet Propulsion Lab.
Acikmese, Behcet	Jet Propulsion Lab.
Blackmore, Lars	California Inst. of Tech. Jet Propulsion Lab.
14:10-14:30	ThB10.4
Improvement in Control System for the Medium Frequency Direct Current Resistance Spot Welding System, pp. 2657-2662.	
Zhou, Kang	Hong Kong Univ. of Science and Tech.
Cai, Lilong	Hong Kong Univ. of Science & Tech.
14:30-14:50	ThB10.5
Accelerated Dual Descent for Network Optimization, pp. 2663-2668.	
Zargham, Michael	Univ. of Pennsylvania
Ribeiro, Alejandro	Univ. of Pennsylvania
Ozdaglar, Asuman	MIT
Jadbabaie, Ali	Univ. of Pennsylvania
14:50-15:10	ThB10.6
Preliminary Results on Non-Bernoulli Distribution of Perturbation for Simultaneous Perturbation Stochastic Approximation, pp. 2669-2670.	
Cao, Xumeng	Johns Hopkins Univ.

ThB11	Golden Gate 1
Control and Optimization of Energy Systems (Invited Session)	
Chair: Baldea, Michael	Praxair, Inc.
Co-Chair: El-Farra, Nael H.	Univ. of California, Davis
Organizer: Baldea, Michael	Praxair, Inc.
Organizer: El-Farra, Nael H.	Univ. of California, Davis
13:10-13:30	ThB11.1
Robust Fault Detection and Reconfigurable Control of Distributed Energy Generation Systems (I), pp. 2671-2676.	
Sun, Yulei	Univ. of California, Davis
El-Farra, Nael H.	Univ. of California, Davis
13:30-13:50	ThB11.2
A Two-Time-Scale Framework to Supervisory Predictive Control of an Integrated Wind/Solar Energy Generation and Water Desalination System (I), pp. 2677-2682.	
Qi, Wei	Univ. of California, Los Angeles
Liu, Jinfeng	Univ. of California, Los Angeles
Christofides, Panagiotis D.	Univ. of California at Los Angeles
13:50-14:10	ThB11.3
Design for Dynamic Performance: Application to an Air Separation Unit (I), pp. 2683-2688.	
Cao, Yanan	McMaster Univ.
Swartz, Christopher L.E.	McMaster Univ.
Baldea, Michael	Praxair, Inc.

14:10-14:30	ThB11.4
Calibrating Energy Conversion Networks for Utility Optimization and Risk Management (I), pp. 2689-2694.	
Mousaw, Patrick	Univ. of Notre Dame
Kantor, Jeffrey C.	Univ. of Notre Dame
14:30-14:50	ThB11.5
Region II Wind Power Capture Maximization Using Robust Control and Estimation with Alternating Gradient Search, pp. 2695-2700.	
Hawkins, Tony	Kansas State Univ.
White, Warren N.	Kansas State Univ.
Hu, Guoqiang	Kansas State Univ.
Darabi Sahneh, Faryad	Kansas State Univ.
14:50-15:10	ThB11.6
Optimal Energy Management of Hybrid Power System with Two-Scale Dynamic Programming, pp. 2701-2706.	
Zhang, Lei	Univ. of Wisconsin-Milwaukee
Li, Yaoyu	Univ. of Wisconsin-Milwaukee

ThB12	Golden Gate 2
Hybrid Electric Vehicles (Invited Session)	
Chair: Onori, Simona	Ohio State Univ.
Co-Chair: Vahidi, Ardalan	Clemson Univ.
Organizer: Onori, Simona	Ohio State Univ.
Organizer: Karnik, Amey	Ford Motor Company
Organizer: Mohammadpour, Javad	Univ. of Houston
Organizer: Vermillion, Christopher	Altaeros Energies
Organizer: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.
13:10-13:30	ThB12.1
Heavy Vehicle Fuel Economy Improvement Using Ultracapacitor Power Assist and Preview-Based MPC Energy Management (I), pp. 2707-2712.	
Schepmann, Seneca	Clemson Univ.
Vahidi, Ardalan	Clemson Univ.
13:30-13:50	ThB12.2
A Model Predictive Control Approach for a Parallel Hydraulic Hybrid Powertrain (I), pp. 2713-2718.	
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
13:50-14:10	ThB12.3
Energy-Efficient Control Allocation with Applications on Planar Motion Control of Electric Ground Vehicles (I), pp. 2719-2724.	
Chen, Yan	Ohio State Univ.
Wang, Junmin	The Ohio State Univ.
14:10-14:30	ThB12.4
Hybrid Model Predictive Power Flow Control of a Fuel Cell-Battery Vehicle (I), pp. 2725-2731.	
Meyer, Richard	Purdue Univ.
DeCarlo, Raymond A.	Purdue Univ.
Meckl, Peter H.	Purdue Univ.
Doktorcik, Christopher	Purdue Univ.
Pekarek, Steven	Univ. of Missouri- Rolla
14:30-14:50	ThB12.5
Optimal Catalyst Temperature Management of Plug-In Hybrid Electric Vehicles (I), pp. 2732-2738.	
Kum, Dongsuk	Univ. of Michigan
Peng, Huei	Univ. of Michigan
Bucknor, Norman	General Motors

14:50-15:10 ThB12.6

Distance Until Charge Prediction and Fuel Economy Impact for Plug-In Hybrid Vehicles, pp. 2739-2744.

Naghshtabrizi, Payam — Ford Motor Company
Kristinsson, Johannes — Ford Motor Company
Yu, Hai — Res. and Advanced Engineering, Ford Motor Company
McGee, Ryan — Ford Motor Company

ThB13 — Golden Gate 3

Air Traffic Management (Regular Session)

Chair: Devasia, Santosh — Univ. of Washington
Co-Chair: Neogi, Natasha A. — Univ. of Illinois

13:10-13:30 ThB13.1

Bounds on Controller Taskload Rates at an Intersection for Dense Traffic, pp. 2745-2751.

Vela, Adan — Georgia Inst. of Tech.
Salaün, Erwan — Georgia Inst. of Tech.
Feron, Eric — Georgia Tech.
Singhose, William — Georgia Inst. of Tech.
Clarke, John-Paul — Georgia Tech.

13:30-13:50 ThB13.2

Multi-Runway Aircraft Sequencing at Congested Airports, pp. 2752-2758.

Neogi, Natasha A. — Univ. of Illinois
Harikiopoulo, Dimitri — Thales ATM

13:50-14:10 ThB13.3

Flow-Capacity-Maintaining, Decentralized, Conflict Resolution with Aircraft Turn Dynamics, pp. 2759-2764.

Yoo, Jeff — Univ. of Washington, Mechanical Engineering
Devasia, Santosh — Univ. of Washington

14:10-14:30 ThB13.4

Collision Avoidance System Optimization with Probabilistic Pilot Response Models, pp. 2765-2770.

Chryssanthacopoulos, James — Lincoln Lab. Massachusett Inst. of Tech.
Kochenderfer, Mykel — Lincoln Lab. Massachusetts Inst. of Tech.

14:30-14:50 ThB13.5

A Parallel Computing Framework for Air Traffic Flow Management, pp. 2771-2776.

Cao, Yi — Purdue Univ.
Sun, Dengfeng — Purdue Univ.

14:50-15:10 ThB13.6

Linear Programming Based Routing Design for a Class of Positive Systems with Piecewise Constant Capacity Constraints, pp. 2777-2782.

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

ThB14 — Golden Gate 4

Cooperative Control V (Regular Session)

Chair: Aghdam, Amir G. — Concordia Univ.
Co-Chair: Xin, Ming — Mississippi State Univ.

13:10-13:30 ThB14.1

Multi-Agent Consensus Algorithm with Obstacle Avoidance Via Optimal Control Approach, pp. 2783-2788.

Wang, Jianan — Mississippi State Univ.
Xin, Ming — Mississippi State Univ.

13:30-13:50 ThB14.2

Approximation Algorithms for Variants of a Heterogenous Multiple Depot Hamiltonian Path Problem, pp. 2789-2794.

Yadlapalli, Sai Krishna — Texas A&M Univ.
Bae, Jung Yun — Texas A & M Univ.

Rathinam, Sivakumar	Texas A & M Univ.
Darbha, Swaroop	Texas A & M Univ.

13:50-14:10 ThB14.3

Relaxed Convergence Conditions for Multi-Agent Systems under a Class of Consensus Algorithms, pp. 2795-2800.

Ajorlou, Amir	Concordia Univ.
Momeni, Ahmadreza	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.

14:10-14:30 ThB14.4

Cooperative Collision-Free Control of Lagrangian Multi-Agent Formations, pp. 2801-2806.

Atinc, Gokhan M.	Univ. of Illinois at Urbana Champaign
Stipanovic, Dusan M.	Univ. of Illinois, Urbana-Champaign

14:30-14:50 ThB14.5

On Opinion Dynamics in Heterogeneous Networks, pp. 2807-2812.

Mirtabatabaei, Anahita	Univ. of California, Santa Barbara
Bullo, Francesco	Univ. California at Santa Barbara

14:50-15:10 ThB14.6

Coordinated Decentralized Estimation Over Random Networks, pp. 2813-2818.

Nabi Abdolyousefi, Marzieh	Univ. of Washington - DSSL
Mesbahi, Mehran	Univ. of Washington

ThB15 — Golden Gate 5

Networked Control Systems V (Regular Session)

Chair: Jagannathan, Sarangapani	Missouri Univ. of Science & Tech.
Co-Chair: Han, Qing-Long	Central Queensland Univ.

13:10-13:30 ThB15.1

Stochastic Optimal Control of Unknown Linear Networked Control System Using Q-Learning Methodology, pp. 2819-2824.

Xu, Hao	Missouri Univ. of Science and Tech.
Jagannathan, Sarangapani	Missouri Univ. of Science & Tech.

13:30-13:50 ThB15.2

Stabilization and Stability Connection of Networked Control Systems with Two Quantizers, pp. 2825-2830.

Liu, Jun	School of Communication and Control Engineering,Univ. Jia
Linbo, Xie	School of Communication and Control Engineering, Univ. of J
Zhang, Min	Jiangsu Province Pharmaceutical Industry Design Inst.
Wu, Zhihai	Jiangnan Univ.

13:50-14:10 ThB15.3

Self-Triggered Output Feedback Control of Linear Plants, pp. 2831-2836.

Almeida, João	Inst. Superior Técnico
Silvestre, Carlos	Inst. Superior Tecnico
Pascoal, Antonio Manuel	Inst. Superior Tecnico

14:10-14:30 ThB15.4

A New Bilaterally Teleoperated Robotic Vehicle Platform with Passivity Control, pp. 2837-2842.

Ware, Julian	Dalhousie Univ.
Pan, Ya-Jun	Dalhousie Univ.
Hilliard, Trent	Dalhousie Univ.

14:30-14:50 ThB15.5

Bode-Like Integral for Stochastic Switched Systems in the Presence of Limited Information, pp. 2843-2848.

Li, Dapeng	Unniversity of Illinois
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign

14:50-15:10 ThB15.6

One Step Prediction-Based Packet Dropouts Compensation for Networked Control Systems, pp. 2849-2854.

Wang, Yu-Long	Central Queensland Univ.
Han, Qing-Long	Central Queensland Univ.
Yu, Xinghuo	RMIT Univ.

ThB16	Golden Gate 6
Nano Systems (Regular Session)	
Chair: Jalili, Nader	Northeastern Univ.
Co-Chair: Fleming, Andrew J.	Univ. of Newcastle
13:10-13:30	ThB16.1
Modeling and Feedforward Control of a Large-Range, Piezo Nano Stepper, pp. 2855-2860.	
Wilcox, Scott	Univ. of Washington
Devasia, Santosh	Univ. of Washington
13:30-13:50	ThB16.2
A Method for Reducing Piezoelectric Non-Linearity in Scanning Probe Microscope Images (I), pp. 2861-2866.	
Fleming, Andrew J.	Univ. of Newcastle
13:50-14:10	ThB16.3
Tip-Sample Interaction Force Modeling for AFM Simulation, Control Design, and Material Property Measurement (I), pp. 2867-2872.	
Belikov, Sergey	NT-MDT Development
Magonov, Sergei	NT-MDT Development
14:10-14:30	ThB16.4
Parameter Identifiability in Parallel Reaction Networks with Application to Single-Walled Carbon Nanotubes, pp. 2873-2878.	
Chen, Kejia	Univ. of Illinois at Urbana-Champaign
Kishida, Masako	Univ. of Illinois, Urbana-Champaign
Strano, Michael S.	Massachusetts Inst. of Tech.
Braatz, Richard D.	Massachusetts Inst. of Tech.
14:30-14:50	ThB16.5
Rapid Online Quantification of Tip-Sample Interaction for High-Speed Dynamic-Mode Atomic Force Microscope Imaging, pp. 2879-2884.	
Busch, David	Iowa State Univ.
Ren, Juan	Rutgers Univ.
Zou, Qingze	Rutgers, the State Univ. of New Jersey
Ganapathysubramanian, Baskar	Iowa State Univ.
14:50-15:10	ThB16.6
Adaptive Trajectory Tracking Control of Microcantilever's Tip Used in AFM with a General Nonlinear Tip-Sample Interaction Force, pp. 2885-2890.	
Jalili, Nader	Northeastern Univ.
Eslami, Sohrab	Northeastern Univ.
Dawson, Darren M.	Clemson Univ.

ThB17	Golden Gate 7
System Biology (Regular Session)	
Chair: Franco, Elisa	California Inst. of Tech.
Co-Chair: Zavlanos, Michael M.	Stevens Inst. of Tech.
13:10-13:30	ThB17.1
Time Delay Effects on Oscillation Profiles in Cyclic Gene Regulatory Networks: Harmonic Balance Approach, pp. 2891-2896.	
Hori, Yutaka	The Univ. of Tokyo
Hara, Shinji	The Univ. of Tokyo
13:30-13:50	ThB17.2
Optimal Adaptation of Metabolic Networks in Dynamic Equilibrium, pp. 2897-2902.	
Oyarzun, Diego A.	Imperial Coll. London
Middleton, Richard H.	National Univ. of Ireland Maynooth
13:50-14:10	ThB17.3
*Structurally Robust Biological Networks**.	
Blanchini, Franco	Univ. degli Studi di Udine
Franco, Elisa	California Inst. of Tech.

14:10-14:30	ThB17.4
Dynamic Modeling of Viral Infections in Spherical Organs, pp. 2903-2908.	
Dunia, Ricardo	The Univ. of Texas at Austin
Bonnecaze, Roger	Univ. of Texas at Austin
14:30-14:50	ThB17.5
Feasible Parameter Space Characterization with Adaptive Sparse Grids for Nonlinear Systems Biology Models, pp. 2909-2914.	
Noble, Sarah L.	Purdue Univ.
Buzzard, Gregery	Purdue Univ.
Rundell, Ann E.	Purdue Univ.
14:50-15:10	ThB17.6
Robust Flux Balance Analysis of Metabolic Networks, pp. 2915-2920.	
Zavlanos, Michael M.	Stevens Inst. of Tech.
Julius, Agung	Rensselaer Pol. Inst.

ThB18	Golden Gate 8
Controls for Societal Challenges: Energy (Tutorial Session)	
Chair: Topcu, Ufuk	California Inst. of Tech.
Co-Chair: Gayme, Dennice	California Inst. of Tech.
Organizer: Topcu, Ufuk	California Inst. of Tech.
Organizer: Gayme, Dennice	California Inst. of Tech.
13:10-15:10	ThB18.1
*Panel Discussion (I)**.	
Amin, Massoud	Univ. of Minnesota
Gayme, Dennice	California Inst. of Tech.
Hardy, Ajilli J.	GE Global Res.
Topcu, Ufuk	California Inst. of Tech.

ThC01	Franciscan A
Adaptive Systems II (Regular Session)	
Chair: Tao, Gang	Univ. of Virginia
Co-Chair: Agrawal, Brij	Naval Postgraduate School
15:30-15:50	ThC01.1
Discrete-Time Adaptive Control Using Multiple Models, pp. 2921-2926.	
Narendra, Kumpati S.	Yale Univ.
Han, Zhuo	Yale Univ.
15:50-16:10	ThC01.2
Retrospective Cost Model Reference Adaptive Control for Nonminimum-Phase Discrete-Time Systems, Part 2: Stability Analysis, pp. 2927-2932.	
Hoagg, Jesse B.	Univ. of Kentucky
Bernstein, Dennis S.	Univ. of Michigan
16:10-16:30	ThC01.3
Retrospective Cost Model Reference Adaptive Control for Nonminimum-Phase Discrete-Time Systems, Part 1: The Adaptive Controller, pp. 2933-2938.	
Hoagg, Jesse B.	Univ. of Kentucky
Bernstein, Dennis S.	Univ. of Michigan
16:30-16:50	ThC01.4
Application of Complex-Valued FXLMS Adaptive Filter to Fourier Basis Control of Adaptive Optics, pp. 2939-2944.	
Nagashima, Masaki	Naval Postgraduate School
Agrawal, Brij	Naval Postgraduate School
16:50-17:10	ThC01.5
Passivity-Based Adaptive Sliding-Mode Speed Control for IPMSM Drive Systems, pp. 2945-2950.	
Yu, Jen-te	National Taiwan Univ.
Lin, Cheng-Kai	National Taiwan Univ.

Fu, Li-Chen	National Taiwan Univ.
Liu, Tian-Hua	National Taiwan Univ. of Science and Tech.

17:10-17:30 ThC01.6

Adaptive Actuator Nonlinearity Compensation and Disturbance Rejection with an Aircraft Application, pp. 2951-2956.

Mondschein, Stephen	Univ. of Virginia
Tao, Gang	Univ. of Virginia
Burkholder, Jason	Barron Associates, Inc.

ThC02 Franciscan B

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

Chair: Demetriou, Michael A.	Worcester Pol. Inst.
Co-Chair: Armaou, Antonios	The Pennsylvania State Univ.
Organizer: Demetriou, Michael A.	Worcester Pol. Inst.
Organizer: Armaou, Antonios	The Pennsylvania State Univ.

15:30-15:50 ThC02.1

Dependence of Film Surface Roughness on Surface Migration and Lattice Size in Thin Film Deposition (I), pp. 2957-2962.

Huang, Jianqiao	UCLA
Hu, Gangshi	Praxair, Inc.
Orkoulas, Gerassimos	UCLA
Christofides, Panagiotis D.	Univ. of California at Los Angeles

15:50-16:10 ThC02.2

Model Predictive Control Formulation for a Class of Time-Varying Linear Parabolic PDEs (I), pp. 2963-2968.

Ng, James	Univ. of Alberta
Dubljevic, Stevan	Univ. of Alberta
Aksikas, Ilyasse	Univ. of Alberta

16:10-16:30 ThC02.3

Modeling the Effect of Temozolomide Treatment on Orthotopic Models of Glioma (I), pp. 2969-2974.

Vital-Lopez, Francisco Gamaliel	Pennsylvania State Univ.
Maranas, Costas	The Pennsylvania State Univ.
Armaou, Antonios	The Pennsylvania State Univ.

16:30-16:50 ThC02.4

Rank-1 Incremental Proper Orthogonal Decomposition Based Model Order Reduction for High Dimensional Linear Systems (I), pp. 2975-2981.

Xu, Chao	Zhejiang Univ.
Schuster, Eugenio	Lehigh Univ.

16:50-17:10 ThC02.5

Robust Stabilization of Sampled-Data Distributed Processes Using a Dynamic Sensor-Controller Communication Logic (I), pp. 2982-2987.

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

17:10-17:30 ThC02.6

Modeling and Control of an Euler-Bernoulli Beam under Unknown Spatiotemporally Varying Disturbance, pp. 2988-2993.

Ge, Shuzhi Sam	National Univ. of Singapore
Zhang, Shuang	National Univ. of Singapore
He, Wei	National Univ. of Singapore

ThC03 Franciscan C

Estimation II (Regular Session)

Chair: Jia, Yingmin	Beihang Univ.
Co-Chair: Xin, Ming	Mississippi State Univ.

15:30-15:50 ThC03.1

A Direct Adaptive Method for Discriminating Sinusoidal Components with Nearby Frequencies, pp. 2994-2999.

Pin, Gilberto	Danieli Automation S.p.A. (Italy)
Parisini, Thomas	Imperial Coll. London & Univ. of Trieste

15:50-16:10	ThC03.2
Salient Point Quadrature Nonlinear Filtering, pp. 3000-3005.	
Jia, Bin	Mississippi State Univ.
Xin, Ming	Mississippi State Univ.
Cheng, Yang	Mississippi State Univ.
16:10-16:30	ThC03.3
Semi-Analytic Gaussian Assumed Density Filter, pp. 3006-3011.	
Huber, Marco F.	Fraunhofer Inst. of Optronics, System Tech. and Image
Beutler, Frederik	Karlsruhe Inst. of Tech.
Hanebeck, Uwe D.	Karlsruhe Inst. of Tech. (KIT)
16:30-16:50	ThC03.4
Optimal Sensor Scheduling for Hybrid Estimation, pp. 3012-3017.	
Liu, Weiyi	Purdue Univ.
Hwang, Inseok	Purdue Univ.
16:50-17:10	ThC03.5
A New Algorithm for Frequency Estimation and Disturbance Cancellation Inspired from Induction Machine Theory, pp. 3018-3023.	
Pigg, Scott	Univ. of Utah
Bodson, Marc	Univ. of Utah
17:10-17:30	ThC03.6
Gaussian Mixture PHD Smoother for Jump Markov Models in Multiple Maneuvering Targets Tracking, pp. 3024-3029.	
Li, Wenling	Beihang Univ.
Jia, Yingmin	Beihang Univ.
Du, Junping	Beijing Univ. of Posts and Telecommunications
Yu, Fashan	Henan Pol. Univ.

ThC04	Franciscan D
Learning II (Regular Session)	
Chair: M'Closkey, Robert	Univ. of California, Los Angeles
Co-Chair: Swevers, Jan	K. U. Leuven
15:30-15:50	ThC04.1
Adaptive Iterative Learning Control for Uncertain Delay Systems Based on Model Matching Technique, pp. 3030-3034.	
Su, Haixia	Beihang Univ.
Jia, Yingmin	Beihang Univ.
Du, Junping	Beijing Univ. of Posts and Telecommunications
Yu, Fashan	Henan Pol. Univ.
15:50-16:10	ThC04.2
Iterative Learning Control for Nonlinear Systems with Input Constraints and Discontinuously Changing Dynamics, pp. 3035-3040.	
Volckaert, Marnix	K.U.Leuven
Diehl, Moritz	Katholieke Univ. Leuve
Swevers, Jan	K. U. Leuven
16:10-16:30	ThC04.3
Reliable Nearest Neighbors for Lazy Learning, pp. 3041-3046.	
Ebert, Tobias	Univ. of Siegen
Kampmann, Geritt	Univ. of Siegen
Nelles, Oliver	Univ. of Siegen
16:30-16:50	ThC04.4
Finite-Horizon Input-Constrained Nonlinear Optimal Control Using Single Network Adaptive Critics, pp. 3047-3052.	
Heydari, Ali	Missouri Univ. of Science and Tech.
Balakrishnan, S.N.	Missouri Univ. of Science and Tech.

16:50-17:10 ThC04.5

Dynamic Phase Compensation in Modulated-Demodulated Control for Pulsed Jet Injection, pp. 3053-3058.

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

17:10-17:30 ThC04.6

Nash Equilibrium Seeking with Infinitely-Many Players, pp. 3059-3064.

Frihauf, Paul — Univ. of California, San Diego
Krstic, Miroslav — Univ. of California, San Diego
Basar, Tamer — Univ. of Illinois, Urbana-Champaign

ThC05 Continental 1

Modeling and Simulation II (Regular Session)

Chair: Hu, Tingshu — Univ. of Massachusetts, Lowell
Co-Chair: Ersal, Tulga — Univ. of Michigan

15:30-15:50 ThC05.1

A Comprehensive Speed Control Model for Human Drivers with Application to Intersection Left Turns, pp. 3065-3070.

Nobukawa, Kazutoshi — Univ. of Michigan
Gordon, Tim — Univ. of Michigan
Barnes, Michelle — Univ. of Michigan
Goodsell, Robert — Univ. of Michigan

15:50-16:10 ThC05.2

Macroscopic Mechanistic Modeling and Optimization of a Self-Initiated High-Temperature Polymerization Reactor, pp. 3071-3076.

Rier, Thomas — Drexel Univ.
Srinivasan, Sriraj — Drexel Univ.
Soroush, Masoud — Drexel Univ.
Kalfas, George — DuPont
Grady, Michael — DuPont
Rappe, Andrew — Univ. of Pennsylvania

16:10-16:30 ThC05.3

Nanofluid Augmented Coolant Rail Thermoelectric Cooling of Electronic Systems — Modeling and Analysis, pp. 3077-3083.

Finn, Joshua — Clemson Univ.
Ewing, David — Clemson Univ.
Ma, Lin — Clemson Univ.
Wagner, John R. — Clemson Univ.

16:30-16:50 ThC05.4

A Multiscale Stochastic Approach for Phase Screens Synthesis, pp. 3084-3089.

Beghi, Alessandro — Univ. di Padova
Cenedese, Angelo — Univ. of Padova
Masiero, Andrea — Univ. di Padova

16:50-17:10 ThC05.5

Determining Battery Parameters by Simple Algebraic Method, pp. 3090-3095.

Hu, Tingshu — Univ. of Massachusetts, Lowell
Zanchi, Brian — Univ. of Massachusetts, Lowell
Zhao, Jianping — Univ. of Massachusetts, Lowell

17:10-17:30 ThC05.6

Effect of Coupling Point Selection on Distortion in Internet-Distributed Hardware-In-The-Loop Simulation, pp. 3096-3103.

Ersal, Tulga — Univ. of Michigan
Gillespie, Brent — Univ. of Michigan
Brudnak, Mark — TARDEC
Stein, Jeffrey L. — Univ. of Michigan
Fathy, Hosam K. — Penn State Univ.

ThC06	Continental 2
Nonlinear Control Design for Semi-Active Civil Systems - Part II (Invited Session)	
Chair: Scruggs, Jeff	Duke Univ.
Co-Chair: Wang, Yang	Georgia Inst. of Tech.
Organizer: Scruggs, Jeff	Duke Univ.
Organizer: Wang, Yang	Georgia Inst. of Tech.
15:30-15:50	ThC06.1
Multi-Subnet Wireless Sensing Feedback for Decentralized H2 Control with Information Overlapping (I), pp. 3104-3109.	
Wang, Yang	Georgia Inst. of Tech.
Law, Kincho H.	Stanford Univ.
Loh, Chin-Hsiung	National Taiwan Univ.
Huang, Shieh-Kung	National Center for Res. on Earthquake Engineering
Lu, Kung-Chun	National Taiwan Univ.
Lin, Pei-Yang	Natinal Center for Res. on Earthquake Engineering
15:50-16:10	ThC06.2
Active-Passive Control Strategy for Adjacent Buildings (I), pp. 3110-3115.	
Palacios-Quiñonero, Francisco	Univ. Pol. de Catalunya (UPC)
Rossell, Josep M.	Univ. Pol. de Catalunya (UPC)
Rodellar, Jose	Tech. Univ. of Catalonia
Karimi, Hamid Reza	Univ. of Agder
16:10-16:30	ThC06.3
Optimal Sensor Placement for Health Monitoring of Civil Structures (I), pp. 3116-3121.	
van der Linden, Gwendolyn W	SC Solutions, Inc.
Emami-Naeini, Abbas	SC Solutions, Inc.
Kosut, Robert L.	SC Solutions, Inc.
Sedarat, Hassan	SC Solutions, Inc.
Lynch, Jerome	Univ. of Michigan
16:30-16:50	ThC06.4
Approximate Solutions to Nonlinearly-Constrained Optimal Control Problems (I), pp. 3122-3128.	
Harvey, Philip Scott	Duke Univ.
Gavin, Henri P.	Duke Univ.
16:50-17:10	ThC06.5
Direct Adaptive Neural-Control System for Seismically Excited Non-Linear Base-Isolated Buildings (I), pp. 3129-3133.	
Sundaram, Suresh	Assistant Professor
Narasimhan, Sriram	Univ. of Waterloo
17:10-17:30	ThC06.6
Simulation and Experiment Validation of Simultaneous Vibration Control and Energy Harvesting from Buildings Using Tuned Mass Dampers (I), pp. 3134-3139.	
Zuo, Lei	State Univ. of New York at Stony Brook

ThC07	Continental 3
Control of Networked and Distributed Process Systems (Invited Session)	
Chair: El-Farra, Nael H.	Univ. of California, Davis
Co-Chair: Mhaskar, Prashant	McMaster Univ.
Organizer: El-Farra, Nael H.	Univ. of California, Davis
Organizer: Mhaskar, Prashant	McMaster Univ.
15:30-15:50	ThC07.1
Simplified Controller Design for Distributed Parameter Systems Using Mobile Actuator with Augmented Vehicle Dynamics (I), pp. 3140-3145.	
Demetriou, Michael A.	Worcester Pol. Inst.

15:50-16:10	ThC07.2
Fault Detection and Isolation and Safe-Parking of Networked Systems (I), pp. 3146-3151.	
Du, Miao	McMaster Univ.
Gandhi, Rahul	McMaster Univ.
Mhaskar, Prashant	McMaster Univ.
16:10-16:30	ThC07.3
Dynamic Quasi-Decentralized Control of Networked Process Systems with Limited Measurements (I), pp. 3152-3157.	
Sun, Yulei	Univ. of California, Davis
El-Farra, Nael H.	Univ. of California, Davis
16:30-16:50	ThC07.4
Data-Based Monitoring and Reconfiguration of a Distributed Model Predictive Control System (I), pp. 3158-3165.	
Chilin, David	Univ. of California, Los Angeles
Liu, Jinfeng	Univ. of California, Los Angeles
Davis, James F.	UCLA
Christofides, Panagiotis D.	Univ. of California at Los Angeles
16:50-17:10	ThC07.5
Event-Based NMPC for Networked Control Systems Over UDP-Like Communication Channels, pp. 3166-3171.	
Varutti, Paolo	Otto-von-Guericke Univ. of Magdeburg
Findeisen, Rolf	OVG Univ. Magdeburg
17:10-17:30	ThC07.6
Hierarchical Distributed Model Predictive Control for Risk Mitigation: An Irrigation Canal Case Study, pp. 3172-3177.	
Zafra-Cabeza, Ascension	Univ. of Seville
Maestre, J.M.	Univ. of Seville
Ridao, Miguel A.	Univ. de Sevilla
Camacho, Eduardo F.	Univ. of Sevilla
Sanchez, Laura	INOCSA Ingeniería

ThC08	Continental 7
Feedback Linearization (Regular Session)	
Chair: Beard, Randy	Brigham Young Univ.
Co-Chair: Fierro, Rafael	Univ. of New Mexico
15:30-15:50	ThC08.1
On the Linear Control of the Quad-Rotor System, pp. 3178-3183.	
Sira-Ramirez, Hebertt	CINVESTAV
15:50-16:10	ThC08.2
Stability of Feedback Linearization under Intermittent Information: A Target-Pursuit Case, pp. 3184-3190.	
Tolic, Domagoj	Univ. of New Mexico
Fierro, Rafael	Univ. of New Mexico
16:10-16:30	ThC08.3
Nonlinear Aircraft Modeling and Controller Design for Target Tracking, pp. 3191-3196.	
Rizwan, Yassir	Univ. of Waterloo
Waslander, Steven L.	Univ. of Waterloo
Nielsen, Christopher	Univ. of Waterloo
16:30-16:50	ThC08.4
Combining a Backstepping Controller with a Local Stabilizer, pp. 3197-3202.	
Stein Shiromoto, Humberto	Escola Pol. da Univ. de Sao Paulo
Andrieu, Vincent	Univ. de Lyon
Prieur, Christophe	Gipsa-Lab.
16:50-17:10	ThC08.5
Synergistic Lyapunov Functions and Backstepping Hybrid Feedbacks, pp. 3203-3208.	
Mayhew, Christopher G.	Robert Bosch LLC
Sanfelice, Ricardo G.	Univ. of Arizona
Teel, Andrew R.	Univ. of California at Santa Barbara

17:10-17:30 ThC08.6

Towed-Body Trajectory Tracking in Aerial Recovery of Micro Air Vehicle in the Presence of Wind, pp. 3209-3214.

Sun, Liang — Brigham Young Univ.
Beard, Randy — Brigham Young Univ.

ThC09 Continental 8

Control of Networks (Regular Session)

Chair: Moezzi, Kaveh — Concordia Univ.
Co-Chair: Zavlanos, Michael M. — Stevens Inst. of Tech.

15:30-15:50 ThC09.1

GODDeS: Globally Epsilon-Optimal Routing Via Distributed Decision-Theoretic Self-Organization, pp. 3215-3220.

Chattopadhyay, Ishanu — Penn State
Ray, Asok — Pennsylvania State Univ.

15:50-16:10 ThC09.2

Analysis of Neural Networks with Time-Delays Using the Lambert W Function, pp. 3221-3226.

Yi, Sun — North Carolina A&T State Univ.
Yu, Sangseok — Chung Nam National Univ.
Kim, Jung Hyoun — North Carolina A&T State Univ.

16:10-16:30 ThC09.3

Self-Deployment Algorithms for Field Coverage in a Network of Nonidentical Mobile Sensors: Vertex-Based Approach, pp. 3227-3232.

Mahboubi, Hamid — Concordia Univ.
Moezzi, Kaveh — Concordia Univ.
Aghdam, Amir G. — Concordia Univ.
Sayrafian-Pour, Kamran — National Inst. of Standard & Tech.

16:30-16:50 ThC09.4

Duty Cycle Scheduling in Dynamic Sensor Networks for Controlling Event Detection Probabilities, pp. 3233-3238.

Jaleel, Hassan — Georgia Inst. of Tech.
Rahmani, Amir — Georgia Inst. of Tech.
Egerstedt, Magnus — Georgia Inst. of Tech.

16:50-17:10 ThC09.5

On the Critical Coupling Strength for Kuramoto Oscillators, pp. 3239-3244.

Dörfler, Florian — Univ. of California at Santa Barbara
Bullo, Francesco — Univ. California at Santa Barbara

17:10-17:30 ThC09.6

Spectral Control of Mobile Robot Networks, pp. 3245-3250.

Zavlanos, Michael M. — Stevens Inst. of Tech.
Preciado, Victor M. — Univ. of Pennsylvania
Jadbabaie, Ali — Univ. of Pennsylvania

ThC10 Continental 9

Optimization and Optimization Algorithms II (Regular Session)

Chair: Grover, Martha — Georgia Inst. of Tech.
Co-Chair: Mossberg, Magnus — Karlstad Univ.

15:30-15:50 ThC10.1

Market Based Allocation of Power in Smart Grid, pp. 3251-3256.

HomChaudhuri, Baisravan — Univ. of Cincinnati
Kumar, Manish — Univ. of Cincinnati

15:50-16:10 ThC10.2

Ant Colony Optimization Technique to Solve the Min-Max Single Depot Vehicle Routing Problem, pp. 3257-3262.

Venkata Narasimha, Koushik S — Univ. of Cincinnati
Kumar, Manish — Univ. of Cincinnati

16:10-16:30	ThC10.3
An Adaptive Chaotic PSO for Parameter Optimization and Feature Extraction of LS-SVM Based Modelling, pp. 3263-3268.	
Cheng, Weijian	Northestern Univ.
Ding, Jinliang	The Univ. of Manchester
Kong, Weijian	Northeastern Univ.
Chai, Tianyou	Northeastern Univ.
Qin, S. Joe	Univ. of Southern California
16:30-16:50	ThC10.4
Optimal Design for Active Self-Assembly System, pp. 3269-3274.	
Xue, Yuzhen	Georgia Inst. of Tech.
Grover, Martha	Georgia Inst. of Tech.
16:50-17:10	ThC10.5
Sliding Window Recursive Quadratic Optimization with Variable Regularization, pp. 3275-3280.	
Hoagg, Jesse B.	Univ. of Kentucky
Ali, Asad	Univ. of Michigan
Mossberg, Magnus	Karlstad Univ.
Bernstein, Dennis S.	Univ. of Michigan
17:10-17:30	ThC10.6
Optimal Input Design for Flat Systems Using B-Splines, pp. 3281-3282.	
Van Loock, Wannes	Katholieke Univ. Leuven
Pipeleers, Goele	Katholieke Univ. Leuven
Swevers, Jan	K. U. Leuven

ThC11	Golden Gate 1
Structural and Fluid Power Applications (Regular Session)	
Chair: Bentsman, Joseph	Univ. of Illinois at Urbana-Chyampaign
Co-Chair: Djordjevic, Snezana	Eindhoven Univ. of Tech.
15:30-15:50	ThC11.1
Boundary Control of Two-Phase Fluid Flow Using the Laplace-Space Domain, pp. 3283-3288.	
Djordjevic, Snezana	Eindhoven Univ. of Tech.
Bosgra, Okko H.	Delft Univ. of Tech.
Van den Hof, Paul M.J.	Delft Univ. of Tech.
15:50-16:10	ThC11.2
Robust Rejection of Sinusoids in Stable Nonlinearly Perturbed Unmodelled Linear Systems: Theory and Application to Servo, pp. 3289-3294.	
Natarajan, Vivek	Univ. of Illinois, Urbana-Champaign
Bentsman, Joseph	Univ. of Illinois at Urbana-Chyampaign
16:10-16:30	ThC11.3
Optimal Design of Power-Split Transmissions for Hydraulic Hybrid Passenger Vehicles, pp. 3295-3300.	
Cheong, Kai Loon	Univ. of Minnesota
Li, Perry Y.	Univ. of Minnesota
Chase, Thomas R.	Univ. of Minnesota
16:30-16:50	ThC11.4
Experimental Validation of a Scaled Instrument for Real-Time Hybrid Testing (I), pp. 3301-3306.	
Gao, Xiuyu	Purdue Univ.
Castaneda, Nestor	Washington Univ. in St. Louis
Dyke, Shirley J.	Purdue Univ.
Xi, Sisu	Washington Univ. in St. Louis
Gill, Christopher	Washington Univ. in St. Louis
Lu, Chenyang	Washington Univ. in St. Louis
Ohtori, Yasuki	Central Res. Inst. of Electric Power Industry, JAPAN

16:50-17:10	ThC11.5
Effective Strategies for Real Time Hybrid Simulation of Near Seismic Collapse Response of Moment Resisting Frames (I), pp. 3307-3314.	
Leclerc, Martin	Ec. Pol. de Montreal
Molinari, Marco	Univ. of Trento
Bouaanani, Najib	Ec. Pol. de Montreal
Tremblay, Robert	Ec. Pol. de Montreal
Leger, Pierre	Ec. Pol. de Montreal
Bursi, Oreste	Univ. of Trento
17:10-17:30	ThC11.6
Multi-Mode Adaptive Positive Position Feedback: An Experimental Study, pp. 3315-3319.	
Orszulik, Ryan	York Univ.
Shan, Jinjun	York Univ.

ThC12	Golden Gate 2
Advanced Automotive Control Techniques (Invited Session)	
Chair: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.
Co-Chair: Onori, Simona	Ohio State Univ.
Organizer: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.
Organizer: Onori, Simona	Ohio State Univ.
Organizer: Karnik, Amey	Ford Motor Company
Organizer: Mohammadpour, Javad	Univ. of Houston
Organizer: Vermillion, Christopher	Altaeros Energies
15:30-15:50	ThC12.1
Data Driven Engine Model Identification and Real-Time Adaptation (I), pp. 3320-3325.	
Grimble, Michael John	Univ. of Strathclyde
Javaherian, Hossein	GM R&D
Dutka, Arkadiusz S.	Univ. of Strathclyde
15:50-16:10	ThC12.2
Disturbance Attenuation in Time-Delay Systems a Case Study on Engine Air-Fuel Ratio Control (I), pp. 3326-3331.	
Jankovic, Mrdjan	Ford Res. & Advanced Engineering
Magner, Stephen W.	Ford Motor Company
16:10-16:30	ThC12.3
Simulation Study of a Novel Self-Powered Active Suspension System for Automobiles (I), pp. 3332-3337.	
Singal, Kalpesh	Univ. of Minnesota - Twin Cities
Rajamani, Rajesh	Univ. of Minnesota
16:30-16:50	ThC12.4
Gear Shifting of Dual Clutch Transmissions with a Torque Rate Limitation Trajectory (I), pp. 3338-3343.	
Kim, Jinsung	KAIST
Cho, Kwanghyun	Korea Advanced Inst. of Science and Tech.
Choi, Seibum Ben	KAIST
16:50-17:10	ThC12.5
Design of Switching Strategy for Adaptive Cruise Control under String Stability Constraints (I), pp. 3344-3349.	
Zhai, Yao	Purdue Univ.
Li, Lingxi	Indiana Univ. Univ. Indianapolis
Widmann, Glann	Delphi
Chen, Yaobin	Purdue School of Engr and Tech. IUPUI

ThC13	Golden Gate 3
Multivehicle Systems (Regular Session)	
Chair: Olgac, Nejat	Univ. of Connecticut
Co-Chair: Humpherys, Jeffrey	Brigham Young Univ.

15:30-15:50	ThC13.1
Convergence Analysis and Controller Design for a Team of Mobile Robots Subject to Measurement Error, pp. 3350-3356.	
Golkar, Mahsa	Unviersity of Concordia
Momeni, Ahmadreza	Concordia Univ.
Moezzi, Kaveh	Concordia Univ.
Aghdam, Amir G.	Concordia Univ.
Mantegh, Iraj	National Res. Council Canada
15:50-16:10	ThC13.2
Dynamic Input Consensus Using Integrators, pp. 3357-3362.	
Taylor, Clark N.	Air Force Res. Lab.
Beard, Randy	Brigham Young Univ.
Humpherys, Jeffrey	Brigham Young Univ.
16:10-16:30	ThC13.3
Collision Avoidance Control with Sensing Uncertainties, pp. 3363-3368.	
Rodríguez-Seda, Erick J.	Univ. of Texas at Dallas
Stipanovic, Dusan M.	Univ. of Illinois, Urbana-Champaign
Spong, Mark W.	Univ. of Texas at Dallas
16:30-16:50	ThC13.4
Exhaustive Stability Analysis in a Consensus System with Time Delay and Irregular Topologies, pp. 3369-3374.	
Cepeda-Gomez, Rudy	The Univ. of Connecticut
Olgac, Nejat	Univ. of Connecticut
16:50-17:10	ThC13.5
Game-Theoretic Routing of GPS-Assisted Vehicles for Energy Efficiency, pp. 3375-3380.	
Aswani, Anil	Univ. of California at Berkeley
Tomlin, Claire J.	UC Berkeley
17:10-17:30	ThC13.6
Obstacle Avoidance in Multi-Vehicle Coordinated Motion Via Stabilization of Time-Varying Sets, pp. 3381-3386.	
Ghorbanian, Parham	Villanova Univ.
Nersesov, Sergey G.	Villanova Univ.
Ashrafiuon, Hashem	Villanova Univ.

ThC14	Golden Gate 4
Cooperative Control VI (Regular Session)	
Chair: Fujita, Masayuki	Tokyo Inst. of Tech.
Co-Chair: Wang, Zheng	Stevens Inst. Tech.
15:30-15:50	ThC14.1
Adaptive Output Consensus Tracking of Uncertain Multi-Agent Systems, pp. 3387-3392.	
Wang, Zheng	Stevens Inst. Tech.
Zhang, Wenlin	Stevens Inst. of Tech.
Guo, Yi	Stevens Inst. of Tech.
15:50-16:10	ThC14.2
UAV Cooperative Control with Stochastic Risk Models, pp. 3393-3398.	
Geramifard, Alborz	MIT
Redding, Joshua	Massachusetts Inst. of Tech.
Roy, Nicholas	Massachusetts Inst. of Tech.
How, Jonathan P.	MIT
16:10-16:30	ThC14.3
Passivity-Based Cooperative Estimation of 3D Target Motion for Visual Sensor Networks: Analysis on Averaging Performance, pp. 3399-3404.	
Hatanaka, Takeshi	Tokyo Inst. of Tech.
Fujita, Masayuki	Tokyo Inst. of Tech.

16:30-16:50	ThC14.4
On the Stability and Optimality of Distributed Kalman Filters with Finite-Time Data Fusion, pp. 3405-3410.	
Khan, Usman	Tufts Univ.
Jadbabaie, Ali	Univ. of Pennsylvania
16:50-17:10	ThC14.5
Decentralized Swarming Beliefs of Distributed Autonomous Heterogeneous System, pp. 3411-3416.	
Overstreet, Jamahl	Pol. Inst. of NYU
Khorrami, Farshad	Pol. Inst. of NYU
Krishnamurthy, Prashanth	FarCo Tech. Inc.
17:10-17:30	ThC14.6
Accelerated Corrective Consensus: Converge to the Exact Average at a Faster Rate, pp. 3417-3422.	
Chen, Yin	Johns Hopkins Univ.
Tron, Roberto	Johns Hopkins Univ.
Terzis, Andreas	Johns Hopkins Univ.
Vidal, Rene	Johns Hopkins Univ.

ThC15	Golden Gate 5
Networks and Communication (Regular Session)	
Chair: Djouadi, Seddik, M.	Univ. of Tennessee
Co-Chair: Gupta, Vijay	Univ. of Notre Dame
15:30-15:50	ThC15.1
Cooperative Rate Control in ATM Networks, pp. 3423-3428.	
Manfredi, Sabato	Univ. of Naples Federico II
15:50-16:10	ThC15.2
On a Rate Control Protocol for Networked Estimation, pp. 3429-3434.	
Katewa, Vaibhav	Univ. of Notre Dame
Gupta, Vijay	Univ. of Notre Dame
16:10-16:30	ThC15.3
Distributed Resource Management Using Iterative Gradient Update Synthesis, pp. 3435-3440.	
Martensson, Karl	Lund Univ.
Vladimerou, Vladimeros	Lund Univ.
16:30-16:50	ThC15.4
Cooperative Control Based on Distributed Estimation of Network Connectivity, pp. 3441-3446.	
Qu, Zhihua	Univ. of Central Florida
Li, Chaoyong	Univ. of Central Florida
Lewis, Frank L.	Univ. of Texas at Arlington
16:50-17:10	ThC15.5
Stability Conditions for Optimal Filtering Over Cognitive Radio System, pp. 3447-3452.	
Ma, Xiao	Univ. of Tennessee
Djouadi, Seddik, M.	Univ. of Tennessee
Li, Husheng	Univ. of Tennessee
17:10-17:30	ThC15.6
Novel Multiplexing Technique in Anti-Jamming GNSS Receivers, pp. 3453-3458.	
Chang, Chung-Liang	National Pingtung Univ. of Science and Tech. R

ThC16	Golden Gate 6
Micro Electro-Mechanical Systems (Regular Session)	
Chair: Rajamani, Rajesh	Univ. of Minnesota
Co-Chair: Saif, Mehrdad	Simon Fraser Univ.
15:30-15:50	ThC16.1
Capacitance Ratio Estimation on a Novel MEMS Tactile Sensor for Elasticity Measurement, pp. 3459-3464.	
Peng, Peng	Univ. of Minnesota
Rajamani, Rajesh	Univ. of Minnesota

15:50-16:10	ThC16.2
Optimal On-Off Controller with Charge Recovery for Thin-Film Piezoelectric Actuators for an Autonomous Mobile Micro-Robot, pp. 3465-3470.	
Edamana, Biju	Univ. of Michigan
Oldham, Kenn	Univ. of Michigan, Ann Arbor
16:10-16:30	ThC16.3
Robust Finite-Duration Transient Response of Micro-Electromechanical System, pp. 3471-3476.	
Rhee, Choong-Ho	Univ. of Michigan, Ann Arbor
Oldham, Kenn	Univ. of Michigan, Ann Arbor
16:30-16:50	ThC16.4
PID-Structured Controller Design for Interval Systems: Application to Piezoelectric Microactuators, pp. 3477-3482.	
Khadraoui, Sofiane	Femto-st
Rakotondrabe, Micky	FEMTO-ST Inst.
Lutz, Philippe	Femto-st
16:50-17:10	ThC16.5
Terminal Sliding Mode Control of Z-Axis MEMS Gyroscope with Observer Based Rotation Rate Estimation, pp. 3483-3489.	
Saif, Mehrdad	Simon Fraser Univ.
Ebrahimi, Behrouz	Amirkabir Univ. of Tech. (Tehran Pol.
Vali, M.	Univ. of Kashan
17:10-17:30	ThC16.6
Multiple Model Adaptive Estimation of Satellite Attitude Using MEMS Gyros, pp. 3490-3495.	
Stearns, Hoday	Univ. of California, Berkeley
Tomizuka, Masayoshi	Univ. of California, Berkeley

ThC17	Golden Gate 7
Biological Systems (Regular Session)	
Chair: Wen, John T.	Rensselaer Pol. Inst.
Co-Chair: Nounou, Hazem	Texas A&M Univ. at Qatar
15:30-15:50	ThC17.1
Modeling of Drosophila Circadian System Based on the Locomotor Activity, pp. 3496-3501.	
Zhang, Jiaxiang	Rensselaer Pol. Inst.
Wen, John T.	Rensselaer Pol. Inst.
Julius, Agung	Rensselaer Pol. Inst.
15:50-16:10	ThC17.2
Bacterial Persistence: Mathematical Modeling and Optimal Treatment Strategy, pp. 3502-3507.	
Cooper, Nicholas	Rensselaer Pol. Inst.
Julius, Agung	Rensselaer Pol. Inst.
16:10-16:30	ThC17.3
Modeling Sporulation Decisions in Bacillus Subtilis As Optimal Evolutionary Decision-Making, pp. 3508-3513.	
Morimoto, Michael	Univ. of California- Berkeley
Arkin, Adam	N/A
Poolla, Kameshwar	Univ. of California at Berkeley
16:30-16:50	ThC17.4
Nonlinear Dynamics in the Trapping Movement of the Venus Flytrap, pp. 3514-3518.	
Li, Yongfeng	Univ. Space Res. Association
Zhang, Mingjun	The Univ. of Tennessee
16:50-17:10	ThC17.5
Intervention in Biological Phenomena Modeled by S-Systems: A Model Predictive Control Approach, pp. 3519-3523.	
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.

17:10-17:30 ThC17.6

Optimal Determination of Respiratory Airflow Patterns Using a Nonlinear Multi-Compartment Model for a Lung-Rib-Cage System, pp. 3524-3529.

Li, Hancao Georgia Inst. of Tech.
Haddad, Wassim M. Georgia Inst. of Tech.

ThC18 Golden Gate 8

Controls for Societal Challenges: Sustainable Growth (Tutorial Session)

Chair: Topcu, Ufuk California Inst. of Tech.
Co-Chair: Gayme, Dennice California Inst. of Tech.
Organizer: Topcu, Ufuk California Inst. of Tech.
Organizer: Gayme, Dennice California Inst. of Tech.

15:30-17:30 ThC18.1

*Panel Discussion (I)**.

Gayme, Dennice California Inst. of Tech.
Khargonekar, Pramod P. Univ. of Florida
Topcu, Ufuk California Inst. of Tech.

FrSP1	Continental 4
A Control Theory Approach to Engineering Bio-Molecular Circuits (Semiplenary Session)	
Chair: Jabbari, Faryar	Univ. of California at Irvine
08:00-09:00	FrSP1.1
*A Control Theory Approach to Engineering Bio-Molecular Circuits**.	
Del Vecchio, Domitilla	Massachusetts Insitute of Tech.

FrSP2	Continental 6
Energy Smart Grid, an Enterprise View of Systems Control (Semiplenary Session)	
Chair: Shoureshi, Rahmat	Univ. of Denver
08:00-09:00	FrSP2.1
*Energy Smart Grid, an Enterprise View of Systems Control**.	
Piasecki, Ray	General Electric

FrA01	Franciscan A
Adaptive Systems III (Regular Session)	
Chair: Sadegh, Nader	Georgia Inst. of Tech.
Co-Chair: Chowdhary, Girish	Georgia Inst. of Tech.
09:30-09:50	FrA01.1
Forward/Backward Adaptation Law for Nonlinearly Parameterized Systems, pp. 3530-3535.	
Chen, Zhiyong	The Univ. of Newcastle
09:50-10:10	FrA01.2
Adaptive Controller Design for Uncertain Nonlinear Systems with Input Magnitude and Rate Limitations, pp. 3536-3541.	
Yuan, Ruyi	Inst. of Automation, Chinese Acad. of Sciences
Yi, Jianqiang	China Acad. of Sciences
Yu, Wensheng	Shanghai Key Lab. of Trustworthy Computing, East China Nor
Fan, Guoliang	Inst. of Automation, Chinese Acad. of Sciences
10:10-10:30	FrA01.3
Setting the Hysteresis Constant to Zero in Adaptive Switching Control, pp. 3542-3546.	
Alhajri, Mubarak	Univ. of Southern California
Safonov, Michael G.	Univ. of Southern California
10:30-10:50	FrA01.4
A Singular Value Maximizing Data Recording Algorithm for Concurrent Learning, pp. 3547-3552.	
Chowdhary, Girish	Georgia Inst. of Tech.
Johnson, Eric N.	Georgia Inst. of Tech.
10:50-11:10	FrA01.5
Model-Free Learning Control of Nonlinear Discrete-Time Systems, pp. 3553-3558.	
Sadegh, Nader	Georgia Inst. of Tech.
11:10-11:30	FrA01.6
Regulation under Disturbances with Multiple Harmonics of Unknown Frequency, pp. 3559-3564.	
Esbrook, Alex	Michigan State Univ.
Tan, Xiaobo	Michigan State Univ.
Khalil, Hassan K.	Michigan State Univ.

FrA02	Franciscan B
Distributed Parameter Systems (Regular Session)	
Chair: Iftime, Orest V.	Univ. of Groningen
Co-Chair: Sawodny, Oliver	Univ. of Stuttgart

09:30-09:50	FrA02.1
Thermo-Inspired Modeling and Analysis of Network Information Flows, pp. 3565-3570.	
Hui, Qing	Texas Tech. Univ.
09:50-10:10	FrA02.2
Interconnection of Dirac Structures Via Kernel/image Representation, pp. 3571-3576.	
Iftime, Orest V.	Univ. of Groningen
Sandovici, Adrian	Univ. of Iasi
10:10-10:30	FrA02.3
Spatially-Localized Optimal Control of Transition to Turbulence, pp. 3577-3582.	
Moarref, Rashad	Univ. of Minnesota
Lieu, Binh K.	Univ. of Minnesota
Jovanovic, Mihailo	Univ. of Minnesota
10:30-10:50	FrA02.4
Consistent Identification of Spatially Interconnected Systems, pp. 3583-3588.	
Ali, Mukhtar	Tech. Univ. Hamburg Harburg (TUHH)
Ali, Ahsan	Inst. of Control Systems, Hamburg Univ. of Tech.
Chughtai, Saulat Shuja	Hamburg Univ. of Tech.
Werner, Herbert	Hamburg Univ. of Tech.
10:50-11:10	FrA02.5
Slugging in Multiphase Flow As a Mixed Initial-Boundary Value Problem for a Quasilinear Hyperbolic System, pp. 3589-3596.	
Di Meglio, Florent	MINES ParisTech
Kaasa, Glenn-Ole	Statoil ASA
Petit, Nicolas	MINES ParisTech
Alstad, VIdar	Yara International ASA
11:10-11:30	FrA02.6
Feedforward Control of Inhomogeneous Linear First Order Distributed Parameter Systems, pp. 3597-3602.	
Malchow, Florian	Univ. of Stuttgart
Sawodny, Oliver	Univ. of Stuttgart

FrA03	Franciscan C
Estimation III (Regular Session)	
Chair: Jadbabaie, Ali	Univ. of Pennsylvania
Co-Chair: Rubinovich, Evgeny	Inst. of Control Sciences
09:30-09:50	FrA03.1
A Sub-Optimal Sensor Scheduling Strategy Using Convex Optimization, pp. 3603-3608.	
Li, Chong	Iowa State Univ.
Elia, Nicola	Iowa State Univ.
09:50-10:10	FrA03.2
Cubature Information Filter and Its Applications, pp. 3609-3614.	
Bharani Chandra, Kumar Pakki	Univ. of Leicester
Gu, Dawei	Univ. of Leicester
Postlethwaite, Ian	Northumbria Univ.
10:10-10:30	FrA03.3
A Topological View of Estimation from Noisy Relative Measurements, pp. 3615-3620.	
Molavi, Pooya	Univ. of Pennsylvania
Jadbabaie, Ali	Univ. of Pennsylvania
10:30-10:50	FrA03.4
Strobing Optimization in a Mobile Sensor System Associated with the Pursuit Problem, pp. 3621-3626.	
Bentsman, Joseph	Univ. of Illinois at Urbana-Chyampaign
Rubinovich, Evgeny	Inst. of Control Sciences

10:50-11:10	FrA03.5
A Study on the Relation between Alarm Deadbands and Optimal Alarm Limits, pp. 3627-3632.	
Naghoosi, Elham	Univ.
Izadi, Iman	Matrikon Inc.
Chen, Tongwen	Univ. of Alberta
11:10-11:30	FrA03.6
Risk-Based Sensor Management for Integrated Detection and Estimation, pp. 3633-3638.	
Wang, Yue	Worcester Pol. Inst.
Hussein, Islam	Worcester Pol. Inst.
Erwin, Richard Scott	Air Force Res. Lab.

FrA04	Franciscan D
Iterative Learning Control Design Paradigms (Invited Session)	
Chair: Barton, Kira	Univ. of Illinois, Urbana-Champaign
Co-Chair: Bristow, Douglas A.	Missouri Univ. of Science & Tech.
Organizer: Barton, Kira	Univ. of Illinois, Urbana-Champaign
Organizer: Bristow, Douglas A.	Missouri Univ. of Science & Tech.
Organizer: Mishra, Sandipan	Rensselaer Pol. Inst.
09:30-09:50	FrA04.1
Reduced-Order ILC: The Internal Model Principle Reconsidered (I), pp. 3639-3644.	
Pipeleers, Goele	Katholieke Univ. Leuven
Moore, Kevin L.	Colorado School of Mines
09:50-10:10	FrA04.2
Semi-Active Iterative Learning Control (I), pp. 3645-3650.	
Mishra, Sandipan	Rensselaer Pol. Inst.
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
10:10-10:30	FrA04.3
Terminal Iterative Learning Control with Multiple Pass Points (I), pp. 3651-3656.	
Son, Tong Duy	GIST
Ahn, Hyo-Sung	Gwangju Inst. of Science and Tech. (GIST)
10:30-10:50	FrA04.4
Point-To-Point Iterative Learning Control with Mixed Constraints (I), pp. 3657-3662.	
Freeman, Christopher T.	Univ. of Southampton
Tan, Ying	The Univ. of Melbourne
10:50-11:10	FrA04.5
Robust Iterative Learning Control: L1 Adaptive Feedback Control in an ILC Framework (I), pp. 3663-3668.	
Barton, Kira	Univ. of Illinois, Urbana-Champaign
Mishra, Sandipan	Rensselaer Pol. Inst.
Xargay, Enric	Univ. of Illinois, Urbana-Champaign
11:10-11:30	FrA04.6
Robustness Analysis of Slow Learning in Iterative Learning Control Systems (I), pp. 3669-3673.	
Bristow, Douglas A.	Missouri Univ. of Science & Tech.
Singler, John	Missouri Univ. of Science and Tech.

FrA05	Continental 1
Linear Systems I (Regular Session)	
Chair: Guay, Martin	Queen's Univ.
Co-Chair: Swevers, Jan	K. U. Leuven
09:30-09:50	FrA05.1
On Positive Invariance for Delay Difference Equations, pp. 3674-3679.	
Lombardi, Warody	Supélec
Olaru, Sorin	Supelec

Lazar, Mircea	Eindhoven Univ. of Tech.
Niculescu, Silviu-Iulian	CNRS-Supelec

09:50-10:10 FrA05.2

Design of Low-Order Dynamic Pre-Compensators Using Convex Methods, pp. 3680-3685.

Shamgah, Laya	Sharif Univ.
Nejati Aghdam, Afsoon	Sharif Univ. of Tech.
Nobakhti, Amin	Sharif Univ. of Tech.
Karimi, Houshang	Sharif Univ. of Tech.

10:10-10:30 FrA05.3

Decomposition of Linear Port-Hamiltonian Systems, pp. 3686-3691.

Hoeffner, Kai	Massachusetts Inst. of Tech.
Guay, Martin	Queen's Univ.

10:30-10:50 FrA05.4

Intermittent Kalman Filtering: Eigenvalue Cycles and Nonuniform Sampling, pp. 3692-3697.

Park, Se Yong	Univ. of California at Berkeley
Sahai, Anant	UC Berkeley

10:50-11:10 FrA05.5

Fixed-Order Robust Controller Design with Time-Domain Constraints, pp. 3698-3703.

Zavari, Keivan	Katholieke Univ. Leuven
Khatibi, Hamid	EPFL
Majd, Vahid Johari	Associate Professor, Tarbiat Modares Univ.
Pipeleers, Goele	Katholieke Univ. Leuven
Swevers, Jan	K. U. Leuven

11:10-11:30 FrA05.6

Sparsity Based Feedback Design: A New Paradigm in Opportunistic Sensing, pp. 3704-3709.

Bhattacharya, Sourabh	Univ. of Illinois, Urbana-Champaign
Basar, Tamer	Univ. of Illinois, Urbana-Champaign

FrA06 Continental 2

Robust Control (Regular Session)

Chair: Talebi, H.A.	Amirkabir Univ.
Co-Chair: Sira-Ramirez, Hebertt	CINVESTAV

09:30-09:50 FrA06.1

An Adaptive Observer-Based Controller Design for Time-Delay Teleoperation with Uncertainty in Environment and Parameters, pp. 3710-3715.

Motaharifar, Mohammad	Amirkabir Univ. of Tech.
Sharifi, Iman	Amirkabir Univ. of Tech.
Talebi, H.A.	Amirkabir Univ.

09:50-10:10 FrA06.2

Synthesis of Fixed-Structure Robust Controllers Using the Distributed Particle Swarm Optimizer with Cyclic-Network Topology, pp. 3716-3721.

Maruta, Ichiro	Kyoto Univ.
Sugie, Toshiharu	Kyoto Univ.
Kim, Tae-Hyoung	Chung-Ang Univ.

10:10-10:30 FrA06.3

The (J, J')–Spectral Factorization of a General Discrete–Time System, pp. 3722-3727.

Oara, Cristian	Univ. Pol. Bucharest
Andrei, Raluca	Univ. Pol. Bucharest

10:30-10:50 FrA06.4

Robust Linear Output Feedback Control of a Synchronous Generator, pp. 3728-3733.

Sira-Ramirez, Hebertt	CINVESTAV

10:50-11:10 FrA06.5

Robust Stability Analysis for Feedback Interconnections of Unstable Time-Varying Systems, pp. 3734-3741.

Jonsson, Ulf T. Royal Inst. of Tech. (KTH)
Cantoni, Michael Univ. of Melbourne

11:10-11:30 FrA06.6

Robust SDC Parameterization for a Class of Extended Linearization Systems, pp. 3742-3747.

Nazari, Sam Northeastern Univ.
Shafai, Bahram Northeastern Univ.

FrA07 Continental 3

Fault-Tolerant Systems (Regular Session)

Chair: Zhao, Qing Univ. of Alberta
Co-Chair: Edwards, Christopher Univ. of Leicester

09:30-09:50 FrA07.1

Adaptive Control Schemes for Discrete-Time T-S Fuzzy Systems with Unknown Parameters and Actuator Failures, pp. 3748-3753.

Qi, Ruiyun Nanjing Univ. of Aeronautics and Astronautics
Tao, Gang Univ. of Virginia
Jiang, Bin Nanjing Univ. of Aeronautics & Astronautics
Tan, Chang Nanjing Univ. of Aeronautics and Astronautics

09:50-10:10 FrA07.2

A Discrete-Time Parameter Estimation Based Adaptive Actuator Failure Compensation Control Scheme, pp. 3754-3759.

Tan, Chang Nanjing Univ. of Aeronautics and Astronautics
Qi, Ruiyun Nanjing Univ. of Aeronautics and Astronautics
Tao, Gang Univ. of Virginia

10:10-10:30 FrA07.3

Optimizing the Location of Sensors Subject to Health Degradation, pp. 3760-3765.

Marier, Jean-Samuel Numerica Tech. Inc.
Rabbath, Camille Alain Defence R&D Canada
Lechevin, Nicolas Defence R&D Canada

10:30-10:50 FrA07.4

Adaptive Robust Actuator Fault-Tolerant Control in Presence of Input Saturation, pp. 3766-3771.

Gayaka, Shreekant Western Digital
Yao, Bin Purdue Univ.

10:50-11:10 FrA07.5

An Integral Sliding Mode Augmentation Scheme for Fault Tolerant Control, pp. 3772-3777.

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

11:10-11:30 FrA07.6

Statistical Characterization of the GLR Based Fault Detection, pp. 3778-3783.

Yang, Shuonan Univ. of Alberta
Zhao, Qing Univ. of Alberta

FrA08 Continental 7

Constrained Systems I (Regular Session)

Chair: Yao, Bin Purdue Univ.
Co-Chair: Fang, Haijun MKS Inst.

09:30-09:50 FrA08.1

Global Stabilization of a Chain of Integrators with Input Saturation and Disturbances, pp. 3784-3789.

Gayaka, Shreekant Western Digital
Yao, Bin Purdue Univ.

09:50-10:10 FrA08.2

A Tracking Controller for Linear Systems Subject to Input Amplitude and Rate Constraints, pp. 3790-3795.

Kefferpütz, Klaus — Tech. Univ. Darmstadt
Adamy, Jürgen — Tech. Univ. Darmstadt

10:10-10:30 FrA08.3

A New Design Method for Mismatch-Based Anti-Windup Compensators: Achieving Local Performance and Global Stability in the SISO Case, pp. 3796-3801.

Ortseifen, Andreas — Tech. Univ. Darmstadt
Adamy, Jürgen — Tech. Univ. Darmstadt

10:30-10:50 FrA08.4

Global Practical Stabilization for Integrator Chain with Actuator Saturation and Input Additive Disturbances, pp. 3802-3807.

Fang, Haijun — MKS Inst.

10:50-11:10 FrA08.5

Simultaneous Global External and Internal Stabilization of Linear Time-Invariant Discrete-Time Systems Subject to Actuator Saturation, pp. 3808-3812.

Wang, Xu — Washington State Univ.
Saberi, Ali — Washington State Univ.
Stoorvogel, Anton A. — Univ. of Twente
Sannuti, Peddapullaiah — Rutgers Univ.

11:10-11:30 FrA08.6

Coprime Factor Anti-Windup for Systems with Sensor Saturation, pp. 3813-3818.

Sofrony, Jorge Ivan — Univ. Nacional de Colombia
Turner, Matthew C. — Univ. of Leicester

FrA09 Continental 8

Controls and Art (Invited Session)

Chair: LaViers, Amy — Georgia Inst. of Tech.
Co-Chair: Egerstedt, Magnus — Georgia Inst. of Tech.
Organizer: LaViers, Amy — Georgia Inst. of Tech.
Organizer: Egerstedt, Magnus — Georgia Inst. of Tech.

09:30-09:50 FrA09.1

Motion Preference Learning (I), pp. 3819-3824.

Kingston, Peter — Georgia Inst. of Tech.
Egerstedt, Magnus — Georgia Inst. of Tech.

09:50-10:10 FrA09.2

Control Aesthetics in Software Architecture for Robotic Marionettes (I), pp. 3825-3830.

Murphey, Todd — Northwestern Univ.
Johnson, Elliot — Northwestern Univ.

10:10-10:30 FrA09.3

Optimization and Pose Selection for a Lindy Hop Partnered Spin (I), pp. 3831-3836.

Selbach-Allen, Megan E. — Univ. of Liverpool
McIlhany, Kevin L. — United States Naval Acad.
Gentry, Sommer — U.S. Naval Acad.

10:30-10:50 FrA09.4

The Ballet Automaton: A Formal Model for Human Motion (I), pp. 3837-3842.

LaViers, Amy — Georgia Inst. of Tech.
Egerstedt, Magnus — Georgia Inst. of Tech.

10:50-11:10 FrA09.5

Feasiblity of Motion Primitives for Choreographed Quadrocopter Flight (I), pp. 3843-3849.

Schoellig, Angela — ETH Zurich
Hehn, Markus Florian — ETH Zurich
Lupashin, Sergei — ETH Zurich
D'Andrea, Raffaello — ETH

11:10-11:30	FrA09.6
Extended Multi-Agent Consensus Protocols for the Generation of Geometric Patterns in the Plane (I), pp. 3850-3855.	
Tsiotras, Panagiotis	Georgia Inst. of Tech.
Reyes Castro, Luis Ignacio	Georgia Inst. of Tech.

FrA10	Continental 9
Control Techniques in Finance and Resource Allocation (Invited Session)	
Chair: Primbs, James A.	Stanford Univ.
Co-Chair: Castanon, David A.	Boston Univ.
Organizer: Primbs, James A.	Stanford Univ.
Organizer: Humpherys, Jeffrey	Brigham Young Univ.
09:30-09:50	FrA10.1
Optimal Hedging for Multivariate Derivatives Based on Additive Models (I), pp. 3856-3861.	
Yamada, Yuji	Univ. of Tsukuba
09:50-10:10	FrA10.2
A Stochastic Model Predictive Control Approach to Dynamic Option Hedging with Transaction Costs (I), pp. 3862-3867.	
Bemporad, Alberto	Univ. of Trento
Puglia, Laura	Univ. degli Studi di Trento
Gabbriellini, Tommaso	MPS Capital Services
10:10-10:30	FrA10.3
A Numerical Method for Consumption-Portfolio Problems (I), pp. 3868-3873.	
Ye, Jinchun	CTC Holdings
10:30-10:50	FrA10.4
On Performance Limits of Feedback Control-Based Stock Trading Strategies (I), pp. 3874-3879.	
Barmish, B. Ross	Univ. of Wisconsin
10:50-11:10	FrA10.5
Pseudo-Polynomial Auction Algorithm for Nonlinear Resource Allocation, pp. 3880-3885.	
Bangla, Ajay Kumar	Boston Univ.
Castanon, David A.	Boston Univ.
11:10-11:30	FrA10.6
The Role of Co-Located Storage for Wind Power Producers in Conventional Electricity Markets, pp. 3886-3891.	
Bitar, Eilyan	Univ. of California, Berkeley
Rajagopal, Ram	Univ. of California, Berkeley
Khargonekar, Pramod P.	Univ. of Florida
Poolla, Kameshwar	Univ. of California at Berkeley

FrA11	Golden Gate 1
Power Systems I (Regular Session)	
Chair: Das, Tuhin	Rochester Inst. of Tech.
Co-Chair: Roozbehani, Mardavij	Massachusetts Inst. of Tech.
09:30-09:50	FrA11.1
Adaptive Control of a Solid Oxide Fuel Cell Ultra-Capacitor Hybrid System, pp. 3892-3898.	
Das, Tuhin	Rochester Inst. of Tech.
Snyder, Steven	Rochester Inst. of Tech.
09:50-10:10	FrA11.2
Hybrid Large Scale System Model for a DC Microgrid, pp. 3899-3904.	
Tulpule, Pinak	The Ohio State Univ.
Yurkovich, Stephen	Univ. of Texas at Dallas
Wang, Jin	The Ohio State Univ.
Rizzoni, Giorgio	Ohio State Univ.

10:10-10:30	FrA11.3
Adaptive Control of Interleaved Boost Converter for Fuel Cell Energy, pp. 3905-3910.	
El Fadil, Hassan	ENSA, Ibn Tofail Univ. Kénitra.
Giri, Fouad	Univ. de Caen
Guerrero, J.M.	Univ. Pol. de Catalunya
Salhi, Boualem	Univ. of Tizi-Ouzzou
10:30-10:50	FrA11.4
H2 Performance Bounds for Voltage Regulation on a Spatially-Invariant DC Power Grid, pp. 3911-3917.	
Rinehart, Michael	Massachusetts Inst. of Tech.
Roozbehani, Mardavij	Massachusetts Inst. of Tech.
Dahleh, Munther A.	Massachusetts Inst. of Tech.
10:50-11:10	FrA11.5
A Graph Theoretic Characterization of Power Network Vulnerabilities, pp. 3918-3923.	
Pasqualetti, Fabio	Univ. of California, Santa Barbara
Bicchi, Antonio	Univ. di Pisa
Bullo, Francesco	Univ. California at Santa Barbara
11:10-11:30	FrA11.6
Decentralized Charging Algorithm for Electric Vehicles Connected to Smart Grid, pp. 3924-3929.	
Ahn, Changsun	Univ. of Michigan
Li, Chiao-Ting	Univ. of Michigan
Peng, Huei	Univ. of Michigan

FrA12	Golden Gate 2
Vehicle Dynamics and Control (Invited Session)	
Chair: Vermillion, Christopher	Toyota Tech. Center
Co-Chair: Ferrara, Antonella	Univ. of Pavia
Organizer: Vermillion, Christopher	Altaeros Energies
Organizer: Onori, Simona	Ohio State Univ.
Organizer: Karnik, Amey	Ford Motor Company
Organizer: Mohammadpour, Javad	Univ. of Houston
Organizer: Shilpiekandula, Vijay	Mitsubishi Electrical Res. Lab.
09:30-09:50	FrA12.1
Active Braking Control for Two-Wheeled Vehicles Via Switched Second Order Sliding Modes (I), pp. 3930-3935.	
Tanelli, Mara	Pol. di Milano
Ferrara, Antonella	Univ. of Pavia
09:50-10:10	FrA12.2
The Development of AMR Sensors for Vehicle Position Estimation (I), pp. 3936-3941.	
Taghvaeeyan, Saber	Univ. of Minnesota
Rajamani, Rajesh	Univ. of Minnesota
10:10-10:30	FrA12.3
Real-Time Automotive Slip Angle Estimation with Nonlinear Observer (I), pp. 3942-3947.	
Phanomchoeng, Gridsada	Univ. of Minnesota
Rajamani, Rajesh	Univ. of Minnesota
Piyabongkarn, Damrongrit	Eaton Corp.
10:30-10:50	FrA12.4
Robust Estimation of Road Friction Coefficient (I), pp. 3948-3953.	
Ahn, Changsun	Univ. of Michigan
Peng, Huei	Univ. of Michigan
Tseng, Eric	Ford Motor Company

10:50-11:10 FrA12.5

Fault-Tolerant Control with Active Fault Diagnosis for Four-Wheel Independently-Driven Electric Ground Vehicles (I), pp. 3954-3959.

Wang, Rongrong — Ohio State Univ.
Wang, Junmin — The Ohio State Univ.

11:10-11:30 FrA12.6

Managing Axle Saturation for Vehicle Stability Control with Independent Wheel Drives, pp. 3960-3965.

Sill, Justin — Clemson Univ. - International Center for Automotive Res.
Ayalew, Beshah — Clemson Univ.

FrA13 — Golden Gate 3

Underwater Vehicles (Regular Session)

Chair: Silvestre, Carlos — Inst. Superior Tecnico
Co-Chair: Morgansen, Kristi A. — Univ. of Washington

09:30-09:50 FrA13.1

Linear Motion Observers for ASC/AUV Tandems Based on Single Range Readings, pp. 3966-3971.

Viegas, Daniel — Inst. for Systems and Robotics / Inst. Superior Técnico
Batista, Pedro — Inst. Superior Técnico
Oliveira, Paulo Jorge — Inst. Superior Técnico
Silvestre, Carlos — Inst. Superior Tecnico

09:50-10:10 FrA13.2

Nonlinear Control of an Autonomous Underwater Vehicle: A RISE-Based Approach, pp. 3972-3977.

Fischer, Nicholas — Univ. of Florida
Bhasin, Shubhendu — Univ. of Florida
Dixon, Warren E. — Univ. of Florida

10:10-10:30 FrA13.3

Design of a Robust Vision-Based Sensor of Position and Rate for the Guidance of Autonomous Underwater Vehicles, pp. 3978-3983.

Jordan, Mario A. — Argentinean Inst. of Oceanography (IADO-CONICET)
Berger, Carlos — Argentinean Inst. of Oceanography (IADO-CONICET)
Bustamante, Jorge Luis — Argentinean Inst. of Oceanography

10:30-10:50 FrA13.4

Elastic Formation Control Based on Affine Transformations, pp. 3984-3989.

Briñon Arranz, Lara — INRIA Rhône-Alpes
Seuret, Alexandre — CNRS
Canudas de Wit, Carlos — CNRS, GIPSA-Lab.

10:50-11:10 FrA13.5

Long-Baseline Acoustic Localization of the Seaglider Underwater Glider, pp. 3990-3995.

Techy, Laszlo — Univ. of Washington
Morgansen, Kristi A. — Univ. of Washington
Woolsey, Craig — Virginia Tech.

11:10-11:30 FrA13.6

Observer-Based Feedback Control for Stabilization of Collective Motion, pp. 3996-4001.

Napora, Seth — Univ. of Maryland,
Paley, Derek A. — Univ. of Maryland

FrA14 — Golden Gate 4

Cooperative Control VII (Regular Session)

Chair: Cenedese, Angelo — Univ. of Padova
Co-Chair: Ahn, Hyo-Sung — Gwangju Inst. of Science and Tech. (GIST)

09:30-09:50 FrA14.1

Multiple Manipulator Cooperative Control Using Disturbance Estimator and Consensus Algorithm, pp. 4002-4007.

Lee, Sang-Chul — GIST
Ahn, Hyo-Sung — Gwangju Inst. of Science and Tech. (GIST)

09:50-10:10	FrA14.2
Globally Asymptotically Stable Formation Control of Three Agents, pp. 4008-4013.	
Wang, Qin	Southeast Univ.
Tian, Yu-Ping	Southeast Univ.
Xu, Yaojin	Southeast Univ.
10:10-10:30	FrA14.3
Synchronization on the N-Torus with Noisy Measurements, pp. 4014-4019.	
Mahmoudian, Nina	Michigan Tech. Univ.
Paley, Derek A.	Univ. of Maryland
10:30-10:50	FrA14.4
Finite-Time Consensus of Multi-Agent Networks with Inherent Nonlinear Dynamics under an Undirected Interaction Graph, pp. 4020-4025.	
Cao, Yongcan	Utah State Univ.
Ren, Wei	Utah State Univ.
Chen, Fei	Utah State Univ.
Zong, Guangdeng	Qufu Normal Univ.
10:50-11:10	FrA14.5
Distributed Partitioning Strategies for Perimeter Patrolling, pp. 4026-4031.	
Carli, Ruggero	Univ. of Padova
Cenedese, Angelo	Univ. of Padova
Schenato, Luca	Univ. of Padova
11:10-11:30	FrA14.6
Communication-Aware Surveillance in Mobile Sensor Networks, pp. 4032-4038.	
Ghaffarkhah, Alireza	Univ. of New Mexico
Mostofi, Yasamin	Univ. of New Mexico

FrA15	Golden Gate 5
Network Security and Adversarial Learning (Invited Session)	
Chair: Zhu, Minghui	Univ. of California, San Diego
Co-Chair: Martinez, Sonia	Univ. of California at San Diego
Organizer: Zhu, Minghui	Univ. of California, San Diego
Organizer: Martinez, Sonia	Univ. of California at San Diego
09:30-09:50	FrA15.1
Randomized Solutions to Partial Information Dynamic Zero-Sum Games (I), pp. 4039-4044.	
Bopardikar, Shaunak D.	Univ. of California, Santa Barbara
Hespanha, Joao P.	Univ. of California, Santa Barbara
09:50-10:10	FrA15.2
Learning of Equilibria and Misperceptions in Hypergames with Perfect Observations (I), pp. 4045-4050.	
Gharesifard, Bahman	Univ. of California San Diego
Cortes, Jorge	Univ. of California, San Diego
10:10-10:30	FrA15.3
Idempotent Method for Deception Games (I), pp. 4051-4056.	
McEneaney, William	Univ. of California, San Diego
10:30-10:50	FrA15.4
Distributed Strategic Learning with Application to Network Security (I), pp. 4057-4062.	
Zhu, Quanyan	Univ. of Illinois, Urbana-Champaign
Tembine, Hamidou	SUPELEC
Basar, Tamer	Univ. of Illinois, Urbana-Champaign
10:50-11:10	FrA15.5
Stackelberg-Game Analysis of Correlated Attacks in Cyber-Physical Systems (I), pp. 4063-4068.	
Zhu, Minghui	Univ. of California, San Diego
Martinez, Sonia	Univ. of California at San Diego

11:10-11:30	FrA15.6
Selfish Response to Epidemic Propagation (I), pp. 4069-4074.	
Theodorakopoulos, George	EPFL
LeBoudec, Jean-Yves	École Pol. Fédérale de Lausanne
Baras, John S.	Univ. of Maryland

FrA16	Golden Gate 6
Mechatronics I (Regular Session)	
Chair: Nuij, Pieter Waltherus Jozef Maria	Eindhoven Univ. of Tech.
Co-Chair: Fu, Li-Chen	National Taiwan Univ.

09:30-09:50	FrA16.1
Adaptive Backstepping PI Sliding-Mode Control for Interior Permanent Magnet Synchronous Motor Drive Systems, pp. 4075-4080.	
Lin, Cheng-Kai	National Taiwan Univ.
Liu, Tian-Hua	National Taiwan Univ. of Science and Tech.
Fu, Li-Chen	National Taiwan Univ.

09:50-10:10	FrA16.2
Active Disturbance Rejection Control for Human Postural Sway, pp. 4081-4086.	
Kotina, Radhika	Cleveland State Univ.
Zheng, Qing	Gannon Univ.
van den Bogert, Antonie	Orchard Kinetics LLC
Gao, Zhiqiang	Cleveland State Univ.

10:10-10:30	FrA16.3
Inverse-Based Feedforward Control for an Inkjet Printhead, pp. 4087-4092.	
Ezzeldin Mahdy, Mohamed	Eindhoven Univ. of Tech.
van den Bosch, P. P. J.	Eindhoven Univ. of Tech.
Weiland, Siep	Eindhoven Univ. of Tech.

10:30-10:50	FrA16.4
Frequency Domain Based Friction Compensation, Industrial Application to Transmission Electron Microscopes, pp. 4093-4098.	
Rijlaarsdam, David Jan	Eindhoven Univ. of Tech.
Nuij, Pieter Waltherus Jozef Maria	Eindhoven Univ. of Tech.
Schoukens, Johan	Vrije Univ. Brussels
Steinbuch, Maarten	Eindhoven Univ. of Tech.

10:50-11:10	FrA16.5
Development of Simplified Statics of Robot Manipulator and Optimized Muscle Torque Distribution Based on the Statics, pp. 4099-4104.	
Oh, Sehoon	the Univ. of Tokyo
Salvucci, Valerio	The Univ. of Tokyo
Hori, Yoichi	Univ. of Tokyo

11:10-11:30	FrA16.6
Experimental Verification of Infinity Norm Approach for Force Maximization of Manipulators Driven by Bi-Articular Actuators, pp. 4105-4110.	
Salvucci, Valerio	The Univ. of Tokyo
Kimura, Yasuto	The Univ. of Tokyo
Oh, Sehoon	the Univ. of Tokyo
Hori, Yoichi	Univ. of Tokyo

FrA17	Golden Gate 7
Biologically-Inspired Methods and Applications (Regular Session)	
Chair: Lavaei, Javad	California Inst. of Tech.
Co-Chair: Menezes, Amor A.	Univ. of Michigan

09:30-09:50 FrA17.1

The Application of Domain of Danger in Autonomous Agent Team and Its Effect on Exploration Efficiency, pp. 4111-4116.

Liu, Shih-Yuan — Univ. of California, Berkeley
Hedrick, Karl — Univ. of California at Berkeley

09:50-10:10 FrA17.2

Selective Evolutionary Generation: A Model for Optimally Efficient Search in Biology, pp. 4117-4122.

Menezes, Amor A. — Univ. of Michigan
Kabamba, Pierre T. — Univ. of Michigan

10:10-10:30 FrA17.3

Biologically-Inspired Coordination of Multiple UAVs Using Sliding Mode Control, pp. 4123-4128.

Chang, Young Hwan — Univ. of California, Berkeley
Tomlin, Claire J. — UC Berkeley
Hedrick, Karl — Univ. of California at Berkeley

10:30-10:50 FrA17.4

Optimization-Based Inference for Temporally Evolving Boolean Networks with Applications in Biology, pp. 4129-4134.

Chang, Young Hwan — Univ. of California, Berkeley
Gray, Joe — Lawrence Berkeley Lab.
Tomlin, Claire J. — UC Berkeley

10:50-11:10 FrA17.5

Fault-Tolerant Controller Design with Applications in Power Systems and Synthetic Biology, pp. 4135-4142.

Sojoudi, Somayeh — California Inst. of Tech.
Lavaei, Javad — California Inst. of Tech.
Murray, Richard M. — California Inst. of Tech.

11:10-11:30 FrA17.6

Biologically Motivated Shape Optimization of Foraging Fronts, pp. 4143-4148.

Haque, Musad — Georgia Inst. of Tech.
Rahmani, Amir — Georgia Inst. of Tech.
Egerstedt, Magnus — Georgia Inst. of Tech.
Yezzi, Anthony — Georgia Inst. of Tech.

FrA18 Golden Gate 8

Control and Optimization Theory for Electric Smart Grids (Tutorial Session)

Chair: Chakrabortty, Aranya — North Carolina State Univ.
Co-Chair: Amin, Massoud — Univ. of Minnesota
Organizer: Chakrabortty, Aranya — North Carolina State Univ.
Organizer: Amin, Massoud — Univ. of Minnesota

09:30-09:50 FrA18.1

Passivity-Based Robust Control for Power Systems Subject to Wind Power Variability (I), pp. 4149-4154.

Liu, Juhua — ABB Inc.
Krogh, Bruce H. — Carnegie Mellon Univ.
Ydstie, B. Erik — Carnegie Mellon

09:50-10:10 FrA18.2

Time-Scale Features and Their Applications in Electric Power System Dynamic Modeling and Analysis (I), pp. 4155-4159.

Sauer, Peter — Univ. of Illinois

10:10-10:30 FrA18.3

Reconfigurable Interdependent Infrastructure Systems: Advances in Distributed Sensing, Modeling, and Control (I), pp. 4160-4165.

Giacomoni, Anthony — Univ. of Minnesota
Amin, Massoud — Univ. of Minnesota
Wollenberg, Bruce — Univ. of Minnesota

10:30-10:50 FrA18.4

Impact Analysis of Wind Generation on Voltage Stability and System Load Margin (I), pp. 4166-4171.

Ma, Rui — Changsha Univ. of Science and Tech.
Huang, Garng M. — Texas A & M Univ.

10:50-11:10	FrA18.5
Overview of Wide-Area Real-Time Stability Monitoring Algorithms in Power Systems Using Synchrophasors (I), pp. 4172-4176.	
Venkatasubramanian, Vaithiananthan	Washington State Univ.
Liu, Xing	Washington State Univ.
Liu, Guoping	PJM Interconnection
Zhang, Qiang	Washington State Univ.
Sherwood, Michael	Pacific Gas and Electric
11:10-11:30	FrA18.6
*Techniques for Voltage Stability Monitoring and Control (I)**.	
Ajjarapu, Venkataramana	Iowa State Univ.

FrB01	Franciscan A
Adaptive Systems IV (Regular Session)	
Chair: Annaswamy, Anuradha	Massachusetts Inst. of Tech.
Co-Chair: Joshi, Suresh M.	NASA Langley Res. Ctr.
13:10-13:30	FrB01.1
Inferential Adaptive Control for Non-Uniformly Sampled-Data Systems, pp. 4177-4182.	
Xie, Li	Jiangnan Univ.
Yang, Huizhong	Jiangnan Univ.
Ding, Feng	Jiangnan Univ.
13:30-13:50	FrB01.2
A Derivative-Free Output Feedback Adaptive Control Architecture for Minimum Phase Dynamical Systems with Unmatched Uncertainties, pp. 4183-4188.	
Yucelen, Tansel	Georgia Inst. of Tech.
Haddad, Wassim M.	Georgia Inst. of Tech.
13:50-14:10	FrB01.3
Adaptive Control of a Networked Control System with Hierarchical Scheduling, pp. 4189-4194.	
Voit, Harald	Tech. Univ. München
Annaswamy, Anuradha	Massachusetts Inst. of Tech.
14:10-14:30	FrB01.4
Bayesian Prediction and Adaptive Sampling Algorithms for Mobile Sensor Networks, pp. 4195-4200.	
Xu, Yunfei	Michigan State Univ.
Choi, Jongeun	Michigan State Univ.
Dass, Sarat	Michigan State Univ.
Maiti, Taps	Michigan State Univ.
14:30-14:50	FrB01.5
Decentralized Adaptive Control of Systems with Uncertain Interconnections, Plant-Model Mismatch and Actuator Failures, pp. 4201-4206.	
Patre, Parag	NASA Langley Res. Center
Joshi, Suresh M.	NASA Langley Res. Ctr.
14:50-15:10	FrB01.6
Robust Adaptive Optimal Control for Unknown Dynamical Systems, pp. 4207-4212.	
Sadamoto, Tomonori	Tokyo Inst. of Tech.
Yamakita, Masaki	Tokyo Inst. of Tech.

FrB02	Franciscan B
Delay Systems I (Regular Session)	
Chair: Sipahi, Rifat	Northeastern Univ.
Co-Chair: Hui, Qing	Texas Tech. Univ.

13:10-13:30	FrB02.1
PI Control of First Order Time-Delay Systems Via Eigenvalue Assignment, pp. 4213-4218.	
Yi, Sun	North Carolina A&T State Univ.
Nelson, Patrick	Univ. of Michigan
Ulsoy, A. Galip	Univ. of Michigan
13:30-13:50	FrB02.2
Adaptive NN Control of Uncertain Nonaffine Pure-Feedback Systems with Unknown Time-Delay, pp. 4219-4224.	
Li, Xiaoqiang	Dalian Maritime Univ.
Wang, Dan	Dalian Maritime Univ.
Li, Tieshan	Dalian Maritime Univ.
Peng, Zhouhua	Dalian Maritime Univ.
Sun, Gang	Dalian Maritime Univ.
Wang, Ning	Dalian Maritime Univ.
13:50-14:10	FrB02.3
On Feedback Stabilization of a Class of Stochastic Nonlinear Systems with Delays, pp. 4225-4230.	
Aggoune, Woihida	ENSEA
Busawon, Krishna K.	Northumbria Univ.
14:10-14:30	FrB02.4
An Algebraic Approach to Design Observers for Delay-Independent Stability of Systems with Single Output Delay, pp. 4231-4236.	
Nia, Payam Mahmoodi	Graduate Student Northeastern Univ.
Sipahi, Rifat	Northeastern Univ.
14:30-14:50	FrB02.5
Evaluating the Delay Robustness of Interconnected Passive Systems with a Frequency-Dependent Integral Quadratic Constraint, pp. 4237-4242.	
Summers, Erin	UC Berkeley
Arcak, Murat	Univ. of California, Berkeley
Packard, Andrew K.	Univ. of California at Berkeley
14:50-15:10	FrB02.6
Semistability of Retarded Functional Differential Equations, pp. 4243-4248.	
Hui, Qing	Texas Tech. Univ.

FrB03	Franciscan C
Estimation IV (Regular Session)	
Chair: Colburn, Christopher	UC San Diego
Co-Chair: Dorveaux, Eric	MINES ParisTech
13:10-13:30	FrB03.1
Combining Inertial Measurements and Distributed Magnetometry for Motion Estimation, pp. 4249-4256.	
Dorveaux, Eric	MINES ParisTech
Boudot, Thomas	Ec. Pol.
Hillion, Mathieu	Ec. des Mines de Paris
Petit, Nicolas	MINES ParisTech
13:30-13:50	FrB03.2
Optimal Estimation of Multidimensional Data with Limited Measurements, pp. 4257-4262.	
MacKunis, William	Univ. of Florida
Curtis, Jess	Air Force Res. Lab.
Berg-Yuen, Pia Eeva Kaarina	Air Force Res. Lab.
13:50-14:10	FrB03.3
Structure Exploiting Derivative Computation for Moving Horizon Estimation, pp. 4263-4268.	
Philipp, Peter	Tech. Univ. München

14:10-14:30	FrB03.4
Gradient-Based Iterative Parameter Identification for Multi-Input Multi-Output OEMA-Like Models, pp. 4269-4274.	
Zhang, Zhening	Jiangnan Univ.
Ding, Feng	Jiangnan Univ.
Wang, Dongqing	Qingdao Univ.
14:30-14:50	FrB03.5
Real-Time Frequency Estimation of Sinusoidal Signals with Low-Frequency Disturbances, pp. 4275-4280.	
Yang, Shuonan	Univ. of Alberta
Zhao, Qing	Univ. of Alberta
14:50-15:10	FrB03.6
Estimation and Adaptive Observation of Environmental Plumes, pp. 4281-4286.	
Zhang, David	Univ. of California, San Diego
Colburn, Christopher	UC San Diego
Bewley, Thomas R.	UC San Diego

FrB04	Franciscan D
Emerging Applications of Iterative Learning Control (Invited Session)	
Chair: Barton, Kira	Univ. of Illinois, Urbana-Champaign
Co-Chair: Mishra, Sandipan	Rensselaer Pol. Inst.
Organizer: Barton, Kira	Univ. of Illinois, Urbana-Champaign
Organizer: Mishra, Sandipan	Rensselaer Pol. Inst.
Organizer: Bristow, Douglas A.	Missouri Univ. of Science & Tech.
13:10-13:30	FrB04.1
Model-Free Iterative Learning Control for LTI Systems and Experimental Validation on a Linear Motor Test Setup (I), pp. 4287-4292.	
Janssens, Pieter	Katholieke Univ. Leuven
Pipeleers, Goele	Katholieke Univ. Leuven
Swevers, Jan	K. U. Leuven
13:30-13:50	FrB04.2
Vision Based Iterative Learning Control of a MEMS Micropositioning Stage with Intersample Estimation and Adaptive Model Correction (I), pp. 4293-4298.	
White, Patrick Jesse	Missouri S&T
Bristow, Douglas A.	Missouri Univ. of Science & Tech.
13:50-14:10	FrB04.3
Iterative Learning Identification for an Automated Off-Highway Vehicle (I), pp. 4299-4304.	
Liu, Nanjun	Univ. of Illinois, Urbana-Champaign
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
14:10-14:30	FrB04.4
Bumpless Transfer for a Flexible Adaptation of Iterative Learning Control (I), pp. 4305-4311.	
Hoelzle, David	Univ. of Illinois, Urbana-Champaign
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
Wagoner Johnson, Amy	Univ. of Illinois, Urbana-Champaign
14:30-14:50	FrB04.5
Comparison of Wind Turbine Operating Transitions through the Use of Iterative Learning Control (I), pp. 4312-4319.	
Laks, Jason	Univ. of Colorado at Boulder
Pao, Lucy Y.	Univ. of Colorado at Boulder
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
14:50-15:10	FrB04.6
On the PD^alpha -Type Iterative Learning Control for the Fractional-Order Nonlinear Systems, pp. 4320-4325.	
Li, Yan	Shandong Univ.
Chen, YangQuan	Utah State Univ.
Ahn, Hyo-Sung	Gwangju Inst. of Science and Tech. (GIST)

FrB05	Continental 1
Linear Systems II (Regular Session)	
Chair: Lawrence, Douglas A.	Ohio Univ.
Co-Chair: Maalouf, Aline I.	Univ. of New South Wales at ADFA
13:10-13:30	FrB05.1
On the Left Eigenstructure Assignment and State Feedback Design, pp. 4326-4327.	
Bajcinca, Naim	Max-Planck Inst. for Dynamics of Complex Tech. Systems
Kouhi Anbaran, Yashar	Max Planck Inst. for Dynamics of Complex Tech. Systems
13:30-13:50	FrB05.2
Stabilizability of Linear Impulsive Systems, pp. 4328-4333.	
Lawrence, Douglas A.	Ohio Univ.
13:50-14:10	FrB05.3
Back and Forth Nudging for Quantum State Estimation by Continuous Weak Measurement, pp. 4334-4339.	
Leghtas, Zaki	INRIA Paris-Rocquencourt
Mirrahimi, Mazyar	INRIA Paris-Rocquencourt
Rouchon, Pierre	Mines ParisTech
14:10-14:30	FrB05.4
Finite Horizon H-Infinity Control for a Class of Linear Quantum Measurement Delayed Systems: A Dynamic Game Approach, pp. 4340-4347.	
Maalouf, Aline I.	Univ. of New South Wales at ADFA
Petersen, Ian	Univ. of New South Wales at the Australian Defence Force Ac
14:30-14:50	FrB05.5
Mathematical Relationships between Representations of Structure in Linear Interconnected Dynamical Systems, pp. 4348-4353.	
Yeung, Enoch	California Inst. of Tech.
Goncalves, Jorge M.	Univ. of Cambridge
Sandberg, Henrik	KTH Royal Inst. of Tech.
Warnick, Sean	Brigham Young Univ.
14:50-15:10	FrB05.6
Primal and Dual Stability Criteria for Systems with Time-Varying Gains, pp. 4354-4360.	
Jonsson, Ulf T.	Royal Inst. of Tech. (KTH)

FrB06	Continental 2
Uncertain Systems (Regular Session)	
Chair: Krishnamurthy, Prashanth	Pol. Inst. of NYU
Co-Chair: Gutman, Per-Olof	Tech.
13:10-13:30	FrB06.1
A Generalized Scaling Based Control Design for Nonlinear Nontriangular Systems with Input and State Time Delays, pp. 4361-4366.	
Krishnamurthy, Prashanth	FarCo Tech. Inc.
Khorrami, Farshad	Pol. Inst. of NYU
13:30-13:50	FrB06.2
Performances Inclusion for Stable Interval Systems, pp. 4367-4372.	
Rakotondrabe, Micky	FEMTO-ST Inst.
13:50-14:10	FrB06.3
Comparison of the DOB Based Control, a Special Kind of PID Control and ADRC, pp. 4373-4379.	
Xue, Wenchao	Acad. of Mathematics and Systems Science, Chinese Acad. of S
Huang, Yi	Inst. of Systems Science, Acad. of Mathematics and Systems
14:10-14:30	FrB06.4
Control of Linear Systems with Input Saturation and Matched Uncertainty and Disturbance, pp. 4380-4385.	
Stoorvogel, Anton A.	Univ. of Twente
Wang, Xu	Washington State Univ.
Saberi, Ali	Washington State Univ.
Sannuti, Peddapullaiah	Rutgers Univ.

14:30-14:50 FrB06.5

Improved Vertex Control for Time-Varying and Uncertain Linear Discrete-Time Systems with Control and State Constraints, pp. 4386-4391.

Nguyen, Hoai Nam — SUPELEC Systems Sciences (E3S) - Automatic Control Department, G
Gutman, Per-Olof — Tech.
Olaru, Sorin — Supelec
Hovd, Morten — Norwegian Univ. of Sci & Tech.
Frederic, Colledani — CEA, LIST, Interactive Robotics Lab. BP 6, 18 route du Pan

14:50-15:10 FrB06.6

Positive Realness of a Set of Matrix-Valued Time-Varying Uncertainties, pp. 4392-4397.

Kao, Chung-Yao — National Sun Yat-Sen Univ.
Fujioka, Hisaya — Kyoto Univ.

FrB07 — Continental 3

Predictive Control Applications (Regular Session)

Chair: Poulsen, Niels Kjølstad — Tech. Univ. of Denmark
Co-Chair: Qin, S. Joe — Univ. of Southern California

13:10-13:30 FrB07.1

Model Predictive Control of Trailing Edge Flaps on a Wind Turbine Blade, pp. 4398-4403.

Castaignet, Damien — Vestas Wind Systems A/S, Global Res.
Poulsen, Niels Kjølstad — Tech. Univ. of Denmark
Buhl, Thomas — Risø DTU, National Lab. for Sustainable Energy
Wedel-Heinen, Jens Jakob — Vestas Wind Systems A/S

13:30-13:50 FrB07.2

Tuning MPC for Desired Closed-Loop Performance for MIMO Systems, pp. 4404-4409.

Shah, Gaurang — Tech. Univ. Dortmund
Engell, Sebastian — Tech. Univ. Dortmund

13:50-14:10 FrB07.3

A Model Predictive Controller of Plastic Sheet Temperature for a Thermoforming Process, pp. 4410-4415.

Chy, Md Muminul Islam — McGill Univ.
Boulet, Benoit — McGill Univ.
Haidar, Ahmad — Ec. Pol. de Montreal

14:10-14:30 FrB07.4

Receding-Horizon Supervisory Control of Green Buildings, pp. 4416-4421.

Nghiem, Truong — Univ. of Pennsylvania
Pappas, George J. — Univ. of Pennsylvania

14:30-14:50 FrB07.5

Control Performance Monitoring of LP-MPC Cascade Systems, pp. 4422-4427.

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

14:50-15:10 FrB07.6

Parameterized MPC to Reduce Dispersion of Road Traffic Emissions, pp. 4428-4433.

Zegeye, Solomon Kidane — Delft Univ. of Tech.
De Schutter, Bart — Delft Univ. of Tech.
Hellendoorn, Hans — Delft Univ. of Tech.
Breunesse, Ewald — Shell Nederland B. V.

FrB08 — Continental 7

Constrained Systems II (Regular Session)

Chair: Lin, Zongli — Univ. of Virginia
Co-Chair: Stoorvogel, Anton A. — Univ. of Twente

13:10-13:30 FrB08.1

Globally Stable Fast Tracking Control of a Integrator Chain with Input Saturation and Disturbances: A Holistic Approach, pp. 4434-4439.

Lu, Lu — Purdue Univ. West Lafayette
Yao, Bin — Purdue Univ.

13:30-13:50 FrB08.2

Global Stabilization of the Discrete-Time Double Integrator Using a Saturated Linear State Feedback Controller, pp. 4440-4445.

Yang, Tao — Washington State Univ.
Stoorvogel, Anton A. — Univ. of Twente
Saberi, Ali — Washington State Univ.

13:50-14:10 FrB08.3

Dynamic Anti-Windup Design in Anticipation of Actuator Saturation, pp. 4446-4451.

Wu, Xiongjun — Shanghai Jiao Tong Univ.
Lin, Zongli — Univ. of Virginia

14:10-14:30 FrB08.4

A Comparison of Multi-Switch Bang-Bang and Time-Optimal Zero Vibration Commands for Rest-To-Rest Moves of a Floating Oscillator, pp. 4452-4456.

Robertson, Michael — United States Naval Acad.
O'Brien, Richard — United States Naval Acad.

14:30-14:50 FrB08.5

Anti-Windup Design Via Nonsmooth Multi-Objective H∞ Optimization, pp. 4457-4462.

Biannic, Jean-Marc — ONERA
Apkarian, Pierre — ONERA French Aerospace Lab. & Univ. Paul Sabatier, Maths.

14:50-15:10 FrB08.6

H₂ and H_{oo} Low-Gain Theory, pp. 4463-4469.

Wang, Xu — Washington State Univ.
Stoorvogel, Anton A. — Univ. of Twente
Saberi, Ali — Washington State Univ.
Sannuti, Peddapullaiah — Rutgers Univ.

FrB09 — Continental 8

Discrete Event Systems (Regular Session)

Chair: Garcia, Humberto E. — Idaho National Lab.
Co-Chair: Ru, Yu — Univ. of Illinois, Urbana-Champaign

13:10-13:30 FrB09.1

Selecting Observation Platforms for Optimized Anomaly Detectability under Unreliable Partial Observations, pp. 4470-4477.

Lin, Wen-Chiao — Idaho National Lab.
Garcia, Humberto E. — Idaho National Lab.
Yoo, Tae-sic — Idaho National Lab.

13:30-13:50 FrB09.2

Dynamic Discrete-Event Systems with Instances for the Modelling of Emergency Response Protocols, pp. 4478-4483.

Grigorov, Lenko — Queen's Univ.
Rudie, Karen — Queen's Univ.

13:50-14:10 FrB09.3

Necessary and Sufficient Conditions for Resultant Siphons to Be Controlled, pp. 4484-4489.

Wang, Shouguang — Zhejiang Gongshang Univ.
Wang, Chengying — Zhejiang Gongshang Univ.
Zhou, Meng Chu — New Jersey Inst. of Tech.

14:10-14:30 FrB09.4

Hierarchical Supervisory Control of Fuzzy Discrete Event Systems, pp. 4490-4495.

Jayasiri, Awantha — Memorial Univ. of Newfoundland
Mann, George K. I. — Memorial Univ. of Newfoundland
Gosine, Raymond G. — Memorial Univ. of Newfoundland

14:30-14:50 FrB09.5

A Process-Theoretic Approach to Supervisory Control Theory, pp. 4496-4501.

Baeten, J.C.M. — Eindhoven Univ. of Tech.
Van Beek, D.A. (Bert) — Eindhoven Univ. of Tech.
Luttik, S.P. — Eindhoven Univ. of Tech.
Markovski, Jasen — Eindhoven Univ. of Tech.
Rooda, J.E. — Eindhoven Univ. of Tech.

14:50-15:10 FrB09.6

Constrained Sensor Selection for Discrete Event Systems Modeled by Petri Nets, pp. 4502-4507.

Ru, Yu — Univ. of California, San Diego
Hadjicostis, Christoforos — Univ. of Cyprus

FrB10 Continental 9

Optimization (Regular Session)

Chair: Hirche, Sandra — Tech. Univ. München
Co-Chair: Spall, James C. — Johns Hopkins Univ.

13:10-13:30 FrB10.1

Communication Topology Design for Large-Scale Interconnected Systems with Time Delay, pp. 4508-4513.

Gusrialdi, Azwirman — Tech. Univ. of Munich
Hirche, Sandra — Tech. Univ. München

13:30-13:50 FrB10.2

Trajectory Optimization Estimator for Impulsive Data Association, pp. 4514-4519.

Travers, Matthew — Northwestern Univ.
Murphey, Todd — Northwestern Univ.
Pao, Lucy Y. — Univ. of Colorado at Boulder

13:50-14:10 FrB10.3

Discrete Simultaneous Perturbation Stochastic Approximation on Loss Function with Noisy Measurements, pp. 4520-4525.

Wang, Qi — The Johns Hopkins Univ.
Spall, James C. — Johns Hopkins Univ.

14:10-14:30 FrB10.4

Optimal Power System Unit Commitment with Guaranteed Local Stability, pp. 4526-4531.

Grote, Wolfgang — Univ. of Bochum
Kastsian, Darya — Ruhr-Univ. Bochum
Monnigmann, Martin — Ruhr-Univ. Bochum

14:30-14:50 FrB10.5

Games, Deception, and Jones' Lemma, pp. 4532-4537.

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

14:50-15:10 FrB10.6

A Simple Tunable Method for Profile Control - Least-Squares Configuration, pp. 4538-4539.

Tao, K. Mike — SRI International

FrB11 Golden Gate 1

Power Systems II (Regular Session)

Chair: Chakrabortty, Aranya — North Carolina State Univ.
Co-Chair: Lavaei, Javad — California Inst. of Tech.

13:10-13:30 FrB11.1

Optimal Sensor Placement for Parametric Identification of Electrical Networks Using Mixed Phasor Measurements, pp. 4540-4545.

Chakrabortty, Aranya — North Carolina State Univ.

13:30-13:50 FrB11.2

Modeling and Control Insights into Demand-Side Energy Management through Set-Point Control of Thermostatic Loads, pp. 4546-4553.

Bashash, Saeid — The Univ. of Michigan
Fathy, Hosam K. — Penn State Univ.

13:50-14:10 FrB11.3

Stability and Robust Regulation of Battery Driven Boost Converter with Simple Feedback, pp. 4554-4559.

Yao, Yao — Univ. of Massachusetts, Lowell
Fassinou, Fidegnon — Univ. of Massachusetts, Lowell
Hu, Tingshu — Univ. of Massachusetts, Lowell

14:10-14:30 FrB11.4

Global Robust Output Regulation for a Class of Multivariable Systems and Its Application to a Motor Drive System, pp. 4560-4565.

Ping, Zhaowu — The Chinese Univ. of Hong Kong
Huang, Jie — The Chinese Univ. of Hong Kong

14:30-14:50 FrB11.5

Zero Duality Gap for Classical OPF Problem Convexifies Fundamental Nonlinear Power Problems, pp. 4566-4573.

Lavaei, Javad — California Inst. of Tech.

14:50-15:10 FrB11.6

Nonlinear Dynamic Model and Stability Analysis of Self-Excited Induction Generators, pp. 4574-4579.

Bodson, Marc — Univ. of Utah
Kiselychnyk, Oleh — National Tech. Univ. of Ukraine "Kiev Pol. Inst.

FrB12 — Golden Gate 2

Automotive I (Regular Session)

Chair: Koch, Guido — Tech. Univ. München
Co-Chair: Steinbuch, Maarten — Eindhoven Univ. of Tech.

13:10-13:30 FrB12.1

Experimental Validation of a New Adaptive Control Approach for a Hybrid Suspension System, pp. 4580-4585.

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

13:30-13:50 FrB12.2

Model-Based Threat Assessment for Lane Guidance Systems, pp. 4586-4591.

Ali, Mohammad — Volvo Car Corp.
Falcone, Paolo — Chalmers Univ. of Tech.
Sjöberg, Jonas — Chalmers Univ.

13:50-14:10 FrB12.3

Analyzing the Performance Index for a Hybrid Electric Vehicle, pp. 4592-4597.

Ngo, Dac Viet — Eindhoven Univ. of Tech.
Hofman, Theo — Tech. Univ. Eindhoven
Steinbuch, Maarten — Eindhoven Univ. of Tech.
Serrarens, Alexander Franciscus Anita — Drivetrain Innovations BV

14:10-14:30 FrB12.4

Inverse Torque Control of Hydrodynamic Dynamometers for Combustion Engine Test Benches, pp. 4598-4603.

Passenbrunner, Thomas Ernst — Johannes Kepler Univ.
Sassano, Mario — Imperial Coll. London
Trogmann, Hannes — Johannes Kepler Univ. Linz
Del Re, Luigi — Johannes Kepler Univ. Linz
Paulweber, Michael — AVL
Schmidt, Martin — AVL
Kokal, Helmut — AVL

14:30-14:50	FrB12.5
Hybrid Automata of an Integrated Motor-Transmission Powertrain for Automatic Gear Shift, pp. 4604-4609.	
Fu, Hong	Tsinghua Univ.
Tian, Guangyu	Tsinghua Univ.
Chen, Quanshi	Tsinghua Univ.
Jin, Yiding	Tsinghua Univ.
14:50-15:10	FrB12.6
Driver Steering Model Based on a Target & Control Scheme, pp. 4610-4615.	
Tan, Han-Shue	Univ. of California at Berkeley
Huang, Jihua	UC Berkeley
Bu, Fanping	Univ. of California at Berkeley
Litkouhi, Bakhtiar	General Motors Company

FrB13	Golden Gate 3
Vision-Based Control (Regular Session)	
Chair: Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
Co-Chair: Liu, Hugh Hong-Tao	Univ. of Toronto
13:10-13:30	FrB13.1
Vision-Based Cyclic Pursuit for Cooperative Target Tracking, pp. 4616-4621.	
Ma, Lili	Wentworth Inst. of Tech.
Hovakimyan, Naira	Univ. of Illinois, Urbana-Champaign
13:30-13:50	FrB13.2
Vision-Based Relative Altitude Estimation of Small Unmanned Aerial Vehicles in Target Localization, pp. 4622-4627.	
Zhang, Rick	Univ. of Toronto
Liu, Hugh Hong-Tao	Univ. of Toronto
13:50-14:10	FrB13.3
Robot Crowd Navigation Using Predictive Position Fields in the Potential Function Framework, pp. 4628-4633.	
Pradhan, Ninad	Clemson Univ.
Burg, Timothy C.	Clemson Univ.
Birchfield, Stan	Clemson Univ.
14:10-14:30	FrB13.4
A Robust Aim Point Tracking Algorithm for 3-D Laser Radar Imagery, pp. 4634-4641.	
Sandhu, Romeil	Georgia Inst. of Tech.
Lankton, Shawn	Georgia Inst. of Tech.
Dambreville, Samuel	Georgia Inst. of Tech.
Shaw, Scot	MIT Lincoln Lab.
Murphy, Dan	MIT Lincoln Lab.
Tannenbaum, Allen	Georgia Tech.
14:30-14:50	FrB13.5
Collision-Free Visual Servoing of an Eye-In-Hand Manipulator Via Constraint-Aware Planning and Control, pp. 4642-4648.	
Chan, Ambrose	Univ. of British Columbia
Leonard, Simon	The Johns Hopkins Univ.
Croft, Elizabeth	UBC
Little, James Joseph	Univ. of British Columbia
14:50-15:10	FrB13.6
Observability-Based Local Path Planning and Collision Avoidance for Micro Air Vehicles Using Bearing-Only Measurements, pp. 4649-4654.	
Yu, Huili	Brigham Young Univ.
Sharma, Rajnikant	Brigham Young Univ.
Beard, Randy	Brigham Young Univ.
Taylor, Clark N.	Air Force Res. Lab.

FrB14	Golden Gate 4
Autonomous Systems I (Regular Session)	
Chair: Nair, Sujit	United Tech. Res. Center
Co-Chair: Fierro, Rafael	Univ. of New Mexico
13:10-13:30	FrB14.1
Trajectory Determination for Energy Efficient Autonomous Soaring, pp. 4655-4660.	
Kagabo, Wilson B.	Kigali Inst. of Science and Tech.
Kolodziej, Jason R.	Rochester Inst. of Tech.
13:30-13:50	FrB14.2
Symmetric Coverage of Dynamic Mapping Error for Mobile Sensor Networks, pp. 4661-4666.	
Caicedo, Carlos	Princeton Univ.
Leonard, Naomi Ehrich	Princeton Univ.
13:50-14:10	FrB14.3
Collision Avoidance Norms in Trajectory Planning, pp. 4667-4672.	
Nair, Sujit	United Tech. Res. Center
Kobilarov, Marin	Caltech
14:10-14:30	FrB14.4
Probabilistic Path Planning for Cooperative Target Tracking Using Aerial and Ground Vehicles, pp. 4673-4678.	
Yu, Huili	Brigham Young Univ.
Beard, Randy	Brigham Young Univ.
Argyle, Matthew	Brigham Young Univ.
Chamberlain, Caleb	Brigham Young Univ.
14:30-14:50	FrB14.5
Orchard Navigation Using Derivative Free Kalman Filtering, pp. 4679-4684.	
Hansen, Søren	DTU electircal engineering
Bayramoglu, Enis	Tech. Univ. of Denmark
Andersen, Jens Christian	Tech. Univ. of Denmark
Andersen, Nils A.	Tech. Univ. of Denmark
Ravn, Ole	Tech. Univ. of Denmark
Poulsen, Niels Kjølstad	Tech. Univ. of Denmark
14:50-15:10	FrB14.6
Swarming of Mobile Router Networks, pp. 4685-4690.	
Bezzo, Nicola	Univ. of New Mexico
Fierro, Rafael	Univ. of New Mexico

FrB15	Golden Gate 5
Decentralized Control I (Regular Session)	
Chair: Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
Co-Chair: Acikmese, Behcet	Jet Propulsion Lab.
13:10-13:30	FrB15.1
Control Law Synthesis for Distributed Multi-Agent Systems: Application to Active Clock Distribution Networks, pp. 4691-4696.	
Korniienko, Anton	CEA-LETI-MINATEC
Scorletti, Gerard	Ec. Centrale de Lyon
Colinet, Eric	CEA-LETI
Blanco, Eric	Ec. Centrale de Lyon
Juillard, Jerome	SUPELEC
Galayko, Dimitri	UPMC Sorbonne Univ.
13:30-13:50	FrB15.2
Control Design with Limited Model Information, pp. 4697-4704.	
Farokhi, Farhad	KTH - Royal Inst. of Tech.
Langbort, Cedric	Univ. of Illinois, Urbana-Champaign
Johansson, Karl H.	Royal Inst. of Tech.

13:50-14:10	FrB15.3
Decentralized PI Observer-Based Control of Nonlinear Interconnected Systems with Disturbance Attenuation, pp. 4705-4710.	
Ghadami, Rasoul	Northeastern Univ.
Shafai, Bahram	Northeastern Univ.
14:10-14:30	FrB15.4
Consensus-Based Robust Decentralized Task Assignment for Heterogeneous Robot Networks, pp. 4711-4716.	
Di Paola, Donato	National Res. Council (CNR)
Naso, David	Pol. di Bari
Turchiano, Biagio	Pol. di bari
14:30-14:50	FrB15.5
An Explicit Solution for Optimal Two-Player Decentralized Control Over TCP Erasure Channels with State Feedback, pp. 4717-4722.	
Chang, Chung-Ching	Stanford Univ.
Lall, Sanjay	Stanford Univ.
14:50-15:10	FrB15.6
Decentralized Observer with a Consensus Filter for Distributed Discrete-Time Linear Systems, pp. 4723-4730.	
Acikmese, Behcet	Jet Propulsion Lab.
Mandic, Milan	UCLA

FrB16	Golden Gate 6
Mechatronics II (Regular Session)	
Chair: Yu, Xun	Univ. of Minnesota
Co-Chair: Perez Arancibia, Nestor Osvaldo	Harvard Univ.
13:10-13:30	FrB16.1
An Enhanced Greitzer Compressor Model with Pipeline Dynamics Included, pp. 4731-4736.	
Yoon, Se Young (Pablo)	Univ. of Virginia
Lin, Zongli	Univ. of Virginia
Goyne, Chris	Univ. of Virginia
Allaire, Paul	Univ. of Virginia
13:30-13:50	FrB16.2
Active Noise Control Systems for Selective Cancellation of External Disturbances, pp. 4737-4742.	
Hu, Shan	Univ. of Minnesota
Rajamani, Rajesh	Univ. of Minnesota
Yu, Xun	Univ. of Minnesota Duluth
13:50-14:10	FrB16.3
An Energy Efficient Pneumatic-Electrical System and Control Strategy Development, pp. 4743-4748.	
Luo, Xing	Univ. of Birmingham
Sun, Hao	versity of Birmingham
Wang, Jihong	Univ. of Birmingham
14:10-14:30	FrB16.4
Experimental Validation of Time Optimal MPC on a Flexible Motion System, pp. 4749-4754.	
Van den Broeck, Lieboud	K. U. Leuven
Diehl, Moritz	Katholieke Univ. Leuve
Swevers, Jan	K. U. Leuven
14:30-14:50	FrB16.5
Robust Vibration Isolation of a 6-DOF System Using Modal Decomposition and Sliding Surface Optimization, pp. 4755-4760.	
Ding, Chenyang	Eindhoven Univ. of Tech.
Damen, Ad A. H.	Eindhoven Univ. of Tech.
van den Bosch, P. P. J.	Eindhoven Univ. of Tech.
14:50-15:10	FrB16.6
Lift Force Control of a Flapping-Wing Microrobot, pp. 4761-4768.	
Perez Arancibia, Nestor Osvaldo	Harvard Univ.
Whitney, John P.	Harvard Univ.
Wood, Robert	Harvard Univ.

FrB17	Golden Gate 7
Biomedical Systems I (Regular Session)	
Chair: Gopaluni, Ratna Bhushan	Univ. of British Columbia
Co-Chair: Barbieri, Enrique	Univ. of Houston
13:10-13:30	FrB17.1
Detection of Organ Dysfunction in Type II Diabetic Patients, pp. 4769-4774.	
Vahidi, Omid	Univ. of british columbia
Gopaluni, Bhushan	Univ. of British Columbia
Kwok, K. Ezra	Univ. of British Columbia
13:30-13:50	FrB17.2
A New Current-Based Control Model of the Combined Cardiovascular and Rotary Left Ventricular Assist Device, pp. 4775-4780.	
Faragallah, George	Univ. of Central Florida
Wang, Yu	Univ. of Central Florida
Divo, Eduardo	Daytona State Coll.
Simaan, Marwan A.	Univ. of Central Florida
13:50-14:10	FrB17.3
On Optimal Defibrillating Pulse Synthesis, pp. 4781-4786.	
Barbieri, Enrique	Univ. of Houston
Eberth, John	Univ. of Houston
Attarzadeh, Farrokh	Univ. of Houston
14:10-14:30	FrB17.4
Adaptive Control and System Identification for Direct Brain Control of Artificial Limbs, pp. 4787-4792.	
Aasted, Christopher	Univ. of Denver
Shoureshi, Rahmat	Univ. of Denver
Sarusi, Benjamin	Nuclear Res. Center Negev
14:30-14:50	FrB17.5
An Identification Algorithm for Hammerstein Systems Using Subspace Method, pp. 4793-4797.	
Jalaleddini, Kian	McGill Univ.
Kearney, Robert	Mcgill Univ.
14:50-15:10	FrB17.6
A Control Engineering Approach for Designing an Optimized Treatment Plan for Fibromyalgia, pp. 4798-4803.	
Deshpande, Sunil	Arizona State Univ.
Nandola, Nareshkumar	Arizona State Univ.
Rivera, Daniel E.	Arizona State Univ.
Younger, Jarred	Stanford Univ. School of Medicine

FrB18	Golden Gate 8
Agents-Based Systems I (Regular Session)	
Chair: Kurdila, Andrew J.	Virginia Tech.
Co-Chair: Ahn, Hyo-Sung	Gwangju Inst. of Science and Tech. (GIST)
13:10-13:30	FrB18.1
A Graph Theoretical Approach Toward a Switched Feedback Controller for Pursuit-Evasion Scenarios, pp. 4804-4809.	
Goode, Brian	Virginia Tech.
Kurdila, Andrew J.	Virginia Tech.
Roan, Michael	Virginia Tech.
13:30-13:50	FrB18.2
Distance-Based Formation Control Using Euclidean Distance Dynamics Matrix: Three-Agent Cases, pp. 4810-4815.	
Oh, Kwang-Kyo	Gwangju Inst. of Science and Tech. (GIST)
Ahn, Hyo-Sung	Gwangju Inst. of Science and Tech. (GIST)

13:50-14:10	FrB18.3
Distance-Based Formation Control Using Euclidean Distance Dynamics Matrix: General Cases, pp. 4816-4821.	
Oh, Kwang-Kyo	Gwangju Inst. of Science and Tech. (GIST)
Ahn, Hyo-Sung	Gwangju Inst. of Science and Tech. (GIST)
14:10-14:30	FrB18.4
Distributed Positioning of Autonomous Mobile Sensors with Application to the Coverage Problem, pp. 4822-4827.	
Dürr, Hans-Bernd	Univ. of Stuttgart
Stankovic, Milos S.	Royal Inst. of Tech.
Johansson, Karl H.	Royal Inst. of Tech.
14:30-14:50	FrB18.5
Control of Triangular Formations with a Time-Varying Scale Function, pp. 4828-4833.	
Huang, Huang	Beijing Inst. of Tech.
Yu, CHANGBIN (Brad)	The Australian National Univ.
Wang, Xiangke	The Australian National Univ.
14:50-15:10	FrB18.6
Distributed Averaging with Flow Constraints, pp. 4834-4839.	
Baric, Miroslav	United Tech. Res. Center
Borrelli, Francesco	Unversity of California at Berkeley

FrC01	Franciscan A
Kalman Filtering (Regular Session)	
Chair: Lazar, Mircea	Eindhoven Univ. of Tech.
Co-Chair: Shi, Ling	Hong Kong Univ. of Science and Tech.
15:30-15:50	FrC01.1
A Distributed Kalman Filter with Global Covariance, pp. 4840-4845.	
Sijs, Joris	TNO
Lazar, Mircea	Eindhoven Univ. of Tech.
15:50-16:10	FrC01.2
Nonlinear Information Filtering for Distributed Multisensor Data Fusion, pp. 4846-4852.	
Noack, Benjamin	Karlsruhe Inst. of Tech.
Lyons, Daniel	Karlsruhe Inst. of Tech.
Nagel, Matthias	Karlsruhe Inst. of Tech. (KIT)
Hanebeck, Uwe D.	Karlsruhe Inst. of Tech. (KIT)
16:10-16:30	FrC01.3
Vehicle State Estimation for Advanced Vehicle Motion Control Using Novel Lateral Tire Force Sensors, pp. 4853-4858.	
Nam, Kanghyun	The Univ. of Tokyo
Oh, Sehoon	the Univ. of Tokyo
Fujimoto, Hiroshi	Yokohama National Univ.
Hori, Yoichi	Univ. of Tokyo
16:30-16:50	FrC01.4
Unbiased Minimum-Variance Filtering for Delayed Input Reconstruction, pp. 4859-4860.	
Fitch, Katherine E.	Syracuse Univ.
Palanthandalam-Madapusi, Harish	Syracuse Univ.
16:50-17:10	FrC01.5
On Optimal Partial Broadcasting of Wireless Sensor Networks for Kalman Filtering, pp. 4861-4866.	
Jia, Qing-Shan	Tsinghua Univ.
Shi, Ling	Hong Kong Univ. of Science and Tech.
17:10-17:30	FrC01.6
Optimal Filtering for It$hat{o}$-Stochastic Continuous-Time Systems with Multiple Delayed Measurements, pp. 4867-4871.	
Kong, Shulan	Simon Fraser Univ. BC V5A 1S6, Canada
Saif, Mehrdad	Simon Fraser Univ.
Zhang, Huanshui	Shandong Univ.

FrC02	Franciscan B
Delay Systems II (Regular Session)	
Chair: Ito, Hiroshi	Kyushu Inst. of Tech.
Co-Chair: Arioui, Hichem	Evry Val d'Essonne Univ.
15:30-15:50	FrC02.1
An Asymmetric Small-Gain Technique to Construct Lyapunov-Krasovskii Functionals for Nonlinear Time-Delay Systems with Static Components, pp. 4872-4877.	
Ito, Hiroshi	Kyushu Inst. of Tech.
15:50-16:10	FrC02.2
New Stabilization Method for Linear Systems with Time-Varying Input Delay, pp. 4878-4883.	
Liu, Yun	Shanghai Jiao Tong Univ.
Hu, Li-sheng	Shanghai Jiao Tong Univ.
16:10-16:30	FrC02.3
Robust Stability Criteria for Uncertain Systems with Delay and Its Derivative Varying within Intervals, pp. 4884-4889.	
Figueredo, Luis Felipe da Cruz	Univ. of Brasília
Ishihara, João Yoshiyuki	Univ. of Brasília
Borges, Geovany A.	Univ. de Brasilia
Bauchspiess, Adolfo	Univ. of Brasília
16:30-16:50	FrC02.4
Adaptive Backstepping for Uncertain Systems with Time-Delay On-Line Update Laws, pp. 4890-4897.	
Bresch-Pietri, Delphine	MINES ParisTech
Chauvin, Jonathan	IFP
Petit, Nicolas	MINES ParisTech
16:50-17:10	FrC02.5
Force Feedback Stabilization for Remote Control of an Assistive Mobile Robot, pp. 4898-4903.	
Arioui, Hichem	Evry Val d'Essonne Univ.
Lounis, Temzi	Evry Val d'Essonne Univ.
Hoppenot, Philippe	Evry Val d'Essonne Univ.
17:10-17:30	FrC02.6
Observer Scheme for Linear Recycling Systems with Time Delays, pp. 4904-4909.	
Marquez-Rubio, Juan Francisco	IPN ESIME Culhuacan
del Muro Cuéllar, Basilio	Inst. Plitecnico Nacional
Velasco-Villa, Martin	CINVESTAV-IPN
Cortés, Domingo	IPN - ESIME_CU

FrC03	Franciscan C
Estimation V (Regular Session)	
Chair: Salapaka, Murti V.	Univ. of Minnesota, Minneapolis
Co-Chair: Kingston, Derek B.	Air Force Res. Lab.
15:30-15:50	FrC03.1
Vehicle State Estimation within a Road Network Using a Bayesian Filter, pp. 4910-4915.	
Niedfeldt, Peter C.	Brigham Young Univ.
Kingston, Derek B.	Air Force Res. Lab.
Beard, Randy	Brigham Young Univ.
15:50-16:10	FrC03.2
Adaptive Interconnected Observer for Induction Machine in Presence of Nonlinear Magnetic Characteristic, pp. 4916-4921.	
Elfadili, Abderrahim	mohamed V
Giri, Fouad	Univ. de Caen
El Magri, Abdelmounime	EMI
Dugard, Luc	CNRS-Grenoble INP
Haloua, Mohamed	EMI

16:10-16:30	FrC03.3
Derivation of an Optimal Boundary Layer Width for the Smooth Variable Structure Filter, pp. 4922-4927.	
Gadsden, Stephen Andrew	McMaster Univ.
El Sayed, Mohammed	McMaster Univ.
Habibi, Saeid	McMaster Univ.
16:30-16:50	FrC03.4
Causal and Non-Causal Filtering for Network Reconstruction, pp. 4928-4933.	
Materassi, Donatello	Univ. of Minnesota
Salapaka, Murti V.	Univ. of Minnesota, Minneapolis
16:50-17:10	FrC03.5
Information-Based Adaptive Sensor Management for Sensor Networks, pp. 4934-4940.	
Castanon, David A.	Boston Univ.
Jenkins, Karen Louise	Boston Univ.
17:10-17:30	FrC03.6
Real-Time Identification of the Best Performances of a Sailboat, pp. 4941-4946.	
Corbetta, Stefano	Pol. di Milano
Boniolo, Ivo	Pol. di Milano
Savaresi, Sergio M.	Pol. Di Milano
Vischi, Stefano	E-SHOCK
Strassera, Andrea	ASTRA YACHT
Malgarise, Dario	ASTRA YACHT

FrC04	Franciscan D
Fuzzy Systems (Regular Session)	
Chair: Tanaka, Kazuo	Univ. of Electro-Communications
Co-Chair: Fadali, Mohammed Sami	Univ. of Nevada
15:30-15:50	FrC04.1
Robust Composite Adaptive Fuzzy Identification and Control for a Class of MIMO Nonlinear Systems, pp. 4947-4952.	
Kim, Dohee	Univ. of Florida
Chung, Hee Tae	Pusan Univ. of Foreign Studies
Bhasin, Shubhendu	Univ. of Florida
Dixon, Warren E.	Univ. of Florida
15:50-16:10	FrC04.2
An SOS-Based Observer Design for Polynomial Fuzzy Systems, pp. 4953-4958.	
Tanaka, Kazuo	Univ. of Electro-Communications
Ohtake, Hiroshi	Univ. of Electro-communications
Seo, Toshiaki	The Univ. of Electro-Communications
Wang, Hua O.	Boston Univ.
16:10-16:30	FrC04.3
An Improved Approach to Fuzzy Model Construction and Servo Control with Constraints Based on Error Dynamics, pp. 4959-4963.	
Ohtake, Hiroshi	Kyushu Inst. of Tech.
Tanaka, Kazuo	Univ. of Electro-Communications
Wang, Hua O.	Boston Univ.
16:30-16:50	FrC04.4
Fuzzy TSK Positive Systems: Stability and Control, pp. 4964-4969.	
Fadali, Mohammed Sami	Univ. of Nevada
Jafarzadeh, Saeed	Univ. of Nevada Reno
16:50-17:10	FrC04.5
Improved Stabilization Conditions for Takagi-Sugeno Fuzzy Systems Via Fuzzy Integral Lyapunov Functions, pp. 4970-4975.	
Tognetti, Eduardo Stockler	Univ. of Campinas
Oliveira, Ricardo C. L. F.	Univ. of Campinas - UNICAMP
Peres, Pedro L. D.	Univ. of Campinas

17:10-17:30 FrC04.6

A Nonlinear Predictive Control of Processes with Multiscale Objectives Using a Fuzzy-System Identification Approach, pp. 4976-4981.

Rahnamoun, Ali — Penn State Univ.
Armaou, Antonios — The Pennsylvania State Univ.

FrC05 Continental 1

PID Control (Regular Session)

Chair: Loria, Antonio — CNRS
Co-Chair: Watkins, John — Wichita State Univ.

15:30-15:50 FrC05.1

A Simple PI^{2}D Output Feedback Controller for the Permanent Magnet Synchronous Motor, pp. 4982-4987.

Loria, Antonio — CNRS
Espinosa-Perez, Gerardo — Univ. Nacional Autonoma de Mexico
Avila-Becerril, Sofia — Univ. Nacional Autonoma de Mexico

15:50-16:10 FrC05.2

Stability Crossing Boundaries and Fragility Characterization of PID Controllers for SISO Systems with I/O Delays, pp. 4988-4993.

Morarescu, Irinel Constantin — INPL
Méndez-Barrios, César Fernando — Lab. des signaux et systèmes (L2S)
Niculescu, Silviu-Iulian — CNRS-Supelec
Gu, Keqin — Southern Illinois Univ. Edwardsville

16:10-16:30 FrC05.3

Control Signal Constraints and Filter Order Selection for PI and PID Controllers, pp. 4994-4999.

Larsson, Per-Ola — Lund Univ.
Hagglund, Tore — Lund Univ.

16:30-16:50 FrC05.4

Robust Performance Design of PID Controllers with Inverse Multiplicative Uncertainty, pp. 5000-5006.

Emami, Tooran — Wichita State Univ.
Watkins, John — Wichita State Univ.

16:50-17:10 FrC05.5

Determination of All Stabilizing Fractional-Order PID Controllers, pp. 5007-5012.

Lee, Yung K — Wichita State Univ.
Watkins, John — Wichita State Univ.

17:10-17:30 FrC05.6

Synthesis of Robust PID Controllers Design with Complete Information on Pre-Specifications for the FOPTD Systems, pp. 5013-5018.

Luo, Ying — Utah State Univ.
Chen, YangQuan — Utah State Univ.

FrC06 Continental 2

Reduced Order Modeling (Regular Session)

Chair: Kashima, Kenji — Tokyo Inst. of Tech.
Co-Chair: Oshman, Yaakov — Tech. - Israel Inst. of Tech.

15:30-15:50 FrC06.1

Model Order Reduction for MIMO Linear Dynamical Networks Via Reaction-Diffusion Transformation, pp. 5019-5024.

Ishizaki, Takayuki — Tokyo Inst. of Tech.
Kashima, Kenji — Tokyo Inst. of Tech.
Imura, Jun-ichi — Tokyo Inst. of Tech.
Aihara, Kazuyuki — Univ. of Tokyo

15:50-16:10 FrC06.2

Nu-Gap Model Reduction in the Frequency Domain, pp. 5025-5030.

Sootla, Aivar — Lund Univ.

16:10-16:30 FrC06.3

Dynamic Coarse Graining in Complex System Simulation, pp. 5031-5036.

Xue, Yuzhen — Georgia Inst. of Tech.
Ludovice, Pete — Georgia Inst. of Tech.
Grover, Martha — Georgia Inst. of Tech.

16:30-16:50 FrC06.4

An Improved Algorithm for Partial Fraction Expansion Based Frequency Weighted Balanced Truncation, pp. 5037-5042.

Wan Muda, Wan Mariam — Univ. of Western Australia
Sreeram, Victor — Univ. of Western Australia
Iu, Herbert Ho-Ching — The Univ. of Western Australia

16:50-17:10 FrC06.5

Traveling Waves in One-Dimensional Networks of Dynamical Systems, pp. 5043-5048.

Paoletti, Paolo — Harvard Univ.
Innocenti, Giacomo — Univ. di Siena

17:10-17:30 FrC06.6

Optimal Covariance Selection for Estimation Using Graphical Models, pp. 5049-5054.

Vichik, Sergey — Tech. - Israel Inst. of Tech.
Oshman, Yaakov — Tech. - Israel Inst. of Tech.

FrC07 — Continental 3

Process Control (Regular Session)

Chair: Fu, Jun — MIT
Co-Chair: Simaan, Marwan A. — Univ. of Central Florida

15:30-15:50 FrC07.1

Controller for Reducing Excursions in Tensions, Thicknesses and Looper Positions During Threading of a Hot Metal Strip Rolling Process, pp. 5055-5060.

Pittner, John — Univ. of Pittsburgh
Simaan, Marwan A. — Univ. of Central Florida

15:50-16:10 FrC07.2

Adaptive Decoupling Control of the Forced-Circulation Evaporation System Using Neural Networks and Multiple Models, pp. 5061-5066.

Yonggang, Wang — Northeastern Univ.
Chai, Tianyou — Northeastern Univ.
Fu, Jun — MIT
Sun, Jing — Univ. of Michigan

16:10-16:30 FrC07.3

Plantwide Control of CO2 Capture by Absorption and Stripping Using Monoethanolamine Solution, pp. 5067-5072.

Lin, Yu-Jeng — National Tsing Hua Univ.
Pan, Tian-Hong — Jiangsu Univ.
Wong, Shun-Hill — National Tsing Hua Univ.
Jang, Shi-Shang — National Tsing Hua Univ.

16:30-16:50 FrC07.4

Design of Reduced Order Sliding Mode Governor for Hydro-Turbines, pp. 5073-5078.

Qian, Dianwei — North China Electric Power Univ.
Yi, Jianqiang — China Acad. of Sciences
Liu, Xiangjie — North China Electric Power Univ.

16:50-17:10 FrC07.5

Estimation of Benchmark Performance for Nonlinear Control Systems, pp. 5079-5084.

Zhang, Zhi — Shanghai Jiao Tong Univ.
Hu, Li-sheng — Shanghai Jiao Tong Univ.
Shi, Wenjun — Shanghai Jiao Tong Univ.

17:10-17:30 FrC07.6

Data-Driven LQG Benchmaking for Economic Performance Assessment of Advanced Process Control Systems, pp. 5085-5090.

Xu, Qiaoling FuZhou Univ.
Zhao, Chao FuZhou Univ.
Zhang, Dengfeng Nanjing Univ. of Science and Tech.
An, Aimin Lanzhou Univ. of Tech.
Zhang, Chi School of Ec. , Zhejiang Univ.

FrC08 Continental 7

Chaotic Systems (Regular Session)

Chair: Tembine, Hamidou SUPELEC
Co-Chair: Zhu, Guchuan Ec. Pol. de Montreal

15:30-15:50 FrC08.1

Investigating the Anticipating Synchronization of RCL-Shunted Josephson Junctions, pp. 5091-5096.

Xu, Shiyun China Electric Power Res. Inst.
Tang, Yong China Electric Power Res. Inst.
Sun, Huadong China Electric Power Res. Inst.
Zhou, Ziguan China Electric Res. Inst.
Yang, Ying Peking Univ.

15:50-16:10 FrC08.2

Guaranteed Cost LPV Controller Design for a Class of Chaos Synchronization, pp. 5097-5102.

Koo, Jahoo POSTECH
Lee, Sangmoon Daegu Univ.
Ji, Dae Hyun Mobile communication Div. Digital Media and Communications,
Park, Ju H. Yeungnam Univ.
Won, Sangchul Pohang Univ. of Science & Tech.

16:10-16:30 FrC08.3

Controlling a Class of Hyperbolic Distributed Parameter Systems Producing Ideal Turbulence, pp. 5103-5108.

Suzuki, Masayasu Japan Sience and Tech. Agency
Imura, Jun-ichi Tokyo Inst. of Tech.
Aihara, Kazuyuki Univ. of Tokyo

16:30-16:50 FrC08.4

Hybrid Mean Field Game Dynamics in Large Population, pp. 5109-5114.

Tembine, Hamidou SUPELEC

16:50-17:10 FrC08.5

Chaos Synchronization of an Electrostatic MEMS Resonator in the Presence of Parametric Uncertainties, pp. 5115-5120.

Jimenez-Triana, Alexander Univ. Distrital Francisco José de Caldas
Zhu, Guchuan Ec. Pol. de Montreal
Saydy, Lahcen Ec. Pol. of Montreal

17:10-17:30 FrC08.6

Bounding Self-Induced Oscillations Via Invariant Level Sets of Piecewise Quadratic Lyapunov Functions, pp. 5121-5126.

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

FrC09 Continental 8

Automata (Regular Session)

Chair: Kumar, Ratnesh Iowa State Univ.
Co-Chair: Yasar, Murat Tech. Inc.

15:30-15:50 FrC09.1

Analysis of Runtime Data-Log for Software Fault Localization, pp. 5127-5132.

Zhou, Changyan Magnatech LLC
Kumar, Ratnesh Iowa State Univ.
Jiang, Shengbing General Motors Corp.

15:50-16:10	FrC09.2
Vector Space Formulation of Probabilistic Finite State Automata, pp. 5133-5138.	
Wen, Yicheng	Penn State Univ.
Ray, Asok	Pennsylvania State Univ.
Chattopadhyay, Ishanu	Penn State
Phoha, Shashi	Pennsylvania State Univ.
16:10-16:30	FrC09.3
Modeling of Symbolic Systems: Part II - Hilbert Space Construction for Model Identification and Order Reduction, pp. 5139-5144.	
Wen, Yicheng	Penn State Univ.
Ray, Asok	Pennsylvania State Univ.
Chattopadhyay, Ishanu	Penn State
Phoha, Shashi	Pennsylvania State Univ.
16:30-16:50	FrC09.4
State Splitting and State Merging in Probabilistic Finite State Automata, pp. 5145-5150.	
Adenis, Patrick	Penn State Univ.
Mukherjee, Kushal	Pennsylvania State Univ.
Ray, Asok	Pennsylvania State Univ.
16:50-17:10	FrC09.5
Symbolic Dynamic Filtering of Seismic Sensors for Target Detection and Classification, pp. 5151-5156.	
Jin, Xin	The Pennsylvania State Univ.
Gupta, Shalabh	Pennsylvania State Univ.
Ray, Asok	Pennsylvania State Univ.
Damarla, Thyagaraju	Army Res. Lab.
17:10-17:30	FrC09.6
Symbolic Encoding of Analytic Signals for Structural Monitoring of Power Systems, pp. 5157-5162.	
Yasar, Murat	Tech. Inc.
Chakraborty, Subhadeep	Univ. of Tennessee, Knoxville
Keller, Eric	Penn State
Bajpai, Gaurav	Tech. Inc.
Ray, Asok	Pennsylvania State Univ.

FrC10	Continental 9
Model Predictive Control (Regular Session)	
Chair: Allgower, Frank	Univ. of Stuttgart
Co-Chair: Christofides, Panagiotis D.	Univ. of California at Los Angeles
15:30-15:50	FrC10.1
Offline NMPC for Continuous-Time Systems Using Sum of Squares, pp. 5163-5168.	
Deroo, Frederik	Univ. of Stuttgart
Maier, Christoph	Univ. of Stuttgart
Bohm, Christoph	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart
15:50-16:10	FrC10.2
Model Predictive Control of Switched Nonlinear Systems under Average Dwell-Time, pp. 5169-5174.	
Muller, Matthias Albrecht	Univ. of Stuttgart
Allgower, Frank	Univ. of Stuttgart
16:10-16:30	FrC10.3
Alternative Parameterisations for Predictive Control: How and Why?, pp. 5175-5180.	
Valencia-Palomo, Guillermo	Inst. Tecnológico de Hermosillo
Rossiter, J. Anthony	Univ. of Sheffield
Jones, Colin Neil	ETH Zurich
Gondhalekar, Ravi	Osaka Univ.
Khan, Bilal	Univ. of Sheffield UK

16:30-16:50	FrC10.4
Multirate Distributed Model Predictive Control of Nonlinear Systems, pp. 5181-5188.	
Heidarinejad, Mohsen	UCLA
Liu, Jinfeng	Univ. of California, Los Angeles
Muñoz de la Peña, David	Univ. de Sevilla
Davis, James F.	UCLA
Christofides, Panagiotis D.	Univ. of California at Los Angeles
16:50-17:10	FrC10.5
Triple Mode MPC or Laguerre MPC : A Comparison, pp. 5189-5194.	
Khan, Bilal	Univ. of Sheffield UK
Rossiter, J. Anthony	Univ. of Sheffield
17:10-17:30	FrC10.6
Lyapunov-Based Economic Model Predictive Control of Nonlinear Systems, pp. 5195-5200.	
Heidarinejad, Mohsen	UCLA
Liu, Jinfeng	Univ. of California, Los Angeles
Christofides, Panagiotis D.	Univ. of California at Los Angeles

FrC11	Golden Gate 1
Power Systems III (Regular Session)	
Chair: Sun, Jing	Univ. of Michigan
Co-Chair: Li, Yaoyu	Univ. of Wisconsin-Milwaukee
15:30-15:50	FrC11.1
Sliding Mode/Hinfinity Control of a Hydro-Power Plant, pp. 5201-5206.	
Ding, Xibei	Penn State Univ.
Sinha, Alok	Pennsylvania State Univ.
15:50-16:10	FrC11.2
Individual Pitch Control for Wind Turbine Load Reduction Including Wake Modeling, pp. 5207-5212.	
Yang, Zhongzhou	Univ. of Wisconsin-Milwaukee
Li, Yaoyu	Univ. of Wisconsin-Milwaukee
Seem, John E.	Johnson Controls Inc.
16:10-16:30	FrC11.3
Mode Changing Stability of Wind Turbine in an Integrated Wind Turbine and Rechargeable Battery System, pp. 5213-5218.	
Mecklenborg, Christine	The Univ. of Texas at Austin
Palejiya, Dushyant	Univ. of Texas at Austin
Hall, John	Univ. of Texas - Austin, Department of Mechanical Engineeri
Chen, Dongmei	the Univ. of Texas at Austin
16:30-16:50	FrC11.4
A Distributed Power Coordination Scheme for Fatigue Load Reduction in Wind Farms, pp. 5219-5224.	
Madjidian, Daria	Lund Univ.
Martensson, Karl	Lund Univ.
Rantzer, Anders	Lund Univ.
16:50-17:10	FrC11.5
Distributed Predictive Control of the 7-Machine CIGRE Power System, pp. 5225-5230.	
Hermans, R.M.	Eindhoven Univ. of Tech.
Lazar, Mircea	Eindhoven Univ. of Tech.
Jokic, Andrej	Eindhoven Univ. of Tech.
17:10-17:30	FrC11.6
Comparative Performance Assessment of 5kW-Class Solid Oxide Fuel Cell Engines Integrated with Single/Dual-Spool Turbochargers, pp. 5231-5236.	
Oh, So-ryeok	Univ. of Michigan
Sun, Jing	Univ. of Michigan
Dobbs, Herb	US Army TARDEC
King, Joel	US Army TARDEC

FrC12	Golden Gate 2
Automotive II (Regular Session)	
Chair: Berkel, van, Koos	Eindhoven Univ. of Tech.
Co-Chair: Tamaddoni, Seyed Hossein	Virginia Pol. Inst. and State Univ.
15:30-15:50	FrC12.1
Estimation of Road Profile for Vehicle Dynamics Motion: Experimental Validation, pp. 5237-5242.	
Doumiati, Moustapha	Univ. INP-Grenoble
Victorino, Alessandro	Univ. Univ. de Tech. de Compiègne
Charara, Ali	UMR CNRS 6599
Lechner, Daniel	INRETS MA
15:50-16:10	FrC12.2
Preliminary Steps in Understanding a Target & Control Based Driver Steering Model, pp. 5243-5248.	
Huang, Jihua	UC Berkeley
Tan, Han-Shue	Univ. of California at Berkeley
Bu, Fanping	Univ. of California at Berkeley
16:10-16:30	FrC12.3
Optimal Vehicle Stability Control Design Based on Preview Game Theory Concept, pp. 5249-5254.	
Tamaddoni, Seyed Hossein	Virginia Pol. Inst. and State Univ.
Ahmadian, Mehdi	Virginia Pol. Inst. and State Univ.
Taheri, Saied	Virginia Tech.
16:30-16:50	FrC12.4
Optimal Energy Management for a Flywheel-Based Hybrid Vehicle, pp. 5255-5260.	
van Berkel, Koos	Eindhoven Univ. of Tech.
Hofman, Theo	Tech. Univ. Eindhoven
Vroemen, Bas	Drivetrain Innovations, Croy 46, 5653 LD Eindhoven, The Netherla
Steinbuch, Maarten	Eindhoven Univ. of Tech.
16:50-17:10	FrC12.5
Robust Estimation of the Friction Forces Generated by Each Tire of a Vehicle, pp. 5261-5266.	
Hsiao, Tesheng	National Chiao Tung Univ.
Liu, Nien-Chi	National Chiao Tung Univ. Taiwan
Chen, Syuan-Yi	Industrial Tech. Res. Inst.
17:10-17:30	FrC12.6
Efficient Minimum Manoeuvre Time Optimisation of an Oversteering Vehicle at Constant Forward Speed, pp. 5267-5272.	
Timings, Julian Peter	Univ. of Cambridge
Cole, David J	Univ. of Cambridge

FrC13	Golden Gate 3
Transportation Systems (Regular Session)	
Chair: Chen, Anning	Zhejiang Univ. China
Co-Chair: Fiengo, Giovanni	Univ. degli Studi del Sannio
15:30-15:50	FrC13.1
Design and Experimental Validation of a Model-Based Injection Pressure Controller in a Common Rail System for GDI Engine, pp. 5273-5278.	
di Gaeta, Alessandro	Istituto Motori - National Res. Council
Fiengo, Giovanni	Univ. degli Studi del Sannio
Palladino, Angelo	Univ. del Sannio
Giglio, Veniero	Consiglio Nazionale delle Ricerche
15:50-16:10	FrC13.2
Fundamental Limits in Combine Harvester Header Height Control, pp. 5279-5285.	
Xie, Yangmin	Univ. of Illinois, Urbana-Champaign
Alleyne, Andrew G.	Univ. of Illinois, Urbana-Champaign
Greer, Ashley	John Deere
Deneault, Dustin	John Deere

16:10-16:30 FrC13.3

An Experimental Comparative Study of Different Second Order Sliding Mode Algorithms on a Mechatronic Actuator, pp. 5286-5291.

Ahmed, Fayez Shakil — UTBM
Laghrouche, Salah — UTBM
El Bagdouri, Mohammed — Univ. de Tech. de Belfort Montbéliard

16:30-16:50 FrC13.4

Observability Analysis of an Inertial Navigation System with Stationary Updates, pp. 5292-5299.

Ramanandan, Arvind — Univ. of California, Riverside
Chen, Anning — Univ. of California, Riverside
Farrell, Jay — Univ. of California Riverside

16:50-17:10 FrC13.5

A Global Optimization Algorithm for Energy-Efficient Control Allocation of Over-Actuated Systems, pp. 5300-5305.

Chen, Yan — Ohio State Univ.
Wang, Junmin — The Ohio State Univ.

17:10-17:30 FrC13.6

Model-Based Design of Experiments Based on Local Model Networks for Nonlinear Processes with Low Noise Levels, pp. 5306-5311.

Hartmann, Benjamin — Univ. of Siegen
Ebert, Tobias — Univ. of Siegen
Nelles, Oliver — Univ. of Siegen

FrC14 — Golden Gate 4

Autonomous Systems II (Regular Session)

Chair: Menon, Prathyush P — Univ. of Exeter
Co-Chair: Saberi, Ali — Washington State Univ.

15:30-15:50 FrC14.1

Consensus for Multi-Agent Systems Synchronization and Regulation for Complex Networks, pp. 5312-5317.

Yang, Tao — Washington State Univ.
Stoorvogel, Anton A. — Univ. of Twente
Saberi, Ali — Washington State Univ.

15:50-16:10 FrC14.2

First-Order Short-Range Mover Prediction Model (SRMPM), pp. 5318-5323.

Overstreet, Jamahl — Pol. Inst. of NYU
Khorrami, Farshad — Pol. Inst. of NYU

16:10-16:30 FrC14.3

A Quadratic Programming Approach to Path Smoothing, pp. 5324-5329.

Zhao, Yiming — Georgia Inst. of Tech.
Tsiotras, Panagiotis — Georgia Inst. of Tech.

16:30-16:50 FrC14.4

Leader Selection in Multi-Agent Systems Subject to Partial Failure, pp. 5330-5335.

Jafari, Saeid — Univ. of Southern California
Ajorlou, Amir — Concordia Univ.
Aghdam, Amir G. — Concordia Univ.

16:50-17:10 FrC14.5

Consensus Acceleration of Multi-Agent Systems Via Model Prediction, pp. 5336-5341.

Chen, Zhiyong — The Univ. of Newcastle
Zhang, Haitao — Huazhong (Central China) Univ. of ScienceandTechnology

17:10-17:30 FrC14.6

A Distributed Control Law with Guaranteed LQR Cost for Identical Dynamically Coupled Linear Systems, pp. 5342-5347.

Deshpande, Paresh Ravindra — Univ. of Leicester
Menon, Prathyush P — Univ. of Exeter
Edwards, Christopher — Univ. of Leicester
Postlethwaite, Ian — Northumbria Univ.

FrC15	Golden Gate 5
Decentralized Control II (Regular Session)	
Chair: Gattami, Ather	KTH
Co-Chair: Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign
15:30-15:50	FrC15.1
Iterative Source-Channel Coding Approach to Witsenhausen's Counterexample, pp. 5348-5353.	
Karlsson, Johannes	Royal Inst. of Tech. (KTH)
Gattami, Ather	KTH
Oechtering, Tobias	Royal Inst. of Tech. (KTH)
Skoglund, Mikael	Royal Inst. of Tech.
15:50-16:10	FrC15.2
On the Efficiency of Equilibria in Mean-Field Oscillator Games, pp. 5354-5359.	
Yin, Huibing	Univ. of Illinois, Urbana-Champaign
Mehta, Prashant G.	Univ. of Illinois, Urbana-Champaign
Meyn, Sean	Univ. of Illinois
Shanbhag, Uday V.	Univ. of Illinois, Urbana-Champaign
16:10-16:30	FrC15.3
Quadratic Invariance Is Necessary and Sufficient for Convexity, pp. 5360-5362.	
Lessard, Laurent	Stanford Univ.
Lall, Sanjay	Stanford Univ.
16:30-16:50	FrC15.4
Decentralized Online Convex Programming with Local Information, pp. 5363-5369.	
Raginsky, Maxim	Duke Univ.
Kiarashi, Nooshin	Duke Univ.
Willett, Rebecca	Duke Univ.
16:50-17:10	FrC15.5
Parametrization of Stabilizing Controllers Subject to Subspace Constraints, pp. 5370-5375.	
Rotkowitz, Michael C.	The Univ. of Melbourne
17:10-17:30	FrC15.6
A Multi-Team Extension of the Consensus-Based Bundle Algorithm, pp. 5376-5381.	
Argyle, Matthew	Brigham Young Univ.
Casbeer, David W.	Air Force Res. Lab.
Beard, Randy	Brigham Young Univ.

FrC16	Golden Gate 6
Mechatronics III (Regular Session)	
Chair: Tsao, Tsu-Chin	Univ. of California, Los Angeles
Co-Chair: Naso, David	Pol. di Bari
15:30-15:50	FrC16.1
H_infinity Control for Hard Disk Drives with an Irregular Sampling Rate, pp. 5382-5387.	
Nie, Jianbin	Univ. of California, Berkeley
Sheh, Edgar	Western Digital Tech. Inc.
Horowitz, Roberto	Univ. of California at Berkeley
15:50-16:10	FrC16.2
Enhancing Transient Response of Asymptotic Regulation with Disturbance Onset, pp. 5388-5393.	
Chu, Kevin	UCLA
Tsao, Tsu-Chin	Univ. of California, Los Angeles
16:10-16:30	FrC16.3
Constrained Stabilization of a Two-Input Buck-Boost DC/DC Converter Using a Set-Theoretic Method, pp. 5394-5399.	
Spinu, Veaceslav	Eindhoven Univ. of Tech.
Lazar, Mircea	Eindhoven Univ. of Tech.
Bitsoris, Georges	Univ. of Patras

16:30-16:50	FrC16.4
Robust Adaptive Control of a Magnetic Shape Memory Actuator for Precise Positioning, pp. 5400-5405.	
Riccardi, Leonardo	Pol. di Bari - Bari, Italy
Naso, David	Pol. di Bari
Turchiano, Biagio	Pol. di bari
Janocha, Hartmut	Saarland Univ.
16:50-17:10	FrC16.5
Induction Motor Control in Presence of Magnetic Saturation: Speed Regulation and Power Factor Correction, pp. 5406-5411.	
Elfadili, Abderrahim	mohamed V
Giri, Fouad	Univ. de Caen
El Magri, Abdelmounime	EMI
Dugard, Luc	CNRS-Grenoble INP
Ouadii, Hamid	Ismra

FrC17	Golden Gate 7
Biomedical Systems II (Regular Session)	
Chair: Ionescu, Clara	Ghent Univ.
Co-Chair: Li, Yao	Univ. of Southern California
15:30-15:50	FrC17.1
Detecting and Analyzing Non-Linear Effects in Respiratory Impedance Measurements, pp. 5412-5417.	
Ionescu, Clara	Ghent Univ.
Schoukens, Johan	Vrije Univ. Brussels
De Keyser, Robin M.C.	Univ. of Gent
15:50-16:10	FrC17.2
Approximate-Model Closed-Loop Minimal Sampling Method for HIV Viral-Load Minima Detection, pp. 5418-5419.	
Zurakowski, Ryan	Univ. of Delaware
Churgin, Matthew	Univ. of Pennsylvania
Perez, Camilo	Univ. of Washington
Rodriguez, Matthew	Univ. of Michigan
16:10-16:30	FrC17.3
A Nonlinear Optimal Human Postural Regulator, pp. 5420-5425.	
Li, Yao	Univ. of Southern California
Levine, William S.	Univ. of Maryland
Yang, Yonghong	Sichuan Univ.
He, Chengqi	Sichuan Univ.
16:30-16:50	FrC17.4
Tumor Irrigation Model for Virotherapy Cancer Treatment, pp. 5426-5431.	
Dunia, Ricardo	The Univ. of Texas at Austin
Edgar, Thomas F.	Univ. of Texas at Austin
16:50-17:10	FrC17.5
Visual Stabilization of Beating Heart Motion by Model-Based Transformation of Image Sequences, pp. 5432-5437.	
Bogatyrenko, Evgeniya	Karlsruhe Inst. of Tech.
Hanebeck, Uwe D.	Karlsruhe Inst. of Tech. (KIT)
17:10-17:30	FrC17.6
Constrained Dynamic Control of Focal Trajectory and Intensity of Phased Array Ultrasound Thermal Therapies, pp. 5438-5443.	
Niu, Ran	GE Global Res. Shanghai
Skliar, Mikhail	Univ. of Utah

FrC18	Golden Gate 8
Agents-Based Systems II (Regular Session)	
Chair: Johansson, Karl H.	Royal Inst. of Tech.
Co-Chair: Tang, Choon Yik	Univ. of Oklahoma
15:30-15:50	FrC18.1
Optimal Pursuer and Moving Target Assignment Using Dynamic Voronoi Diagrams, pp. 5444-5449.	
Bakolas, Efstathios	Georgia Inst. of Tech.
Tsiotras, Panagiotis	Georgia Inst. of Tech.
15:50-16:10	FrC18.2
Fast Distributed Consensus with Chebyshev Polynomials, pp. 5450-5455.	
Montijano, Eduardo	Univ. of Zaragoza
Montijano, Juan Ignacio	Univ. of Zaragoza
Sagues, Carlos	Univ. de Zaragoza
16:10-16:30	FrC18.3
Multi-Agent Systems Reaching Optimal Consensus with Directed Communication Graphs, pp. 5456-5461.	
Shi, Guodong	Royal Inst. of Tech.
Johansson, Karl H.	Royal Inst. of Tech.
Hong, Yiguang	Chinese Acad. of Sciences
16:30-16:50	FrC18.4
On the Nash Equilibria of a Timed Asymmetric Skirmish, pp. 5462-5467.	
Treleaven, Kyle	Massachusetts Inst. of Tech.
Spieser, Kevin	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.
16:50-17:10	FrC18.5
Gossip Algorithms for Distributed Ranking, pp. 5468-5473.	
Chiuso, Alessandro	Univ. di Padova
Fagnani, Fabio	Pol. Di Torino
Schenato, Luca	Univ. of Padova
Zampieri, Sandro	Univ. di Padova
17:10-17:30	FrC18.6
Zero-Gradient-Sum Algorithms for Distributed Convex Optimization: The Continuous-Time Case, pp. 5474-5479.	
Lu, Jie	Univ. of Oklahoma
Tang, Choon Yik	Univ. of Oklahoma

Book of Abstracts, p. 5480-5686