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

#### Technical Program for Monday December 10, 2012

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Location</th>
<th>Chair &amp; Co-Chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-09:30</td>
<td><strong>MoPL</strong> The Grid with Intelligent Periphery (Plenary Session)</td>
<td>Haleakala Ballroom</td>
<td>Farrell, Jay A. &amp; Valcher, M. Elena, Univ. of California Riverside &amp; Padova</td>
</tr>
<tr>
<td>10:00-10:20</td>
<td><strong>MoA01</strong> Distributed Event-Triggered Control with Network Delays and Packet Losses, pp. 1-6.</td>
<td></td>
<td>Guinaldo, Maria &amp; Lehmann, Daniel, KTH Royal Inst. of Tech. &amp; Sanchez Morano, Jose, UNED</td>
</tr>
<tr>
<td>10:40-11:00</td>
<td><strong>MoA02</strong> Ensuring Stability in Networked Systems with Nonlinear MPC for Continuous Time Systems (I), pp. 14-19.</td>
<td></td>
<td>Gruene, Lars &amp; Pannek, Juergen, Univ. of Bayreuth &amp; Munich, Univ. of the Federal Armed Forces</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td><strong>MoA03</strong> A Randomized Linear Algorithm for Clock Synchronization in Multi-Agent Systems, pp. 20-25.</td>
<td></td>
<td>Bolognani, Saverio &amp; Carli, Ruggero, Univ. of Padova &amp; Lovisari, Enrico, Univ. of Padova</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td><strong>MoA05</strong> Tree Codes Improve Convergence Rate of Consensus Over Erasure Channels, pp. 32-37.</td>
<td></td>
<td>Sukhavasi, Ravi Teja &amp; Hassibi, Babak, California Inst. of Tech.</td>
</tr>
<tr>
<td>12:20-12:40</td>
<td><strong>MoA06</strong> Networked Control Systems with State, Input and Communication Constraints: A Nonlinear Approach, pp. 38-43.</td>
<td></td>
<td>Famularo, Domenico &amp; Franze', Giuseppe, Univ. degli Studi della Calabria &amp; Lucia, Walter, Univ. degli Studi della Calabria</td>
</tr>
</tbody>
</table>

#### MoA01

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Location</th>
<th>Chair &amp; Co-Chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-10:20</td>
<td><strong>MoA01.1</strong> Sequence-Based Control for Networked Control Systems Based on Virtual Control Inputs (I), pp. 7-13.</td>
<td></td>
<td>Hekler, Achim &amp; Fischer, Jörg, Karlsruhe Inst. of Tech. &amp; Hanebeck, Uwe D.</td>
</tr>
<tr>
<td>10:40-11:00</td>
<td><strong>MoA02.1</strong> Sustaining Cooperation in Social Exchange Networks with Incomplete Global Information (I), pp. 50-56.</td>
<td></td>
<td>Xu, Jie &amp; van der Schaar, Mihaela, Univ. of California, Los Angeles &amp; Univ. of California, Los Angeles</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td><strong>MoA03.1</strong> Efficiently Reaching Consensus on the Largest Entries of a Vector (I), pp. 55-61.</td>
<td></td>
<td>Ustebay, Deniz &amp; Rabbat, Michael, McGill Univ. &amp; McGill Univ.</td>
</tr>
<tr>
<td>11:20-11:40</td>
<td><strong>MoA04.1</strong> On Averaging Dynamics In General State Spaces (I), pp. 62-67.</td>
<td></td>
<td>Touri, Behrouz &amp; Basar, Tamer, Univ. of Illinois, Urbana-Champaign &amp; Univ. of Illinois, Urbana-Champaign</td>
</tr>
</tbody>
</table>

#### MoA02

**Networked Control Systems (Invited Session)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Location</th>
<th>Chair &amp; Co-Chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:40-12:00</td>
<td><strong>MoA01.6</strong> Tree Codes Improve Convergence Rate of Consensus Over Erasure Channels, pp. 32-37.</td>
<td></td>
<td>Sukhavasi, Ravi Teja &amp; Hassibi, Babak, California Inst. of Tech.</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td><strong>MoA01.7</strong> Networked Control Systems with State, Input and Communication Constraints: A Nonlinear Approach, pp. 38-43.</td>
<td></td>
<td>Famularo, Domenico &amp; Franze', Giuseppe, Univ. degli Studi della Calabria &amp; Lucia, Walter, Univ. degli Studi della Calabria</td>
</tr>
<tr>
<td>12:20-12:40</td>
<td><strong>MoA02.2</strong> Network Structure and Efficiency of Observational Social Learning (I), pp. 44-49.</td>
<td></td>
<td>Molavi, Pooya &amp; Jadbabale, Ali, Univ. of Pennsylvania &amp; Univ. of Pennsylvania</td>
</tr>
<tr>
<td>12:20-12:40</td>
<td><strong>MoA04.2</strong> On Averaging Dynamics In General State Spaces (I), pp. 62-67.</td>
<td></td>
<td>Touri, Behrouz &amp; Basar, Tamer, Univ. of Illinois, Urbana-Champaign &amp; Univ. of Illinois, Urbana-Champaign</td>
</tr>
<tr>
<td>12:40-12:40</td>
<td><strong>MoA05.1</strong> Multi-Dimensional Hegselmann-Krause Dynamics (I), pp. 68-73.</td>
<td></td>
<td>Nedich, Angelia &amp; Touri, Behrouz, Univ. of Illinois, Urbana-Champaign &amp; Univ. of Illinois, Urbana-Champaign</td>
</tr>
</tbody>
</table>
11:40-12:00 MoA02.6
Game Theoretic Analysis of a Strategic Model of Competitive Contagion and Product Adoption in Social Networks (I), pp. 74-79.
Fazeli, Arastoo
Univ. of Pennsylvania
Jadbabaie, Ali
Univ. of Pennsylvania

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

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

10:00-10:20 MoA03.1
On Leader Selection for Performance and Controllability in Multi-Agent Systems, pp. 86-89.
Clark, Andrew
Univ. of Washington, Seattle
Bushnell, Linda
Univ. of Washington, Seattle
Poovendran, Radha
Univ. of Washington, Seattle

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

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

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

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

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

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

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

10:00-10:20 MoA04.1
Anderson, Ross
Univ. of California, Santa Cruz
Bakolas, Efthimios
Georgia Inst. of Tech.
Milutinovic, Dejan
Univ. of California, Santa Cruz
Tsionas, Panagiotis
Georgia Inst. of Tech.

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

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

11:00-11:20 MoA04.4
Li, Bin
Ohio State Univ.
Eryilmaz, Ali
Ohio State Univ.

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

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

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

MoA05
System Identification I (Regular Session)
Chair: Dabbene, Fabrizio
CNR-IEIIT
Co-Chair: Wahlberg, Bo
KTH Royal Inst. of Tech.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-10:20</td>
<td>MoA05.1</td>
<td>Discrete-To-Continuous Dynamics Reconstruction for Bilinear Systems, pp. 172-177.</td>
<td>Rumschinski, Philipp OVG Univ. Magdeburg, Lalai, Dhir Shona Univ. of Southampton, Findelen, Rolf OVG Univ. Magdeburg</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td>MoA05.4</td>
<td>A Probabilistic Approach to Optimal Estimation - Part I: Problem Formulation and Methodology, pp. 190-195.</td>
<td>Dabbene, Fabrizio CNR-IEIIT, Sznajer, Mario Northeastern Univ., Tempo, Roberto CNR-IEIIT, Pol. di Torino</td>
</tr>
<tr>
<td>11:40-12:00</td>
<td>MoA05.6</td>
<td>A Chernoff Relaxation on the Problem of Application-Oriented Finite Sample Experiment Design, pp. 202-207.</td>
<td>Katselis, Dimitrios ACCESS Linnaeus Center, KTH, Rojas, Cristian R. KTH Royal Inst. of Tech., Hjalmarsson, Häkan KTH Royal Inst. of Tech., Bengtsson, Mats KTH Royal Inst. of Tech.</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td>MoA05.7</td>
<td>Bias Analysis of Continuous-Time Model Identification from Filtered Sample Output Data, pp. 208-213.</td>
<td>Hu, Xiao-Li Univ. of Newcastle, Welsh, James S. Univ. of Newcastle</td>
</tr>
<tr>
<td>10:00-10:20</td>
<td>MoA06.1</td>
<td>On the Metric Property of an LTV Generalisation of the Nu-Gap, pp. 214-218.</td>
<td>Khong, Sei Zhen Univ. of Melbourne, Cantoni, Michael Univ. of Melbourne</td>
</tr>
<tr>
<td>10:40-11:00</td>
<td>MoA06.3</td>
<td>The Generalized Nyquist Criterion and Robustness Margins with Applications, pp. 226-231.</td>
<td>Emami-Naeini, Abbas SC Solutions, Inc., Kosut, Robert L. SC Solutions, Inc.</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td>MoA06.4</td>
<td>Convergence and Compactness of Families of Proper Plants in the Graph Topology, pp. 232-239.</td>
<td>Vidyassagar, Mathukumali The Univ. of Texas at Dallas, Yamamoto, Yutaka Kyoto Univ.</td>
</tr>
<tr>
<td>11:20-11:40</td>
<td>MoA06.5</td>
<td>Robust Stability Analysis Based on Noncausal LPTV FIR Scaling: Explicit Procedure and Relationship with Causal LTI FIR Scaling, pp. 240-247.</td>
<td>Hosoe, Yohei Kyoto Univ., Hagihara, Tomomichi Kyoto Univ.</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td>MoA06.6</td>
<td>Robust MPC for Linear Systems with Bounded Multiplicative Uncertainty, pp. 248-253.</td>
<td>Evans, Martin A. Univ. of Oxford, Cannon, Mark Univ. of Oxford, Kouvaritakis, Basil Univ. of Oxford</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td>MoA06.7</td>
<td>Determination of All Stabilizing Fractional-Order PID Controllers That Satisfy a Weighted Sensitivity Constraint, pp. 254-259.</td>
<td>Lee, Yung K Wichita State Univ., Watkins, John Wichita State Univ.</td>
</tr>
<tr>
<td>10:00-10:20</td>
<td>MoA07.1</td>
<td>Distributed Control I (Regular Session)</td>
<td>Chair: Zampieri, Sandro Univ. di Padova, Co-Chair: Egerstedt, Magnus Georgia Inst. of Tech.</td>
</tr>
<tr>
<td>10:20-10:40</td>
<td>MoA07.2</td>
<td>Distributed Economic Model Predictive Control of Networks in Competitive Environments, pp. 266-271.</td>
<td>Driessen, Peter Eindhoven Univ. of Tech., Hermans, R.M. Eindhoven Univ. of Tech., van den Bosch, P. P. J. Eindhoven Univ. of Tech.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoA05.1</td>
<td>Discrete-To-Continuous Dynamics Reconstruction for Bilinear Systems, pp. 172-177.</td>
<td>Rumschinski, Philipp OVG Univ. Magdeburg, Lalai, Dhir Shona Univ. of Southampton, Findelen, Rolf OVG Univ. Magdeburg</td>
</tr>
<tr>
<td>MoA05.2</td>
<td>On Asymptotic Frequency Response Variance Expressions for Estimated Output Error Models, pp. 178-183.</td>
<td>Wahlberg, Bo KTH Royal Inst. of Tech., Rojas, Cristian R. KTH Royal Inst. of Tech.</td>
</tr>
<tr>
<td>MoA05.4</td>
<td>A Probabilistic Approach to Optimal Estimation - Part I: Problem Formulation and Methodology, pp. 190-195.</td>
<td>Dabbene, Fabrizio CNR-IEIIT, Sznajer, Mario Northeastern Univ., Tempo, Roberto CNR-IEIIT, Pol. di Torino</td>
</tr>
<tr>
<td>MoA05.7</td>
<td>Bias Analysis of Continuous-Time Model Identification from Filtered Sample Output Data, pp. 208-213.</td>
<td>Hu, Xiao-Li Univ. of Newcastle, Welsh, James S. Univ. of Newcastle</td>
</tr>
<tr>
<td>MoA06.1</td>
<td>On the Metric Property of an LTV Generalisation of the Nu-Gap, pp. 214-218.</td>
<td>Khong, Sei Zhen Univ. of Melbourne, Cantoni, Michael Univ. of Melbourne</td>
</tr>
<tr>
<td>MoA06.2</td>
<td>The General (J, J')-Lossless Factorization for Descriptor Discrete-Time Systems, pp. 220-225.</td>
<td>Gara, Cristian Univ. of Bucharest, Marinica, Raluca Mihaela Deift Univ. of Tech.</td>
</tr>
<tr>
<td>MoA06.4</td>
<td>Convergence and Compactness of Families of Proper Plants in the Graph Topology, pp. 232-239.</td>
<td>Vidyassagar, Mathukumali The Univ. of Texas at Dallas, Yamamoto, Yutaka Kyoto Univ.</td>
</tr>
<tr>
<td>MoA06.5</td>
<td>Robust Stability Analysis Based on Noncausal LPTV FIR Scaling: Explicit Procedure and Relationship with Causal LTI FIR Scaling, pp. 240-247.</td>
<td>Hosoe, Yohei Kyoto Univ., Hagihara, Tomomichi Kyoto Univ.</td>
</tr>
<tr>
<td>MoA06.6</td>
<td>Robust MPC for Linear Systems with Bounded Multiplicative Uncertainty, pp. 248-253.</td>
<td>Evans, Martin A. Univ. of Oxford, Cannon, Mark Univ. of Oxford, Kouvaritakis, Basil Univ. of Oxford</td>
</tr>
<tr>
<td>MoA06.7</td>
<td>Determination of All Stabilizing Fractional-Order PID Controllers That Satisfy a Weighted Sensitivity Constraint, pp. 254-259.</td>
<td>Lee, Yung K Wichita State Univ., Watkins, John Wichita State Univ.</td>
</tr>
</tbody>
</table>

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

MoA07.2 Distributed Economic Model Predictive Control of Networks in Competitive Environments, pp. 266-271. | Driessen, Peter Eindhoven Univ. of Tech., Hermans, R.M. Eindhoven Univ. of Tech., van den Bosch, P. P. J. Eindhoven Univ. of Tech. |
10:40-11:00 MoA07.3
Rantzer, Anders
Lund Univ.

11:00-11:20 MoA07.4
Ma, Wann-Jiun
Univ. of Notre Dame
Gupta, Vijay
Univ. of Notre Dame

11:20-11:40 MoA07.5
Tedesco, Francesco
Univ. Della Calabria
Casavola, Alessandro
Univ. Della Calabria
Garone, Emanuele
Univ. Libre de Bruxelles

11:40-12:00 MoA07.6
Distribution of Agents with Multiple Capabilities in Heterogeneous Multiagent Networks – a Graph Theoretic View, pp. 290-295.
Abbas, Waseem
Georgia Inst. of Tech.
Egerstedt, Magnus
Georgia Inst. of Tech.

12:00-12:20 MoA07.7
Performance Analysis of a Distributed Algorithm for Dynamic Reactive Power Compensation, pp. 296-301.
Bolognani, Saverio
Univ. of Padova
Cavraro, Guido
Univ. of Padova
Zampieri, Sandro
Univ. di Padova

MoA08 Nonlinear Systems I (Regular Session)
Chair: Muller, Matthias A.
Univ. of Stuttgart
Co-Chair: Spurgeon, Sarah K.
Univ. of Kent

10:00-10:20 MoA08.1
Wang, Yue
Clemson Univ.
Gupta, Vijay
Univ. of Notre Dame
Antsaklis, Panos J.
Univ. of Notre Dame

10:20-10:40 MoA08.2
Generalized Homogeneity with Monotone Degree and Smooth Stabilization for a Class of Feedforward Systems, pp. 308-313.
Zhang, Chuanlin
Southeast Univ.
Qian, Chunjiang
Univ. of Texas at San Antonio
Li, Shihua
Southeast Univ.

10:40-11:00 MoA08.3
Muller, Matthias A.
Univ. of Stuttgart
Liberson, Daniel
Univ. of Illinois, Urbana-Champaign
Allgower, Frank
Univ. of Stuttgart

MoA09 Biomedical and Biomolecular Systems (Regular Session)
Chair: Siaipaka, Murti V.
Univ. of Minnesota, Minneapolis
Co-Chair: Medvedev, Alexander V.
Uppsala Univ.

10:00-10:20 MoA09.1
Time-Varying Force Tracking in Impedance Control, pp. 344-349.
Xu, Wenkang
Nanjing Univ. of Science and Tech.
Cai, Chenxiao
Nanjing Univ. of Science and Tech.
Yin, Minghui
Nanjing Univ. of Science and Tech.
Zou, Yun
Nanjing Univ. of Science and Tech.

10:20-10:40 MoA09.2
Model-Based Control of Cancer Progression Subject to Drug-Resistance, pp. 350-355.
Hadjlandreou, Marlos Michael
Univ. of Cyprus
Mitsis, Georgios D.
Univ. of Cyprus

11:00-11:20 MoA08.4
Shen, Yanjun
China Three Gorges Univ.
Xia, Xiaohua
Univ. of Pretoria

11:20-11:40 MoA08.5
Lee, Joonho
Michigan State Univ.
Mukherjee, Ranjan
Michigan State Univ.
Khalil, Hassan K.
Michigan State Univ.

11:40-12:00 MoA08.6
Yan, Xing-Gang
Univ. of Kent
Spurgeon, Sarah K.
Univ. of Kent
Shi, Peng
Univ. of Glamorgan
Fridman, Leonid M.
National Autonomous Univ. of Mexico

12:00-12:20 MoA08.7
Cho, Hansung
Seoul National Univ.
Yang, Jongwook
Seoul National Univ.
Seo, Jin H.
Seoul National Univ.
Simulated Mid-Ranging Control of Propofol and Remifentanil Using EEG-Measured Hypnotic Depth of Anesthesia, pp. 356-361.
Soltesz, Kristian
Lund Univ.
Dumont, Guy A.
Univ. of British Columbia
van Heusden, Klaske
Univ. of British Columbia
Hagglund, Tore
Lund Univ.
Ansermino, John Mark
Univ. of British Columbia

Analysis of a Pulse-Modulated Model of Endocrine Regulation with Time-Delay, pp. 362-367.
Churilov, Alexander
St. Petersburg State Marine Tech. Univ.
Medvedev, Alexander V.
Uppsala Univ.
Mattsson, Per
Uppsala Univ.

Exactly Linearizing Adaptive Control of Propofol and Remifentanil Using a Reduced Wiener Model for the Depth of Anesthesia, pp. 368-373.
Silva, Margarida M.
Uppsala Univ.
Wigren, Torbjorn
Uppsala Univ.
Mendonça, Teresa
Univ. do Porto

Perley, Jeffrey P
Purdue Univ.
Mikolajczak, Judith
Purdue Univ.
Dinh, Vu
Purdue Univ.
Harrison, Marietta L
Purdue Univ.
Buzzard, Gregery
Purdue Univ.
Rundell, Ann E.
Purdue Univ.

Photoelectrothermal Model Predictive Control for Light Emitting Diodes, pp. 394-399.
Baccari, Silvio
Univ. of Sannio
Tipaldi, Massimo
Univ. of Sannio
Iannelli, Luigi
Univ. of Sannio
Vasca, Francesco
Univ. of Sannio

Assessment of the Diagnostics for Shape Control in Fusion Machines (I), pp. 400-405.
Cenedese, Angelo
Univ. of Padova
Battini, Paolo
Univ. of Padova

Chu, Bing
Univ. of Southampton
Duncan, Stephen
Univ. of Oxford
Papachristodoulou, Antonis
Univ. of Oxford
Hepburn, Cameron
London School of Ec.

Sliding Mode Observer-Based Stabilization of Interconnected Fractional Order Systems, pp. 412-417.
Lee, Sang-Chul
Gwangju Inst. of Science and Tech. (GIST)
Ahn, Hyo-Sung
Gwangju Inst. of Science and Tech. (GIST)

Ren, Shaolei
Florida International Univ.
vanderSchaar, Mihaela
Univ. of California Los Angeles

Emerging Control Applications (Regular Session)
Chair: Leva, Alberto
Pol. di Milano
Co-Chair: Cenedese, Angelo
Univ. of Padova

Sliding Mode Control of a Tokamak Transformer (I), pp. 386-393.
Romero, Jesús Antonio
Lab. Nacional de Fusión, Ciemat
Coda, Stefano
EPFL
Felici, Federico
Eindhoven Univ. of Tech.
Moret, Jean-Marc
EPFL
Paley, James I.
EPFL
Sevillano, Genni
Univ. of the Basque Country
Garrido, Iazaskun
Univ. of the Basque Country
LE, Hoang Bao
CRPP-EPFL

Electrical Power Systems I (Regular Session)
Chair: Chakraborty, Aranya
North Carolina State Univ.
Co-Chair: Topcu, Ufuk
California Inst. of Tech.

Lam, Albert Y.S.
Hong Kong Baptist Univ.
Zhang, Baosen
Univ. of California, Berkeley
Tse, David N.
Univ. of California, Berkeley

Graph-Theoretic Model Reduction of Oscillation Propagation in Spatially Distributed Power System Networks, pp. 438-443.
Chakraborty, Aranya
North Carolina State Univ.
Khan, T.
Univ. of Southern California
Distributed Hierarchical Control of Multi-Area Power Systems with Improved Primary Frequency Regulation, pp. 444-449.

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


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


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

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

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


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

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

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

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

Han, Seul-Ki Yonsei Univ.
Ra, Won-Sang Agency for Defense Development
Park, Jin Bae Yonsei Univ.
10:40-11:00 MoA13.3
A Trajectory Tracking Control Scheme Design for Nonholonomic Wheeled Mobile Robots with Low-Level Control Systems, pp. 536-543.
Low, Chang Boon DSO National Lab.

11:00-11:20 MoA13.4
Iterative Feedback Tuning for the Joint Controllers of a 7-DOF Whole Arm Manipulator, pp. 544-549.
Pineda Rico, Zaira Univ. of Leicester
Lecchini Visintini, Andrea Univ. of Leicester
Quian Quiroga, Rodrigo Univ. of Leicester

11:20-11:40 MoA13.5
High Precision Control of Robot Manipulators Via Finite-Time P-PI Control, pp. 550-555.
Nakamura, Hisakazu Tokyo Univ. of Science
Nishida, Naoki Nara Inst. of Science and Tech.
Nakamura, Nami

11:40-12:00 MoA13.6
Keshmiri, Mohammad Concordia Univ.
Xie, Wenfang Concordia Univ.

12:00-12:20 MoA13.7
Target-Point Based Path Following Controller for Car-Type Vehicle Using Bounded Feedback, pp. 562-567.
Laghrouche, Salah UTBM
Harrouche, Mohamed UTBM
Chitour, Yacine Univ. Paris-Sud, CNRS, Supelec

MoA14 Fault Detection I (Regular Session)

10:00-10:20 MoA14.1
Abdo, Ali Univ. of Duisburg - Essen
Ding, Steven X. Univ. of Duisburg - Essen
Saljai, Jedsada Univ. of Duisburg - Essen
Damlakh, Waseem Univ. of Duisburg - Essen

10:20-10:40 MoA14.2
Statistical Properties of Exponentially Weighted Moving Average Algorithm for Change Detection, pp. 574-578.
Chitraganti, Shaikshavali Univ. de Lorraine
Aberkane, Samir UHP, NANCY 1
Aubrun, Christophe Univ. de Lorraine

10:40-11:00 MoA14.3
Klai, Farhborz Univ. of Alberta
Prakash, Jagadeesan Anna University
Shah, Siriraj L. Univ. of Alberta

11:00-11:20 MoA14.4
A Distributed Detection Scheme for Process Faults and Sensor Faults in a Class of Interconnected Nonlinear Uncertain Systems, pp. 586-591.
Zhang, Qi Wright State Univ.
Zhang, Xiaodong Wright State Univ.

11:20-11:40 MoA14.5
A Novel Distributed Robust Fault Detection and Isolation Filter Design for a Network of Nonhomogeneous Multi-Agent Systems, pp. 592-599.
Davoodi, Mohammadreza Tarbiat Modares Univ.
Khorasani, Khashayar Concordia Univ.
Talabi, H.A. Amirkabir Univ.
Momeni, Hamidreza Tarbiat Modares Univ.

11:40-12:00 MoA14.6
Fault Detection and Isolation for Inertial Measurement Units, pp. 600-605.
Bräs, Sérêgio Inst. Superior Técnico
Rosa, Paulo Andre Nobre Inst. Superior Técnico
Silvestre, Carlos Inst. Superior Técnico
Oliveira, Paulo Jorge Inst. Superior Técnico

MoA15 Computational Methods (Regular Session)

10:00-10:20 MoA15.1
A Novel Algorithm to Solve the Robust DMZ Equation in Real Time, pp. 606-611.
Luo, Xue Univ. of Illinois at Chicago
Yau, Stephen S.-T. Tsinghua Univ.

10:20-10:40 MoA15.2
Approximation of Nonlinear L2-Gain Bounds Via a Max-Plus Method, pp. 612-617.
Zhang, Huan Univ. of Melbourne
Dower, Peter M. Univ. of Melbourne

10:40-11:00 MoA15.3
Dower, Peter M. Univ. of Melbourne
McEneaney, William Univ. of California, San Diego

11:00-11:20 MoA15.4
Fractional Order Differentiation by Integration with Jacobi Polynomials, pp. 624-629.
Liu, Da-yan King Abdullah Univ. of Science and Tech.
Gibaru, Olivier Arts et Metiers ParisTech
Perruquet, Wilfrid Ec. Centrale de Lille
Laleg, Taous Meriem King Abdullah Univ. of Science and Tech. (KAUST)
11:20-11:40 MoA16.5
Towards a Fixed Point QP Solver for Predictive Control (I), pp. 675-680.
Jerez, Juan Luis
Imperial Coll. London
Constantinides, George A.
Imperial Coll. London
Kerrigan, Eric C.
Imperial Coll. London

11:40-12:00 MoA16.6
Dynamic Optimization with CasADi (I), pp. 681-686.
Andersson, Joel
Katholieke Univ. Leuven
Akalsson, Johan
Lund Univ.
Diehl, Moritz
Katholieke Univ. Leuven

12:00-12:20 MoA16.7
High-Speed Moving Horizon Estimation Based on Automatic Code Generation (I), pp. 687-692.
Farreau, Hans Joachim
Katholieke Univ. Leuven
Kraus, Tom
Katholieke Univ. Leuven
Vukov, Milan
Katholieke Univ. Leuven
Saey, Wouter
Katholieke Univ. Leuven
Diehl, Moritz
Katholieke Univ. Leuven

MoA17 Switched Systems I (Regular Session)
Chair: Parrilo, Pablo A.
Massachusetts Inst. of Tech.
Co-Chair: Egerstedt, Magnus
Georgia Inst. of Tech.

10:00-10:20 MoA17.1
Nice-Reachability Results for Discrete-Time Linear Switched Systems with Applications to Stability under Arbitrary Switching Laws (I), pp. 693-698.
Monovich Wahrmann, Tal
IAI - MLM Div.
Margaliot, Michael
Tel Aviv Univ.

10:20-10:40 MoA17.2
Caldwell, Timothy
Northwestern Univ.
Murphey, Todd
Northwestern Univ.

10:40-11:00 MoA17.3
Switching Time Optimization in Discretized Hybrid Dynamical Systems, pp. 707-712.
Flabkamp, Kathrin
Univ. of Paderborn
Murphey, Todd
Northwestern Univ.
Ober-Bloibaum, Sina
Univ. of Paderborn

11:00-11:20 MoA17.4
A Controlled-Precision Algorithm for Mode-Switching Optimization, pp. 713-718.
Wardl, Yorai
Georgia Inst. of Tech.
Egerstedt, Magnus
Georgia Inst. of Tech.
Twu, Philip
Georgia Inst. of Tech.

11:20-11:40 MoA17.5
Trade-Offs between Control and Mode-Observability Properties for Switching Linear Systems, pp. 719-724.
Baglietto, Marco
Univ. of Genova
Battistelli, Giorgio
Univ. of Florence
Tesi, Pietro
Univ. of Genova
11:40-12:00 MoA17.6

$\ell_2$-Induced Norm of Discrete-Time Switched Linear Systems: Solutions and Algorithms, pp. 725-730.

Shi, Dawei  
Univ. of Alberta

Chen, Tongwen  
Univ. of Alberta

12:00-12:20 MoA17.7

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

Ahmadi, Amir Ali  
Massachusetts Inst. of Tech.

Parrilo, Pablo A.  
Massachusetts Inst. of Tech.

MoB01

Networked Control Systems II (Regular Session)

Chair: Zampieri, Sandro  
Univ. di Padova

Co-Chair: Lin, Fu  
Univ. of Minnesota

14:00-14:20 MoB01.1

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

Lin, Fu  
Univ. of Minnesota

Fardad, Makan  
Syracuse Univ.

Jovanovic, Mihailo  
Univ. of Minnesota

14:20-14:40 MoB01.2


Postoyan, Romain  
CNRS-CRAN

Van De Wouw, Nathan  
Eindhoven Univ. of Tech.

Nesic, Dragan  
Univ. of Melbourne

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

14:40-15:00 MoB01.3

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

Manaffam, Saeed  
Univ. of Rochester

Razeghi-Jahromi, Mohammad  
Univ. of Rochester

Seyedi, Alireza  
Univ. of Central Florida

15:00-15:20 MoB01.4


Wang, Bin  
Univ. of Melbourne

Nesic, Dragan  
Univ. of Melbourne

15:20-15:40 MoB01.5

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

Zhao, Yingbo  
Univ. of Notre Dame

Minero, Paolo  
Univ. of Notre Dame

Gupta, Vijay  
Univ. of Notre Dame