

Session Index

How To Use This Index: Scroll down or use the bookmarks in the navigation pane at left to move to a new location in this index. Click on a [blue paper title](#) to view that paper. To return to this index after viewing a paper, click the “Previous Menu” bookmark in the navigation pane.

MoPPL	Giralda I
Opening Ceremony and Plenary Session I (Plenary Session)	
Chair: Camacho, Eduardo F.	Univ. de Sevilla
Co-Chair: Tempo, Roberto	Pol. di Torino
08:20-09:30	
<i>The Theory-Practice Gap: Where Are We?*</i>	
Davison, Edward J.	Univ. of Toronto
MoA01	Giralda I
Confluence of Controls and Computer-Sci. in Discrete-Event Systems (Invited Session)	
Chair: Kumar, Ratnesh	Iowa State Univ.
Co-Chair: Takai, Shigemasa	Kyoto Inst. of Tech.
Organizer: Kumar, Ratnesh	Iowa State Univ.
Organizer: Takai, Shigemasa	Kyoto Inst. of Tech.
10:00-10:20	
<i>A Generic Approach to the Control of Discrete Event Systems (I)</i> , pp. 1-5	
Arnold, André	Bordeaux 1 Univ.
Briand, Xavier	Bordeaux 1 Univ.
Point, Gérald	Bordeaux 1 Univ.
Vincent, Aymeric	Bordeaux 1 Univ.
10:20-10:40	
<i>Decentralized Observation Problems (I)</i> , pp. 6-11	
Tripakis, Stavros	CNRS, Verimag Lab.
10:40-11:00	
<i>On the Architectures in Decentralized Supervisory Control (I)</i> , pp. 12-17	
Pinchinat, Sophie	IRISA
Riedweg, Stéphane	ENS Cachan
11:00-11:20	
<i>Symbolic Sub-Systems and Symbolic Control of Linear Systems (I)</i> , pp. 18-23	
Tabuada, Paulo	Univ. of Notre Dame
11:20-11:40	
<i>Bisimilarity Control under Partial Observation of Deterministic Discrete Event Systems (I)</i> , pp. 24-29	
Zhou, Changyan	Iowa State Univ.
Kumar, Ratnesh	Iowa State Univ.
11:40-12:00	
<i>Supervisory Control of Infinite Symbolic Systems Using Abstract Interpretation</i> , pp. 30-35	
Le Gall, Tristan	Univ. de Rennes 1
Jeannot, Bertrand	IRISA - INRIA
Marchand, Herve	IRISA - INRIA Rennes
MoA02	Giralda IV
Optimization Based Nonlinear Control (Invited Session)	
Chair: Grüne, Lars	Univ. of Bayreuth
Co-Chair: Nešić, Dragan	The Univ. of Melbourne
Organizer: Grüne, Lars	Univ. of Bayreuth
Organizer: Nešić, Dragan	The Univ. of Melbourne
10:00-10:20	
<i>Model Predictive Sampled-Data Redesign for Nonlinear Systems (I)</i> , pp. 36-41	
Grüne, Lars	Univ. of Bayreuth
Nešić, Dragan	The Univ. of Melbourne
Pannek, Jürgen	Univ. of Bayreuth
10:20-10:40	
<i>Curse-Of-Dimensionality Free Method for Bellman PDEs with Hamiltonian Written As Maximum of Quadratic Forms (I)</i> , pp. 42-47	
McEneaney, William	Univ. of California, San Diego
10:40-11:00	
<i>Optimal Refractive Index Profile Design for a Pair of Optical Fibre-Based Devices. (I)</i> , pp. 48-53	
Dower, Peter M.	The Univ. of Melbourne
Farrell, Peter M.	The Univ. of Melbourne

11:00-11:20	<i>Robustness Properties and Output Feedback of Optimization Based Sampled-Data Open-Loop Feedback (I)</i> , pp. 54-59	
	Findeisen, Rolf	Univ. of Stuttgart
	Allgöwer, Frank	Univ. of Stuttgart
11:20-11:40	<i>Optimal Control for a Class of Hybrid Systems under Mixed Costs (I)</i> , pp. 60-65	
	Zhang, Huan	The Australian National Univ.
	James, Matthew R.	The Australian National Univ.
11:40-12:00	<i>Optimal Reconfiguration of Formation Flying Satellites (I)</i> , pp. 66-71	
	Junge, Oliver	Univ. of Paderborn
	Ober-Blöbaum, Sina	Univ. of Paderborn

MoA03		Giralda II
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Autonomous Systems I (Regular Session)		
	Chair: Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens
	Co-Chair: Polycarpou, Marios M.	Univ. of Cyprus
10:00-10:20	<i>Stable Motions of Vehicle Formations</i> , pp. 72-77	
	Williams, Anca	Portland State Univ.
	Lafferriere, Gerardo A.	Portland State Univ.
	Veerman, J. J. Peter	Portland State Univ.
10:20-10:40	<i>Automated Planning of Motion Tasks for Multi-Robot Systems</i> , pp. 78-83	
	Loizou, Savvas	National Tech. Univ. of Athens
	Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens
10:40-11:00	<i>Formation Control and Collision Avoidance for Multi-Agent Systems and a Connection between Formation Infeasibility and Flocking Behavior</i> , pp. 84-89	
	Dimarogonas, Dimos	National Tech. Univ. of Athens
	Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens
11:00-11:20	<i>Information Sharing in Cooperative Unmanned Aerial Vehicle Teams</i> , pp. 90-95	
	Liao, Yan	Univ. of Cincinnati
	Jin, Yan	Univ. of Cincinnati
	Minai, Ali A.	Univ. of Cincinnati
	Polycarpou, Marios M.	Univ. of Cyprus
11:20-11:40	<i>Consensus Control for a Class of Networks of Dynamic Agents: Fixed Topology</i> , pp. 96-101	
	Xie, Guangming	Peking Univ.
	Wang, Long	Peking Univ.
11:40-12:00	<i>A Hybrid, PDE-ODE Controller for Intercepting Intelligent, Well-Informed Target in a Cluttered Environment</i> , pp. 102-107	
	Masoud, Ahmad	KFUPM

MoA04		Utrera
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Adaptive and Learning Systems (Regular Session)		
	Chair: Yamasaki, Tatsushi	Kwansei Gakuin Univ.
	Co-Chair: Youcef-Toumi, Kamal	Massachusetts Inst. of Tech.
10:00-10:20	<i>Motion Alphabet Augmentation Based on past Experiences</i> , pp. 108-113	
	Mehta, Tejas	Georgia Inst. of Tech.
	Delmotte, Florent	Georgia Inst. of Tech.
	Egerstedt, Magnus	Georgia Inst. of Tech.
10:20-10:40	<i>Robust Adaptive Scheduled Switched Control</i> , pp. 114-119	
	El Rifai, Khalid	Massachusetts Inst. of Tech.
	Youcef-Toumi, Kamal	Massachusetts Inst. of Tech.
10:40-11:00	<i>ISS of Switched Systems and Applications to Switching Adaptive Control</i> , pp. 120-125	
	Vu, Linh	Univ. of Illinois, Urbana-Champaign
	Chatterjee, Debasish	Coordinated Sci. Lab., Univ. of Illinois, Urbana-Champaign
	Liberzon, Daniel	Univ. of Illinois, Urbana-Champaign

11:00-11:20	<i>Reinforcement Learning of Optimal Supervisor Based on Language Measure</i> , pp. 126-131 Yamasaki, Tatsushi Taniguchi, Kazutaka Ushio, Toshimitsu	Kwansei Gakuin Univ. Osaka Univ. Osaka Univ.
11:20-11:40	<i>Bit Importance Strategy for Bidirectional Associative Memory</i> , pp. 132-136 Wei, Mo Cruz, Jose B	The Ohio State Univ. The Ohio State Univ.
11:40-12:00	<i>Adaptive Robust Control: A New Approach to the Adaptive Control of Linear Systems</i> , pp. 137-142 Liu, Kang-Zhi	Chiba Univ.

MoA05	Lebrija
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Behavioral Control Theory (Invited Session)
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Chair: Rapisarda, Paolo	Univ. Maastricht
Co-Chair: Pillai, Harish	Indian Inst. of Tech., Bombay
Organizer: Rapisarda, Paolo	Univ. Maastricht
Organizer: Pillai, Harish	Indian Inst. of Tech., Bombay
Organizer: Willems, Jan C.	Katholieke Univ. Leuven
10:00-10:20	
<i>Optimal Tracking for MIMO Systems Via Data Based System Representation (I)</i> , pp. 143-148 Kai, Takafumi Fujisaki, Yasumasa	Kobe Univ. Kobe Univ.
10:20-10:40	
<i>A Sufficient Condition for a Triple of Linear Systems to Be Simultaneously Stabilizable in a Behavioral Framework (I)</i> , pp. 149-154 Kaneko, Osamu Fujii, Takao	Osaka Univ. Osaka Univ.
10:40-11:00	
<i>Behavioral Control in the Presence of Disturbances (I)</i> , pp. 155-160 Julius, Agung Belur, Madhu	Univ. of Pennsylvania Indian Inst. of Tech., Bombay
11:00-11:20	
<i>Dissipative Systems Synthesis: A Linear Algebraic Approach (I)</i> , pp. 161-166 Belur, Madhu N. Pillai, Harish K. Trentelman, H. L.	Indian Inst. of Tech., Bombay Indian Inst. of Tech., Bombay Univ. of Groningen
11:20-11:40	
<i>A Behavioral Approach to the Estimation Problem and Its Applications to State-Space Models (I)</i> , pp. 167-172 Bisiacco, Mauro Valcher, Maria Elena	Univ. di Padova Univ. di Padova
11:40-12:00	
<i>On the Parametrization of All Stabilizing Controllers (I)</i> , pp. 173-178 Trentelman, Harry L. Praagman, Cornelis	Univ. of Groningen Univ. of Groningen

MoA06	Prado
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Control Systems I (Regular Session)
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Chair: Freudenberg, James S.	Univ. of Michigan
Co-Chair: Rees, David	Univ. of Glamorgan
10:00-10:20	
<i>Finite Horizon LQ Optimal Control and Computation with Data Rate Constraints</i> , pp. 179-184 Huang, Minyi Nair, Girish N. Evans, Robin J.	The Univ. of Melbourne The Univ. of Melbourne The Univ. of Melbourne
10:20-10:40	
<i>LQG Control under Limited Communication</i> , pp. 185-190 Zhang, Lei Hristu-Varsakelis, Dimitris	Univ. of Maryland Univ. of Macedonia
10:40-11:00	
<i>Control Over Signal-To-Noise Ratio Constrained Channels: Stabilization and Performance</i> , pp. 191-196 Freudenberg, James S. Braslavsky, Julio H. Middleton, Rick	Univ. of Michigan The Univ. of Newcastle The Univ. of Newcastle

11:00-11:20	Control Over a Bandwidth Limited Signal to Noise Ratio Constrained Communication Channel , pp. 197-202	The Univ. of Newcastle The Univ. of Newcastle The Univ. of Newcastle
	Rojas, Alejandro Braslavsky, Julio H. Middleton, Rick	
11:20-11:40	Stability Criteria of Networked Predictive Control Systems with Random Network Delay , pp. 203-208	Univ. of Glamorgan Univ. of Glamorgan
	Liu, Guo-Ping Rees, David	
11:40-12:00	Input-Output Stability of Wireless Networked Control Systems , pp. 209-214	The Univ. of Melbourne The Univ. of Melbourne Univ. of California, Santa Barbara
	Tabbara, Mohammad Nešić, Dragan Teel, Andrew R.	

MoA07 Estepa

Nonlinear Dynamics, Perception and Bio-Inspired System Control (Invited Session)

Chair: Arena, Paolo	Univ. degli Studi di Catania
Co-Chair: Schneider, Axel	Univ. of Bielefeld
Organizer: Arena, Paolo	Univ. degli Studi di Catania

10:00-10:20	Structural Stability of Boundary Equilibria in a Class of Hybrid Systems: Analysis and Use for Control System Design (I) , pp. 215-220	Univ. di Napoli Federico II Tilburg Univ.
	Di Bernardo, Mario Camlibel, Kanat	

10:20-10:40	Perception-Based Navigation through Weak Chaos Control (I) , pp. 221-226	Univ. degli Studi di Catania Univ. degli Studi di Catania Univ. degli Studi di Catania Univ. degli Studi di Catania Univ. degli Studi di Catania Univ. degli Studi di Catania
	Arena, Paolo Fortuna, Luigi Frasca, Mattia Lo Turco, Giuseppe Patané, Luca Russo, Rosario	

10:40-11:00	A Cricket-Inspired Neural Network for FeedForward Compensation and Multisensory Integration (I) , pp. 227-232	Univ. degli Studi di Catania Univ. of Edinburgh Univ. of Edinburgh Univ. degli Studi di Catania Univ. degli Studi di Catania
	Russo, Paolo Webb, Barbara Reeve, Richard Arena, Paolo Patané, Luca	

11:00-11:20	A Bio-Inspired Joint Controller for the Decentral Control of a Closed Kinematic Chain Consisting of Elastic Joints (I) , pp. 233-238	Univ. of Bielefeld Univ. of Bielefeld Univ. of Bielefeld
	Schneider, Axel Schmitz, Josef Cruse, Holk	

11:20-11:40	Bio-Inspired Sensor Design with an Array of Coupled Lasers (I) , pp. 239-244	Washington Univ. Washington Univ.
	Wang, Wenxue Ghosh, Bijoy	

11:40-12:00	A Control-Oriented Analysis of Bio-Inspired Visuomotor Convergence , pp. 245-250	Univ. of Maryland California Inst. of Tech. California Inst. of Tech.
	Humbert, J. Sean Murray, Richard M. Dickinson, Michael H.	

MoA08 Triana

New Developments and Applications in Optimal Control Theory, Part 1: State Constrained Problems (Invited Session)

Chair: Frankowska, Hélène	Ec. Pol.
Co-Chair: Schättler, Heinz M. M.	Washington Univ.
Organizer: Frankowska, Hélène	Ec. Pol.
Organizer: Schättler, Heinz M. M.	Washington Univ.
Organizer: Ledzewicz, Urszula	Southern Illinois Univ., Edwardsville

10:00-10:20	Regularity of the Adjoint Variable in Optimal Control under State Constraints (I) , pp. 251-256	Ec. Pol.
	Frankowska, Hélène	

10:20-10:40	<i>On a Nonanticipative Filippov Theorem for Control Systems with State Constraints (I)</i> , pp. 257-261 Bettiol, Piernicola Cardaliaguet, Pierre-Louis Quincampoix, Marc	SISSA - ISAS Univ. de Bretagne Occidentale Univ. de Bretagne Occidentale
10:40-11:00	<i>The Role of Metric Regularity in State Constrained Optimal Control (I)</i> , pp. 262-265 Vinter, Richard B.	Imperial Coll.
11:00-11:20	<i>Necessary Conditions under Mangasarian-Fromowitz Type Assumptions for Mixed Constrained Control Problems (I)</i> , pp. 266-271 de Pinho, Maria do Rosário	Univ. do Porto
11:20-11:40	<i>Adequate Treatment of State Constraints in Optimal Control Problems by Means of the Optimality Alternative (I)*</i> Ioffe, Alexander	The Tech.
11:40-12:00	<i>Perimeter Estimates for Attainable Sets in Control Theory (I)</i> , pp. 272-277 Cannarsa, Piermarco Cardaliaguet, Pierre-Louis	Univ. degli Studi di Roma, Tor Vergata Univ. de Bretagne Occidentale

MoA09		Nervion III
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Model Predictive Control I (Regular Session)		
	Chair: Franze, Giuseppe Co-Chair: Pluymers, Bert	Univ. degli Studi della Calabria Katholieke Univ. Leuven
10:00-10:20	<i>Best Possible Region of Attraction for a Class of Unstable Systems Using Short Horizon MPC Concepts</i> , pp. 278-283 Medioli, Adrian Mark Seron, Maria Middleton, Rick	The Univ. of Newcastle The Univ. of Newcastle The Univ. of Newcastle
10:20-10:40	<i>A New Adaptive Parameter Estimation Algorithm for Robust Constrained Predictive Control</i> , pp. 284-289 Kim, Tae-Hyoung Sugie, Toshiharu	Kyoto Univ. Kyoto Univ.
10:40-11:00	<i>Robust Decentralized MPC Algorithm for a Class of Dynamically Interconnected Constrained Systems</i> , pp. 290-295 Kim, Tae-Hyoung Sugie, Toshiharu	Kyoto Univ. Kyoto Univ.
11:00-11:20	<i>A Predictive Control Strategy for Norm-Bounded LPV Linear Systems with Bounded Rates of Parameter Change</i> , pp. 296-301 Casavola, Alessandro Famularo, Domenico Franze, Giuseppe	Univ. degli Studi della Calabria Univ. degli Studi Mediterranea di Reggio Calabria Univ. degli Studi della Calabria
11:20-11:40	<i>Interpolation Based Robust MPC with Exact Constraint Handling</i> , pp. 302-307 Rossiter, J. Anthony Ding, Yihang Pluymers, Bert De Moor, Bart L.R. Suykens, J.A.K.	Univ. of Sheffield Univ. of Sheffield Katholieke Univ. Leuven Katholieke Univ. Leuven Katholieke Univ. Leuven
11:40-12:00	<i>Minimum Order Transfer Function: The Interpolation Approach</i> , pp. 308-313 Baramov, Lubomir Havlena, Vladimir	Honeywell Prague Lab. Honeywell Tech. Center Europe

MoA10		Arenal III
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Statistical Approaches to System/Process Monitoring and Change/Fault/Damage Detection (Invited Session)		
	Chair: Basseville, Michele Co-Chair: Nikiforov, Igor V. Organizer: Basseville, Michele Organizer: Nikiforov, Igor V.	CNRS Univ. de Tech. Troyes IRISA - CNRS, Rennes Univ. de Tech. Troyes
10:00-10:20	<i>A Vehicle Health Monitoring System Evaluated Experimentally on a Passenger Vehicle (I)</i> , pp. 314-319 Ng, Hok Kwan Chen, Robert H. Speyer, Jason L.	Univ. of California, Los Angeles Univ. of California, Los Angeles Univ. of California, Los Angeles

10:20-10:40	<i>Asymptotic Performance of a Multichart CUSUM Test under False Alarm Probability Constraint (I)</i> , pp. 320-325 Tartakovsky, Alexander	Univ. of Southern California
10:40-11:00	<i>Quickest Detection of a Minimum of Disorder Times (I)</i> , pp. 326-331 Bayraktar, Erhan Poor, H. Vincent	Univ. of Michigan Princeton Univ.
11:00-11:20	<i>Online Parameter Estimation in General State-Space Models (I)</i> , pp. 332-337 Andrieu, Christophe Doucet, Arnaud Tadić, Vladislav	Univ. of Bristol Univ. of British Columbia Univ. of Sheffield
11:20-11:40	<i>Fundamental Fault Detection Limitations in Linear Non-Gaussian Systems (I)</i> , pp. 338-343 Hendeby, Gustaf Gustafsson, Fredrik	Linköpings Univ. Linköpings Univ.
11:40-12:00	<i>A Switching Detection Method Based on Projected Subspace Classification</i> , pp. 344-349 Borges, José Alberto de Jesus Verdult, Vincent Verhaegen, Michel Botto, Miguel Ayala	Inst. Superior Técnico, Univ. Tech. de Lisboa Delft Univ. of Tech. Delft Univ. of Tech. Inst. Superior Técnico, Univ. Tech. de Lisboa

MoA11	Carmona
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New Developments and Applications in Filtering and Estimation (Invited Session)		
	Chair: Egerstedt, Magnus Co-Chair: Martin, Clyde F. Organizer: Egerstedt, Magnus Organizer: Martin, Clyde F.	Georgia Inst. of Tech. Texas Tech. Univ. Georgia Inst. of Tech. Texas Tech. Univ.
10:00-10:20	<i>Well-Posedness of Filtering Problems for Stochastic Linear DAE Models (I)</i> , pp. 350-355 Gerdin, Markus Glad, S. Torkel Ljung, Lennart	Linköpings Univ. Linköpings Univ. Linköpings Univ.
10:20-10:40	<i>Discrete-Time Control Systems Approach for Optimal Smoothing Splines (I)</i> , pp. 356-361 Kano, Hiroyuki Fujioka, Hiroyuki Inoue, Keiichi	Tokyo Denki Univ. Tokyo Denki Univ. Tokyo Denki Univ.
10:40-11:00	<i>Control Theoretic Splines with Deterministic and Random Data (I)</i> , pp. 362-367 Zhou, Yishao Egerstedt, Magnus Martin, Clyde F.	Stockholm Univ. Georgia Inst. of Tech. Texas Tech. Univ.
11:00-11:20	<i>Approximate EM Algorithms for Parameter and State Estimation in Nonlinear Stochastic Models (I)</i> , pp. 368-373 Goodwin, Graham C. Agüero, Juan C.	The Univ. of Newcastle The Univ. of Newcastle
11:20-11:40	<i>Hybrid Function Approximation : A Variational Approach (I)</i> , pp. 374-379 Delmotte, Florent Egerstedt, Magnus Verriest, Erik I.	Georgia Inst. of Tech. Georgia Inst. of Tech. Georgia Inst. of Tech.
11:40-12:00	<i>State Estimation with Probability Constraints</i> , pp. 380-385 Rotea, Mario Lana, Carlos	Purdue Univ. Purdue Univ.

MoA12	Nervion II
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Control of Distributed Parameter Systems (Invited Session)		
	Chair: Weiss, George Co-Chair: Guo, Bao-Zhu Organizer: Weiss, George	Imperial Coll. Acad. of Mathematics and System Sci., Imperial Coll.
10:00-10:20	<i>A Case Study for the Delay-Type Nehari Problem (I)</i> , pp. 386-391 Zhong, Qing-Chang	The Univ. of Liverpool

10:20-10:40	<i>Integral Control in the Presence of Hysteresis: An Input-Output Approach (I)</i> , pp. 392-397	
	Logemann, Hartmut	Univ. of Bath
	Ryan, E.P.	Univ. of Bath
	Shvartsman, Ilya	Univ. of Bath
10:40-11:00	<i>Reciprocals of Integrated Nodes (I)</i> , pp. 398-403	
	Curtain, Ruth F.	Univ. of Groningen
11:00-11:20	<i>Convergence of a Multi-Grid Algorithm for the Controllability of the Wave Equation (I)</i> , pp. 404-409	
	Negreanu, Mihaela	Univ. Complutense de Madrid
	Zuazua, Enrique	Univ. Autónoma de Madrid
11:20-11:40	<i>Minimum-Phase Infinite-Dimensional SISO Second-Order Systems (I)</i> , pp. 410-415	
	Jacob, Birgit	Tech. Univ. Berlin
	Morris, Kirsten A.	Univ. of Waterloo
11:40-12:00	<i>Stabilization of Swelling Porous Elastic Soils with Fluid Saturation by One Internal Damping (I)</i> , pp. 416-421	
	Wang, Jun-Min	Univ. of the Witwatersrand
	Guo, Bao-Zhu	Acad. of Mathematics and System Sci.,
MoA13		Ecija
Nonlinear Control Applications I (Regular Session)		
	Chair: Tarn, Tzyh-Jong	Washington Univ.
	Co-Chair: Pachter, Meir	AFIT/ENG
10:00-10:20	<i>IDA-PBC Controller for a Bidirectional Power Flow Full-Bridge Rectifier</i> , pp. 422-426	
	Battle, Carles	Univ. Pol. de Catalunya
	Dória-Cerezo, Arnau	Univ. Pol. de Catalunya
	Fossas, Enric	Univ. Pol. de Catalunya
10:20-10:40	<i>Control of Decoherence in Open Quantum Systems Using Feedback.</i> , pp. 427-433	
	Ganesan, Narayan	Washington Univ.
	Tarn, Tzyh-Jong	Washington Univ.
10:40-11:00	<i>Practical Encoders for Controlling Nonlinear Systems under Communication Constraints</i> , pp. 434-439	
	De Persis, Claudio	Univ. di Roma
	Nešić, Dragan	The Univ. of Melbourne
11:00-11:20	<i>Observer-Based Optimal Control of Dry Clutch Engagement</i> , pp. 440-445	
	Dolcini, Pietro Jacopo	Lab. d'Automatique de Grenoble
	Béchart, Hubert	RENAULT
	Canudas de Wit, Carlos	ENSIEG - INPG
11:20-11:40	<i>Event Driven Manufacturing Systems As Time Domain Control Systems</i> , pp. 446-451	
	Roset, Bas	Eindhoven Univ. of Tech.
	Nijmeijer, Hendrik	Eindhoven Univ. of Tech.
	van Eekelen, Joost	Eindhoven Univ. of Tech.
	Lefeber, Erjen	Eindhoven Univ. of Tech.
	Rooda, J.E.	Eindhoven Univ. of Tech.
11:40-12:00	<i>Suppressing Riser-Based Slugging in Multiphase Flow by State Feedback</i> , pp. 452-457	
	Siahaan, Hardy B.	Norwegian Univ. of Sci. & Tech.
	Aamo, Ole Morten	Norwegian Univ. of Sci. & Tech.
	Foss, Bjarne A.	Norwegian Univ. of Sci. & Tech.

MoA14	Santa Cruz
Advances in the Design and Control of Wireless Networked Embedded Systems (Invited Session)	
Chair: Årzén, Karl-Erik	Lund Inst. of Tech.
Co-Chair: Johansson, Mikael	Royal Inst. of Tech.
Organizer: Årzén, Karl-Erik	Lund Inst. of Tech.
Organizer: Johansson, Mikael	Royal Inst. of Tech.
10:00-10:20	
<i>An LQG Optimal Linear Controller for Control Systems with Packet Losses (I)</i> , pp. 458-463	
Sinopoli, Bruno	Univ. of California, Berkeley
Schenato, Luca	Univ. di Padova
Franceschetti, Massimo	Univ. of California, San Diego
Poolla, Kameshwar	Univ. of California, Berkeley
Sastry, Shankar	Univ. of California, Berkeley
10:20-10:40	
<i>Receiver Design Principles for Estimation Over Fading Channels (I)</i> , pp. 464-469	
Mostofi, Yasamin	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.
10:40-11:00	
<i>Multi-Hopping Induced Gain Scheduling for Wireless Networked Systems (I)</i> , pp. 470-475	
Nikolakopoulos, George	Univ. of Patras
Panousopoulou, Athanasia	Univ. of Patras
Tzes, Anthony	Univ. of Patras
Lygeros, John	Univ. of Patras
11:00-11:20	
<i>Simulation of Wireless Networked Control Systems (I)</i> , pp. 476-481	
Andersson, Martin	Lund Univ.
Henriksson, Dan	Lund Univ.
Cervin, Anton	Lund Univ.
Årzén, Karl-Erik	Lund Inst. of Tech.
11:20-11:40	
<i>A Middleware for Control Over Networks (I)</i> , pp. 482-487	
Baliga, Girish	Univ. of Illinois, Urbana-Champaign
Kumar, P. R.	Univ. of Illinois, Urbana-Champaign
11:40-12:00	
<i>A New Feedback Control Mechanism for Error Correction in Packet-Switched Networks (I)</i> , pp. 488-493	
Flårdh, Oscar	Royal Inst. of Tech.
Johansson, Karl Henrik	Royal Inst. of Tech.
Johansson, Mikael	Royal Inst. of Tech.
MoA15	Giralda V
Design-Oriented Modeling and Model-Based Control of Fluids (Invited Session)	
Chair: Rowley, Clarence W.	Princeton Univ.
Co-Chair: Tadmor, Gilead	Northeastern Univ.
Organizer: Rowley, Clarence W.	Princeton Univ.
Organizer: Tadmor, Gilead	Northeastern Univ.
10:00-10:20	
<i>Drag Reduction by Closed-Loop Control of a Separated Flow Over a Bluff Body with a Blunt Trailing Edge (I)</i> , pp. 494-499	
Henning, Lars	Tech. Univ. Berlin
King, Rudibert	Tech. Univ. Berlin
10:20-10:40	
<i>Wake Stabilization Using POD Galerkin Models with Interpolated Modes (I)</i> , pp. 500-505	
Lehmann, Oliver	Tech. Univ. Berlin
Luchtenburg, Mark (Dirk)	Tech. Univ. Berlin
Noack, Bernd R.	Tech. Univ. Berlin
King, Rudibert	Tech. Univ. Berlin
Morzynski, Marek	Poznan Univ. of Tech.
Tadmor, Gilead	Northeastern Univ.
10:40-11:00	
<i>Observers & Feedback Control for Shear Layer Vortices (I)</i> , pp. 506-511	
Pastoor, Mark	Tech. Univ. Berlin
King, Rudibert	Tech. Univ. Berlin
Noack, Bernd R.	Tech. Univ. Berlin
Tadmor, Gilead	Northeastern Univ.
11:00-11:20	
<i>Model-Based Control and Estimation of Cavity Flow Oscillations (I)</i> , pp. 512-517	
Rowley, Clarence W.	Princeton Univ.
Juttijudata, Vejapong	Kasetsart Univ.

11:20-11:40

Performance Evaluation for Robust Control of Spatial Disturbances in Channel Flow (I), pp. 518-523

O'Dea, Enda
Tutty, Owen
Rogers, Eric

Meteorological Office
Univ. of Southampton
Univ. of Southampton

11:40-12:00

Control of the Cylinder Wake in the Laminar Regime by Trust-Region Methods and POD Reduced Order Models (I), pp. 524-529

Bergmann, Michel
Cordier, Laurent
Brancher, Jean-Pierre

L.E.M.T.A.
L.E.M.T.A.
L.E.M.T.A.

MoA16

Giralda III

Estimation and Filtering I (Regular Session)

Chair: Carravetta, Francesco
Co-Chair: Pohl, Volker

IASI-CNR
Tech. Univ. Berlin

10:00-10:20

Fast Multiple Target Tracking Using Particle Filters, pp. 530-535

Morelande, Mark Richard
Mušicki, Darko

The Univ. of Melbourne
The Univ. of Melbourne

10:20-10:40

Existence and Uniqueness of Solutions for Duncan-Mortensen-Zakai Equations, pp. 536-541

Yau, Shing-Tung
Yau, Stephen S.-T.

Harvard Univ.
Univ. of Illinois, Chicago

10:40-11:00

Stability of the Nonlinear Filter for Slowly Switching HMM, pp. 542-547

Chigansky, Pavel

The Weizmann Inst. of Sci.

11:00-11:20

Continuity of the Outer Factorization and Mapping Properties with Applications, pp. 548-553

Boche, Holger
Pohl, Volker

Tech. Univ. Berlin
Tech. Univ. Berlin

11:20-11:40

Linear Output-Feedback Control of Stochastic Linear Systems with State and Control-Dependent Disturbances, pp. 554-559

Carravetta, Francesco
Mavelli, Gabriella

IASI-CNR
IASI-CNR

11:40-12:00

Convergence of Empirical Means with Alpha-Mixing Input Sequences, and an Application to PAC Learning, pp. 560-565

Vidyasagar, Mathukumalli

Tata Consultancy Services

MoA17

Arenal I

Sliding Mode Control I (Regular Session)

Chair: Levant, Arie
Co-Chair: Edwards, Christopher

Tel Aviv Univ.
Univ. of Leicester

10:00-10:20

Stabilization of Single-Input Nonlinear Systems Using Higher Order Compensating Sliding Mode Control, pp. 566-571

Voytsekhovskiy, Dmitry
Hirschorn, Ronald

Queen's Univ.
Queen's Univ.

10:20-10:40

Homogeneous Sliding Modes in the Presence of Fast Actuators, pp. 572-577

Levant, Arie
Fridman, Leonid M.

Tel Aviv Univ.
Univ. Nacional Autónoma de México

10:40-11:00

On Output Tracking Using Dynamic Output Feedback Discrete-Time Sliding Mode Controllers, pp. 578-583

Lai, Nai One
Edwards, Christopher
Spurgeon, Sarah K.

Univ. of Leicester
Univ. of Leicester
Univ. of Leicester

11:00-11:20

Analysis and Design of Discrete-Sliding-Mode Control for a Square-Waveform-Ballast, pp. 584-589

Osorio, Rene
Ponce, Mario
Oliver, Marco A.
Pinto, Sergio E.
Juárez, Mario A.
Katebi, Reza
Grimble, Michael J.

National Center of Res. and Tech. Development
National Center of Res. and Tech. Development
National Center of Res. and Tech. Development
Univ. of Strathclyde
National Center of Res. and Tech. Development
Univ. of Strathclyde
Univ. of Strathclyde

11:20-11:40

VSC of a Servo-Actuated ATR90-Type Pantograph, pp. 590-595

Allotta, Benedetto
Pisano, Alessandro
Pugi, Luca
Usai, Elio

Univ. degli Studi di Firenze
Univ. di Cagliari
Univ. degli Studi di Firenze
Univ. di Cagliari

11:40-12:00

Delay-Dependent H_{∞} Variable Structure Control of Uncertain Singular Time-Delay Systems: An LMI Approach, pp. 596-601

Li, Min
Zhu, Shuqian
Sun, Jie
Cheng, Zhaolin

Shandong Inst. of Light Industry
Shandong Univ.
Shandong Univ.
Shandong Univ.

MoIA18

Giralda VI

Computer Vision and Robotics (Interactive Session)

Chair: Sznaier, Mario
Co-Chair: Prattichizzo, Domenico

Pennsylvania State Univ.
Univ. di Siena

10:00-12:00

Cross-Track Control for Underactuated Autonomous Vehicles, pp. 602-608

Børhaug, Even
Pettersen, Kristin Y.

Norwegian Univ. of Sci. & Tech.
Norwegian Univ. of Sci. & Tech.

10:00-12:00

Robust Identification of Periodic Systems with Applications to Texture inpainting, pp. 609-614

Sznaier, Mario
Camps, Octavia I.

Pennsylvania State Univ.
Pennsylvania State Univ.

10:00-12:00

Feedback Loop Design and Analysis for Iterative Localized Image Deblurring, pp. 615-620

Gorinevsky, Dimitry

Honeywell

10:00-12:00

State Estimation for Systems with Implicit Outputs for the Integration of Vision and Inertial Sensors, pp. 621-626

Aguiar, A. Pedro
Hespanha, João P.

Inst. Superior Técnico
Univ. of California, Santa Barbara

10:00-12:00

Principles of Guidance-Based Path Following in 2D and 3D, pp. 627-634

Breivik, Morten
Fossen, Thor I.

Norwegian Univ. of Sci. & Tech.
Norwegian Univ. of Sci. & Tech.

10:00-12:00

Vision-Based Localization of Leader-Follower Formations, pp. 635-640

Mariottini, Gian Luca
Pappas, George J.
Prattichizzo, Domenico
Daniilidis, Kostas

Univ. di Siena
Univ. of Pennsylvania
Univ. di Siena
Univ. of Pennsylvania

MoIA19

Giralda VII

Robust Control Applications (Interactive Session)

Chair: Chiappa, Caroline
Co-Chair: Haggblom, Kurt E.

ONERA-CERT
Åbo Akademi Univ.

10:00-12:00

(μ -Mu) Iteration Technique : Application to Attitude Control of Satellite with Large Flexible Appendages, pp. 641-646

Chiappa, Caroline
Bodineau, Guillaume
Boulade, Sebastien
Beugnon, Celine

ONERA-CERT
EADS - Astrium
EADS - Astrium
EADS - Astrium

10:00-12:00

Sensorless Indirect Rotor Field Orientation Speed Control of Permanent Magnet Synchronous Motor Using Adaptive Rotor Flux Estimator,

pp. 647-652

Rashed, Mohamed
MacConnell, Peter
Stronach, AF
Acarnley, Paul

Aberdeen Univ.
Aberdeen Univ.
Genbase Information Systems (Aberdeen)
Res. Engineering Education Services

10:00-12:00

H-Infinity Loop Shaping Controller for Shape Memory Alloy Actuators, pp. 653-658

Jayender, J.
Patel, Rajni
Nikumb, Suwas
Ostojic, Mile

Univ. of Western Ontario
Univ. of Western Ontario
National Res. Council of Canada
National Res. Council of Canada

- 10:00-12:00
A General and Efficient Robust Control Method for Uncertain Nonlinear Mechanical Systems, pp. 659-665
 Celentano, Laura Univ. degli Studi di Napoli Federico II
- 10:00-12:00
Nonlinear μ Flight Control and Suboptimal Exact Solution on F-16 Application, pp. 666-671
 Kung, Chien-Chun Chung Cheng Inst. of Tech. National Defense Univ.
 Yang, Ciann-Dong National Cheng Kung Univ.
 Hwang, Jyh-Woei Chung Cheng Inst. of Tech. National Defense Univ.
 Wu, Chi-Yu Chung Cheng Inst. of Tech. National Defense Univ.
- 10:00-12:00
*Derivation of Unstructured MIMO Uncertainty Models Via Data Matching**
 Haggblom, Kurt E. Åbo Akademi Univ.

MoB01 Giralda I

- Hybrid Systems Theory (Regular Session)**
- Chair: Haddad, Abraham H. Northwestern Univ.
 Co-Chair: Pappas, George J. Univ. of Pennsylvania
- 13:30-13:50
Bounded Model Checking of Hybrid Dynamical Systems, pp. 672-677
 Giorgetti, Nicolò Univ. di Siena
 Pappas, George J. Univ. of Pennsylvania
 Bemporad, Alberto Univ. di Siena
- 13:50-14:10
Semi-Algebraic Constant Reset Hybrid Automata - SACoRe, pp. 678-683
 Casagrande, Alberto Univ. of Udine
 Piazza, Carla Univ. of Udine
 Mishra, Bud New York Univ.
- 14:10-14:30
Approximate Bisimulations for Nonlinear Dynamical Systems, pp. 684-689
 Girard, Antoine Univ. of Pennsylvania
 Pappas, George J. Univ. of Pennsylvania
- 14:30-14:50
Realization Theory for Bilinear Switched Systems: Formal Power Series Approach, pp. 690-695
 Petreczky, Mihály Centrum voor Wiskunde en Informatica
- 14:50-15:10
Sufficient Conditions for the Existence of Zeno Behavior, pp. 696-701
 Ames, Aaron Univ. of California, Berkeley
 Abate, Alessandro Univ. of California, Berkeley
 Sastry, Shankar Univ. of California, Berkeley
- 15:10-15:30
*Non-Zenoness and Observability of Conewise Linear Systems**
 Camlibel, Kanat Tilburg Univ.
 Pang, Jong-Shi Rensselaer Pol. Inst.
 Shen, Jinglai Rensselaer Pol. Inst.

MoB02 Giralda IV

- Optimal Control and Variational Methods (SIAM) (Regular Session)**
- Chair: Shvartsman, Ilya Univ. of Bath
 Co-Chair: villa, silvia Univ. degli Studi di Firenze
- 13:30-13:50
Relaxation of an Optimal Design Problem with an Integral-Type Constraint, pp. 702-707
 Aranda, Ernesto Univ. de Castilla - La Mancha
 Bellido, José Carlos Univ. de Castilla - La Mancha
- 13:50-14:10
On Stability of the Pontryagin Maximum Principle with Respect to Time Discretization, pp. 708-713
 Mordukhovich, Boris Wayne State Univ.
 Shvartsman, Ilya Univ. of Bath
- 14:10-14:30
On the Value of Two-Person Zero-Sum Linear Quadratic Differential Games, pp. 714-718
 Zhang, Pingjian South China Univ. of Tech.
 Deng, Huifang South China Univ. of Tech.
 Xi, Jianqing South China Univ. of Tech.
- 14:30-14:50
Well-Posedness of Nonconvex Integral Functionals, pp. 719-722
 Villa, Silvia Univ. degli Studi di Firenze

14:50-15:10

[Hybrid Necessary Principle](#), pp. 723-728

Garavello, Mauro
Piccoli, Benedetto

Univ. di Milano-Bicocca
IAC - CNR

15:10-15:30

[Computing the Effective Hamiltonian Using a Variational Approach](#), pp. 729-733

Gomes, Diogo
Oberman, Adam

Inst. Superior Técnico
Simon Fraser Univ.

MoB03

Autonomous Systems II (Regular Session)

Giralda II

Chair: Angeli, David
Co-Chair: Broucke, Mireille E.

Univ. degli Studi di Firenze
Univ. of Toronto

13:30-13:50

[Phase Transitions on Fixed Connected Graphs and Random Graphs in the Presence of Noise](#), pp. 734-739

Liu, Jialing
Yadav, Vikas
Sehgal, Hullas
Olson, Joshua
Liu, Haifeng
Elia, Nicola

Iowa State Univ.
Iowa State Univ.
Iowa State Univ.
Iowa State Univ.
Iowa State Univ.
Iowa State Univ.

13:50-14:10

[Collective Circular Motion of Multi-Vehicle Systems with Sensory Limitations](#), pp. 740-745

Ceccarelli, Nicola
Di Marco, Mauro
Garulli, Andrea
Giannitrapani, Antonio

Univ. di Siena
Univ. di Siena
Univ. di Siena
Univ. di Siena

14:10-14:30

[On Invariance of Cyclic Group Symmetries in Multiagent Formations](#), pp. 746-751

Marshall, Joshua A.
Broucke, Mireille E.

Univ. of Toronto
Univ. of Toronto

14:30-14:50

[Formation Control of Marine Surface Craft Using Lagrange Multipliers](#), pp. 752-758

Ihle, Ivar-André F.
Jouffroy, Jérôme
Fossen, Thor I.

Norwegian Univ. of Sci. & Tech.
Norwegian Univ. of Sci. & Tech.
Norwegian Univ. of Sci. & Tech.

14:50-15:10

[Extension of a Result by Moreau on Stability of Leaderless Multi-Agent Systems](#), pp. 759-764

Angeli, David
Bliman, Pierre-Alexandre J

Univ. degli Studi di Firenze
INRIA Rocquencourt

15:10-15:30

[A Stochastic Algorithm for Self-Organization of Autonomous Swarms](#), pp. 765-770

Xi, Wei
Tan, Xiaobo
Baras, John S.

Univ. of Maryland
Michigan State Univ.
Univ. of Maryland

MoB04

Adaptive and Nonlinear Control (Regular Session)

Utrera

Chair: Annaswamy, Anuradha
Co-Chair: Lin, Wei

Massachusetts Inst. of Tech.
Case Western Res. Univ.

13:30-13:50

[Optimal Nonlinear Control of Two-Link Flexible Arm with Adaptive Internal Model](#), pp. 771-776

Dogan, Mustafa
Istefanopoulos, Yorgo

Bogazici Univ.
Isik Univ.

13:50-14:10

[Switching Adaptive Output Feedback MPC for Input-Constrained Neutrally Stable Linear Plants](#), pp. 777-782

Kim, Jung-Su
Yoon, Tae-Woong
Shim, Hyungbo

Seoul National Univ.
Korea Univ.
Seoul National Univ.

14:10-14:30

[Direct Adaptive Control of Multi-Input Plants with Magnitude Saturation Constraints](#), pp. 783-788

Schwager, Mac
Annaswamy, Anuradha

Massachusetts Inst. of Tech.
Massachusetts Inst. of Tech.

14:30-14:50

[Localized Adaptive Bounds for Online Approximation Based Control](#), pp. 789-795

Zhao, Yuanyuan
Farrell, Jay A.

Univ. of California, Riverside
Univ. of California, Riverside

14:50-15:10

Adaptive Control of Nonlinear Systems with Uncertain Dead-Zone Nonlinearity, pp. 796-801

Zhou, Jing
Er, Meng Joo
Wen, Changyun

Nanyang Tech. Univ.
Nanyang Tech. Univ.
Nanyang Tech. Univ.

15:10-15:30

A Universal Control Approach for a Family of Uncertain Nonlinear Systems, pp. 802-807

Lin, Wei
Lei, Hao

Case Western Res. Univ.
Case Western Res. Univ.

MoB05

Lebrija

Behavioral System Theory (Invited Session)

Chair: Pillai, Harish
Co-Chair: Willems, Jan C.
Organizer: Rapisarda, Paolo
Organizer: Pillai, Harish
Organizer: Willems, Jan C.

Indian Inst. of Tech., Bombay
Katholieke Univ. Leuven
Univ. Maastricht
Indian Inst. of Tech., Bombay
Katholieke Univ. Leuven

13:30-13:50

Further Results on Periodically Time-Varying Behavioral Systems (I), pp. 808-813

Aleixo, José Carlos
Polderman, Jan Willem
Rocha, Paula

Univ. of Beira Interior
Univ. Twente
Univ. of Aveiro

13:50-14:10

Bisimulation As Congruence in the Behavioral Setting (I), pp. 814-819

Julius, Agung
van der Schaft, Arjan J.

Univ. of Pennsylvania
Univ. Twente

14:10-14:30

Embedding Polynomial Matrices: A Practical Perspective (I), pp. 820-825

Zavala Yoé, Ricardo
Praagman, Cornelis
Trentelman, Harry L.

Univ. of Groningen
Univ. of Groningen
Univ. of Groningen

14:30-14:50

Model Reduction of Systems with Symmetries (I), pp. 826-831

Vanluyten, Bart
Willems, Jan C.
De Moor, Bart L.R.

Katholieke Univ. Leuven
Katholieke Univ. Leuven
Katholieke Univ. Leuven

14:50-15:10

State Representations from Finite Time Series (I), pp. 832-835

Markovsky, Ivan
Willems, Jan C.
De Moor, Bart L.R.

Katholieke Univ. Leuven
Katholieke Univ. Leuven
Katholieke Univ. Leuven

15:10-15:30

A Behavioral View of Nevanlinna-Pick Interpolation, pp. 836-841

Pendharkar, Ishan
Pillai, Harish
Rapisarda, Paolo

Indian Inst. of Tech., Bombay, India.
Indian Inst. of Tech., Bombay
Univ. of Southampton

MoB06

Prado

Control Systems II (Regular Session)

Chair: Hassibi, Babak
Co-Chair: Collins, Gaemus

California Inst. of Tech.
Toyon Res. Corp.

13:30-13:50

Estimation under Uncontrolled and Controlled Communications in Networked Control Systems, pp. 842-847

Xu, Yonggang
Hespanha, João P.

Univ. of California, Santa Barbara
Univ. of California, Santa Barbara

13:50-14:10

Designing an Observer-Based Controller for a Network Control System, pp. 848-853

Naghshtabrizi, Payam
Hespanha, João P.

Univ. of California, Santa Barbara
Univ. of California, Santa Barbara

14:10-14:30

Optimal Integrated Control and Scheduling of Systems with Communication Constraints, pp. 854-859

Ben Gaid, Mohamed El Mongi
Çela, Arben
Hamam, Yskandar

COSI Lab. - ESIEE Paris
COSI Lab. - ESIEE Paris
A2SI Lab. - ESIEE Paris & LIRIS - UVSQ

14:30-14:50

Uniform Disturbance Attenuation for Markovian Jump Linear Systems in Discrete Time, pp. 860-865

Lee, Ji-Woong
Dullerud, Geir E.

Univ. of Illinois, Urbana-Champaign
Univ. of Illinois, Urbana-Champaign

14:50-15:10

Robust Stabilisation of Nonlinear Systems Using Output Measurements Via Finite Data-Rate Communication Channels, pp. 866-871
Cheng, Teddy M. Univ. of New South Wales

15:10-15:30

State Estimation Utilizing Multiple Description Coding Over Lossy Networks, pp. 872-878
Jin, Zhipu California Inst. of Tech.
Gupta, Vijay California Inst. of Tech.
Hassibi, Babak California Inst. of Tech.
Murray, Richard M. California Inst. of Tech.

MoB07

Estepa

Cardio Vascular and Metabolic Systems (Regular Session)

Chair: Jadbabaie, Ali Univ. of Pennsylvania
Co-Chair: Simaan, Marwan A. Univ. of Pittsburgh

13:30-13:50

Analysis of the Lactose Metabolism in E. Coli Using Sum-Of-Squares Decomposition, pp. 879-884
Ahmadzadeh, Ali Univ. of Pennsylvania
Halasz, Adam Miklos Univ. of Pennsylvania
Prajna, Stephen California Inst. of Tech.
Jadbabaie, Ali Univ. of Pennsylvania
Kumar, Vijay Univ. of Pennsylvania

13:50-14:10

Multi-Objective Parametric Control of Blood Glucose Concentration for Type 1 Diabetes, pp. 885-890
Dua, Pinky Imperial Coll.
Doyle, Francis Univ. of California, Santa Barbara
Pistikopoulos, Efstratios N. Imperial Coll.

14:10-14:30

Identifiability of a Reduced Model of Pulsatile Flow in an Arterial Compartment, pp. 891-896
Crépeau, Emmanuelle Univ. de Versailles Saint Quentin
Sorine, Michel INRIA

14:30-14:50

A Nonlinear State-Space Model of a Combined Cardiovascular System and a Rotary Pump, pp. 897-902
Ferreira, Antonio Luiz S. Univ. of Pittsburgh
Chen, Shaohui Univ. of Pittsburgh
Simaan, Marwan A. Univ. of Pittsburgh
Boston, J. Robert Univ. of Pittsburgh
Antaki, James F. Carnegie Mellon Univ.

14:50-15:10

A Differential Model of the Baroreflex Control of the Cardiovascular System During a Tilt Test, pp. 903-908
Djabella, Karima INRIA
Médigue, Claire INRIA
Sorine, Michel INRIA

15:10-15:30

Constant Drug Dose Leading Long-Term Non-Progressor for HIV-Infected Patients with RTI and PI, pp. 909-916
Kim, Jinyoung Hanyang Univ.
Kim, Won Hee Hanyang Univ.
Chung, Han Byul Hanyang Univ.
Chung, Chung Choo Hanyang Univ.

MoB08

Triana

New Developments and Applications in Optimal Control Theory, Part 2: Geometric Methods (Invited Session)

Chair: Frankowska, H el ene Ec. Pol.
Co-Chair: Sch attler, Heinz M. M. Washington Univ.
Organizer: Frankowska, H el ene Ec. Pol.
Organizer: Sch attler, Heinz M. M. Washington Univ.
Organizer: Ledzewicz, Urszula Southern Illinois Univ., Edwardsville

13:30-13:50

A Very Non-Smooth Maximum Principle with State Constraints (I), pp. 917-922
Sussmann, H ector J. Rutgers Univ.

13:50-14:10

Optimization Methods for Solving Bang-Bang Control Problems with State Constraints and the Verification of Second Order Conditions (I), pp. 923-928
Maurer, Helmut Univ. M unster
Altrogge, Inga Univ. M unster
Goris, Nadine Univ. M unster

14:10-14:30

Computation of Conjugate Times in Smooth Optimal Control: The COTCOT Algorithm (I), pp. 929-933

Bonnard, Bernard
Caillaud, Jean-Baptiste
Trélat, Emmanuel

Inst. Math. de Bourgogne, UMR CNRS 5584
ENSEEIH-IRIT, UMR CNRS 5505
Univ. Paris - Sud 11

14:30-14:50

A Synthesis of Optimal Controls for a Model of Tumor Growth under Angiogenic Inhibitors (I), pp. 934-939

Ledzewicz, Urszula
Schättler, Heinz M. M.

Southern Illinois Univ., Edwardsville
Washington Univ.

14:50-15:10

Singular Trajectories of Driftless and Control-Affine Systems (I), pp. 940-944

Chitour, Yacine
Jean, Frederic
Trelat, Emmanuel

Univ. Paris - Sud 11, CNRS, Supélec
Ec. Nat. Sup. des Tech. Avancées
Univ. Paris - Sud 11

15:10-15:30

A Local Field of Extremals Near Boundary Arc - Interior Arc Junctions (I), pp. 945-950

Schättler, Heinz M. M.

Washington Univ.

MoB09

Nervion III

Model Predictive Control II (Regular Session)

Chair: Raković, Sasa V.
Co-Chair: Guay, Martin

Imperial Coll.
Queen's Univ.

13:30-13:50

Receding Horizon H-Infinity Control for Time-Varying Sampled-Data Systems, pp. 951-956

Katayama, Hitoshi
Ichikawa, Akira

Shizuoka Univ.
Kyoto Univ.

13:50-14:10

A Real-Time Framework for Model Predictive Control of Continuous-Time Nonlinear Systems, pp. 957-962

DeHaan, Darryl
Guay, Martin

Queen's Univ.
Queen's Univ.

14:10-14:30

Zames-Falb Multipliers for Quadratic Programming, pp. 963-968

Heath, William Paul
Wills, Adrian George

Univ. of Manchester
The Univ. of Newcastle

14:30-14:50

Compact Explicit MPC with Guarantee of Feasibility for Tracking, pp. 969-974

Olaru, Sorin
Dumur, Didier

Supélec
Supélec

14:50-15:10

Set Robust Control Invariance for Linear Discrete Time Systems, pp. 975-980

Raković, Sasa V.
Mayne, David Q.

Imperial Coll.
Imperial Coll.

15:10-15:30

Robust Time Optimal Obstacle Avoidance Problem for Constrained Discrete Time Systems, pp. 981-986

Raković, Sasa V.
Mayne, David Q.

Imperial Coll.
Imperial Coll.

MoB10

Arenal III

Practical Aspects of Fault Detection and Fault-Tolerant Control (Regular Session)

Chair: Edwards, Christopher
Co-Chair: Mattone, Raffaella

Univ. of Leicester
Univ. di Roma, La Sapienza

13:30-13:50

Robust Sliding Mode Observer-Based Actuator Fault Detection and Isolation for a Class of Nonlinear Systems, pp. 987-992

Yan, Xing-Gang
Edwards, Christopher

Univ. of Leicester
Univ. of Leicester

13:50-14:10

Robust Fault Diagnosis Using Paralleloptope-Based Set-Membership Consistency Tests, pp. 993-998

Ingimundarson, Ari
Bravo, José Manuel
Puig, Vicenç
Alamo, Teodoro

Univ. Pol. de Catalunya
Univ. de Huelva
Univ. Pol. de Catalunya
Univ. de Sevilla

14:10-14:30

Nested Integrated Control and Diagnostic Filter Design, pp. 999-1004

Marcos, Andrés
Balas, Gary J.

Univ. of Leicester
Univ. of Minnesota

14:30-14:50

Conditions for Detecting and Isolating Sets of Faults in Nonlinear Systems, pp. 1005-1010

Mattone, Raffaella
De Luca, Alessandro

Univ. di Roma
Univ. di Roma, La Sapienza

14:50-15:10

Fault Tolerant Control of a Civil Aircraft Using a Sliding Mode Based Scheme, pp. 1011-1016

Alwi, Halim
Edwards, Christopher

Univ. of Leicester
Univ. of Leicester

15:10-15:30

Model Based Detection of Hydrogen Leaks in a Fuel Cell Stack, pp. 1017-1022

Ingimundarson, Ari
Stefanopoulou, Anna G.
McKay, Denise

Univ. Pol. de Catalunya
Univ. of Michigan
Univ. of Michigan

MoB11

Carmona

Recent Advances in Stochastic Systems and Control (Invited Session)

Chair: Pasik-Duncan, Bozenna
Co-Chair: Başar, Tamer
Organizer: Pasik-Duncan, Bozenna

Univ. of Kansas
Univ. of Illinois, Urbana-Champaign
Univ. of Kansas

13:30-13:50

Partially Observed Inventory Systems (I), pp. 1023-1028

Bensoussan, Alain
Çakanyildirim, Metin
Sethi, Suresh P.

Univ. of Texas, Dallas
Univ. of Texas, Dallas
Univ. of Texas, Dallas

13:50-14:10

Optimal Estimation with Limited Measurements (I), pp. 1029-1034

Imer, Orhan Cagri
Başar, Tamer

Univ. of Illinois, Urbana-Champaign
Univ. of Illinois, Urbana-Champaign

14:10-14:30

Sequential Source Coding: An Optimization Viewpoint (I), pp. 1035-1042

Borkar, Vivek S.
Mitter, Sanjoy K.
Sahai, Anant
Tatikonda, Sekhar

Tata Inst. of Fundamental Res.
Massachusetts Inst. of Tech.
Univ. of California, Berkeley
Yale Univ.

14:30-14:50

Maximum Entropy Models, Dynamic Games, and Robust Output Feedback Control for Automata (I), pp. 1043-1049

Baras, John S.
Rabi, Maben

Univ. of Maryland
Univ. of Maryland

14:50-15:10

Nash Strategies and Adaptation for Decentralized Games Involving Weakly-Coupled Agents (I), pp. 1050-1055

Huang, Minyi
Malhamé, Roland P.
Caines, Peter E.

The Univ. of Melbourne
Ec. Pol. de Montreal
McGill Univ.

15:10-15:30

Efficient Market Mechanisms for Network Resource Allocation (I), pp. 1056-1061

Jain, Rahul
Varaiya, Pravin P.

Univ. of California, Berkeley
Univ. of California, Berkeley

MoB12

Nervion II

Control of Partial Differential Equations and Applications (Invited Session)

Chair: Boscain, Ugo V.
Co-Chair: Trelat, Emmanuel
Organizer: Boscain, Ugo V.
Organizer: Trelat, Emmanuel
Organizer: Chitour, Yacine

SISSA - ISAS
Univ. Paris - Sud 11
SISSA - ISAS
Univ. Paris - Sud 11
Univ. Paris - Sud 11, CNRS, Supélec

13:30-13:50

On the Controllability of Some Quantum Electro-Dynamical Systems (I), pp. 1062-1067

Mirrahimi, Mazyar
Rouchon, Pierre

Ec. des Mines de Paris
Ec. des Mines de Paris

13:50-14:10

On Conditions That Prevent Steady-State Controllability of Certain Linear Partial Differential Equations (I), pp. 1068-1073

Chitour, Yacine
Coron, Jean-michel
Garavello, Mauro

Univ. Paris - Sud 11, CNRS, Supélec
Univ. Paris - Sud 11
Univ. di Milano-Bicocca

14:10-14:30	<i>Optimal Distribution Coefficients for Packets Traffic on a Telecommunication Network (I)</i> , pp. 1074-1079	IAC - CNR
	Piccoli, Benedetto	IAC - CNR
	Marigo, Alessia	
14:30-14:50	<i>Controllability of the Schrödinger Equation Via Intersection of Eigenvalues (I)</i> , pp. 1080-1085	SISSA - ISAS
	Boscain, Ugo V.	Univ. di Roma
	Adami, Riccardo	
14:50-15:10	<i>Local Controllability of a 1D Schrödinger Equation (I)*</i>	
	Beauchard, Karine	Univ. Paris - Sud 11
15:10-15:30	<i>Boundary Control for Exact Cancellation of Boundary Disturbances in Hyperbolic Systems of Conservation Laws (I)</i> , pp. 1086-1089	
	Bastin, Georges	Univ. Catholique de Louvain
	Coron, Jean-michel	Univ. Paris - Sud 11
	D'Andréa-Novel, Brigitte	Ec. des Mines de Paris
	Moens, Luc	Univ. Catholique de Louvain

MoB13		Ecija
Nonlinear Control Applications II (Regular Session)		

	Chair: de Queiroz, Marcio	Louisiana State Univ.
	Co-Chair: Shiriaev, Anton	Umea Univ.
13:30-13:50	<i>On Active Magnetic Bearing Control with Input Saturation</i> , pp. 1090-1095	
	Mazenc, Frédéric	INRIA Sophia Antipolis,
	de Queiroz, Marcio	Louisiana State Univ.
	Malisoff, Michael	Louisiana State Univ.
13:50-14:10	<i>Fast Side-Stepping of the Triple Inverted Pendulum Via Constrained Nonlinear Feedforward Control Design</i> , pp. 1096-1101	
	Graichen, Knut	Univ. of Stuttgart
	Treuer, Michael	Univ. of Stuttgart
	Zeitz, Michael	Univ. of Stuttgart
14:10-14:30	<i>Output Feedback Stabilization of the Moore-Greitzer Compressor Model</i> , pp. 1102-1107	
	Shiriaev, Anton	Umea Univ.
	Johansson, Rolf	Lund Univ.
	Robertsson, Anders	Lund Inst. of Tech.
	Freidovich, Leonid	Umea Univ.
14:30-14:50	<i>Experimental Output Regulation for the TORA System</i> , pp. 1108-1113	
	Pavlov, Alexey	Norwegian Univ. of Sci. & Tech.
	Janssen, Bart	Eindhoven Univ. of Tech.
	Van de Wouw, Nathan	Eindhoven Univ. of Tech.
	Nijmeijer, Hendrik	Eindhoven Univ. of Tech.
14:50-15:10	<i>Steering the Chaplygin Sleigh by a Moving Mass</i> , pp. 1114-1118	
	Osborne, Jason	North Carolina State Univ.
	Zenkov, Dmitry	North Carolina State Univ.
15:10-15:30	<i>Trajectory Tracking for a Threecycle Mobile Robot: The Vector Field Orientation Approach.</i> , pp. 1119-1124	
	Michalek, Maciej	Poznan Univ. of Tech.
	Kozlowski, Krzysztof R.	Poznan Univ. of Tech.

MoB14		Santa Cruz
Control of Networks I (Regular Session)		

	Chair: Stoenescu, Tudor	California Inst. of Tech.
	Co-Chair: Savkin, Andrey V.	Univ. of New South Wales
13:30-13:50	<i>Pricing for Rate Allocation in Unicast Service Provisioning Is Informationally Efficient</i> , pp. 1125-1130	
	Stoenescu, Tudor	California Inst. of Tech.
	Teneketzis, Demosthenis	Univ. of Michigan
13:50-14:10	<i>Synthesis of Simple Feed-Forward Networks: A First-Order Example</i> , pp. 1131-1136	
	Sarma, Sridevi	Massachusetts Inst. of Tech.
	Dahleh, Munther A.	Massachusetts Inst. of Tech.

14:10-14:30	<i>A Maximum Time Optimal Control Approach to Routing in Sensor Networks</i> , pp. 1137-1142 Wu, Xiaoyi Cassandras, Christos G.	Boston Univ. Boston Univ.
14:30-14:50	<i>Optimal Choice of the Buffer Size in the Internet Routers</i> , pp. 1143-1148 Avrachenkov, Konstantin E. Ayesta, Urtzi Piunovskiy, Aleksey B.	INRIA Sophia Antipolis Centrum voor Wiskunde en Informatica Univ. of Liverpool
14:50-15:10	<i>Delay in Mobility-Assisted Constant-Throughput Wireless Networks</i> , pp. 1149-1154 Sharma, Vikrant Frazzoli, Emilio Voulgaris, Petros G.	Coordinated Sci. Lab., Univ. of Illinois, Urbana-Champaign Univ. of California, Los Angeles Univ. of Illinois, Urbana-Champaign
15:10-15:30	<i>Decentralized Stabilization of Linear Systems Via Limited Capacity Communication Networks</i> , pp. 1155-1161 Matveev, Alexey S. Savkin, Andrey V.	St. Petersburg State Univ. Univ. of New South Wales

MoB15 Giralda V

Micro and Nano-Positioning (Invited Session)

Chair: Fleming, Andrew	The Univ. of Newcastle
Co-Chair: Moheimani, S.O. Reza	The Univ. of Newcastle
Organizer: Fleming, Andrew	The Univ. of Newcastle
Organizer: Moheimani, S.O. Reza	The Univ. of Newcastle
13:30-13:50	
<i>Sensor-Less Vibration Suppression and Scan Compensation for Piezoelectric Tube Nanopositioners (I)</i> , pp. 1162-1167 Fleming, Andrew J. Moheimani, S.O. Reza	The Univ. of Newcastle The Univ. of Newcastle
13:50-14:10	
<i>PPF Control of a Piezoelectric Tube Scanner (I)</i> , pp. 1168-1173 Ratnam, Marcel Bhikkaji, Bharath Fleming, Andrew J. Moheimani, S.O. Reza	The Univ. of Newcastle The Univ. of Newcastle The Univ. of Newcastle The Univ. of Newcastle
14:10-14:30	
<i>Two-Sensor-Based H_∞ Control for Nanopositioning in Probe Storage (I)</i> , pp. 1174-1179 Pantazi, Angeliki Sebastian, Abu Pozidis, Haralampos Eleftheriou, Evangelos	IBM IBM Res. IBM IBM
14:30-14:50	
<i>Adaptive Control of Uncertain Dynamics at the Nano-Scale (I)</i> , pp. 1180-1184 El Rifai, Osamah M. Youcef-Toumi, Kamal	Massachusetts Inst. of Tech. Massachusetts Inst. of Tech.
14:50-15:10	
<i>Observer Based Imaging Methods for Atomic Force Microscopy (I)</i> , pp. 1185-1190 Sahoo, Deepak R. De, Tathagata Salapaka, Murti V.	Iowa State Univ. Iowa State Univ. Iowa State Univ.
15:10-15:30	
<i>Intelligent Robust Controller Design for a Micro-Actuator</i> , pp. 1191-1196 Vagia, Marialena Nikolakopoulos, George Tzes, Anthony	U. of Patras U. of Patras U. of Patras

MoB16 Giralda III

Estimation and Filtering II (Regular Session)

Chair: Bai, Er-Wei	The Univ. of Iowa
Co-Chair: Molnár-Sáska, Gábor	Hungarian Acad. of Sci.
13:30-13:50	
<i>On the Least Squares Solutions of a System of Bilinear Equations</i> , pp. 1197-1202 Bai, Er-Wei Liu, Yun	The Univ. of Iowa The Univ. of Iowa

13:50-14:10	<i>On Model Complexity Control in Identification of Hammerstein Systems</i> , pp. 1203-1208 Pelckmans, Kristiaan Goethals, Ivan Suykens, J.A.K. De Moor, Bart L.R.	Katholieke Univ. Leuven Katholieke Univ. Leuven Katholieke Univ. Leuven Katholieke Univ. Leuven
14:10-14:30	<i>Recursive Estimation of Hidden Markov Models</i> , pp. 1209-1214 Gerencsér, László Molnár-Sáska, Gábor Orlovits, Zsanett	Hungarian Acad. of Sci. Hungarian Acad. of Sci. Hungarian Acad. of Sci.
14:30-14:50	<i>Estimation with Information Loss: Asymptotic Analysis and Error Bounds</i> , pp. 1215-1221 Shi, Ling Epstein, Michael Tiwari, Abhishek Murray, Richard M.	California Inst. of Tech. California Inst. of Tech. California Inst. of Tech. California Inst. of Tech.
14:50-15:10	<i>On Constrained Covariance Extension Problems</i> , pp. 1222-1227 Mahata, Kaushik Fu, Minyue	The Univ. of Newcastle The Univ. of Newcastle
15:10-15:30	<i>Target Existence Based MHT</i> , pp. 1228-1233 Mušicki, Darko Evans, Robin J.	The Univ. of Melbourne The Univ. of Melbourne

MoB17 Arenal I

Sliding Mode Control II (Regular Session)		
	Chair: Shtessel, Yuri B. Co-Chair: Levaggi, Laura	Univ. of Alabama, Huntsville Univ. of Genova
13:30-13:50	<i>Sliding Mode Control of One-Dimensional Heat Exchange Processes*</i> Rao, Sachit Utkin, Vadim I.	The Ohio State Univ. The Ohio State Univ.
13:50-14:10	<i>Variable Structure Control for Parabolic Evolution Equations</i> , pp. 1234-1239 Levaggi, Laura	Univ. of Genova
14:10-14:30	<i>Active Vibration Suppression of a Flexible Beam Via Sliding Mode and H^∞ Control</i> , pp. 1240-1245 Itik, Mehmet Salamci, Metin U. Ulker, F. Demet Yaman, Yavuz	Erciyes Univ. Gazi Univ. Middle East Tech. Univ. Middle East Tech. Univ.
14:30-14:50	<i>Sliding Mode Tracking Control of Output Voltage in Multiple Modular Boost Power Converters Using the Method of Stable System Center</i> , pp. 1246-1251 Patterson, Joe Shtessel, Yuri B.	US Army Aviation & Missile Command Res. Develop. & Eng. Univ. of Alabama, Huntsville
14:50-15:10	<i>Multivariable Practical Higher Order Sliding Mode Control</i> , pp. 1252-1257 Laghrouche, Salah Plestan, Franck Glumineau, Alain	Supélec - CNRS Ec. Centrale de Nantes - CNRS Ec. Centrale de Nantes
15:10-15:30	<i>Flexible Satellite Attitude Control Via Sliding Mode Technique</i> , pp. 1258-1263 Guan, Ping Liu, Xiangjie Liu, Jizhen	Beijing Inst. of Machinery North China Electric Power Univ. North China Electric Power Univ.

MoB18 Giralda VI

Power Systems (Interactive Session)		
	Chair: Liu, Derong Co-Chair: Suryanarayanan, Shashikanth	Univ. of Illinois, Chicago Indian Inst. of Tech., Bombay
13:30-15:30	<i>An Orthogonal Array Optimization for the Economic Dispatch with Nonsmooth Cost Functions</i> , pp. 1264-1269 Cai, Ying Liu, Derong	Univ. of Illinois, Chicago Univ. of Illinois, Chicago

13:30-15:30

Kalman Filter Estimation of the Coal Flow in Power Plants, pp. 1270-1275

Magni, Lalo
Paderno, Jurij
Pretolani, Francesco

Univ. of Pavia
CESI
CESI

13:30-15:30

Controller Design for the Cancellation of the Tower Fore-Aft Mode in a Wind Turbine, pp. 1276-1281

Leithead, William
Dominguez Ruiz, Sergio

Univ. of Strathclyde
Univ. of Strathclyde

13:30-15:30

Adaptive Receding Horizon Control of a Distributed Collector Solar Field, pp. 1282-1287

Igreja, José Manuel Cardoso
Lemos, Joao
Neves-Silva, Rui

INESC-ID - ISEL
INESC-ID - Inst. Superior Técnico, Univ. Tech. de Lisboa
Univ. Nova de Lisboa

13:30-15:30

A Genetic Algorithm Solution to the Governor-Turbine Dynamic Model Identification in Multi-Machine Power Systems, pp. 1288-1294

Stefopoulos, George
Georgilakis, Pavlos
Hatzargyriou, NIKOS
Meliopoulos, Sakis

Georgia Inst. of Tech.
Tech. Univ. of Crete
National Tech. Univ. of Athens
Georgia Inst. of Tech.

13:30-15:30

Towards Pitch-Scheduled Drive Train Damping in Variable-Speed, Horizontal-Axis Large Wind Turbines, pp. 1295-1300

Dixit, Amit
Suryanarayanan, Shashikanth

Indian Inst. of Tech., Bombay
Indian Inst. of Tech., Bombay

MoIB19

Giralda VII

Robust Control I (Interactive Session)

Chair: Basilio, João Carlos
Co-Chair: Dormido, Sebastián

Univ. Fed. de Rio de Janeiro
Univ. Nacional de Educacion a Distancia

13:30-15:30

QFT Robust Control Design by Interactive Approach, pp. 1301-1306

Díaz, Jose Manuel
Dormido, Sebastián
Aranda, Joaquín

Univ. Nacional de Educacion a Distancia
Univ. Nacional de Educacion a Distancia
Univ. Nacional de Educacion a Distancia

13:30-15:30

Helicopter Flight Control Law Design Using H-Infinity Techniques, pp. 1307-1312

Kureemun, Ridwan
Walker, Daniel James
Manimala, Binoy
Voskuijl, Mark

Univ. of Liverpool
Univ. of Liverpool
Univ. of Liverpool
Univ. of Liverpool

13:30-15:30

Gain Scheduling Controller Synthesis with Spline-Type Parameter-Dependent Quadratic Forms Via Dilated Linear Matrix Inequalities, pp.

1313-1318

Hamada, Yoshiro
Yamaguchi, Isao
Kida, Takashi

Japan Aerospace Exploration Agency
National Aero. Lab. Tokyo
Univ. of Electro-Communications

13:30-15:30

Hybrid Differential Evolution Method for the Mixed H-2/H-Infinity Robust Control Problem under Pole Assignment, pp. 1319-1324

Neumann, Donald
De Araújo, Humberto Xavier

Pontifícia Univ. Católica do Paraná
Pontifícia Univ. Católica do Paraná

13:30-15:30

H_infinity Control for Uncertain Systems under Time Domain Constraints, pp. 1325-1330

De Araújo, Humberto Xavier
Langner, Cristiane

Pontifícia Univ. Católica do Paraná
Pontifícia Univ. Católica do Paraná

MoIB20

Giralda VIII

Model Predictive Control (Interactive Session)

Chair: Fujita, Masayuki
Co-Chair: Wojsznis, Wilhelm K.

Tokyo Inst. of Tech.
Emerson Process Management

13:30-15:30

Application Programming Interface for Real-Time Receding Horizon Control, pp. 1331-1336

Keviczky, Tamás
Packard, Andrew K.
Natale, Oreste Riccardo
Balas, Gary J.

Univ. of Minnesota
Univ. of California, Berkeley
Univ. degli Studi del Sannio
Univ. of Minnesota

13:30-15:30		
<i>Extending LP Optimizer Functionality for Model Predictive Control</i> , pp. 1337-1342		
Wojsznis, Wilhelm K.		Emerson Process Management
Blevins, Terrence		Emerson Process Management
Wojsznis, Peter		Emerson Process Management
Mehta, Ashish		Emerson Process Management
13:30-15:30		
<i>Experiments on Stabilizing Receding Horizon Control of Visual Feedback System with Planar Manipulators</i> , pp. 1343-1348		
Nakaso, Yujiro		Tokyo Inst. of Tech.
Kawai, Yasunori		Ishikawa National Coll. of Tech.
Fujita, Masayuki		Tokyo Inst. of Tech.
13:30-15:30		
<i>Fault Tolerant Model Predictive Control Applied on the Barcelona Sewer Network</i> , pp. 1349-1354		
Ocampo, Carlos		Univ. Pol. de Catalunya
Puig, Vicenç		Univ. Pol. de Catalunya
Quevedo, Joseba		Univ. Pol. de Catalunya
Ingimundarson, Ari		Univ. Pol. de Catalunya
13:30-15:30		
<i>Predictive Control of a Solar Air Conditioning Plant with Simultaneous Identification</i> , pp. 1355-1360		
Núñez-Reyes, Amparo		Univ. de Sevilla
Bordons, Carlos		Univ. de Sevilla
13:30-15:30		
<i>Stochastic Programming Applied to Model Predictive Control</i> , pp. 1361-1366		
Muñoz de la Peña, David		Univ. de Sevilla
Bemporad, Alberto		Univ. di Siena
Alamo, Teodoro		Univ. de Sevilla
MoIB21		Hall Triana
Time-Delay Systems (Interactive Session)		
Chair: Oliveira, Vilma A.		Univ. de Sao Paulo
Co-Chair: Vermiglio, Rossana		Univ. of Udine
13:30-15:30		
<i>Realization Problem for Positive Continuous-Time Systems with Delays*</i>		
Kaczorek, Tadeusz		Warsaw Tech. Univ.
13:30-15:30		
<i>PID Stabilization of a Class of Time Delay Systems</i> , pp. 1367-1372		
Oliveira, Vilma A.		Univ. de Sao Paulo
Cossi, Lúcia Valeria		Univ. Fed. da Paraíba
Silva, Alexandre Marcelo Fernandes		Univ. de Sao Paulo
Teixeira, Marcelo C. M.		Univ. Estadual Paulista
13:30-15:30		
<i>Delay-Dependent Robust Resilient H_{∞} Control for Uncertain Singular Time-Delay Systems</i> , pp. 1373-1378		
Zhu, Shuqian		Shandong Univ.
Li, Zhenbo		Shandong Economic Univ.
Cheng, Zhaolin		Shandong Univ.
13:30-15:30		
<i>Stability and Stabilization of Distributed Time Delay Systems</i> , pp. 1379-1384		
Gouaisbaut, Frédéric		LAAS - CNRS
13:30-15:30		
<i>Pseudospectral Techniques for Stability Computation of Linear Time Delay Systems</i> , pp. 1385-1390		
Breda, Dimitri		Univ. of Udine
Maset, Stefano		Univ. of Trieste
Vermiglio, Rossana		Univ. of Udine
MoC01		Giralda I
Optimal Control of Hybrid Systems (Invited Session)		
Chair: Wardi, Yorai		Georgia Inst. of Tech.
Co-Chair: Egerstedt, Magnus		Georgia Inst. of Tech.
Organizer: Wardi, Yorai		Georgia Inst. of Tech.
Organizer: Egerstedt, Magnus		Georgia Inst. of Tech.
16:00-16:20		
<i>On Approximate Dynamic Programming in Switching Systems (I)</i> , pp. 1391-1396		
Rantzer, Anders		Lund Univ.

16:20-16:40

[A Provably Convergent Algorithm for Transition-Time Optimization in Switched Systems \(I\)](#), pp. 1397-1402

Axelsson, Henrik
Wardi, Yorai
Egerstedt, Magnus
Verriest, Erik I.

Georgia Inst. of Tech.
Georgia Inst. of Tech.
Georgia Inst. of Tech.
Georgia Inst. of Tech.

16:40-17:00

[Optimality Zone Algorithms for Hybrid Systems Computation and Control: From Exponential to Linear Complexity \(I\)](#), pp. 1403-1408

Shaikh, M. Shahid
Caines, Peter E.

McGill Univ.
McGill Univ.

17:00-17:20

[Event-Driven Optimal Control of Integral Continuous-Time Hybrid Automata \(I\)](#), pp. 1409-1414

Bemporad, Alberto
Di Cairano, Stefano
Júlvez, Jorge

Univ. di Siena
Univ. di Siena
Univ. of Zaragoza

17:20-17:40

[Optimal Control of Hybrid Systems Using Statistical Learning \(I\)](#), pp. 1415-1420

Collaro, Ciro
Abdallah, Chaouki T.
Tornambè, Antonio
Dole, Umesh

Univ. degli Studi di Roma, Tor Vergata
Univ. of New Mexico
Univ. degli Studi di Roma, Tor Vergata
Univ. of New Mexico

17:40-18:00

[Optimal Control for Switched Distributed Delay Systems with Refractory Period \(I\)](#), pp. 1421-1426

Verriest, Erik I.

Georgia Inst. of Tech.

MoC02

Giralda IV

Optimal Control I (Regular Session)

Chair: Chitour, Yacine
Co-Chair: Stefani, Gianna

Univ. Paris - Sud 11, CNRS, Supélec
Univ. degli Studi di Firenze

16:00-16:20

[The Geometry of Optimal Control Solutions on Some Six Dimensional Lie Groups](#), pp. 1427-1432

Biggs, James Douglas
Holderbaum, William

The Univ. of Reading
The Univ. of Reading

16:20-16:40

[Minimum Time Optimality for a Bang-Singular Arc: Second Order Sufficient Conditions](#), pp. 1433-1438

Poggiolini, Laura
Stefani, Gianna

Univ. degli Studi di Firenze
Univ. degli Studi di Firenze

16:40-17:00

[Controllability of the Dubins Problem on Surfaces](#), pp. 1439-1444

Chitour, Yacine
Sigalotti, Mario

Univ. Paris - Sud 11, CNRS, Supélec
INRIA

17:00-17:20

[Control of a Sphere Rolling on a Plane with Constrained Rolling Motion](#), pp. 1445-1452

Nakashima, Akira
Nagase, Kenji
Hayakawa, Yoshikazu

Nagoya Univ.
Wakayama Univ.
Nagoya Univ.

17:20-17:40

[On Approximate Policy Iteration for Continuous-Time Systems](#), pp. 1453-1458

Wernrud, Andreas
Rantzer, Anders

Lund Univ.
Lund Univ.

17:40-18:00

[Nonlinear Control Analysis on Nonholonomic Dynamic Systems with Affine Constraints](#), pp. 1459-1464

Kai, Tatsuya
Kimura, Hidenori
Hara, Shinji

Osaka Univ.
The Inst. of Physical and Chemical Res. (RIKEN)
The Univ. of Tokyo

MoC03

Giralda II

Autonomous Systems III (Regular Session)

Chair: Hedrick, Karl
Co-Chair: Aeyels, Dirk

Univ. of California, Berkeley
Ghent Univ.

16:00-16:20

[Vision Assisted Autonomous Landing of an Unmanned Aerial Vehicle](#), pp. 1465-1470

Chitrakaran, Vilas
Dawson, Darren M.
Chen, Jian
Feemster, Matthew

Clemson Univ.
Clemson Univ.
Clemson Univ.
United States Naval Acad.

16:20-16:40	<i>A Mode-Switching Path Planner for UAV-Assisted Search and Rescue</i> , pp. 1471-1476 Ryan, Allison Hedrick, Karl	Univ. of California, Berkeley Univ. of California, Berkeley
16:40-17:00	<i>Complimentary Filter Design on the Special Orthogonal Group SO(3)</i> , pp. 1477-1484 Mahony, Robert Hamel, Tarek Pflimlin, Jean Michel	The Australian National Univ. Univ. de Nice Sophia Antipolis LAAS - CNRS
17:00-17:20	<i>Surveillance Camera Coordination through Distributed Scheduling</i> , pp. 1485-1490 Costello, Cash Wang, I-Jeng	Johns Hopkins Univ. Johns Hopkins Univ.
17:20-17:40	<i>Decentralized Control of Vehicle Platoons with Interconnection Possessing Ring Topology</i> , pp. 1491-1496 Rogge, Jonathan Aeyels, Dirk	Ghent Univ. Ghent Univ.
17:40-18:00	<i>Multi-UAV Task Allocation Using Team Theory</i> , pp. 1497-1502 Sujit, P. Baliyarasimhuni Sinha, Arpita Ghose, Debasish	Indian Inst. of Sci. Indian Inst. of Sci. Indian Inst. of Sci.

MoC04	Utrera
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Adaptive Estimation and Control (Regular Session)		
Chair: Bentsman, Joseph Co-Chair: Bentsman, Joseph		Univ. of Illinois, Urbana-Champaign Univ. of Illinois, Urbana-Champaign
16:00-16:20	<i>Robust Model Reference Adaptive Control of Parabolic and Hyperbolic Systems with Spatially-Varying Parameters</i> , pp. 1503-1508 Kim, Jun Young Bentsman, Joseph	Univ. of Illinois, Urbana-Champaign Univ. of Illinois, Urbana-Champaign
16:20-16:40	<i>Output Feedback Adaptive Controllers with Swapping Identifiers for Two Unstable PDEs with Infinite Relative Degree</i> , pp. 1509-1514 Smyshlyaev, Andrey Krstic, Miroslav	Univ. of California, San Diego Univ. of California, San Diego
16:40-17:00	<i>Passive Identifiers for Boundary Adaptive Control of 3D Reaction-Advection-Diffusion PDEs</i> , pp. 1515-1520 Smyshlyaev, Andrey Krstic, Miroslav	Univ. of California, San Diego Univ. of California, San Diego
17:00-17:20	<i>NonStationary Shape Activities</i> , pp. 1521-1528 Vaswani, Namrata Chellappa, Rama	Iowa State Univ. Univ. of Maryland
17:20-17:40	<i>A Decision Theoretic Framework for Active Fusion*</i> Liao, Wenhui Ji, Qiang	Rensselaer Pol. Inst. Rensselaer Pol. Inst.
17:40-18:00	<i>Robotic Interaction through Compliant Interfaces: Modelling and Identification</i> , pp. 1529-1534 Biagiotti, Luigi Melchiorri, Claudio	Univ. degli Studi di Bologna Univ. degli Studi di Bologna

MoC05	Lebrija
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Theoretical and Computational Issues in the Behavioral Approach (Regular Session)		
Chair: van der Schaft, Arjan J. Co-Chair: Di Benedetto, M. Domenica		Univ. Twente Univ. degli Studi dell'Aquila
16:00-16:20	<i>Achievable Bisimilar Behaviour of Abstract State Systems</i> , pp. 1535-1540 Pola, Giordano van der Schaft, Arjan J. Di Benedetto, M. Domenica	Univ. degli Studi dell'Aquila Univ. of Groningen Univ. degli Studi dell'Aquila
16:20-16:40	<i>On the Blowing-Up of Stably Free Behaviours</i> , pp. 1541-1546 Quadrat, Alban Robertz, Daniel	INRIA Sophia Antipolis RWTH Aachen Univ.

16:40-17:00

Equivalence of AR-Representations in the Light of the Impulsive-Smooth Behavior, pp. 1547-1552

Pugh, A. Clive
Antoniou, Efstathios
Karampetakis, Nikos

Loughborough Univ.
Aristotle Univ. of Thessaloniki
Aristotle Univ. of Thessaloniki

17:00-17:20

An Intrinsic Behavioural Approach to the Gap Metric, pp. 1553-1558

Bian, Wenming
French, Mark
Pillai, Harish

Univ. of Southampton
Univ. of Southampton
Indian Inst. of Tech., Bombay

17:20-17:40

Software for Approximate Linear System Identification, pp. 1559-1564

Markovsky, Ivan
Willems, Jan C.
Van Huffel, Sabine
De Moor, Bart L.R.

Katholieke Univ. Leuven
Katholieke Univ. Leuven
Katholieke Univ. Leuven
Katholieke Univ. Leuven

17:40-18:00

Extended Kalman-Yakubovich-Popov Lemma in a Hilbert Space and Fenchel Duality, pp. 1565-1570

Gusev, Sergei V.

St. Petersburg State Univ.

MoC06

Prado

Control Systems III (Regular Session)

Chair: Litz, Lothar
Co-Chair: Wang, Hua O.

Univ. of Kaiserslautern
Boston Univ.

16:00-16:20

NCS-Controller for Ambient Intelligence Networks-Control Performance versus Control Effort, pp. 1571-1576

Litz, Lothar
Gabel, Oliver
Solihin, Ivan

Univ. of Kaiserslautern
Inst. of Automatic Control
Univ. of Kaiserslautern

16:20-16:40

PCT: Component-Based Process Control Testbed, pp. 1577-1582

Sanz, Ricardo
Chinchilla, Rafael
Rodriguez, Manuel
Pérez, David
Martínez, Carlos

Univ. Pol. de Madrid
Univ. Pol. de Madrid
Univ. Pol. de Madrid
Univ. Pol. de Madrid
Univ. Pol. de Madrid

16:40-17:00

State Space Parameterization of Stabilizing Multirate Controllers for MIMO Linear Time-Invariant Plants, pp. 1583-1588

Tange, Yoshio

The Univ. of Tokyo

17:00-17:20

Remote Stabilization of Networked Control Systems with Unknown Time Varying Delays by LMI Techniques, pp. 1589-1594

Pan, Ya-Jun
Marquez, Horacio J.
Chen, Tongwen

Dalhousie Univ.
Univ. of Alberta
Univ. of Alberta

17:20-17:40

On Passivity and Impulsive Control of Complex Dynamical Networks with Coupling Delays, pp. 1595-1600

Yao, Jing
Guan, Zhi-Hong
Hill, David J.
Wang, Hua O.

Huazhong Univ. of Sci. & Tech.
Huazhong Univ. of Sci. & Tech.
The Australian National Univ.
Boston Univ.

17:40-18:00

Robust Design of Networked Control Systems with Randomly Varying Delays and Packet Losses, pp. 1601-1606

Tavassoli, Babak
Jabehdar Maralani, Parviz

Univ. of Tehran
Univ. of Tehran

MoC07

Estepa

Modeling and Identification of Biological Systems (Regular Session)

Chair: Hanson, Floyd B.
Co-Chair: Touzeau, Suzanne

Univ. of Illinois, Chicago
INRA

16:00-16:20

Parameter Identification for a PDE Model Representing Scrapie Transmission in a Sheep Flock, pp. 1607-1612

Laroche, Béatrice
Touzeau, Suzanne

CNRS, Univ. Paris - Sud 11, Supélec & INRA
INRA

16:20-16:40

Optimal Control of Drug Delivery to Brain Tumors for a Test of PDE Driven Models Using the Galerkin Finite Element Method, pp. 1613-1618

Hanson, Floyd B.
Chakrabarty, Siddhartha P

Univ. of Illinois, Chicago
Univ. of Illinois, Chicago

16:40-17:00

Geometrical Description of Quasi-Hemispherical and Calotte-Like Surfaces Using Discretised Argument-Transformed Chebyshev-Polynomials, pp. 1619-1624

Soumelidis, Alexandros
Fazekas, Zoltan
Schipf, Ferenc

Computer & Automation Inst. of HAS
Computer & Automation Inst. of HAS
Eotvos Lorand Univ. of Budapest

17:00-17:20

Modeling of Intracranial Pressure-Temperature Dynamics and Its Application to Brain Hypothermia Treatment, pp. 1625-1630

Gaohua, Lu
Kimura, Hidenori

The Inst. of Physical and Chemical Res. (RIKEN)
The Inst. of Physical and Chemical Res. (RIKEN)

17:20-17:40

Optimal Control Model for Inverse Radiation Therapy Treatment Planning, pp. 1631-1637

Tervo, Jouko
Vauhkonen, Marko
Boman, Eeva
Kokkonen, Petri
Nihtilä, Markku

Univ. of Kuopio
Univ. of Kuopio
Univ. of Kuopio
Univ. of Kuopio
Univ. of Kuopio

17:40-18:00

Nonlinear Observer Design for an On-Line Estimation of the Cerebrospinal Fluid Outflow Resistance, pp. 1638-1641

Shiriaev, Anton
Andersson, Nina
Miranda La Hera, P. Xavier
Lilliehook, Magnus
Eklund, Anders

Umea Univ.
Umea Univ. Hospital
Umea Univ.
Umea Univ.
Umea Univ. Hospital

MoC08

Positive Polynomials in Control (Invited Session)

Triana

Chair: Henrion, Didier
Co-Chair: Chesi, Graziano
Organizer: Henrion, Didier
Organizer: Chesi, Graziano

LAAS - CNRS
Univ. di Siena
LAAS - CNRS
Univ. di Siena

16:00-16:20

Characterizing the Positive Polynomials Which Are Not SOS (I), pp. 1642-1647

Chesi, Graziano

Univ. di Siena

16:20-16:40

Nonlinear Optimal Control: Numerical Approximations Via Moments and LMI-Relaxations (I), pp. 1648-1653

Lasserre, Jean B.
Prieur, Christophe
Henrion, Didier

CNRS
CNRS
LAAS - CNRS

16:40-17:00

Decomposition of a Polynomial As a Sum-Of-Squares of Polynomials and the S-Procedure (I), pp. 1654-1659

de Oliveira, Mauricio C.

Univ. of California, San Diego

17:00-17:20

LMI Conditions for the Existence of Polynomially Parameter-Dependent Lyapunov Functions Assuring Robust Stability (I), pp. 1660-1665

Oliveira, Ricardo C. L. F.
Peres, Pedro L. D.

Univ. of Campinas
Univ. of Campinas

17:20-17:40

On Model Reduction of Polynomial Dynamical Systems (I), pp. 1666-1671

Prajna, Stephen
Sandberg, Henrik

California Inst. of Tech.
California Inst. of Tech.

17:40-18:00

Tractable Fitting with Convex Polynomials Via Sum-Of-Squares (I), pp. 1672-1677

Magnani, Alessandro
Lall, Sanjay
Boyd, Stephen P.

Stanford Univ.
Stanford Univ.
Stanford Univ.

MoC09	Nervion III
Model Predictive Control III (Regular Session)	
Chair: De Dona, José Adrian Co-Chair: Borrelli, Francesco	The Univ. of Newcastle Univ. of Minnesota
16:00-16:20 <i>Outer Approximations of the Minimal Disturbance Invariant Set</i> , pp. 1678-1682 Ong, Chong-Jin Gilbert, Elmer G.	National Univ. of Singapore Univ. of Michigan
16:20-16:40 <i>LTR Design of Integral Controllers for Time-Delay Plants Using Disturbance Cancellation</i> , pp. 1683-1688 Ishihara, Tadashi Guo, Hai-jiao	Fukushima Univ. Tohoku Gakuin Univ.
16:40-17:00 <i>Stability Analysis of Decentralized RHC for Decoupled Systems</i> , pp. 1689-1694 Keviczky, Tamás Borrelli, Francesco Balas, Gary J.	Univ. of Minnesota Univ. del Sannio Univ. of Minnesota
17:00-17:20 <i>Closed Loop Analysis of Control Systems under Scarce Measurements</i> , pp. 1695-1700 Sanchis, Roberto Peñarrocha, Ignacio Albertos, Pedro	Univ. Jaume I Univ. Jaume I Univ. Pol. de Valencia
17:20-17:40 <i>Analytical Solution of Input Constrained Reference Tracking Problems by Dynamic Programming</i> , pp. 1701-1706 Mare, José Bernardo De Dona, José Adrian	The Univ. of Newcastle The Univ. of Newcastle
17:40-18:00 <i>State Prediction for a Class of Time-Delay Unstable Linear Systems</i> , pp. 1707-1711 Velasco-Villa, Martin Maza-Casas, Lamberto	CINVESTAV UPIITA-IPN
MoC10	
Arenal III	
Markov Processes in Control (Regular Session)	
Chair: de Souza, Carlos E. Co-Chair: Niño-Mora, José	Lab. Nacional de Computacao Cientifica Univ. Carlos III de Madrid
16:00-16:20 <i>Average Continuous Control of Piecewise Deterministic Markov Processes</i> , pp. 1712-1717 Costa, Oswaldo Luiz V. Dufour, Francois	Univ. of Sao Paulo Bordeaux 1 Univ.
16:20-16:40 <i>A Marginal Productivity Index Policy for the Finite-Horizon Multiarmed Bandit Problem</i> , pp. 1718-1722 Niño-Mora, José	Univ. Carlos III de Madrid
16:40-17:00 <i>Robust Stability of a Class of Markovian Jump Nonlinear Systems</i> , pp. 1723-1728 de Souza, Carlos E. Coutinho, Daniel Ferreira	LNCC Pontificia Univ. Católica do Rio Grande do Sul
17:00-17:20 <i>Optimal Admission Control for a Markovian Queue under the Quality of Service Constraint</i> , pp. 1729-1734 Fan-Orzechowski, Xiaofei Feinberg, Eugene A.	State Univ. of New York at Stony Brook SUNY at Stony Brook
17:20-17:40 <i>A Note on Convergence in Maximal Solution Problems for Infinite Markov Jump Linear Systems</i> , pp. 1735-1740 Baczynski, Jack Fragoso, Marcelo D.	Lab. Nacional de Computacao Cientifica Lab. Nacional de Computacao Cientifica
17:40-18:00 <i>Zero-Sum Ergodic Stochastic Games</i> , pp. 1741-1746 Jaśkiewicz, Anna Nowak, Andrzej	Pol. Wroclawska Zielona Gora Univ.

MoC11		Carmona
Theory and Applications of Stochastic Processes (Invited Session)		
Chair: Charalambous, Charalambos D.		Univ. of Cyprus
Co-Chair: Dey, Subhrakanti		The Univ. of Melbourne
Organizer: Charalambous, Charalambos D.		Univ. of Cyprus
Organizer: Dey, Subhrakanti		The Univ. of Melbourne
16:00-16:20		
<i>Stochastic Linear-Quadratic Adaptive Control: A Conceptual Scheme (I)</i> , pp. 1747-1752		
Levanony, David		Ben Gurion Univ.
Caines, Peter E.		McGill Univ.
16:20-16:40		
<i>Some Martingales from a Fractional Brownian Motion and Applications (I)</i> , pp. 1753-1755		
Duncan, Tyrone E.		Univ. of Kansas
16:40-17:00		
<i>Shannon Meets Lyapunov: Connections between Information Theory and Dynamical Systems (I)</i> , pp. 1756-1763		
Holliday, Tim		Princeton Univ.
Glynn, Peter		Stanford Univ.
Goldsmith, Andrea		Stanford Univ.
17:00-17:20		
<i>Log-Optimal Currency Portfolios and Control Lyapunov Exponents (I)</i> , pp. 1764-1769		
Gerencsér, László		Hungarian Acad. of Sci.
Rásonyi, Miklós		Hungarian Acad. of Sci.
Szepesvári, Csaba		Hungarian Acad. of Sci.
Vágó, Zsuzsanna		Hungarian Acad. of Sci.
17:20-17:40		
<i>On DNA Computers Controlling Gene Expression Levels (I)</i> , pp. 1770-1775		
Milenkovic, Olgica		Univ. of Colorado, Boulder
Kashyap, Navin		Queen's Univ.
Vasic, Bane		Univ. of Arizona
17:40-18:00		
<i>Relative Entropy Applied to Optimal Control of Stochastic Uncertain Systems on Hilbert Space (I)</i> , pp. 1776-1781		
Ahmed, Nasiruddin		Univ. of Ottawa
Charalambous, Charalambos D.		Univ. of Cyprus
MoC12		Nervion II
Control of Physical Systems (Invited Session)		
Chair: Pavon, Michele		Univ. di Padova
Co-Chair: Bonilla, Luis		Escuela Pol. Superior, Univ. Carlos III de Madrid
Organizer: Pavon, Michele		Univ. di Padova
16:00-16:20		
<i>Feedback Stabilization of Spin Systems (I)</i> , pp. 1782-1787		
Altafini, Claudio		SISSA
16:20-16:40		
<i>Further Results on the Observability of Quantum Systems under General Measurement (I)</i> , pp. 1788-1793		
D'Alessandro, Domenico		Iowa State Univ.
Romano, Raffaele		Iowa State Univ.
16:40-17:00		
<i>Randomized Control of Open Quantum Systems (I)</i> , pp. 1794-1799		
Viola, Lorenza		Dartmouth Coll.
17:00-17:20		
<i>Controlling the Density Evolution of Classical, Thermodynamic and Quantum Systems (I)</i> , pp. 1800-1805		
Pavon, Michele		Univ. di Padova
Ticozzi, Francesco		Univ. di Padova
17:20-17:40		
<i>Linear Algebraic Techniques for Quantum Dynamical Decoupling (I)</i> , pp. 1806-1810		
Ticozzi, Francesco		Univ. di Padova
Ferrante, Augusto		Univ. di Padova
17:40-18:00		
<i>Control Challenges in Semiconductor Nanostructure Devices (I)</i> , pp. 1811-1815		
Bonilla, Luis		Escuela Pol. Superior, Univ. Carlos III de Madrid
Carpio, Ana		Univ. Complutense de Madrid

MoC13		Ecija
Energy Management and Drivability Control of Hybrid-Electric Vehicles (Tutorial Session)		
Chair: Rizzoni, Giorgio		The Ohio State Univ.
Co-Chair: Yurkovich, Stephen		The Ohio State Univ.
Organizer: Rizzoni, Giorgio		The Ohio State Univ.
16:00-16:45		
<i>An Overview of Control Problems in Hybrid Vehicles (I)*</i>		
Le Douaron, Alain		
16:45-17:10		
<i>A-ECMS: An Adaptive Algorithm for Hybrid Electric Vehicle Energy Management (I)</i> , pp. 1816-1823		
Musardo, Cristian		Renault
Rizzoni, Giorgio		The Ohio State Univ.
Staccia, Benedetto		Pol. di Milano
17:10-17:35		
<i>Energy Management and Drivability Control Problems for Hybrid Electric Vehicles (I)</i> , pp. 1824-1830		
Pisu, Pierluigi		The Ohio State Univ.
Koprubasi, Kerem		The Ohio State Univ.
Rizzoni, Giorgio		The Ohio State Univ.
17:35-18:00		
<i>Advanced Propulsion Systems Education and Applications at the Ohio State Univ. (I)</i> , pp. 1831-1836		
Morbitzer, Joseph		The Ohio State Univ.
Yurkovich, Stephen		The Ohio State Univ.
Rizzoni, Giorgio		The Ohio State Univ.
MoC14		Santa Cruz
Control of Networks II (Regular Session)		
Chair: Arcak, Murat		Rensselaer Pol. Inst.
Co-Chair: Abed, Eyad H.		Univ. of Maryland
16:00-16:20		
<i>Global Stability of FAST TCP in Single-Link Single-Source Network</i> , pp. 1837-1841		
Choi, Joon-Young		Pusan National Univ.
Koo, Kyungmo		Pohang Univ. of Sci. & Tech.
Lee, Jin S.		Pohang Univ. of Sci. & Tech.
Low, Steven		California Inst. of Tech.
16:20-16:40		
<i>A Two-Time Scale Design for Detection and Rectification of Uncooperative Network Flows</i> , pp. 1842-1847		
Fan, Xingzhe		Rensselaer Pol. Inst.
Chandrayana, Kartikeya		Rensselaer Pol. Inst.
Arcak, Murat		Rensselaer Pol. Inst.
Kalyanaraman, Shivkumar		Rensselaer Pol. Inst.
Wen, John T.		Rensselaer Pol. Inst.
16:40-17:00		
<i>Robust Uplink Resource Allocation in CDMA Cellular Radio Systems</i> , pp. 1848-1853		
Geijer Lundin, Erik		Linköpings Univ.
Gunnarsson, Fredrik		Linköpings Univ.
Gustafsson, Fredrik		Linköpings Univ.
17:00-17:20		
<i>Formation Control with Virtual Leaders and Reduced Communications</i> , pp. 1854-1860		
Xi, Xiaorui		Univ. of Maryland
Abed, Eyad H.		Univ. of Maryland
17:20-17:40		
<i>Dynamical Adaptive Synchronization</i> , pp. 1861-1866		
Efimov, Denis		Inst. of Problems of Mechanical Engineering
17:40-18:00		
<i>Network Utility Maximization with Nonconcave Utilities Using Sum-Of-Squares Methods</i> , pp. 1867-1874		
Fazel, Maryam		California Inst. of Tech.
Chiang, Mung		Princeton Univ.
MoC15		Giralda V
Recent Progress in Modelling and Control of Open-Channel Irrigation Canals (Invited Session)		
Chair: Litrico, Xavier		Cemagref
Co-Chair: Quevedo, Joseba		Univ. Pol. de Catalunya
Organizer: Litrico, Xavier		Cemagref
16:00-16:20		
<i>Reconfiguration Schemes to Mitigate Faults in Automated Irrigation Channels (I)</i> , pp. 1875-1880		
Choy, Sumith		The Univ. of Melbourne
Weyer, Erik		The Univ. of Melbourne

16:20-16:40	<i>Design of Structured Multivariable Controllers for Irrigation Canals (I)</i> , pp. 1881-1886 Litrico, Xavier Fromion, Vincent	Cemagref INRA
16:40-17:00	<i>Supervised Internal Multi-Model Control of a Dam-Gallery Open-Channel System (I)</i> , pp. 1887-1892 Duviella, Eric Charbonnaud, Philippe Chiron, Pascale Carrillo, Francisco	Ec. Nat. d'Ingénieurs de Tarbes Ec. Nat. d'Ingénieurs de Tarbes Ec. Nat. d'Ingénieurs de Tarbes Ec. Nat. d'Ingénieurs de Tarbes
17:00-17:20	<i>Identification and Control of an Open-Flow Canal Using LPV Models (I)</i> , pp. 1893-1898 Puig, Vicenç Quevedo, Joseba Escobet, Teresa Charbonnaud, Philippe Duviella, Eric	Univ. Pol. de Catalunya Univ. Pol. de Catalunya Univ. Pol. de Catalunya Ec. Nat. d'Ingénieurs de Tarbes Ec. Nat. d'Ingénieurs de Tarbes
17:20-17:40	<i>Boundary Control of Non-Homogeneous Systems of Two Conservation Laws (I)</i> , pp. 1899-1904 Prieur, Christophe Winkin, Joseph J. Bastin, Georges	LAAS - CNRS Univ. of Namur (fundp) Univ. Catholique de Louvain
17:40-18:00	<i>Irrigation Multireaches Regulation Problem by Internal Model Boundary Control (I)</i> , pp. 1905-1910 Dos Santos Martins, Valérie Sylvie Toure, Youssoufi	Univ. Catholique de Louvain la Neuve LVR, Univ. d'Orléans- IUT de Bourges
MoC16		Giralda III
Filtering (Regular Session)		
	Chair: Lin, Wei Co-Chair: Manes, Costanzo	Case Western Res. Univ. Univ. degli Studi dell'Aquila
16:00-16:20	<i>A Global Observer for Observable Autonomous Systems with Bounded Solution Trajectories</i> , pp. 1911-1916 Lei, Hao Wei, J.F. Lin, Wei	Case Western Res. Univ. Case Western Res. Univ. Case Western Res. Univ.
16:20-16:40	<i>Polynomial Filtering and Identification of Discrete-Time Nonlinear Uncertain Stochastic Systems</i> , pp. 1917-1922 Germani, Alfredo Manes, Costanzo Palumbo, Pasquale	Univ. degli Studi dell'Aquila Univ. degli Studi dell'Aquila IASI - CNR
16:40-17:00	<i>Moment-Based Prediction Step for Nonlinear Discrete-Time Dynamic Systems Using Exponential Densities</i> , pp. 1923-1928 Rauh, Andreas Hanebeck, Uwe	Univ. of Ulm Univ. Karlsruhe
17:00-17:20	<i>Kalman Filtering by Minimax Criterion with Uncertain Noise Intensity Functions</i> , pp. 1929-1934 Siemenikhin, Konstantin V. Lebedev, Maxim Platonov, Eugene	Moscow Aviation Inst. Moscow Aviation Inst. Moscow Aviation Inst.
17:20-17:40	<i>An Extended Robust H Infinity Filter for Nonlinear Uncertain Systems with Constraints</i> , pp. 1935-1940 Seo, Jaewon Yu, Myeong-Jong Park, Chan Gook Lee, Jang Gyu	Seoul National Univ. Automatic Control Res. Center Seoul National Univ. Seoul National Univ.
17:40-18:00	<i>Performance Analysis of Derivative-Free Filters</i> , pp. 1941-1946 Dunik, Jindrich Simandl, Miroslav Straka, Ondrej Kral, Ladislav	Univ. of West Bohemia in Pilsen Univ. of West Bohemia in Pilsen Univ. of West Bohemia in Pilsen Univ. of West Bohemia in Pilsen

MoC17		Arenal I
Sliding Mode Control III (Regular Session)		
Chair: Hamerlain, Faiza		CDTA-Ec. Centrale de Lille
Co-Chair: Fridman, Leonid M.		Univ. Nacional Autónoma de México
16:00-16:20		
<i>Control of Electromechanical Systems Using Sliding Mode Techniques</i> , pp. 1947-1952		
Brandstaedter, Heide		Tech. Univ. München
Buss, Martin		Tech. Univ. München
16:20-16:40		
<i>Integral Sliding Mode Controller Design for Stochastic Time-Delay Systems</i> , pp. 1953-1958		
Basin, Michael V.		Univ. Autónoma de Nuevo León
Rodriguez-Gonzalez, Jesus		Univ. Autónoma de Nuevo León
Fridman, Leonid M.		Univ. Nacional Autónoma de México
Acosta Cano De Los Ríos, Pedro Rafael		Inst. Tecnológico de Chihuahua
16:40-17:00		
<i>Higher Order Sliding Mode Control of Wheeled Mobile Robots in the Presence of Sliding Effects</i> , pp. 1959-1963		
Hamerlain, Faiza		CDTA -Ec. Centrale de Lille
Achour, Karim		CDTA
Floquet, Thierry		Ec. Centrale de Lille
Perruquetti, Wilfrid		Ec. Centrale de Lille
17:00-17:20		
<i>Robust Backstepping Tracking Control Using Hybrid Sliding-Mode Neural Network for a Nonholonomic Mobile Manipulator with Dual Arms</i> , pp. 1964-1969		
Cheng, Meng-Bi		National Chung Hsing Univ.
Tsai, Ching-Chih		National Chung Hsing Univ.
17:20-17:40		
<i>Fuzzy Sliding Mode Attitude Control of Satellite</i> , pp. 1970-1975		
Liu, Xiangjie		North China Electric Power Univ.
Guan, Ping		Beijing Inst. of Machinery
Liu, Jizhen		North China Electric Power Univ.
17:40-18:00		
<i>Robust Design Criteria for Integral Sliding Surfaces</i> , pp. 1976-1981		
Castaños, Fernando		Univ. Nacional Autónoma de México
Fridman, Leonid M.		Univ. Nacional Autónoma de México
MoIC18		Giralda VI
Automotive I (Interactive Session)		
Chair: Vasca, Francesco		Univ. of Sannio
Co-Chair: Wilson, David A.		Univ. of Leeds
16:00-18:00		
<i>Active Suspension Control to Improve Vehicle Ride and Steady-State Handling</i> , pp. 1982-1987		
Wang, Jun		Tsinghua Univ.
Wilson, David A.		Univ. of Leeds
Xu, Wenli		Tsinghua Univ.
Crolla, David A.		Univ. of Leeds
16:00-18:00		
<i>Lateral Control of Autonomous Electric Cars for Relocation of Public Urban Mobility Fleet</i> , pp. 1988-1993		
Malan, Stefano Alberto		Pol. di Torino
Milanese, Mario		Pol. di Torino
Borodani, Pandeli		Centro Ricerche FIAT
Gallione, Alessandro		Centro Ricerche FIAT
16:00-18:00		
<i>A New Nonlinear Control Strategy for a Vehicle Trajectory Tracking in the Presence of Faults</i> , pp. 1994-1999		
Shraim, Hassan		LSIS, Univ. Aix Marseille III
Ouladsine, Mustapha		LSIS, Univ. Aix Marseille III
El Adel, Mustafa		LSIS, Univ. Aix Marseille III
16:00-18:00		
<i>Fault Tolerant Monitoring of Vehicle Lateral Dynamics Stabilization Systems</i> , pp. 2000-2005		
Ding, Steven X.		Univ. Duisburg-Essen
Schneider, Stefan		Univ. Duisburg-Essen
Ding, E.L.		Univ. of Applied Sci. Gelsenkirchen
Rehm, Ansgar		Robert Bosch GmbH
16:00-18:00		
<i>A Robust Force Controller for an SRM Based Electromechanical Brake System</i> , pp. 2006-2011		
Krishnamurthy, Prashanth		Pol. Univ.
Lu, Wenzhe		The Ohio State Univ.
Khorrani, Farshad		Pol. Univ.
Keyhani, Ali		The Ohio State Univ.

16:00-18:00

Power Management Decoupling Control for a Hybrid Electric Vehicle, pp. 2012-2017

Barbarisi, Osvaldo
Westervelt, Eric R.
Vasca, Francesco
Rizzoni, Giorgio

Univ. of Sannio
The Ohio State Univ.
Univ. of Sannio
The Ohio State Univ.

MoIC19

Giralda VII

Robot Control (Interactive Session)

Chair: Aicardi, Michele
Co-Chair: Daafouz, Jamal

Univ. of Genova
CRAN -INPL

16:00-18:00

A Simple Class of Functions for the Analysis/Optimization of Robotic Motions, pp. 2018-2023

Aicardi, Michele

Univ. of Genova

16:00-18:00

High Efficient Dynamics Calculation Approach for Computed-Force Control of Robots with Parallel Structures, pp. 2024-2029

Abdellatif, Housseem
Grotjahn, Martin
Heimann, Bodo

Univ. of Hannover
IAV GmbH, Gifhorn
Univ. of Hannover

16:00-18:00

RoboTennis System Part II: Dynamics and Control, pp. 2030-2034

Angel, Luis
Sebastian, Jose Maria
Saltaren, Roque
Aracil, Rafael

Univ. Pont. Bolivariana
Univ. Pol. de Madrid
Univ. Pol. de Madrid
Univ. Pol. de Madrid

16:00-18:00

Stable Neural PD Controller for Redundantly Actuated Parallel Manipulators with Uncertain Kinematics, pp. 2035-2040

Loreto, Gerardo
Garrido, Rubén

CINVESTAV
CINVESTAV

16:00-18:00

Mobile Robot SLAM for Line-Based Environment Representation, pp. 2041-2046

Garulli, Andrea
Giannitrapani, Antonio
Rossi, Andrea
Vicino, Antonio

Univ. di Siena
Univ. di Siena
Univ. di Siena
Univ. di Siena

16:00-18:00

GA-Based Homography Transformation for Vision Rectification in Robot Drawing System, pp. 2047-2052

Kwok, Ka Wai
Yam, Yeung
Lo, Ka Wah

The Chinese Univ. of Hong Kong
The Chinese Univ. of Hong Kong
The Chinese Univ. of Hong Kong

MoIC20

Giralda VIII

Process Control (Interactive Session)

Chair: Simani, Silvio
Co-Chair: Bordons, Carlos

Univ. of Ferrara
Univ. de Sevilla

16:00-18:00

Fuzzy Model Identification of a Sugar Cane Crushing Process for Fault Diagnosis Application, pp. 2053-2057

Simani, Silvio

Univ. of Ferrara

16:00-18:00

Maximum a Posteriori Estimation of Energetics in Silicon Self-Diffusion, pp. 2058-2063

Kwok, Charlotte T. M.
Dev, Kapil
Seebauer, Edmund
Braatz, Richard D.

Univ. of Illinois, Urbana-Champaign
Univ. of Illinois, Urbana-Champaign
Univ. of Illinois, Urbana-Champaign
Univ. of Illinois, Urbana-Champaign

16:00-18:00

*Batch-To-Batch Optimization of Batch Processes Based on Nonlinear Partial Least Squares Models**

Li, Chunfu

Honeywell Tech. Solutions Lab.

16:00-18:00

Application Integration the Other Way Around, pp. 2064-2070

Haus, Christina
Albrecht, Harald

RWTH Aachen Univ.
RWTH Aachen Univ.

16:00-18:00

Iterative Nonlinear Control of a Semibatch Reactor. Stability Analysis, pp. 2071-2076

Cueli, J.R.
Bordons, Carlos

Univ. de Sevilla
Univ. de Sevilla

16:00-18:00

Optimization of Fresh-Food Supply Chains in Uncertain Environments: An Application to the Meat-Refrigeration Process, pp. 2077-2082
Dabbene, Fabrizio Pol. di Torino
Gay, Paolo Univ. degli Studi di Torino
Sacco, Nicola Pol. di Torino
Tortia, Cristina Univ. degli Studi di Torino

MoIC21 Hall Triana

Flow Control and Pipelines (Interactive Session)

Chair: Rodrigues, Sergio SISSA - ISAS , Univ. of Aveiro
Co-Chair: Verde, Cristina UNAM

16:00-18:00

Controllability Issues for the Navier-Stokes Equation on a Rectangle, pp. 2083-2088
Rodrigues, Sergio SISSA - ISAS, Univ. of Aveiro

16:00-18:00

Sensor Placement for Diagnosability Analysis in Thermofluid Processes, pp. 2089-2094
El Osta, Wassim Ec. Centrale de Lille
Ould Bouamama, Belkacem LAIL
Sueur, Christophe Ec. Centrale de Lille

16:00-18:00

Two Simultaneous Leaks Isolation in a Pipeline by Transient Responses, pp. 2095-2100
Verde, Cristina UNAM
Visairo, Nancy Univ. Autónoma de San Luis Potosí

16:00-18:00

On Water-Level Error Propagation in Controlled Irrigation Channels, pp. 2101-2106
Li, Yuping The Univ. of Melbourne
Cantoni, Michael The Univ. of Melbourne
Weyer, Erik The Univ. of Melbourne

16:00-18:00

*An Algorithm to Minimize Drag Reducers Injections in Oil Pipelines**
Ridao, Miguel A. Univ. de Sevilla
Zafra-Cabeza, Ascension Univ. de Sevilla

TuPSP1 Giralda I

Semi-Plenary Session I (Semi-Plenary Session)

Chair: Tempo, Roberto Pol. di Torino
Co-Chair: Fleming, P.J. Univ. of Sheffield

08:30-09:30

*Dynamic Programming and Suboptimal Control: From ADP to MPC**
Bertsekas, Dimitri P. Massachusetts Inst. of Tech.

TuPSP2 Santa Cruz

Semi-Plenary Session II (Semi-Plenary Session)

Chair: Albertos, Pedro Univ. Pol. de Valencia
Co-Chair: Camacho, Eduardo F. Univ. de Sevilla

08:30-09:30

*Control Strategies in Atomic Force Microscopy**
Stemmer, Andreas ETH Zurich

TuA01 Giralda I

Petri Nets (Invited Session)

Chair: Seatzu, Carla Univ. di Cagliari
Co-Chair: Basile, Francesco Univ. degli Studi di Salerno
Organizer: Seatzu, Carla Univ. di Cagliari
Organizer: Basile, Francesco Univ. degli Studi di Salerno

10:00-10:20

Distributed Implementations of Ramadge-Wonham Supervisory Control with Petri Nets (I), pp. 2107-2112
Darondeau, Philippe INRIA

10:20-10:40

A Linear Characterization of the Petri Net Reachability Space Corresponding to Bounded-Length Fireable Transition Sequences and Its Implications for the Structural Analysis of Process-Resource Nets with Acyclic, Quasi-Live and Strongly Reversible Process (I), pp. 2113-2118
Reveliotis, Spyros A. Georgia Inst. of Tech.

10:40-11:00

[Derivation of the Fundamental Diagram for Two Circular Roads and a Crossing Using Minplus Algebra and Petri Net Modeling \(I\)](#), pp. 2119-2124

Farhi, Nadir
Goursat, Maurice
Quadrat, Jean-Pierre

INRIA & Univ. Paris 1
INRIA Rocquencourt
INRIA

11:00-11:20

[A Generalized Stochastic Petri Net Model for Management of Distributed Manufacturing Systems \(I\)](#), pp. 2125-2130

Dotoli, Mariagrazia
Fanti, Maria Pia

Pol. di Bari
Pol. of Bari

11:20-11:40

[Throughput in Stochastic Free-Choice Nets under Various Policies \(I\)](#), pp. 2131-2136

Bouillard, Anne
Gaujál, Bruno
Mairesse, Jean

ENS Lyon
INRIA
INRIA Sophia Antipolis

11:40-12:00

[Formal Specification of ADACOR Holonic Control System: Coordination Models \(I\)](#), pp. 2137-2142

Leitao, Paulo
Colombo, Armando Walter
Restivo, Francisco

Pol. Inst. of Bragança
Schneider Electric
Univ. do Porto

TuA02

Giralda IV

Optimal Control II (Regular Session)

Chair: Sussmann, Héctor J.
Co-Chair: Jacquet, Denis

Rutgers Univ.
Inst. National Pol. de Grenoble

10:00-10:20

[Set Transversality, Approximating Multicones, Warga Derivate Containers and Mordukhovich Cones](#), pp. 2143-2148

Sussmann, Héctor J.

Rutgers Univ.

10:20-10:40

[Nondegenerate Necessary Conditions for Linear Optimal Control Problems with Higher Index State Constraints](#), pp. 2149-2151

Fontes, Fernando A. C. C.

Univ. of Minho

10:40-11:00

[Constrained Optimal Trajectory Tracking on the Group of Rigid Body Motions](#), pp. 2152-2157

Hussein, Islam
Bloch, Anthony M.

Univ. of Illinois, Urbana-Champaign
Univ. of Michigan

11:00-11:20

[A Case Study in Scheduling Reentrant Manufacturing Lines: Optimal and Simulation-Based Approaches](#), pp. 2158-2163

Ramírez-Hernández, José A.
Fernandez, Emmanuel

Univ. of Cincinnati
Univ. of Cincinnati

11:20-11:40

[Traffic Control and Monitoring with a Macroscopic Model in the Presence of Strong Congestion Waves](#), pp. 2164-2169

Jacquet, Denis
Canudas de Wit, Carlos
Koenig, Damien

INPG
INPG
INPG

11:40-12:00

[Optimal Design of Normalizing Precompensators Via Alignment of Output-Input Principal Directions](#), pp. 2170-2175

Moreira, Marcos Vicente
Basilio, João Carlos

Univ. Fed. de Rio de Janeiro
Univ. Fed. de Rio de Janeiro

TuA03

Giralda II

Control of Cooperative Search, Surveillance, and Other Multiagent Missions (Invited Session)

Chair: Baillieul, John
Co-Chair: Li, Keyong
Organizer: Baillieul, John

Boston Univ.
Boston Univ.
Boston Univ.

10:00-10:20

[Rigidity and Persistence of Directed Graphs](#), pp. 2176-2181

Hendrickx, Julien M.
Anderson, Brian D.O.
Blondel, Vincent D.

Univ. Catholique de Louvain
The Australian National Univ.
Univ. Catholique de Louvain

10:20-10:40

[Stable Cooperative Surveillance \(I\)](#), pp. 2182-2187

Gil, Alvaro
Passino, Kevin
Cruz, Jose B

The Ohio State Univ.
The Ohio State Univ.
The Ohio State Univ.

10:40-11:00	<i>Fractal Graph Optimization Algorithms (I)</i> , pp. 2188-2193 Riehl, James Robert Hespanha, João P.	Univ. of California, Santa Barbara Univ. of California, Santa Barbara
11:00-11:20	<i>Asynchronous Consensus Protocols: Preliminary Results, Simulations and Open Questions (I)</i> , pp. 2194-2199 Fang, Lei Antsaklis, Panos J. Tzimas, Anastasis	Univ. of Notre Dame Univ. of Notre Dame Univ. of Notre Dame
11:20-11:40	<i>Stochastic Strategies for Autonomous Robotic Surveillance (I)</i> , pp. 2200-2205 Grace, Jeremy Baillieul, John	Boston Univ. Boston Univ.
11:40-12:00	<i>Cooperative Control of Distributed Agents with Nonlinear Dynamics and Delayed Information Exchange: A Stabilizing Receding-Horizon Approach (I)</i> , pp. 2206-2211 Franco, Elisa Parisini, Thomas Polycarpou, Marios M.	Univ. of Trieste Univ. of Trieste Univ. of Cyprus

TuA04	Utrera
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Adaptive Control I (Regular Session)		
	Chair: Tomei, Patrizio Co-Chair: Bernstein, Dennis S.	Univ. degli Studi di Roma, Tor Vergata Univ. of Michigan
10:00-10:20	<i>Output Regulation for Linear Minimum Phase Systems with Unknown Order Exosystem</i> , pp. 2212-2217 Marino, Riccardo Tomei, Patrizio	Univ. degli Studi di Roma, Tor Vergata Univ. degli Studi di Roma, Tor Vergata
10:20-10:40	<i>Coordinated Decentralized MRAC of Delayed Plants with Actuator Failures</i> , pp. 2218-2223 Mirkin, Boris Gutman, Per-Ol	Technion - IIT Technion - IIT
10:40-11:00	<i>Adaptive Control Scheme for Plants with Time-Varying Structure Using On-Line Parameter Estimation</i> , pp. 2224-2229 González, Angel Ordóñez, Raúl	Pol. Univ. of Puerto Rico Univ. of Dayton
11:00-11:20	<i>Adaptive Compensation of Control Dependent Modeling Uncertainties Using Time-Scale Separation</i> , pp. 2230-2235 Lavretsky, Eugene Hovakimyan, Naira	The Boeing Co. Virginia Pol. Inst. and State Univ.
11:20-11:40	<i>Discrete-Time Adaptive Stabilization and Disturbance Rejection for Minimum Phase Plants</i> , pp. 2236-2241 Akhtar, Suhail Bernstein, Dennis S.	Univ. of Michigan Univ. of Michigan
11:40-12:00	<i>Direct Adaptive Command Following and Disturbance Rejection for Minimum Phase Systems with Unknown Relative Degree</i> , pp. 2242-2247 Hoagg, Jesse B. Bernstein, Dennis S.	Univ. of Michigan Univ. of Michigan

TuA05	Lebrija
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Numerical Methods for Analysis and Reduction of Large Scale Systems (Invited Session)		
	Chair: Benner, Peter Co-Chair: Antoulas, Athanasios C. Organizer: Antoulas, Athanasios C. Organizer: Benner, Peter	TU Chemnitz Rice Univ. Rice Univ. TU Chemnitz
10:00-10:20	<i>Parallel Algorithms for Balanced Truncation of Large-Scale Unstable Systems (I)</i> , pp. 2248-2253 Barrachina, Sergio Benner, Peter Quintana-Ortí, Enrique Quintana-Ortí, Gregorio	Univ. Jaume I TU Chemnitz Univ. Jaume I Univ. Jaume I
10:20-10:40	<i>Duality and Singular Value Functions for the Nonlinear Normalized Right and Left Coprime Factorizations. (I)</i> , pp. 2254-2259 Scherpen, Jacquélien M.A.	Delft Univ. of Tech.

10:40-11:00	<i>Principle Component Analysis and Model Reduction for Dynamical Systems with Symmetry Constraints (I)</i> , pp. 2260-2264	Rice Univ. Rice Univ.
	Sorensen, Danny C. Shah, Mili	
11:00-11:20	<i>An Optimization Framework for Goal-Oriented, Model-Based Reduction of Large-Scale Systems (I)</i> , pp. 2265-2271	Massachusetts Inst. of Tech. Univ. of Texas Sandia National Lab. Sandia National Lab.
	Willcox, Karen Elizabeth Ghattas, Omar van Bloemen Waanders, Bart Bader, Brett	
11:20-11:40	<i>On the Construction of POD Models from Partial Observations (I)</i> , pp. 2272-2277	Eindhoven Univ. of Tech. Eindhoven Univ. of Tech.
	Astrid, Patricia Weiland, Siep	
11:40-12:00	<i>Krylov-Based Model Reduction of Second-Order Systems with Proportional Damping (I)</i> , pp. 2278-2283	Virginia Pol. Inst. and State Univ. Virginia Pol. Inst. and State Univ.
	Beattie, Christopher A. Gugercin, Serkan	

TuA06 Prado

Robust Design (Regular Session)		
	Chair: Halsey, Kelvin M. Co-Chair: Rossell, Josep M.	The Univ. of Melbourne Univ. Pol. de Catalunya
10:00-10:20	<i>Interpolated versus Polytopic Gain Scheduling Control Laws for Fin/Rudder Roll Stabilisation of Ships</i> , pp. 2284-2289	IREENA-Univ. de Nantes SIREHNA IRCCyN - Ec. Centrale de Nantes
	Chereau, Vinciane Tanguy, Hervé Lebret, Guy	
10:20-10:40	<i>Overlapping Resilient H_∞ Control for Uncertain Time-Delayed Systems</i> , pp. 2290-2295	Acad. of Sci. of the Czech Republic Univ. Pol. de Catalunya Univ. Pol. de Catalunya
	Bakule, Lubomír Rodellar, José Rossell, Josep M.	
10:40-11:00	<i>Improved Non-Sequential MIMO QFT Design for the X-29 Aircraft*</i>	Texas A & M Univ. Texas A & M Univ. Texas A & M Univ.
	Kerr, Murray Lawrence Lan, Chen-yang Jayasuriya, Suhada	
11:00-11:20	<i>On the Minimal Robust Positively Invariant Set for Linear Difference Inclusions</i> , pp. 2296-2301	Centre for Process Systems Engineering, Imperial Coll. Imperial Coll. Univ. of Cambridge Imperial Coll. Imperial Coll.
	Kouramas, Konstantinos Raković, Sasa V. Kerrigan, Eric C. Allwright, John Mayne, David Q.	
11:20-11:40	<i>An H-∞ Model Referencing Design Utilizing a Two Degree of Freedom Controller Scheme</i> , pp. 2302-2307	The Australian National Univ. The Australian National Univ. The Australian National Univ.
	Dehghani, Arvin Lanzon, Alexander Anderson, Brian D.O.	
11:40-12:00	<i>Robust Stability in a Classical and Modern Context</i> , pp. 2308-2313	The Univ. of Melbourne
	Halsey, Kelvin M.	

TuA07 Estepa

Molecular Systems Biology and Control (Tutorial Session)		
	Chair: Khammash, Mustafa H. Co-Chair: Iglesias, Pablo A. Organizer: Sontag, Eduardo D.	Univ. of California, Santa Barbara Johns Hopkins Univ. Rutgers Univ.
10:00-12:00	<i>Molecular Systems Biology & Control: A Qualitative-Quantitative Approach (I)</i> , pp. 2314-2319	Rutgers Univ.
	Sontag, Eduardo D.	
10:00-12:00	<i>Stochastic Modeling and Analysis of Genetic Networks (I)</i> , pp. 2320-2325	Univ. of California, Santa Barbara Univ. of California, Santa Barbara
	Khammash, Mustafa H. El-Samad, Hana	

10:00-12:00

Directional Migration: A Prototypical Cellular Control System (I), pp. 2326-2331
Iglesias, Pablo A.

Johns Hopkins Univ.

TuA08

Triana

The Joint Spectral Radius: Theory and Applications (Invited Session)

Chair: Blondel, Vincent
Co-Chair: Wirth, Fabian R.
Organizer: Blondel, Vincent
Organizer: Wirth, Fabian R.

Univ. Catholique de Louvain
National Univ. of Ireland, Maynooth
Univ. Catholique de Louvain
National Univ. of Ireland, Maynooth

10:00-10:20

Lyapunov Exponent and Joint Spectral Radius: Some Known and New Results (I), pp. 2332-2337

Barabanov, Nikita E.

North Dakota State Univ.

10:20-10:40

A Dynamical Systems Construction of a Counterexample to the Finiteness Conjecture (I), pp. 2338-2343

Kozyakin, Victor

Inst. for Information Transmission Problems

10:40-11:00

Duality Results for the Joint Spectral Radius and Transient Behavior (I), pp. 2344-2349

Plischke, Elmar
Wirth, Fabian R.
Barabanov, Nikita E.

Univ. Bremen
National Univ. of Ireland, Maynooth
North Dakota State Univ.

11:00-11:20

A Note on Common Quadratic Lyapunov Functions for Linear Inclusions : Exact Results and Open Problems (I), pp. 2350-2355

Gurvits, Leonid
Samorodnitsky, Alex

Los Alamos National Lab.
Hebrew Univ. of Jerusalem

11:20-11:40

*Applications of the Joint Spectral Radius in the Theory of Queueing Networks (I)**

Vladimirov, Alexander

IITP

11:40-12:00

A Lower Bound on Convergence of a Distributed Network Consensus Algorithm (I), pp. 2356-2361

Cao, Ming
Spielman, Daniel
Morse, A. Stephen

Yale Univ.
Yale Univ.
Yale Univ.

TuA09

Nervion III

Process Control I (Regular Session)

Chair: Ho, Weng Khuen
Co-Chair: Leva, Alberto

National Univ. of Singapore
Pol. di Milano

10:00-10:20

Monotonicity and Convergence in Chemical Reaction Networks, pp. 2362-2367

De Leenheer, Patrick
Angeli, David

Univ. of Florida
Univ. degli Studi di Firenze

10:20-10:40

Causal Design Methodology for Optimal Tracking in 2-D.O.F. Industrial Controllers, pp. 2368-2373

Leva, Alberto
Bascetta, Luca

Pol. di Milano
Pol. di Milano

10:40-11:00

Nonparametric Identification for the Causal Optimization of Set Point Tracking, pp. 2374-2379

Leva, Alberto
Bascetta, Luca

Pol. di Milano
Pol. di Milano

11:00-11:20

Nonlinear Control Design for a Plasma Process, pp. 2380-2385

Iordanov, Petar
Ringwood, John V.
Doherty, Sean

National Univ. of Ireland, Maynooth
National Univ. of Ireland, Maynooth
National Univ. of Ireland, Maynooth

11:20-11:40

*Control and Signal Processing for Photoresist Processing**

Ho, Weng Khuen

National Univ. of Singapore

11:40-12:00

Robust PI Controller Design for an Uncertain Recycle System, pp. 2386-2390

Patre, B. M.
Deore, P. J.

SGGS Inst. of Engineering and Tech. Nanded
SGGS Inst. of Engineering and Tech. Nanded

TuA10	Arenal III
Fault Detection (Regular Session)	
Chair: Varga, Andras Co-Chair: Staroswiecki, Marcel	German Aerospace Center Univ. des Sci. et Tech. Lille
10:00-10:20 <i>Numerically Reliable Methods for Optimal Design of Fault Detection Filters</i> , pp. 2391-2396 Varga, Andras	German Aerospace Center
10:20-10:40 <i>Reliability Modeling of Fault Tolerant Control Systems</i> , pp. 2397-2402 Li, Hongbin Zhao, Qing	Univ. of Alberta Univ. of Alberta
10:40-11:00 <i>Stability of Closed Loop Controlled Repetitive Periodic System Applied to Control of CD-Players</i> , pp. 2403-2408 Odgaard, Peter Fogh Stoustrup, Jakob Andersen, Palle Wickerhauser, Mladen Victor Vidal, Enrique	Aalborg Univ. Aalborg Univ. Aalborg Univ. Washington Univ. Bang & Olufsen a/s
11:00-11:20 <i>Diagnostic Symptom Generation Aggregating Model Validity and Residual Evaluation</i> , pp. 2409-2414 Leseq, Suzanne Gentil, Sylviane Barraud, Alain	INPG/UJF/CNRS UMR 5528 INPG INPG
11:20-11:40 <i>Fault Diagnosis of Linear Singularly Perturbed Systems</i> , pp. 2415-2420 Gong, Fei Khorasani, Khashayar	Concordia Univ. Concordia Univ.
11:40-12:00 <i>Fault Tolerant Control Using an Admissible Model Matching Approach</i> , pp. 2421-2426 Staroswiecki, Marcel	Univ. des Sci. et Tech. Lille
TuA11	Carmona
Iterative Learning (Regular Session)	
Chair: Tomizuka, Masayoshi Co-Chair: Saab, Samer S.	Univ. of California, Berkeley/NSF Lebanese American Univ.
10:00-10:20 <i>An Optimization-Based Approach for Design of Iterative Learning Controllers with Accelerated Rates of Convergence</i> , pp. 2427-2432 Mishra, Sandipan Tomizuka, Masayoshi	Univ. of California, Berkeley Univ. of California, Berkeley/NSF
10:20-10:40 <i>A Proximity Algorithm for Support Vector Machine Classification</i> , pp. 2433-2438 Sideris, Athanasios Estevez, Silvia	Univ. of California, Irvine Univ. of California, Irvine
10:40-11:00 <i>Nussbaum Gain Based Adaptive Iterative Learning Control for a Class of Multi-Input Multi-Output Nonlinear Systems</i> , pp. 2439-2444 Jiang, Ping Chen, Huadong	The Univ. of Bradford & Tongji Univ. Tongji Univ.
11:00-11:20 <i>On Initial Conditions in Iterative Learning Control*</i> Xu, Jian-Xin Yan, Rui Hou, Zhongsheng	National Univ. of Singapore National Univ. of Singapore Beijing Jiaotong Univ.
11:20-11:40 <i>Self-Tuning Iterative Learning Control for Time Variant Systems</i> , pp. 2445-2450 Madady, Ali	Tafresh Univ.
11:40-12:00 <i>On Higher-Order Iterative Learning Control Algorithm in Presence of Measurement Noise</i> , pp. 2451-2456 Saab, Samer S.	Lebanese American Univ.

TuA12	Nervion II
Distributed Parameter Systems I (Invited Session)	
Chair: Demetriou, Michael A.	Worcester Pol. Inst.
Co-Chair: Morris, Kirsten A.	Univ. of Waterloo
Organizer: Demetriou, Michael A.	Worcester Pol. Inst.
10:00-10:20	
<i>General Solution to Standard H-Infinity Control Problems for a Class of Infinite-Dimensional Systems (I)</i> , pp. 2457-2462	
Kashima, Kenji	Tokyo Inst. of Tech.
Yamamoto, Yutaka	Kyoto Univ.
10:20-10:40	
<i>Error Feedback Output Regulation of Bounded Uniformly Continuous Signals for Infinite-Dimensional Linear Systems (I)</i> , pp. 2463-2468	
Immonen, Eero	Tampere Univ. of Tech.
Pohjolainen, Seppo	Tampere Univ. of Tech.
10:40-11:00	
<i>Model Reduction for Controller Design for Infinite-Dimensional Systems: Theory and an Example (I)</i> , pp. 2469-2474	
Opmeer, Mark R.	Univ. of Groningen
Wubs, Fred W.	Univ. of Groningen
van Mourik, Simon	Univ. Twente
11:00-11:20	
<i>Feedback-Invariant Subspaces in Infinite-Dimensional Systems (I)</i> , pp. 2475-2480	
Morris, Kirsten A.	Univ. of Waterloo
Rebarber, Richard L.	Univ. of Nebraska at Lincoln
11:20-11:40	
<i>Stability and Galerkin Approximation in Thermoelastic Models (I)</i> , pp. 2481-2486	
Fabiano, Richard H.	Univ. of North Carolina, Greensboro
TuA13	Ecija
Applications I (Regular Session)	
Chair: Lozano, Rogelio	Univ. de Tech. de Compiegne
Co-Chair: Halim, Dunant	Univ. of Adelaide
10:00-10:20	
<i>Hierarchical Adaptive Controller for a Nonlinear Aeroelastic Wing Section with Multiple Control Surfaces</i> , pp. 2487-2492	
Murahari Rao, Vishnu	Clarkson Univ.
Behal, A.	Clarkson Univ.
Marzocca, Pier	Clarkson Univ.
10:20-10:40	
<i>Active Control of Compression Systems Using Drive Torque; a Backstepping Approach</i> , pp. 2493-2498	
Bøhagen, Bjørnar	Norwegian Univ. of Sci. & Tech.
Gravdahl, Jan Tommy	Norwegian Univ. of Sci. & Tech.
10:40-11:00	
<i>Active Control of Structural Sound Radiation Using a Spatial Control Method with Multiple Structural Sensors</i> , pp. 2499-2504	
Halim, Dunant	Univ. of Adelaide
Cazzolato, Ben	Univ. of Adelaide
11:00-11:20	
<i>Trajectory Tracking for a Four Rotor Mini-Aircraft</i> , pp. 2505-2510	
Salazar-Cruz, Sergio	Univ. de Tech. de Compiegne
Palomino, Amparo	Univ. de Tech. de Compiegne
Lozano, Rogelio	Univ. de Tech. de Compiegne
11:20-11:40	
<i>A Numerical Algorithm for Stability Testing of Fractional Delay Systems*</i>	
Hwang, Chyi	I-Shou Univ.
Cheng, Yi-Cheng	National Chung Cheng Univ.
11:40-12:00	
<i>Optimal Motion of an Articulated Body in a Perfect Fluid</i> , pp. 2511-2516	
Kanso, Eva	Univ. of Southern California
Marsden, Jerrold E.	California Inst. of Tech.
TuA14	Santa Cruz
Convergence of Information Transmission and Control I (Invited Session)	
Chair: Charalambous, Charalambos D.	Univ. of Cyprus
Co-Chair: Dey, Subhrakanti	The Univ. of Melbourne
Organizer: Charalambous, Charalambos D.	Univ. of Cyprus
Organizer: Dey, Subhrakanti	The Univ. of Melbourne
10:00-10:20	
<i>Coding and Control Over Discrete Noisy Forward and Feedback Channels (I)</i> , pp. 2517-2522	
Yuksel, Serdar	Univ. of Illinois, Urbana-Champaign
Başar, Tamer	Univ. of Illinois, Urbana-Champaign

10:20-10:40	<i>Fundamental Limitations of Disturbance Attenuation in the Presence of Side Information (I)</i> , pp. 2523-2529 Martins, Nuno C. Dahleh, Munther A. Doyle, John C.	Univ. of Maryland Massachusetts Inst. of Tech. California Inst. of Tech.
10:40-11:00	<i>A Mathematical Framework for Robust Control Over Uncertain Communication Channels (I)</i> , pp. 2530-2535 Charalambous, Charalambos D. Farhadi, Alireza	Univ. of Cyprus Univ. of Ottawa
11:00-11:20	<i>Encoder-Decoder Design for Perfect Reconstruction: A Robust Control Perspective (I)</i> , pp. 2536-2541 Voulgaris, Petros G. Hadjicostis, Christoforos Touri, Rouzbeh	Univ. of Illinois, Urbana-Champaign Univ. of Illinois, Urbana-Champaign Univ. of Illinois, Urbana-Champaign
11:20-11:40	<i>Distributed Cooperative Coverage Control of Sensor Networks (I)</i> , pp. 2542-2547 Li, Wei Cassandras, Christos G.	Boston Univ. Boston Univ.
11:40-12:00	<i>Message-Embedded Cryptosystems: Cryptanalysis and Identifiability</i> , pp. 2548-2553 Anstett, Floriane Millerioux, Gilles Bloch, Gerard	Univ. Henri Poincare, Nancy 1 Univ. Henri Poincare, Nancy 1 Univ. Henri Poincare, Nancy 1
TuA15		Giralda V
Neural Networks I (Regular Session)		
	Chair: Calise, Anthony J. Co-Chair: Fraile-Ardanuy, Jesús	Georgia Inst. of Tech. Univ. Pol. de Madrid
10:00-10:20	<i>On Flexible Neural Networks: Some System-Theoretic Properties and a New Class</i> , pp. 2554-2561 Bavafa-Toosi, Yazdan Ohmori, Hiromitsu	Keio Univ. Keio Univ.
10:20-10:40	<i>Dead-Zone Kalman Filter Algorithm for Recurrent Neural Networks</i> , pp. 2562-2567 de Jesús Rubio, José Yu, Wen	CINVESTAV CINVESTAV
10:40-11:00	<i>Adaptive Control of a Class of Non-Affine Systems Using Neural Networks</i> , pp. 2568-2573 Yang, Bong-jun Calise, Anthony J.	Georgia Inst. of Tech. Georgia Inst. of Tech.
11:00-11:20	<i>Sparse Generalized Kernel Modeling for Nonlinear Systems</i> , pp. 2574-2579 Chen, Sheng Hong, Xia Wang, Xunxian Harris, Chris J.	Univ. of Southampton The Univ. of Reading Aston Univ. Univ. of Southampton
11:20-11:40	<i>Disturbance Rejection Via Adaptive Neural Design for a Class of Minimum Phase Nonlinear Systems*</i> Zhou, Guopeng	South China Univ. of Tech.
11:40-12:00	<i>Neural Network-Based Control of Nonlinear Discrete-Time Systems in Non-Strict Form</i> , pp. 2580-2585 He, Pingan Chen, Zheng Jagannathan, Sarangapani	The Univ. of Missouri - Rolla Michigan State Univ. The Univ. of Missouri - Rolla
TuA16		Giralda III
Switching Systems and Switching Control (Regular Session)		
	Chair: Di Bernardo, Mario Co-Chair: Teel, Andrew R.	Univ. di Napoli Federico II Univ. of California, Santa Barbara
10:00-10:20	<i>Regulating Discrete-Time Homogeneous Systems under Arbitrary Switching</i> , pp. 2586-2591 Tuna, S. Emre Teel, Andrew R.	Univ. of California, Santa Barbara Univ. of California, Santa Barbara
10:20-10:40	<i>Robust Control of Jump Parameter Systems Governed by Uncertain Chains</i> , pp. 2592-2597 Ford, Jason Ugrinovskii, Valery	Australian Defence Force Acad. Australian Defence Force Acad.

10:40-11:00	<i>Results on Robust Stabilization of Asymptotically Controllable Systems by Hybrid Feedback</i> , pp. 2598-2603	LAAS - CNRS
	Prieur, Christophe Goebel, Rafal Teel, Andrew R.	Univ. of California, Santa Barbara
11:00-11:20	<i>Control of Limit Cycle Amplitude through Nonsmooth Bifurcations</i> , pp. 2604-2609	Univ. Nacional de Colombia
	Angulo García, Fabiola Di Bernardo, Mario Olivar, Gerard	Univ. di Napoli Federico II Univ. Nacional de Colombia
11:20-11:40	<i>Controlling Attractivity of Friction-Induced Equilibrium Sets</i> , pp. 2610-2615	Eindhoven Univ. of Tech.
	van de Wouw, Nathan Leine, Remco. I. Nijmeijer, Hendrik	ETH Zentrum Eindhoven Univ. of Tech.
11:40-12:00	<i>Robust Stabilization of Jump Polytopic Systems Via Output Feedback</i> , pp. 2616-2621	Nizhny Novgorod State Tech. Univ. Arzamas
	Pakshin, Pavel Mitrofanov, Igor	Nizhny Novgorod State Tech. Univ. Arzamas

TuA17		Arenal I
Nonlinear Output Feedback (Regular Session)		
	Chair: Praly, Laurent Co-Chair: Arcak, Murat	Ec. des Mines de Paris Rensselaer Pol. Inst.
10:00-10:20	<i>Global Asymptotic Stabilization by Output Feedback for Some Non Minimum Phase Non Linear Systems</i> , pp. 2622-2627	ONERA
	Andrieu, Vincent Praly, Laurent	Ec. des Mines de Paris
10:20-10:40	<i>Redesigning a Class of Nonlinear Observers for Certainty-Equivalence Control</i> , pp. 2628-2633	Rensselaer Pol. Inst.
	Arcak, Murat	
10:40-11:00	<i>Global Asymptotic Stabilization by Output Feedback under a State Norm Detectability Assumption</i> , pp. 2634-2639	Ec. des Mines de Paris
	Praly, Laurent Astolfi, Alessandro	Imperial Coll.
11:00-11:20	<i>Robust Observer Design for a Class of Nonlinear Systems</i> , pp. 2640-2645	Pontifícia Univ. Católica do Rio Grande do Sul
	Coutinho, Daniel Ferreira Curcio, Marcelo Mladic, Jiri Bazanella, Alexandre S.	Pontifícia Univ. Católica do Rio Grande do Sul Czech Tech. Univ. in Prague Univ. Fed. do Rio Grande do Sul
11:20-11:40	<i>A Generalized Framework for Global Output Feedback Stabilization of Genuinely Nonlinear Systems</i> , pp. 2646-2651	Univ. of Texas, San Antonio
	Polendo, Jason Qian, Chunjiang	Univ. of Texas, San Antonio
11:40-12:00	<i>Global Finite-Time Stabilization of a Class of Uncertain Nonlinear Systems Using Output Feedback</i> , pp. 2652-2657	Univ. of Texas, San Antonio
	Li, Ji Qian, Chunjiang	Univ. of Texas, San Antonio

TuA18		Giralda VI
Automotive (Interactive Session)		
	Chair: Beck, Ralf Co-Chair: Palladino, Luca	RWTH Aachen Univ. Renault SAS
10:00-10:40	<i>A Causal Discrete-Time Estimator-Predictor for Unicycle Trajectory Tracking</i> , pp. 2658-2663	Defence Res. & Dev. Canada
	Lechevin, Nicolas Rabbath, Camille Alain Tsourdos, Antonios White, Brian A.	Defence Res. & Dev. Canada Cranfield Univ. Royal Military Coll. of Sci. Cranfield Univ. RMCS
10:40-11:10	<i>LPV Control for μ-Split Braking Assistance of a Road Vehicle</i> , pp. 2664-2669	Renault SAS
	Palladino, Luca Duc, Gilles Pothin, Richard	Supélec Renault SAS

11:10-11:40	<i>Model Predictive Control of a Parallel Hybrid Vehicle Drivetrain</i> , pp. 2670-2675 Beck, R., Saenger, S., Richert, F., Bollig, A., Neiß, K., Scholt, T., Noreikat, K.-E. & Abel, D.	RWTH Aachen Univ. & DaimlerChrysler AG.
11:40-12:00	<i>A Modeling Framework for Six Degree-Of-Freedom Control of Unmanned Sea Surface Vehicles</i> , pp. 2676-2681 Krishnamurthy, Prashanth Khorrami, Farshad Fujikawa, Stephen	Pol. Univ. Pol. Univ. IntelliTech Microsystems, Inc.
11:40-12:00	<i>Uncertainty Identification for a Nominal LPV Vehicle Model Based on Experimental Data</i> , pp. 2682-2687 Rödönyi, Gábor Bokor, József	Computer & Automation Inst. of HAS Hungarian Acad. of Sci.
11:40-12:00	<i>Linear Parameter-Varying Lean Burn Air-Fuel Ratio Control</i> , pp. 2688-2693 Zhang, Feng Grigoriadis, Karolos M. Franchek, Matthew A. Makki, Imad H.	Univ. of Houston Univ. of Houston Univ. of Houston Ford Motor Company

TuA19		Giralda VII
Learning (Interactive Session)		
	Chair: Limón, Daniel Co-Chair: Farrell, Jay A.	Univ. de Sevilla Univ. of California, Riverside
10:00-10:40	<i>A Locally Weighted Learning Method for Online Approximation Based Control</i> , pp. 2694-2701 Zhao, Yuanyuan Farrell, Jay A.	Univ. of California, Riverside Univ. of California, Riverside
10:40-11:10	<i>Comparison of Generalization Performances for Support Vector Machines*</i> Zheng, Chonghong Jiao, Licheng	Xidian Univ. Xidian Univ.
11:10-11:40	<i>Bayesian Network Modeling of Offender Behavior for Criminal Profiling</i> , pp. 2702-2709 Baumgartner, Kelli A. Crews Ferrari, Silvia Salfati, C. Gabrielle	Duke Univ. Duke Univ. John Jay Coll. of Criminal Justice, City Univ. of New York
11:40-12:00	<i>Macro-Actions in Model-Free Intelligent Control with Application to pH Control</i> , pp. 2710-2715 Syam, Syafie Tadeo, Fernando Martinez, Ernesto	Univ. de Valladolid Univ. de Valladolid Ingar
11:40-12:00	<i>Monitoring-Motivated Modeling with Large Datasets from Industrial Control Systems*</i> Nilsson, Linus Holst, Jan	Lund Inst. of Tech. Lund Inst. of Tech.

TuA20		Giralda VIII
Control Education I (Interactive Session)		
	Chair: Basso, Michele Co-Chair: Giarre, Laura	Univ. degli Studi di Firenze Univ. di Palermo
10:00-10:40	<i>Learning Research Methods and Processes Via Sharing Experience in a BLOG</i> , pp. 2716-2720 Giarre, Laura Jaccheri, Letizia	Univ. di Palermo Norwegian Univ. of Sci. & Tech.
10:40-11:10	<i>Active Learning in Control Education</i> , pp. 2721-2726 Reguera, Perfecto Fuertes, Juan José Domínguez, Manuel León De la Barra, Bernardo	Univ. de León Univ. de León Univ. de León Univ. of Tasmania
11:10-11:40	<i>Engineering Concepts: Exploiting a Systems and Control Perspective</i> , pp. 2727-2732 Djaferis, Theodore E. Dobosh, Paul Vozdolsky, Nikolay Santana, Rafael	Univ. of Massachusetts Mount Holyoke Coll. Univ. of Massachusetts Univ. of Massachusetts

11:40-12:00

Real-Time Control with Linux: A Web Services Approach, pp. 2733-2738

Basso, Michele
Bucher, Roberto
Romagnoli, Marco
Vassalli, Massimo

Univ. degli Studi di Firenze
Scuola Univ. Professionale
Univ. degli Studi di Firenze
Istituto Nazionale di Ottica Applicata

11:40-12:00

Design and Development of a Low-Cost Test-Bed for Undergraduate Education in UAVs, pp. 2739-2744

Jung, Dongwon
Levy, Emmanuel
Zhou, Debao
Fink, Rebecca
Moshe, Jonathan
Earl, Andrew
Tsiotras, Panagiotis

Georgia Inst. of Tech.
Georgia Inst. of Tech.
Georgia Inst. of Tech.
Georgia Inst. of Tech.
Georgia Inst. of Tech.
Georgia Inst. of Tech.
Georgia Inst. of Tech.

11:40-12:00

*A Holistic Approach to Undergraduate Control Systems Laboratory**

Gildin, Eduardo
Bishop, Robert H.
Lin, Nicholas

Univ. of Texas at Austin
Univ. of Texas at Austin
Univ. of Texas at Austin

TuB01

Giralda I

Discrete Event Systems (Regular Session)

Chair: Lennartson, Bengt
Co-Chair: Gaudin, Benoit

Chalmers Univ. of Tech.
IRISA

13:30-13:50

On the Design of Optimal and Robust Supervisors for Deterministic Finite State Automata, pp. 2745-2750

Lagoa, Constantino M.

Pennsylvania State Univ.

13:50-14:10

Efficient Analysis of Large Discrete-Event Systems with Binary Decision Diagrams, pp. 2751-2756

Vahidi, Arash
Lennartson, Bengt
Fabian, Martin

Chalmers Univ. of Tech.
Chalmers Univ. of Tech.
Chalmers Univ. of Tech.

14:10-14:30

Using Model Checking to Solve Supervisor Synthesis Problems, pp. 2757-2762

Morgenstern, Andreas
Schneider, Klaus

Univ. of Kaiserslautern
Univ. of Kaiserslautern

14:30-14:50

Supervisory Control and Deadlock Avoidance Control Problem for Concurrent Discrete Event Systems, pp. 2763-2768

Gaudin, Benoit
Marchand, Herve

IRISA
IRISA - INRIA Rennes

14:50-15:10

Theory for a Control Architecture of Fuzzy Discrete Event Systems for Decision Making, pp. 2769-2774

Lin, Feng
Ying, Hao
Luan, Xiaodong
MacAtthur, Rodger
Cohn, Jonathan
Barth-Jones, Daniel
Crane, Lawrence

Wayne State Univ.
Wayne State Univ.
Wayne State Univ.
Wayne State Univ.
Wayne State Univ.
Wayne State Univ.
Wayne State Univ.

15:10-15:30

Supremal Sublanguages of General Specification Languages Arising in Modular Control of Discrete-Event Systems, pp. 2775-2780

Komenda, Jan
van Schuppen, Jan H.

Czech Acad. of Sci.
Centrum voor Wiskunde en Informatica

TuB02

Giralda IV

Optimal Control III (Regular Session)

Chair: Postlethwaite, Ian
Co-Chair: Fujioka, Hisaya

Univ. of Leicester
Kyoto Univ.

13:30-13:50

Nonlinear Robust Performance Analysis Using Gradient-Based Optimisation - an Aeroelastic Case-Study, pp. 2781-2786

Kim, Jongrae
Bates, Declan G.
Postlethwaite, Ian

Univ. of Leicester
Univ. of Leicester
Univ. of Leicester

13:50-14:10

Path Following of Optimal Trajectories Using Preview Control, pp. 2787-2792

Farooq, Asif
Limebeer, David John

MBDA UK Ltd
Imperial Coll.

14:10-14:30	<i>Formulation of a Hamiltonian Cauchy Problem for Solving Optimal Feedback Control Problems</i> , pp. 2793-2798	Univ. of Michigan Univ. of Michigan
	Park, Chandeok Scheeres, Daniel	
14:30-14:50	<i>Convergence of Pseudospectral Methods for a Class of Discontinuous Optimal Control</i> , pp. 2799-2804	Naval Postgraduate School Naval Postgraduate School Naval Postgraduate School
	Kang, Wei Gong, Qi Ross, I. Michael	
14:50-15:10	<i>On Scalar LQG Control with Communication Cost</i> , pp. 2805-2810	California Inst. of Tech. California Inst. of Tech. California Inst. of Tech. California Inst. of Tech.
	Ko, Chih-Kai Gao, Xiaojie Prajna, Stephen Schulman, Leonard J.	
15:10-15:30	<i>Semidefinite Programming and Reachable Sets of Dissipative Bilinear Control Systems</i> , pp. 2811-2816	Harvard Univ. Harvard Univ.
	Stefanatos, Dionisis Khaneja, Navin	

TuB03 Giralda II
Motion Coordination: Models, Complexity and Algorithms (Invited Session)

	Chair: Martinez, Sonia Co-Chair: Bullo, Francesco Organizer: Martinez, Sonia Organizer: Bullo, Francesco	Univ. of California, Santa Barbara Univ. of California, Santa Barbara Univ. of California, Santa Barbara Univ. of California, Santa Barbara
13:30-13:50	<i>Curve Shortening and Its Application to Multi-Agent Systems (I)</i> , pp. 2817-2822	Univ. of Toronto Univ. of Toronto Univ. of Toronto
	Smith, Stephen L. Broucke, Mireille E. Francis, Bruce	
13:50-14:10	<i>Motion Coordination Using Virtual Nodes (I)</i> , pp. 2823-2828	Massachusetts Inst. of Tech. Massachusetts Inst. of Tech. Massachusetts Inst. of Tech.
	Lynch, Nancy Mitra, Sayan Nolte, Tina	
14:10-14:30	<i>Localization with Imprecise Distance Information in Sensor Networks (I)</i> , pp. 2829-2834	Yale Univ. The Australian National Univ. Yale Univ.
	Cao, Ming Anderson, Brian D.O. Morse, A. Stephen	
14:30-14:50	<i>Distributed, Geodesic Control Laws for Flocking of Nonholonomic Agents (I)</i> , pp. 2835-2840	Univ. of Pennsylvania Univ. of Pennsylvania Univ. of Pennsylvania
	Jadbabaie, Ali Moshtagh, Nima Daniilidis, Kostas	
14:50-15:10	<i>Natural Frames and Interacting Particles in Three Dimensions (I)</i> , pp. 2841-2846	Univ. of Maryland Univ. of Maryland
	Justh, Eric Krishnaprasad, P. S.	
15:10-15:30	<i>On Synchronous Robotic Networks - Part I: Models, Tasks and Complexity Notions (I)</i> , pp. 2847-2852	Univ. of California, Santa Barbara Univ. of California, Santa Barbara Univ. of California, Santa Cruz Univ. of California, Los Angeles
	Martinez, Sonia Bullo, Francesco Cortes, Jorge Frazzoli, Emilio	

TuB04 Utrera
Adaptive Control II (Regular Session)

	Chair: de Queiroz, Marcio Co-Chair: Prandini, Maria	Louisiana State Univ. Pol. di Milano
13:30-13:50	<i>A Self-Optimizing Switching Control Scheme for Uncertain ARMAX Systems</i> , pp. 2853-2858	Pol. di Milano
	Prandini, Maria	
13:50-14:10	<i>Variable Structure Adaptive Pole Placement Control</i> , pp. 2859-2864	Fed. Univ. of Rio Grande do Norte Fed. Univ. of Rio Grande do Norte
	Silva, Jr., Francisco C. Araújo, Aldayr Dantas de	

14:10-14:30	Gain Bounds for Switched Adaptive Controllers , pp. 2865-2870	Univ. of Southampton Tech. Univ. Ilmenau
	French, Mark Trenn, Stephan	
14:30-14:50	Stochastic Passivity and Its Application in Adaptive Control , pp. 2871-2876	Tel Aviv Univ. Taas Israel Industries
	Shaked, Uri Yaesh, I.	
14:50-15:10	Asymptotic Robust Adaptive Tracking of Parametric Strict-Feedback Systems with Additive Disturbance , pp. 2877-2882	Louisiana State Univ. Louisiana State Univ. Clemson Univ.
	Cai, Zhijun de Queiroz, Marcio Dawson, Darren M.	
15:10-15:30	The Iterative Learning Control Based Approach for Local Ramp Metering , pp. 2883-2888	Beijing Jiaotong Univ. National Univ. of Singapore Beijing Jiaotong Univ.
	Hou, Zhongsheng Xu, Jian-Xin Jiang, Daming	

TuB05 Lebrija

Quadratic Differential Forms and Their Applications (Invited Session)

	Chair: Rapisarda, Paolo	Univ. Maastricht
	Co-Chair: Pillai, Harish	Indian Inst. of Tech., Bombay
	Organizer: Rapisarda, Paolo	Univ. Maastricht
	Organizer: Pillai, Harish	Indian Inst. of Tech., Bombay
	Organizer: Willems, Jan C.	Katholieke Univ. Leuven
13:30-13:50	The Behavioral LQ-Problem for Linear nD-Systems (I) , pp. 2889-2892	Univ. of Groningen Univ. of Groningen
	Napp, Diego Trentelman, Harry L.	
13:50-14:10	Interpolation with Bilinear Differential Forms (I) , pp. 2893-2898	Indian Inst. of Tech., Bombay, India. Univ. of Southampton Indian Inst. of Tech., Bombay
	Pendharkar, Ishan Rapisarda, Paolo Pillai, Harish	
14:10-14:30	The Behavioral Approach to Discrete-Time Deterministic Kalman Filtering on the Di-Polynomial Ring (I) , pp. 2899-2904	Osaka Univ. Osaka Univ.
	Kaneko, Osamu Fujii, Takao	
14:30-14:50	Optimality with Respect to Blips (I) , pp. 2905-2910	Katholieke Univ. Leuven Univ. di Padova
	Willems, Jan C. Valcher, Maria Elena	
14:50-15:10	A Generalized Lyapunov Stability Theorem for Discrete-Time Systems Based on Quadratic Difference Forms (I) , pp. 2911-2916	Kyoto Univ. Kyoto Univ.
	Takaba, Kiyotsugu Kojima, Chiaki	
15:10-15:30	Vector-Exponential Time-Series Modeling for Polynomial J-Spectral Factorization (I) , pp. 2917-2921	Indian Inst. of Tech., Bombay, India. Indian Inst. of Tech., Bombay Univ. of Southampton
	Pendharkar, Ishan Pillai, Harish Rapisarda, Paolo	

TuB06 Prado

Robust Analysis (Regular Session)

	Chair: Petersen, Ian R.	Australian Defence Force Acad. Royal Inst. of Tech.
	Co-Chair: Jonsson, Ulf T.	
13:30-13:50	A Notion of Controllability for Uncertain Linear Systems with Structured Uncertainty , pp. 2922-2927	Australian Defence Force Acad.
	Petersen, Ian R.	
13:50-14:10	A Kalman Decomposition for Robustly Unobservable Uncertain Linear Systems , pp. 2928-2932	Univ. of New South Wales
	Petersen, Ian R.	
14:10-14:30	Robust Stability Analysis of Single-Parameter Dependent Descriptor Systems , pp. 2933-2938	Kobe Univ. Kobe Univ.
	Sakuwa, Ryohei Fujisaki, Yasumasa	

14:30-14:50

Computation of Tight Uncertainty Bounds from Time-Domain Data with Application to a Reactive Distillation Column, pp. 2939-2944

Völker, Marten
Engell, Sebastian

Univ. Dortmund
Univ. Dortmund

14:50-15:10

Observer Design for a Class of Switched Systems, pp. 2945-2950

Chen, Jialing
Lagoa, Constantino M.

Pennsylvania State Univ.
Pennsylvania State Univ.

15:10-15:30

Limit Cycle Analysis Using a System Right Inverse, pp. 2951-2956

Jonsson, Ulf T.
Megretski, Alexandre

Royal Inst. of Tech.
Massachusetts Inst. of Tech.

TuB07

Estepa

Complexity in Biological Systems (Regular Session)

Chair: Enciso, German Andres
Co-Chair: Tsakalis, Kostas

Rutgers Univ.
Arizona State Univ.

13:30-13:50

A Remark on Multistability for Monotone Systems II, pp. 2957-2962

Enciso, German A.
Sontag, Eduardo D.

Mathematical Biosciences Inst.
Rutgers Univ.

13:50-14:10

Tradeoffs in Gene Regulatory Networks: The Plasmid Replication Control Problem, pp. 2963-2968

Lestas, Ioannis
Vinnicombe, Glenn
Bishop, Tom

Univ. of Cambridge
Univ. of Cambridge
Univ. of Cambridge

14:10-14:30

Models for Multi-Specie Chemical Reactions Using Polynomial Stochastic Hybrid Systems, pp. 2969-2974

Singh, Abhyudai
Hespanha, João P.

Univ. of California, Santa Barbara
Univ. of California, Santa Barbara

14:30-14:50

Control of Epileptic Seizures: Models of Chaotic Oscillator Networks, pp. 2975-2981

Tsakalis, Kostas
Chakravarthy, Niranjan
Iasemidis, Leonidas

Arizona State Univ.
Arizona State Univ.
Arizona State Univ.

14:50-15:10

Metabolic Design of Macroscopic Models: Application to CHO Cells, pp. 2982-2989

Provost, Agnes
Bastin, Georges
Agathos, Spyridon
Schneider, Yves-Jacques

Univ. Catholique de Louvain
Univ. Catholique de Louvain
Univ. Catholique de Louvain
Univ. Catholique de Louvain

15:10-15:30

Controller Falsification in Automatic Drug Delivery for Neuromuscular Blockade Control, pp. 2990-2995

Agnoloni, Tommaso
Manuelli, Claudia
Mosca, Edoardo

Univ. of Florence
Univ. degli Studi di Firenze
Univ. of Florence

TuB08

Triana

The Joint Spectral Radius: Computational Issues (Invited Session)

Chair: Blondel, Vincent
Co-Chair: Wirth, Fabian R.
Organizer: Blondel, Vincent
Organizer: Wirth, Fabian R.

Univ. Catholique de Louvain
National Univ. of Ireland, Maynooth
Univ. Catholique de Louvain
National Univ. of Ireland, Maynooth

13:30-13:50

Convergence in Multiagent Coordination, Consensus, and Flocking (I), pp. 2996-3000

Blondel, Vincent
Hendrickx, Julien M.
Olshevsky, Alexander
Tsitsiklis, John

Univ. Catholique de Louvain
Univ. Catholique de Louvain
Massachusetts Inst. of Tech.
Massachusetts Inst. of Tech.

13:50-14:10

The Geometric Approach for Computing the Joint Spectral Radius (I), pp. 3001-3006

Protasov, Vladimir

Lomonosov Moscow State Univ.

14:10-14:30

Polytope Norms and Related Algorithms for the Computation of the Joint Spectral Radius. (I), pp. 3007-3012

Guglielmi, Nicola
Zennaro, Marino

Univ. degli Studi dell'Aquila
Univ. of Trieste

14:30-14:50

Construction of Optimal Norms for Semi-Groups of Matrices (I), pp. 3013-3018

Maesumi, Mohsen

Lamar Univ.

14:50-15:10

[On the Structure of the Set of Extremal Norms of a Linear Inclusion \(I\)](#), pp. 3019-3024

Wirth, Fabian R.

National Univ. of Ireland, Maynooth

15:10-15:30

[Applications of the Joint Spectral Radius to Some Problems of Functional Analysis, Probability and Combinatorics \(I\)](#), pp. 3025-3030

Protasov, Vladimir

Lomonosov Moscow State Univ.

TuB09

Nervion III

Process Control II (Regular Session)

Chair: Atherton, Derek P.

Univ. of Sussex

Co-Chair: Dumont, Guy A.

Univ. of British Columbia

13:30-13:50

[Two-Dimensional Frequency Analysis of Structured Uncertainty for Multiple Array Paper Machine Cross-Directional Processes](#), pp. 3031-

3036

Fan, Junqiang

Honeywell

Dumont, Guy A.

Univ. of British Columbia

13:50-14:10

[Decentralized Constrained Optimal Control Approach to Distributed Paper Machine Control](#), pp. 3037-3042

Borrelli, Francesco

Univ. del Sannio

Keviczky, Tamás

Univ. of Minnesota

Stewart, Greg E

Honeywell Automation and Control Solutions

14:10-14:30

[Control of Nitrate Flow in Pre-Denitrification Systems Using Long-Range Identification for Predictive Control](#), pp. 3043-3048

Lara, José Maria Vargas

Univ. of Campinas

Milani, Basilio E. A.

Univ. of Campinas

14:30-14:50

[Adaptive Feedforward Control with Parameter Estimation for the Chylla-Haase Polymerization Reactor](#), pp. 3049-3054

Graichen, Knut

Univ. of Stuttgart

Hagenmeyer, Veit

BASF Aktiengesellschaft

Zeitz, Michael

Univ. of Stuttgart

14:50-15:10

[Improved Cascade Control Structure and Controller Design](#), pp. 3055-3060

Kaya, Ibrahim

Inonu Univ.

Tan, Nusret

Inonu Univ.

Atherton, Derek P.

Univ. of Sussex

15:10-15:30

[Real Time Modeling and Control in Plasma Arc Fabrication of Intermetallic Coatings](#), pp. 3061-3066

Alaeddine, Marios

Childrens Hospital Boston, Harvard Medical School

Ranganathan, Rajesh

Northeastern Univ.

Ando, Teiichi

Northeastern Univ.

Doumanidis, Haris

Univ. of Cyprus

TuB10

Arenal III

Adaptive and Fault-Tolerant Systems (Regular Session)

Chair: Geering, Hans P.

ETH Zurich

Co-Chair: Ashley, Jeffrey

Univ. of Kentucky

13:30-13:50

[Revisiting Different Adaptive Observers through a Unified Formulation](#), pp. 3067-3072

Zhang, Qinghua

INRIA

13:50-14:10

[Robust Model-Based Fault Detection Using Adaptive Robust Observers](#), pp. 3073-3078

Garimella, Phanindra

Purdue Univ.

Yao, Bin

Purdue Univ.

14:10-14:30

[Extended Multiple Model Adaptive Estimation for the Detection of Sensor and Actuator Faults](#), pp. 3079-3084

Rupp, Daniel

ETH Zurich

Ducard, Guillaume

ETH Zurich

Shafai, Esfandiar

ETH Zurich

Geering, Hans P.

ETH Zurich

14:30-14:50

[A Fault Detection Scheme Using Condition Systems.](#), pp. 3085-3090

Ashley, Jeffrey

Univ. of Kentucky

Holloway, Lawrence E.

Univ. of Kentucky

14:50-15:10

[A Fault Tolerant Sliding Mode Controller for Accommodating Actuator Failures.](#), pp. 3091-3096

Corradini, Maria Letizia

Univ. di Camerino

Orlando, Giuseppe

Univ. Pol. delle Marche

Parlangeli, Gianfranco

Univ. di Lecce

15:10-15:30

[Using Kolmogorov-Smirnov Tests to Detect Track-Loss in the Absence of Truth Data](#), pp. 3097-3104

Powers, Richard
Pao, Lucy Y.

Univ. of Colorado, Boulder
Univ. of Colorado, Boulder

TuB11

Carmona

Stochastic Systems: Estimation, Identification and Control (Invited Session)

Chair: Pasik-Duncan, Bozenna
Co-Chair: Ljung, Lennart
Organizer: Pasik-Duncan, Bozenna

Univ. of Kansas
Linköpings Univ.
Univ. of Kansas

13:30-13:50

[System Identification with Analog and Counting Process Observations I: Hybrid Stochastic Intensity and Likelihood. \(I\)](#), pp. 3105-3110

Solo, Victor

Univ. of Michigan

13:50-14:10

[Introducing Robustness in Iterative Control \(I\)](#), pp. 3111-3116

Bittanti, Sergio
Campi, M. C.
Garatti, Simone

Pol. di Milano
Univ. di Brescia
Pol. Di Milano

14:10-14:30

[Open-Loop versus Closed-Loop Identification of Box-Jenkins Models: A New Variance Analysis \(I\)](#), pp. 3117-3122

Bombois, Xavier
Gevers, Michel
Scorletti, Gerard

Delft Univ. of Tech.
Univ. Catholique de Louvain
Univ. de Caen

14:30-14:50

[Object Tracking by Scattered Directional Sensors \(I\)](#), pp. 3123-3128

Plarre, Kurt
Kumar, P. R.

Univ. of Illinois, Urbana-Champaign
Univ. of Illinois, Urbana-Champaign

14:50-15:10

[Consistent Nonparametric Estimation of NARX Systems Using Convex Optimization \(I\)](#), pp. 3129-3134

Roll, Jacob
Enqvist, Martin
Ljung, Lennart

Linköpings Univ.
Linköpings Univ.
Linköpings Univ.

15:10-15:30

[Sampling and Parameter Estimation for a Second Order Linear System with a Fractional Brownian Motion \(I\)](#), pp. 3135-3139

Duncan, Tyrone E.
Pasik-Duncan, Bozenna

Univ. of Kansas
Univ. of Kansas

TuB12

Nervion II

Distributed Parameter Systems II (Invited Session)

Chair: Demetriou, Michael A.
Co-Chair: Krstic, Miroslav
Organizer: Demetriou, Michael A.

Worcester Pol. Inst.
Univ. of California, San Diego
Worcester Pol. Inst.

13:30-13:50

[Feedback Control of Low Dimensional Models of Transition to Turbulence \(I\)](#), pp. 3140-3145

Burns, John A
Singler, John

Virginia Pol. Inst. and State Univ.
Virginia Pol. Inst. and State Univ.

13:50-14:10

[Simultaneous Boundary Control of a Rao-Nakra Sandwich Beam \(I\)](#), pp. 3146-3151

Hansen, Scott
Rajaram, Rajeev

Iowa State Univ.
Iowa State Univ.

14:10-14:30

[Sensor Network Design for Parameter Estimation of Distributed Systems Using Nonsmooth Optimality Criteria \(I\)](#), pp. 3152-3157

Ucinski, Dariusz

Univ. of Zielona Gora

14:30-14:50

[Uniform Observability of the Wave Equation Via a Discrete Ingham Inequality \(I\)](#), pp. 3158-3163

Negreanu, Mihaela
Zuazua, Enrique

Univ. Complutense de Madrid
Univ. Autónoma de Madrid

14:50-15:10

[Lyapunov Adaptive Stabilization of Parabolic PDEs: Part I - a Benchmark for Boundary Control \(I\)](#), pp. 3164-3169

Krstic, Miroslav

Univ. of California, San Diego

15:10-15:30

[Lyapunov Adaptive Stabilization of Parabolic PDEs: Part II - Output Feedback and Other Benchmark Problems](#), pp. 3170-3175

Krstic, Miroslav

Univ. of California, San Diego

TuB13		Ecija
Applications II (Regular Session)		
Chair: Hara, Shinji		The Univ. of Tokyo
Co-Chair: Bacic, Marko		Univ. of Oxford
13:30-13:50		
<i>Application of MPC to an Active Structure Using Sampling Rates up to 25kHz</i> , pp. 3176-3181		
Wills, Adrian		The Univ. of Newcastle
Bates, Dale		The Univ. of Newcastle
Fleming, Andrew J.		The Univ. of Newcastle
Ninness, Brett		The Univ. of Newcastle
Moheimani, S.O. Reza		The Univ. of Newcastle
13:50-14:10		
<i>Covering Problems and Immunization in Scale-Free Networks with Degree Correlations*</i>		
Moreno Vega, Yamir		Univ. of Zaragoza
14:10-14:30		
<i>Feedback Control of Quantum Entanglement in a Two-Spin System</i> , pp. 3182-3187		
Yamamoto, Naoki		California Inst. of Tech.
Tsumura, Koji		Univ. of Tokyo
Hara, Shinji		Univ. of Tokyo
14:30-14:50		
<i>Time Minimal Trajectories for Two-Level Quantum Systems with Drift</i> , pp. 3188-3193		
Boscain, Ugo V.		SISSA - ISAS
Mason, Paolo		SISSA - ISAS
14:50-15:10		
<i>On Hardware-In-The-Loop Simulation</i> , pp. 3194-3198		
Bacic, Marko		Univ. of Oxford
15:10-15:30		
<i>Robust Trajectory Control of Robot Manipulators Using Time Delay Estimation and Internal Model Concept</i> , pp. 3199-3206		
Cho, Gun Rae		Korea Adv. Inst. of Sci. & Tech.
Chang, Pyung Hun		Korea Adv. Inst. of Sci. & Tech.
Park, Sang Hyun		Korea Adv. Inst. of Sci. & Tech.
TuB14		Santa Cruz
Convergence of Information Transmission and Control II (Invited Session)		
Chair: Charalambous, Charalambos D.		Univ. of Cyprus
Co-Chair: Dey, Subhrakanti		The Univ. of Melbourne
Organizer: Charalambous, Charalambos D.		Univ. of Cyprus
Organizer: Dey, Subhrakanti		The Univ. of Melbourne
13:30-13:50		
<i>Problems in Decentralized Sensor-Actuator Networks (I)</i> , pp. 3207-3212		
Li, Keyong		Boston Univ.
Baillieul, John		Boston Univ.
13:50-14:10		
<i>A Markov Decision Approach to Feedback Channel Capacity (I)</i> , pp. 3213-3218		
Tatikonda, Sekhar		Yale Univ.
14:10-14:30		
<i>Shannon Zero Error Capacity and the Problem of Almost Sure Observability Over Noisy Communication Channels (I)</i> , pp. 3219-3224		
Matveev, Alexey S.		St. Petersburg State Univ.
Savkin, Andrey V.		Univ. of New South Wales
14:30-14:50		
<i>Control Over Wireless Communication Channel for Continuous-Time Systems (I)</i> , pp. 3225-3230		
Charalambous, Charalambos D.		Univ. of Cyprus
Denic, Stojan		Univ. of Ottawa
Farhadi, Alireza		Univ. of Ottawa
14:50-15:10		
<i>Structural Results on the Optimal Transmission Scheduling Policies and Costs for Correlated Sources and Channels (I)</i> , pp. 3231-3236		
Krishnamurthy, Vikram		Univ. of British Columbia
Djonin, Dejan		Univ. of British Columbia
15:10-15:30		
<i>System Identification with Analog and Counting Process Observations II: Mutual Information</i> , pp. 3237-3242		
Solo, Victor		Univ. of Michigan

TuB15	Giralda V
Fuzzy Systems (Regular Session)	
Chair: El Hajjaji, Ahmed Co-Chair: Guerra, Thierry Marie	Univ. de Picardie-Jules Verne Univ. of Valenciennes
13:30-13:50 <i>Robust H(infinity) Fuzzy Control Design for Markovian Jump Systems</i> , pp. 3243-3248 Arrifano, Natache S. D. Oliveira, Vilma A.	Univ. de Sao Paulo Univ. de Sao Paulo
13:50-14:10 <i>Multiscale Fuzzy State Estimation Using Stationary Wavelet Transforms</i> , pp. 3249-3254 Nounou, Hazem	United Arab Emirates Univ.
14:10-14:30 <i>New Approaches for the Stabilization of Discrete Takagi-Sugeno Fuzzy Models</i> , pp. 3255-3260 Guerra, Thierry Marie Kruszewski, Alexandre	Univ. of Valenciennes Univ. de Valenciennes et du Hainaut-Cambrésis
14:30-14:50 <i>A Multi-Modeling Strategy Based on Belief Function Theory</i> , pp. 3261-3266 Ramdani, Messaoud Mourot, Gilles Ragot, Jose	Univ. of Annaba Inst. National Pol. De Lorraine CRAN-INPL
14:50-15:10 <i>Two Fuzzy Multiple Reference Model Tracking Control Designs with an Application to Vehicle Lateral Dynamics Control</i> , pp. 3267-3272 Pages, Olivier El Hajjaji, Ahmed	Univ. of Picardie Jules Verne Univ. of Picardie Jules Verne
15:10-15:30 <i>Matrix Expression of Logic and Fuzzy Control</i> , pp. 3273-3278 Cheng, Daizhan Qi, Hongsheng	Chinese Acad. of Sci. Chinese Acad. of Sci.
TuB16	Giralda III
Stability and Stabilization of Switched Systems (Regular Session)	
Chair: Colaneri, Patrizio Co-Chair: Antsaklis, Panos J.	Pol. di Milano Univ. of Notre Dame
13:30-13:50 <i>On Stability and L2-Gain for Switched Systems</i> , pp. 3279-3284 Zhao, Jun Hill, David J.	Northeastern Univ. The Australian National Univ.
13:50-14:10 <i>Stability of Nonlinear Switched Systems on the Plane</i> , pp. 3285-3290 Boscain, Ugo V. Charlot, Grégoire Sigalotti, Mario	SISSA - ISAS Univ. of Montpellier II INRIA Sophia Antipolis
14:10-14:30 <i>A Converse Lyapunov Theorem for Uncertain Switched Linear Systems</i> , pp. 3291-3296 Lin, Hai Antsaklis, Panos J.	Univ. of Notre Dame Univ. of Notre Dame
14:30-14:50 <i>A Stabilizing Time-Switching Control Strategy for the Rolling Sphere</i> , pp. 3297-3302 Casagrande, Daniele Astolfi, Alessandro Parisini, Thomas	Univ. of Trieste Imperial Coll. Univ. of Trieste
14:50-15:10 <i>Coupled Dynamic Systems: From Structure towards State Agreement</i> , pp. 3303-3308 Lin, Zhiyun Francis, Bruce Maggiore, Manfredi	Univ. of Toronto Univ. of Toronto Univ. of Toronto
15:10-15:30 <i>Stabilization of Continuous-Time Nonlinear Switched Systems</i> , pp. 3309-3314 Colaneri, Patrizio Geromel, Jose C. Astolfi, Alessandro	Pol. di Milano UNICAMP Imperial Coll.

TuB17	Arenal I
Output Regulation (Regular Session)	
Chair: Serrani, Andrea	The Ohio State Univ.
Co-Chair: Ding, Zhengtao	The Univ. of Manchester
13:30-13:50	
<i>Nonlinear Output Regulation without Immersion</i> , pp. 3315-3320	
Byrnes, Christopher I.	Washington Univ.
Isidori, Alberto	Washington Univ.
Marconi, Lorenzo	Univ. degli Studi di Bologna
Praly, Laurent	Ec. des Mines de Paris
13:50-14:10	
<i>Output Regulation for a Class of Nonlinear Systems with Unknown Sinusoidal Disturbances</i> , pp. 3321-3326	
Marino, Riccardo	Univ. degli Studi di Roma, Tor Vergata
Santosuosso, Giovanni L.	Univ. degli Studi di Roma, Tor Vergata
14:10-14:30	
<i>The Linear Periodic Output Regulation Problem</i> , pp. 3327-3332	
Zhang, Zhen	The Ohio State Univ.
Serrani, Andrea	The Ohio State Univ.
14:30-14:50	
<i>Tracking and Disturbance Rejection for Passive Nonlinear Systems</i> , pp. 3333-3338	
Jayawardhana, Bayu	Imperial Coll.
14:50-15:10	
<i>Output Regulation of Descriptor Systems with Periodic Coefficients</i> , pp. 3339-3344	
Ichikawa, Akira	Kyoto Univ.
Katayama, Hitoshi	Shizuoka Univ.
15:10-15:30	
<i>Asymptotic Rejection of General Periodic Disturbances in Output-Feedback Nonlinear Systems</i> , pp. 3345-3350	
Ding, Zhengtao	The Univ. of Manchester
TuB18	Giralda VI
Control of Mechanical/Autonomous Systems (Interactive Session)	
Chair: Smith, Malcolm C.	Univ. of Cambridge
Co-Chair: Scardovi, Luca	Univ. of Genoa
13:30-15:30	
<i>Laboratory Experimental Testing of Inerters</i> , pp. 3351-3356	
Papageorgiou, Christakis	Univ. of Cyprus
Smith, Malcolm C.	Univ. of Cambridge
13:30-15:30	
<i>Statistical Approach for Bias-Free Identification of a Parallel Manipulator Affected by Large Measurement Noise</i> , pp. 3357-3362	
Abdellatif, Housseem	Univ. of Hannover
Heimann, Bodo	Univ. of Hannover
Grotjahn, Martin	IAV GmbH, Gifhorn
13:30-15:30	
<i>Modular Modelling of Flexible Thin Beams in Multibody Systems</i> , pp. 3363-3368	
Ferretti, Gianni	Pol. di Milano
Schiavo, Francesco	Pol. di Milano
Viganò, Luca	Pol. di Milano
13:30-15:30	
<i>LPV Control of a 2-DOF Robot Using Parameter Reduction</i> , pp. 3369-3374	
Kwiatkowski, Andreas	Hamburg Univ. of Tech.
Werner, Herbert	Hamburg Univ. of Tech.
13:30-15:30	
<i>A Robust Hierarchical Approach to Multi-Stage Task Allocation under Uncertainty</i> , pp. 3375-3380	
Li, Dongxu	The Ohio State Univ.
Cruz, Jose B	The Ohio State Univ.
13:30-15:30	
<i>Real Time Trajectory Planning for UAVs Using MILP</i> , pp. 3381-3386	
Kamal, Waseem Ahmed	Univ. of Leicester
Gu, Da-Wei	Univ. of Leicester
Postlethwaite, Ian	Univ. of Leicester

TuIB19		Giralda VII
Fuzzy Systems I (Interactive Session)		
Chair: Schulte, Horst		Univ. Kassel
Co-Chair: Chadli, Mohammed		Univ. de Picardie-Jules Verne
13:30-15:30		
<i>Adaptive Fuzzy Logic Controller for Traffic Signal in Urban Road Network*</i>		
Fan, Xiaoping		Central South Univ.
li, yan		Central South Univ.
13:30-15:30		
<i>Stability Analysis of a Robust Composite Controller for FJR with a Supervisory Loop*</i>		
Ozgoli, Sadjad		K.N. Toosi U. of Tech.
Taghirad, Hamid D.		K.N. Toosi U. of Tech.
13:30-15:30		
<i>Quadratic Stability Analysis of Fuzzy Control Systems*</i>		
Yang, Guang-hong		National Univ. of Singapore
Dong, Jiuxiang		Northeastern Univ.
13:30-15:30		
<i>Approximate Modeling of a Class of Nonlinear Oscillators Using Takagi-Sugeno Fuzzy Systems and Its Application to Control Design</i> , pp. 3387-3392		
Schulte, Horst		Univ. Kassel
13:30-15:30		
<i>Output Robust Stabilisation of Uncertain Takagi-Sugeno Model</i> , pp. 3393-3398		
Chadli, Mohammed		Univ. de Picardie-Jules Verne
El Hajjaji, Ahmed		Univ. de Picardie-Jules Verne
13:30-15:30		
<i>ANFIS Neuro-Fuzzy Modeling of a Pneumatic Leak Testing System</i> , pp. 3399-3403		
Lameda, Carlos		UNEXPO
Volcanes, Alexander		UNEXPO
Arteaga, Francisco J.		Univ. de Carabobo
Rodriguez, Johel		Univ. de Carabobo
TuIB20		Giralda VIII
Control Education II (Interactive Session)		
Chair: Rivera, Daniel E.		Arizona State Univ.
Co-Chair: Leva, Alberto		Pol. di Milano
13:30-15:30		
<i>ICT Tools in a Signals and Systems Course at the Univ. of Rosario</i> , pp. 3404-3408		
Gomez, Juan Carlos		Univ. Nacional de Rosario
Ferradal, Silvina Laura		Univ. Nacional de Rosario
Del Colle, Franco Alberto		Univ. Nacional de Rosario
13:30-15:30		
<i>Turning a Toy into a Didactic Industrial Regulator</i> , pp. 3409-3414		
Leva, Alberto		Pol. di Milano
13:30-15:30		
<i>Evaluating PID Control for Supply Chain Management: A Freshman Design Project</i> , pp. 3415-3419		
Rivera, Daniel E.		Arizona State Univ.
Pew, Michael D.		Arizona State Univ.
13:30-15:30		
<i>Easy Mobile Device Programming for Educational Purposes</i> , pp. 3420-3425		
Pasamontes Romera, Manuel		Univ. de Almeria
Guzman, Jose Luis		Univ. of Almeria
Rodríguez-Díaz, Francisco		Univ. of Almeria
Berenguel, Manuel		Univ. of Almeria
Dormido, Sebastián		Univ. Nacional de Educacion a Distancia
13:30-15:30		
<i>Development of Bluetooth Communications for a LEGO-Based Mobile Robot Laboratories</i> , pp. 3426-3431		
Valera, Angel		Univ. Pol. de Valencia
Valles, Marina		Univ. Pol. de Valencia
Díez, Jose Luis		Univ. Pol. de Valencia
García, Carlos		Univ. Pol. de Valencia
13:30-15:30		
<i>Platform for Virtual Problem-Based Learning in Control Engineering Education</i> , pp. 3432-3437		
Ramos Paja, Carlos Andres		Univ. del Valle
Ramirez Scarpetta, Jose Miguel		Univ. del Valle
Franco Mejia, Edinson		Univ. del Valle

TuIB21		Hall Triana
Estimation and Control for Nonlinear Systems (Interactive Session)		
Chair: Bodson, Marc		Univ. of Utah
Co-Chair: Reger, Johann		Univ. der Bundeswehr München
13:30-15:30		
<i>Observability of Speed in an Induction Motor from Stator Currents and Voltages</i> , pp. 3438-3443		
Li, Mengwei		The Univ. of Tennessee
Chiasson, John		The Univ. of Tennessee
Bodson, Marc		Univ. of Utah
Tolbert, Leon		The Univ. of Tennessee
13:30-15:30		
<i>Parameter Identification of Hammerstein Models Using Elimination Theory</i> , pp. 3444-3449		
Wang, Kaiyu		The Univ. of Tennessee
Bodson, Marc		Univ. of Utah
Chiasson, John		The Univ. of Tennessee
Tolbert, Leon		The Univ. of Tennessee
13:30-15:30		
<i>Estimation of the Power Coefficient in a Wind Turbine Conversion System</i> , pp. 3450-3455		
Dodson, Lee		Northumbria Univ.
Busawon, Krishna K.		Northumbria Univ.
Jovanovic, Milutin		Northumbria Univ.
13:30-15:30		
<i>Nonlinear Control of Variable Speed Wind Turbines without Wind Speed Measurement</i> , pp. 3456-3461		
Boukhezzer, Boubekeur		Supélec
Siguerdidjane, Houria		Supélec
13:30-15:30		
<i>Output Tracking of Nonlinear Nonminimum Phase Systems: An Engineering Solution</i> , pp. 3462-3467		
Li, Dong		DSO National Lab.
TuC01		Giralda I
The Supervisory Control of Discrete-Event Systems (Invited Session)		
Chair: Takai, Shigemasa		Kyoto Inst. of Tech.
Co-Chair: Rohloff, Kurt		The Univ. of Illinois
Organizer: Takai, Shigemasa		Kyoto Inst. of Tech.
Organizer: Rohloff, Kurt		The Univ. of Illinois
16:00-16:20		
<i>Analysis of Arbitrarily Large Networks of Discrete-Event Systems (I)</i> , pp. 3468-3473		
Thistle, John G.		Univ. of Waterloo
Nazari, Siamak		Univ. of Waterloo
16:20-16:40		
<i>Modular Supervisory Control with General Indecomposable Specification Languages (I)</i> , pp. 3474-3479		
Komenda, Jan		Czech Acad. of Sci.
van Schuppen, Jan H.		Centrum voor Wiskunde en Informatica
Gaudin, Benoit		IRISA
Marchand, Herve		IRISA - INRIA Rennes
16:40-17:00		
<i>Inference-Based Ambiguity Management in Decentralized Decision-Making: Decentralized Control of Discrete Event Systems (I)</i> , pp. 3480-3485		
Kumar, Ratnesh		Iowa State Univ.
Takai, Shigemasa		Kyoto Inst. of Tech.
17:00-17:20		
<i>Decentralized Supervisory Control of a Distributed Filling Shop Using Standardized Models (I)</i> , pp. 3486-3492		
Wenck, Florian		Hamburg Univ. of Tech.
17:20-17:40		
<i>Sensor Failure Tolerant Supervisory Control (I)</i> , pp. 3493-3498		
Rohloff, Kurt		BBN Tech.
17:40-18:00		
<i>Synthesis of State Feedback Controllers for Parameterized Discrete Event Systems under Partial Observation</i> , pp. 3499-3506		
Bherer, Hans		Univ. Laval
Desharnais, Jules		Univ. Laval
St-Denis, Richard		Univ. de Sherbrooke

TuC02	Giralda IV
Optimal Control IV (Regular Session)	
Chair: Engwerda, Jacob	Tilburg Univ.
Co-Chair: Kravaris, Costas	Univ. of Patras
16:00-16:20	
<i>Uniqueness Conditions for the Infinite-Planning Horizon Open-Loop Linear Quadratic Differential Game</i> , pp. 3507-3512	
Engwerda, Jacob	Tilburg Univ.
16:20-16:40	
<i>Convergence Properties of the Newton-Kantorovich Iteration for the Hamilton-Jacobi-Bellman Equation</i> , pp. 3513-3518	
Kravaris, Costas	Univ. of Patras
Mousavere, Dimitra	Univ. of Patras
16:40-17:00	
<i>A Viability Approach to Hamilton-Jacobi Equations: Application to Concave Highway Traffic Flux Functions</i> , pp. 3519-3524	
Aubin, Jean-pierre	LASTRE
Bayen, Alexandre M.	Univ. of California, Berkeley
Saint-Pierre, Patrick	Univ. Paris Dauphine
17:00-17:20	
<i>Optimal Control for Autonomous Task Execution</i> , pp. 3525-3530	
Botturi, Debora	Univ. of Verona
Fiorini, Paolo	Univ. of Verona
17:20-17:40	
<i>Asymptotic Solution of Singularly Perturbed Nonlinear Discrete Periodic Optimal Control Problem</i> , pp. 3531-3536	
Kurina, Galina	Voronezh State Forestry Acad.
Nekrasova, Natalya	Voronezh State Forestry Acad.
17:40-18:00	
<i>Computation of the Excitability Index for Linear Oscillators</i> , pp. 3537-3540	
Andrievsky, Boris R.	Inst. For Problems of Mechanical Engineering of RAS
TuC03	Giralda II
Cooperative Sensing and Control (Regular Session)	
Chair: Jadbabaie, Ali	Univ. of Pennsylvania
Co-Chair: Murray, Richard M.	California Inst. of Tech.
16:00-16:20	
<i>Hybrid Cooperative Reconnaissance without Communication</i> , pp. 3541-3546	
Otanez, Paul	Cornell Univ.
Campbell, Mark E.	Cornell Univ.
16:20-16:40	
<i>On Sensor Fusion in the Presence of Packet-Dropping Communication Channels</i> , pp. 3547-3552	
Gupta, Vijay	California Inst. of Tech.
Hassibi, Babak	California Inst. of Tech.
Murray, Richard M.	California Inst. of Tech.
16:40-17:00	
<i>Smoothly Blending Vector Fields for Global Robot Navigation</i> , pp. 3553-3559	
Lindemann, Stephen	Univ. of Illinois, Urbana-Champaign
LaValle, Steven	Univ. of Illinois, Urbana-Champaign
17:00-17:20	
<i>Electronic Leashing of an Unmanned Aircraft to a Radio Source</i> , pp. 3560-3565	
Dixon, Cory	Univ. of Colorado, Boulder
Frew, Eric W.	Univ. of Colorado, Boulder
17:20-17:40	
<i>Stable Cooperative Multiagent Spatial Distributions</i> , pp. 3566-3571	
Finke, Jorge	The Ohio State Univ.
Passino, Kevin	The Ohio State Univ.
17:40-18:00	
<i>Architecture and Application Abstractions for Multi-Agent Collaboration Projects</i> , pp. 3572-3577	
Caveney, Derek	Univ. of California, Berkeley
Sengupta, Raja	Univ. of California, Berkeley
TuC04	Utrera
Adaptation and Identification (Regular Session)	
Chair: Tomei, Patrizio	Univ. degli Studi di Roma, Tor Vergata
Co-Chair: Araujo, Aldayr Dantas de	Fed. Univ. of Rio Grande do Norte
16:00-16:20	
<i>A Direct Method for Robust Adaptive Nonlinear Control with Unknown Hysteresis</i> , pp. 3578-3583	
Wang, Qingqing	Concordia Univ.
Su, Chun-Yi	Concordia Univ.
Ge, Shuzhi	National Univ. of Singapore

16:20-16:40

Cost-Detectability and Stability of Adaptive Control Systems, pp. 3584-3589

Wang, Rengrong
Paul, Ayanendu
Stefanovic, Margareta
Safonov, Michael G.

Univ. of Southern California
Marger Johnson and McCollom
Univ. of Wyoming
Univ. of Southern California

16:40-17:00

Complex Interval Constraint Propagation for Non Linear Bounded-Error Parameter Identification, pp. 3590-3595

Ramdani, Nacim
Raissi, Tarek
Candau, Yves
Ibos, Laurent

LIRMM, CNRS & Univ. Montpellier 2
LAPS CNRS Bordeaux 1 Univ.
CERTES Univ. Paris 12
CERTES Univ. Paris 12

17:00-17:20

A Global Adaptive Learning Control for Robotic Manipulators, pp. 3596-3601

Liuzzo, Stefano
Tomei, Patrizio

Univ. degli Studi di Roma, Tor Vergata
Univ. degli Studi di Roma, Tor Vergata

17:20-17:40

Iterative Feedback Tuning for Robust Controller Design and Optimization, pp. 3602-3607

Prochazka, Hynek
Gevers, Michel
Anderson, Brian D.O.
Ferrera, Christel

Univ. Catholique de Louvain
Univ. Catholique de Louvain
The Australian National Univ.
Univ. Catholique de Louvain

17:40-18:00

System Identification Using Slow and Irregular Output Samples, pp. 3608-3613

Zhu, Yucai
Telkamp, Herman

Eindhoven Univ. Tech.
Jan van Beverwijkstraat 104

TuC05

Lebrija

Linear and Optimal Control (Regular Session)

Chair: Sanz, Arantza
Co-Chair: Skogestad, Sigurd

UPV/EHU
Norwegian Univ. of Sci. & Tech.

16:00-16:20

Composite Robust Control of a Laboratory Flexible Manipulator, pp. 3614-3619

Sanz, Arantza
Etxebarria, Victor

UPV/EHU
Euskal Herriko Unib.

16:20-16:40

Limits of Disturbance Rejection for Indirect Control, pp. 3620-3625

Kariwala, Vinay
Skogestad, Sigurd

Norwegian Univ. of Sci. & Tech.
Norwegian Univ. of Sci. & Tech.

16:40-17:00

Improvement of the Performance in Machine Tools by Means of State Space Control Strategies, pp. 3626-3631

Ruiz de Argandoña Arzallus, Ismael
Zatarain, M.
Illarramendi, A.
Azpeitia, J. L.

Tekniker Tech. Center
Tekniker Tech. Center
Tekniker Tech. Center
Tekniker Tech. Center

17:00-17:20

Linear Quadratic Performance Criteria for Cascade Control, pp. 3632-3637

Gattami, Ather
Rantzer, Anders

Lund Univ.
Lund Univ.

17:20-17:40

On the Singularly Perturbed Matrix Differential Riccati Equation, pp. 3638-3644

Gajic, Zoran R.
Koskie, Sarah
Coumarbatch, Cyril

Rutgers Univ.
Purdue School of Engineering and Tech. IUPUI
Rutgers Univ.

17:40-18:00

*PID-Type Decentralized Controller Design with Backstepping Principle**

Zhang, Yan
Li, Shaoyuan

Shanghai Jiao Tong Univ.
Shanghai Jiao Tong Univ.

TuC06

Prado

Robust Control II (Regular Session)

Chair: Georgiou, Tryphon T.
Co-Chair: Lanzon, Alexander

Univ. of Minnesota
The Australian National Univ.

16:00-16:20

Two Alternative Views on Control Design with Degree Constraints, pp. 3645-3650

Georgiou, Tryphon T.
Lindquist, Anders G.

Univ. of Minnesota
Royal Inst. of Tech.

16:20-16:40

[A Stability Robustness Test for Systems with Linear Time-Varying Uncertainties.](#), pp. 3651-3656

Griggs, Wynita M.
Lanzon, Alexander
Anderson, Brian D.O.

The Australian National Univ.
The Australian National Univ.
The Australian National Univ.

16:40-17:00

[A Newton-Raphson Algorithm for Calculating the Effects of Changes in Weights on an H-Infinity Design](#), pp. 3657-3662

Lanzon, Alexander
Anderson, Brian D.O.
Bombois, Xavier

The Australian National Univ.
The Australian National Univ.
Delft Univ. of Tech.

17:00-17:20

[A Polynomial Matrix Approach for the Solution of the Robust Morgan's Problem Via Restricted State Feedback](#), pp. 3663-3668

Koumboulis, Fotios
Skarpetis, Michael
Koussiouris, Trifon

HALKIS Inst. of Tech.
HALKIS Inst. of Tech.
National Technical Univ. of Athens

17:20-17:40

[Uncertain Variables As a Tool for Design of Uncertain Control Systems](#), pp. 3669-3674

Bubnicki, Zdzislaw

Wroclaw Univ. of Tech.

17:40-18:00

[Optimal Data-Based Errors Quantification in the L1 Setup*](#)

Sokolov, Victor

Komi Sci. Center

TuC07

Estepa

Stability and Sensitivity Analysis in Biological Systems (Regular Session)

Chair: Angeli, David
Co-Chair: Gouze, Jean-Luc

Univ. degli Studi di Firenze
INRIA

16:00-16:20

[A Semi-Definite Programming-Based Underestimation Method for Global Optimization in Molecular Docking](#), pp. 3675-3680

Paschalidis, Ioannis
Shen, Yang
Vajda, Sandor
Vakili, Pirooz

Boston Univ.
Boston Univ.
Boston Univ.
Boston Univ.

16:20-16:40

[On Parametric Sensitivity and Structural Robustness of Cellular Functions -- the Oscillatory Metabolism of Activated Neutrophils](#), pp. 3681-3686

Jacobsen, Elling
Cedersund, Gunnar

Royal Inst. of Tech.
Chalmers Univ.

16:40-17:00

[Phase Sensitivity Analysis of a Circadian Rhythm Gene Network](#), pp. 3687-3692

Gunawan, Rudiyanto
Doyle, Francis

Univ. of California, Santa Barbara
Univ. of California, Santa Barbara

17:00-17:20

[Stability of Equilibria for Piecewise-Linear Models of Genetic Regulatory Networks](#), pp. 3693-3698

Casey, Richard
de Jong, Hidde
Gouze, Jean-Luc

INRIA
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17:20-17:40

[Polytopic Lyapunov Functions for the Stability Analysis of Persistence of Competing Species](#), pp. 3699-3704

Grognard, Frederic
Mazenc, Frédéric
Rapaport, Alain

INRIA Sophia Antipolis
INRIA Sophia Antipolis,
INRA

17:40-18:00

[A New Mechanism for Bistability in Chemical Reaction Networks](#), pp. 3705-3710

Angeli, David

Univ. degli Studi di Firenze

TuC08

Triana

Computational Methods in Optimization (Regular Session)

Chair: Imae, Joe
Co-Chair: Fotiou, Ioannis A.

Osaka Prefecture Univ.
ETH Zurich

16:00-16:20

[Time-Series Gaussian Process Regression Based on Toeplitz Computation of \$O\(N^2\)\$ Operations and \$O\(N\)\$ -Level Storage](#), pp. 3711-3716

Zhang, Yunong
Leithead, William
Leith, Douglas J.

National Univ. of Ireland, Maynooth
Univ. of Strathclyde
National Univ. of Ireland, Maynooth

16:20-16:40	<i>Optimal Smoothing Splines for Detecting Extrema from Observational Data</i> , pp. 3717-3722	
	Fujioka, Hiroyuki Kano, Hiroyuki	Tokyo Denki Univ. Tokyo Denki Univ.
16:40-17:00	<i>Order of Convergence in the Direct Transcription Solution of Optimal Control Problems</i> , pp. 3723-3728	
	Engelsone, Anna Campbell, Stephen L. Betts, John T.	North Carolina State Univ. North Carolina State Univ. The Boeing Co.
17:00-17:20	<i>Algorithmic Control for Real-Time Optimization of Nonlinear Systems: Simulations and Experiments</i> , pp. 3729-3734	
	Imae, Joe Yoshizumi, Kazutaka Kobayashi, Tomoaki Zhai, Guisheng	Osaka Prefecture Univ. Osaka Prefecture Univ. Osaka Prefecture Univ. Osaka Prefecture Univ.
17:20-17:40	<i>Nonlinear Parametric Optimization Using Cylindrical Algebraic Decomposition</i> , pp. 3735-3740	
	Fotiou, Ioannis A. Parrilo, Pablo A. Morari, Manfred	ETH Zurich Massachusetts Inst. of Tech. ETH Zurich
17:40-18:00	<i>A New Strategy to the Multi-Objective Control of Linear Systems</i> , pp. 3741-3746	
	Coutinho, Marcelo Coutinho, Daniel Ferreira Trofino, Alexandre Barbosa, Karina	Univ. Fed. de Santa Catarina Pontifícia Univ. Católica do Rio Grande do Sul Fed. Univ. of Santa Catarina Univ. do Sul de Santa Catarina
TuC09		Nervion III
Robust Predictive Control (Regular Session)		
	Chair: Kerrigan, Eric C. Co-Chair: van den Boom, Ton J. J.	Univ. of Cambridge Delft Univ. of Tech.
16:00-16:20	<i>Robust Model Predictive Control for Time-Varying Systems</i> , pp. 3747-3752	
	Richards, Arthur	Univ. of Bristol
16:20-16:40	<i>State Feedback Policies for Robust Receding Horizon Control: Uniqueness, Continuity, and Stability</i> , pp. 3753-3758	
	Goulart, Paul J. Kerrigan, Eric C. Maciejowski, Jan M.	Univ. of Cambridge Univ. of Cambridge Univ. of Cambridge
16:40-17:00	<i>Robustly Stabilizing MPC for Perturbed PWL Systems</i> , pp. 3759-3764	
	Necoara, Ion De Schutter, Bart van den Boom, Ton J. J. Hellendoorn, Hans	Delft Univ. of Tech. Delft Univ. of Tech. Delft Univ. of Tech. Delft Univ. of Tech.
17:00-17:20	<i>Uncertain Nonlinear Receding Horizon Control Systems Subject to Non-Zero Computation Time</i> , pp. 3765-3770	
	Gholami, Behnood Gordon, Brandon W. Rabbath, Camille Alain	Concordia Univ. Concordia Univ. Defence Res. & Dev. Canada
17:20-17:40	<i>Nonlinear Model Predictive Control via Interval Analysis</i> , pp. 3771-3776	
	Lydoire, Fabien Poignet, Philippe	LIRMM - UMR 5506 Univ. Montpellier 2
17:40-18:00	<i>Robust MPC Based on Multivariable RBF-ARX Model for Nonlinear Systems</i> , pp. 3777-3782	
	Peng, Hui Gui, Weihua Nakano, Kazushi Shioya, Hideo	Central South Univ. Central South Univ. The Univ. of Electro-Communications Bailey Japan Co. Ltd.

TuC10	Arenal III
Fault Detection and Accomodation (Regular Session)	
Chair: Simandl, Miroslav Co-Chair: Blackmore, Lars	Univ. of West Bohemia in Pilsen Massachusetts Inst. of Tech.
16:00-16:20 <i>H_(infy) Stochastic Stabilization of Active Fault Tolerant Control Systems: Convex Approach</i> , pp. 3783-3788	
Aberkane, Samir Sauter, Dominique D.J. Ponsart, Jean-Christophe Theilliol, Didier	Univ. Henri Poincare, Nancy 1 Univ. Henri Poincare, Nancy 1 Univ. Henri Poincare, Nancy 1 Univ. Henri Poincare, Nancy 1
16:20-16:40 <i>Rolling Horizon for Active Fault Detection</i> , pp. 3789-3794	
Simandl, Miroslav Puncochar, Ivo Kralovec, Jakub	Univ. of West Bohemia in Pilsen Univ. of West Bohemia in Pilsen Univ. of West Bohemia in Pilsen
16:40-17:00 <i>Finite Horizon Control Design for Optimal Model Discrimination</i> , pp. 3795-3802	
Blackmore, Lars Williams, Brian	Massachusetts Inst. of Tech. Massachusetts Inst. of Tech.
17:00-17:20 <i>H_{infinity} Dynamic Observer Design with Application in Fault Detection and Diagnosis.</i> , pp. 3803-3808	
Pertew, Amr Marquez, Horacio J. Zhao, Qing	Univ. of Alberta Univ. of Alberta Univ. of Alberta
17:20-17:40 <i>A New Fault Diagnosis Algorithm That Improves the Integration of Fault Detection and Isolation</i> , pp. 3809-3814	
Puig, Vicenç Schmid, Frank Quevedo, Joseba Pulido, Belarmino	Univ. Pol. de Catalunya Univ. Pol. de Catalunya Univ. Pol. de Catalunya Univ. de Valladolid
17:40-18:00 <i>Design of an Active Fault Tolerant Control and Polytopic Unknown Input Observer for Systems Described by a Multi-Model Representation</i> , pp. 3815-3820	
Rodrigues, Mickael Theilliol, Didier Sauter, Dominique D.J.	Univ. Henri Poincare, Nancy 1 Univ. Henri Poincare, Nancy 1 Univ. Henri Poincare, Nancy 1
TuC11	
Stochastic Modeling and Statistical Methods in Fault Detection (Regular Session)	
Chair: Basseville, Michele Co-Chair: Kruger, Uwe	CNRS Queens Univ. of Belfast
16:00-16:20 <i>Nonlinear System Fault Detection and Isolation Based on Bootstrap Particle Filters</i> , pp. 3821-3826	
Zhang, Qinghua Campillo, Fabien Cerou, Frederic LeGland, Francois	IRISA - INRIA IRISA - INRIA IRISA - INRIA IRISA - INRIA
16:20-16:40 <i>Compensation Terms to Improve Fault Detection in Multivariate Auto-Correlated Processes</i> , pp. 3827-3831	
Lieftucht, Dirk Kruger, Uwe Irwin, George W.	Queen's Univ. of Belfast Queens Univ. of Belfast Queen's Univ. of Belfast
16:40-17:00 <i>Handling Nuisance Parameters in Systems Monitoring</i> , pp. 3832-3837	
Basseville, Michele Nikiforov, Igor V.	IRISA - CNRS, Rennes Univ. de Tech. Troyes
17:00-17:20 <i>Diagnosis of Parametric Faults Based on Identification and Statistical Methods</i> , pp. 3838-3843	
Brito Palma, Luis F. F. Coito, Fernando José Neves da Silva, Rui	Univ. Nova de Lisboa UNL - Faculty of Sci. & Tech. UNL-FCT
17:20-17:40 <i>A Statistical System for Detection, Diagnosis, and Prognosis of Abrupt and Slow Changes in Supervised Objects*</i>	
Kulczycki, Piotr	Pol. Acad. of Sci.
17:40-18:00 <i>Synthesis of Fault Tolerant Control with Random FDI Delay</i> , pp. 3844-3849	
Tao, Feng Zhao, Qing	Univ. of Alberta Univ. of Alberta

TuC12	Nervion II
Modelling, Estimation and Control of Distributed Parameter Systems (Invited Session)	
Chair: Weiss, George	Imperial Coll.
Co-Chair: Demetriou, Michael A.	Worcester Pol. Inst.
Organizer: Weiss, George	Imperial Coll.
Organizer: Demetriou, Michael A.	Worcester Pol. Inst.
16:00-16:20	
<i>Stability and Stabilization of a Class of Boundary Control Systems (I)</i> , pp. 3850-3855	
Villegas, Javier Andres	Univ. Twente
Zwart, Hans	Univ. Twente
Le Gorrec, Yann	LAGEP, Univ. Claude Bernard Lyon 1
Maschke, Bernhard	Univ. Claude Bernard Lyon 1
van der Schaft, Arjan J.	Univ. of Groningen
16:20-16:40	
<i>Tools for Analysis of Dirac Structures on Banach Spaces (I)</i> , pp. 3856-3861	
Iftime, Orest V.	Univ. of Groningen
Sandovici, A.	Univ. of Groningen
Golo, Goran	Shell Nl. Raf. B.V.
16:40-17:00	
<i>Coprime Factorizations and Stabilizability of Infinite Dimensional Linear Systems (I)</i> , pp. 3862-3867	
Mikkola, Kalle Mikael	Helsinki Univ. of Tech.
17:00-17:20	
<i>Primal and Dual Problems in Electrical Impedance Imaging (I)</i> , pp. 3868-3873	
Polydorides, Nick	Univ. of Cyprus
Charalambous, Charalambos D.	Univ. of Cyprus
17:20-17:40	
<i>Internal and Boundary Controllability of the Plate Equation and of the Schrödinger Equation (I)*</i>	
RAMDANI, Karim	Univ. Henri Poincaré Nancy 1
Takahashi, Takéo	Inst. Elie Cartan de Nancy
Tucsnaik, M.	Univ. of Nancy
17:40-18:00	
<i>Unknown Input Observers for a Class of Distributed Parameter Systems (I)</i> , pp. 3874-3879	
Demetriou, Michael A.	Worcester Pol. Inst.
Rosen, I. Gary	Univ. of Southern California
TuC13	
Applications III (Regular Session)	
Ecija	
Chair: Ioannou, Petros A.	Univ. of Southern California
Co-Chair: Kelly, Scott	Univ. of Illinois, Urbana-Champaign
16:00-16:20	
<i>Adaptive Vehicle Following Control System with Variable Time Headways</i> , pp. 3880-3885	
Zhang, Jianlong	Univ. of Southern California
Ioannou, Petros A.	Univ. of Southern California
16:20-16:40	
<i>Multirate Track-Following Control with Robust Stability for a Dual-Stage Multi-Sensing Servo System in HDDs</i> , pp. 3886-3891	
Nagamune, Ryozi	Univ. of California, Berkeley
Huang, Xinghui	Univ. of California, Berkeley
Horowitz, Roberto	Univ. of California, Berkeley
16:40-17:00	
<i>Optimization of the Design for a Switched Reluctance Drive Controlled by Trapezoidal Shaped Currents</i> , pp. 3892-3897	
Sauvey, Christophe	Univ. de Metz
Antoine, Jean-François, Olivier	Univ. of Metz
Visa, Codrut Ion Alin	Univ. of Metz
Abba, Gabriel	Ec. Nat. d'Ingenieurs de Metz
17:00-17:20	
<i>A Controller to Avoid Both Occlusions and Obstacles During a Vision-Based Navigation Task in a Cluttered Environment</i> , pp. 3898-3903	
Folio, David	LAAS - CNRS
Cadenat, Viviane	LAAS - CNRS
17:20-17:40	
<i>Controlled Hydrodynamic Interactions in Schooling Aquatic Locomotion</i> , pp. 3904-3910	
Kelly, Scott	Univ. of Illinois, Urbana-Champaign
Xiong, Hailong	Univ. of Illinois, Urbana-Champaign
17:40-18:00	
<i>A Control Strategy for Force Sensing Mechanism in Bare-Fiber Polishing</i> , pp. 3911-3915	
Tseng, Yih-tun	National Sun Yat-Sen Univ.
Liu, Jui-Hung	National Sun Yat-Sen Univ.
Chang, Chung-Heng	National Sun Yat-Sen Univ.

TuC14	Santa Cruz
Oscillatory Systems (Regular Session)	
Chair: Leonard, Naomi Ehrich Co-Chair: Canudas de Wit, Carlos	Princeton Univ. ENSIEG - INPG
16:00-16:20 <i>The Oscillations Killer: A Mechanism to Eliminate Undesired Limit Cycles in Nonlinear Systems.*</i> Canudas de Wit, Carlos Aracil, Javier Gordillo, Francisco Salas Gómez, Francisco	CNRS-LAG-Grenoble Univ. de Sevilla Univ. de Sevilla Univ. de Sevilla
16:20-16:40 <i>On Synchronization of Kuramoto Oscillators</i> , pp. 3916-3922 Chopra, Nikhil Spong, Mark W.	Univ. of Illinois, Urbana-Champaign Univ. of Illinois, Urbana-Champaign
16:40-17:00 <i>Global Considerations on the Kuramoto Model of Sinusoidally Coupled Oscillators</i> , pp. 3923-3928 Monzon, Pablo Paganini, Fernando	Univ. de la República Univ. ORT Uruguay
17:00-17:20 <i>Collective Motion of Ring-Coupled Planar Particles</i> , pp. 3929-3934 Jeanne, James McClure Leonard, Naomi Ehrich Paley, Derek	Princeton Univ. Princeton Univ. Princeton Univ.
17:20-17:40 <i>Oscillator Models and Collective Motion: Splay State Stabilization of Self-Propelled Particles</i> , pp. 3935-3940 Paley, Derek A. Leonard, Naomi Ehrich Sepulchre, Rodolphe J.	Princeton Univ. Princeton Univ. Univ. de Liege
17:40-18:00 <i>Integral and Second Order Sliding Mode Control of Harmonic Oscillator</i> , pp. 3941-3946 Kaveh, Parisa Ashrafi, Ashkan Shtessel, Yuri B.	Univ. of Alabama, Huntsville Univ. of Alabama, Huntsville Univ. of Alabama, Huntsville
TuC15	
Airspace De-Confliction (Tutorial Session)	
Chair: Parthasarathy, Sanjay Co-Chair: Jackson, Mike R. C. Organizer: Parthasarathy, Sanjay Organizer: Samad, Tariq	Honeywell Tech. Center Honeywell Aerospace Electronic Systems Honeywell Tech. Center Honeywell Lab.
16:00-16:30 <i>Airborne Tech. for Distributed Air Traffic Management (I)</i> , pp. 3947-3954 Jackson, Mike R. C. Sharma, Vivek Haissig, Christine M. Elgersma, Michael R.	Honeywell Aerospace Electronic Systems Honeywell Honeywell Honeywell Lab.
16:30-16:50 <i>Decentralized Receding Control of Cooperative Vehicle Formations (I)</i> , pp. 3955-3960 Borrelli, Francesco Keviczky, Tamás Fregene, Kingsley C. Balas, Gary J.	Univ. del Sannio Univ. of Minnesota Honeywell Lab. Univ. of Minnesota
16:50-17:10 <i>Auto-ACAS - Robust Nuisance-Free Collision Avoidance (I)</i> , pp. 3961-3963 Sundqvist, Bengt-Göran	Saab AB
17:10-17:30 <i>A Pilot Decision Support Tool for Merging behind a Lead Aircraft (I)</i> , pp. 3964-3969 Ivanescu, Dan Shaw, Chris Hoffman, Eric Zeghal, Karim	Eurocontrol Experimental Centre / Steria Eurocontrol Experimental Centre Eurocontrol Experimental Centre Eurocontrol Experimental Centre

TuC16	Giralda III
Stability of Switched Systems (Regular Session)	
Chair: Gonzalez, Oscar R.	Old Dominion Univ.
Co-Chair: Teel, Andrew R.	Univ. of California, Santa Barbara
16:00-16:20	
<i>Stabilization of a Class of Planar Nonlinear Systems</i> , pp. 3970-3975	
Tocchini, Fabrizio	Univ. of Pisa
Greco, Luca	Univ. of Pisa
Innocenti, Mario	Univ. of Pisa
16:20-16:40	
<i>On the Stabilisation of a Class of SISO Switched Linear Systems</i> , pp. 3976-3981	
Wulff, Kai	Univ. of Magdeburg
Wirth, Fabian R.	National Univ. of Ireland, Maynooth
Shorten, Robert	National Univ. of Ireland, Maynooth
16:40-17:00	
<i>Comparison of Hysteresis Current Controllers Using Nonsmooth Lyapunov Functions</i> , pp. 3982-3987	
Cavini, Alessandro	Univ. degli Studi di Bologna
Rossi, Carlo	Univ. degli Studi di Bologna
Tilli, Andrea	Univ. degli Studi di Bologna
17:00-17:20	
<i>Precise Solution of Stability Problem for Linear Plane Switched Systems</i> , pp. 3988-3991	
Zevin, Alexandr	Acad. of Sci. of Ukraine
Pinsky, Mark A.	Univ. of Nevada.Reno
17:20-17:40	
<i>On Input-To-State Stability of Impulsive Systems</i> , pp. 3992-3997	
Hespanha, João P.	Univ. of California, Santa Barbara
Liberzon, Daniel	Univ. of Illinois, Urbana-Champaign
Teel, Andrew R.	Univ. of California, Santa Barbara
17:40-18:00	
<i>Some Results on Practical Asymptotic Stabilizability of Switched Systems</i> , pp. 3998-4003	
Xu, Xuping	Pennsylvania State Erie
Zhai, Guisheng	Osaka Prefecture Univ.
TuC17	
Tracking in Nonlinear Systems (Regular Session)	
Arenal I	
Chair: Li, Hongyi	Tokyo Denki Univ.
Co-Chair: Pettersen, Kristin Y.	Norwegian Univ. of Sci. & Tech.
16:00-16:20	
<i>A Comparison of Task Driven and Information Driven Sensor Management for Target Tracking</i> , pp. 4004-4009	
Kreucher, Christopher	General Dynamics
Hero, Alfred O.	Univ. of Michigan
Kastella, Keith	General Dynamics
16:20-16:40	
<i>An Efficient Algorithm for Tracking Multiple Maneuvering Targets</i> , pp. 4010-4015	
Oh, Songhwai	Univ. of California, Berkeley
Sastry, Shankar	Univ. of California, Berkeley
16:40-17:00	
<i>DMDL for Choreography</i> , pp. 4016-4021	
Li, Hongyi	Tokyo Denki Univ.
Brockett, Roger	Harvard Univ.
17:00-17:20	
<i>Asymptotic Tracking for Nonlinear Systems Using Fictitious Inputs</i> , pp. 4022-4027	
Anritter, Felix	Univ. Erlangen-Nürnberg
Deutscher, Joachim	Univ. Erlangen-Nürnberg
17:20-17:40	
<i>Adaptive Way-Point Tracking Control for Underactuated Autonomous Vehicles</i> , pp. 4028-4034	
Børhaug, Even	Norwegian Univ. of Sci. & Tech.
Pettersen, Kristin Y.	Norwegian Univ. of Sci. & Tech.
17:40-18:00	
<i>Periodic Motion Planning for Virtually Constrained (Hybrid) Mechanical Systems</i> , pp. 4035-4040	
Shiriaev, Anton	Umea Univ.
Robertsson, Anders	Lund Inst. of Tech.
Perram, John	Odense Univ.
Sandberg, Anders	Umeå Univ.

TuIC18		Giralda VI
Aerospace (Interactive Session)		
Chair: Canuto, Enrico S.		Pol. di Torino
Co-Chair: Mettler, Bernard		Massachusetts Inst. of Tech.
16:00-18:00		
<i>Drag-Free and Attitude Control for the GOCE Satellite</i> , pp. 4041-4046		
Andreis, Davide		Pol. di Torino
Canuto, Enrico S.		Pol. di Torino
16:00-18:00		
<i>Using Meta-Heuristics in the Control of a Non-Linear Input Delay Laboratory Helicopter System</i> , pp. 4047-4052		
Iqbal, Asif		Univ. of Siegen
Roesch, Otto		Univ. of Siegen
Roth, Hubert		Univ. of Siegen
Rasool, Asad		Univ. of Siegen
16:00-18:00		
<i>Hybrid Evolutionary Optimisation Methods for the Clearance of Nonlinear Flight Control Laws</i> , pp. 4053-4058		
Menon, Prathyush P		Univ. of Leicester
Bates, Declan G.		Univ. of Leicester
Postlethwaite, Ian		Univ. of Leicester
16:00-18:00		
<i>Final Glide-Back Envelope Computation for Reusable Launch Vehicle Using Reachability</i> , pp. 4059-4064		
Kitsios, Ioannis		Hellenic Air Force
Lygeros, John		Univ. of Patras
16:00-18:00		
<i>A Multivariable Nonlinear H_{∞} Controller for a Laboratory Helicopter</i> , pp. 4065-4070		
Lopez-Martinez, Manuel		Univ. de Sevilla
Vivas, Carlos		Univ. de Sevilla
Ortega, M. G.		Univ. de Sevilla
16:00-18:00		
<i>Receding Horizon Trajectory Optimization with an Environment-Based Cost-To-Go Function</i> , pp. 4071-4076		
Mettler, Bernard		Massachusetts Inst. of Tech.
Toupet, Olivier		Massachusetts Inst. of Tech.
TuIC19		Giralda VII
Fuzzy Systems II (Interactive Session)		
Chair: Nounou, Hazem		United Arab Emirates Univ.
Co-Chair: Moreno-Armendariz, Marco A.		Univ. La Salle
16:00-18:00		
<i>Combination Rules of Fuzzy Sets Via Random Set Formulation*</i>		
Zhu, Yunmin		Sichuan Univ.
Zhou, Jie		Sichuan Univ.
16:00-18:00		
<i>Adaptive Fuzzy Sliding Mode Control for Time-Delay Uncertain Large-Scale Systems</i> , pp. 4077-4082		
Chiang, Chiang-Cheng		Tatung Univ.
16:00-18:00		
<i>An Adaptive Noise Canceler by Partially Recurrent Fuzzy System</i> , pp. 4083-4088		
Er, Meng Joo		Nanyang Tech. Univ.
Li, Zhengrong		Nanyang Tech. Univ.
16:00-18:00		
<i>System Identification Using Hierarchical Fuzzy Neural Networks with Stable Learning Algorithms</i> , pp. 4089-4094		
Yu, Wen		CINVESTAV
Moreno-Armendariz, Marco A.		Univ. La Salle
16:00-18:00		
<i>Locally Optimal Takagi-Sugeno Fuzzy Controllers</i> , pp. 4095-4099		
Farahmand, Amir massoud		Univ. of Tehran
Yazdanpanah, M. J.		Tehran Univ.
16:00-18:00		
<i>Application of Fuzzy Decision in Lighting Control of Cities</i> , pp. 4100-4104		
Zhang, Chenghui		Shandong Univ.
Cui, Naxin		Shandong Univ.
Zhong, Maiying		Shandong Univ.
Cheng, Zhaolin		Shandong Univ.

TuIC20		Giralda VIII
Neural Networks II (Interactive Session)		
Chair: Huang, Yuan Can Co-Chair: Hayakawa, Tomohisa		Beijing Inst. of Tech. Japan Sci. & Tech. Agency
16:00-18:00 <i>Stability Analysis for Dynamical Neural Networks with Distributed Delays</i> , pp. 4105-4110 Chen, Wu-Hua Zheng, Wei Xing		Guangxi Univ. Univ. of Western Sydney
16:00-18:00 <i>Applying SOM As a Search Mechanism for Dynamic System</i> , pp. 4111-4116 Chen, Yi-Yuan Young, Kuu-young		National Chiao-Tung Univ. National Chiao-Tung Univ.
16:00-18:00 <i>A New Characterization on the Approximation of Nonlinear Functions Via Neural Networks: An Adaptive Control Perspective</i> , pp. 4117-4122 Hayakawa, Tomohisa		Japan Sci. & Tech. Agency
16:00-18:00 <i>Neural Network-Based GPS GDOP Approximation and Classification*</i> Jwo, Dah-Jing Lai, Chien-Cheng		National Taiwan Ocean Univ. National Taiwan Ocean Univ.
16:00-18:00 <i>Neural Network -Based Nearly Optimal Hamilton-Jacobi-Bellman Solution for Affine Nonlinear Discrete-Time Systems</i> , pp. 4123-4128 Chen, Zheng Jagannathan, Sarangapani		Michigan State Univ. The Univ. of Missouri - Rolla
16:00-18:00 <i>Lagrange-Type Neural Networks for Nonlinear Programming Problems with Inequality Constraints</i> , pp. 4129-4133 Huang, Yuan Can		Beijing Inst. of Tech.
TuIC21		Hall Triana
Modeling and Estimation (Interactive Session)		
Chair: Arahal, Manuel R. Co-Chair: Soverini, Umberto		Univ. de Sevilla Univ. degli Studi di Bologna
16:00-18:00 <i>On the Generalization of the Koopmans-Levin Estimation Method</i> , pp. 4134-4139 Vajk, Istvan Hetthessy, Jeno		Budapest Univ. of Tech. and Ec. Budapest Univ. of Tech. and Ec.
16:00-18:00 <i>A Noise-Compensated Estimation Scheme for AR Processes</i> , pp. 4140-4145 Diversi, Roberto Guidorzi, Roberto P. Soverini, Umberto		Univ. degli Studi di Bologna Univ. degli Studi di Bologna Univ. degli Studi di Bologna
16:00-18:00 <i>Accelerating Simulations of First Principle Models of Complex Industrial Systems Using Quasi Linear Parameter Varying Models</i> , pp. 4146-4151 Bos, Robert Bombois, Xavier Van den Hof, Paul M.J.		Delft Univ. of Tech. Delft Univ. of Tech. Delft Univ. of Tech.
16:00-18:00 <i>Numerical Sensitivity of the Backstepping Adaptive Tuning Functions Control Design</i> , pp. 4152-4157 Pozo, Francesc Ikhouane, Fayçal Rodellar, José		Univ. Pol. de Catalunya Univ. Pol. de Catalunya Univ. Pol. de Catalunya
16:00-18:00 <i>Discrete-Time Nonlinear FIR Models with Integrated Variables for Greenhouse Indoor Temperature Simulation</i> , pp. 4158-4162 Arahal, Manuel R. Rodríguez, Francisco Ramírez-Arias, Armando Berenguel, Manuel		Univ. de Sevilla Univ. de Almería Univ. Autónoma Chapingo Univ. de Almería
16:00-18:00 <i>Adding Interactivity to Existing Simulink Models Using Easy Java Simulations</i> , pp. 4163-4168 Dormido, Sebastián Esquembre, Francisco Farias Castro, Gonzalo Sánchez Moreno, José		Univ. Nacional de Educacion a Distancia Univ. de Murcia Univ. Nacional de Educacion a Distancia Univ. Nacional de Educacion a Distancia

WePSP1	Giralda I
Semi-Plenary Session III (Semi-Plenary Session)	
Chair: Fleming, P.J.	Univ. of Sheffield
Co-Chair: Tempo, Roberto	Pol. di Torino
08:30-09:30	
<i>Identification for Control: From the Early Achievements to the Revival of Experiment Design*</i>	
Gevers, Michel	Univ. Catholique de Louvain
WePSP2	Santa Cruz
Semi-Plenary Session IV (Semi-Plenary Session)	
Chair: Yurkovich, Stephen	The Ohio State Univ.
Co-Chair: Albertos, Pedro	Univ. Pol. de Valencia
08:30-09:30	
<i>Fun-To-Drive by Feedback*</i>	
Canudas de Wit, Carlos	CNRS-LAG-Grenoble
WeA01	Giralda I
Analysis and Control of Hybrid Systems (Regular Session)	
Chair: Goncalves, Jorge M.	Univ. of Cambridge
Co-Chair: Mosterman, Pieter	The MathWorks, Inc.
10:00-10:20	
<i>Reachability Analysis of Continuous-Time Piecewise Linear Systems</i> , pp. 4169-4174	
Hamadeh, Abdullah Omar	Univ. of Cambridge
Goncalves, Jorge M.	Univ. of Cambridge
10:20-10:40	
<i>Control to Facet Problems for Affine Systems on Simplices and Polytopes -- with Applications to Control of Hybrid Systems</i> , pp. 4175-4180	
Habets, Luc C.G.J.M.	Eindhoven Univ. of Tech.
van Schuppen, Jan H.	Centrum voor Wiskunde en Informatica
10:40-11:00	
<i>A New Local Control Strategy for Control of Discrete-Time Piecewise Affine Systems</i> , pp. 4181-4186	
Hodrus, Thomas Erhard	Univ. Karlsruhe (TH)
Buchholz, Michael	Univ. Karlsruhe (TH)
Krebs, Volker G.	Univ. Karlsruhe (TH)
11:00-11:20	
<i>On the Computability of Reachable and Invariant Sets</i> , pp. 4187-4192	
Collins, Pieter	Centrum voor Wiskunde en Informatica
11:20-11:40	
<i>Formalizing Causal Block Diagrams for Modeling a Class of Hybrid Dynamic Systems</i> , pp. 4193-4198	
Denckla, Ben	Denckla Consulting
Mosterman, Pieter	The MathWorks, Inc.
WeA02	Giralda IV
Geometric Methods for Nonlinear Control (Regular Session)	
Chair: Tabuada, Paulo	Univ. of Notre Dame
Co-Chair: Grizzle, Jessy W.	Univ. of Michigan
10:00-10:20	
<i>A Restricted Poincare Map for Determining Exponentially Stable Periodic Orbits in Systems with Impulse Effects: Application to Bipedal Robots</i> , pp. 4199-4206	
Morris, Benjamin	Univ. of Michigan
Grizzle, Jessy W.	Univ. of Michigan
10:20-10:40	
<i>Semi-Global Output Feedback Stabilization of Non-Uniformly Observable and Non-Smoothly Stabilizable Systems</i> , pp. 4207-4212	
Yang, Bo	Case Western Res. Univ.
Lin, Wei	Case Western Res. Univ.
10:40-11:00	
<i>Smooth and Analytic Normal Forms for Strict Feedforward Systems</i> , pp. 4213-4218	
Tall, Issa Amadou	Tougaloo Coll.
Respondek, Witold	Inst. National des Sci. Appliquees
11:00-11:20	
<i>On Nonasymptotic Observation of Nonlinear Systems</i> , pp. 4219-4224	
Reger, Johann	Univ. der Bundeswehr München
Sira-Ramirez, Hebertt J.	CINVESTAV
Fliess, Michel	Ec. Pol.
11:20-11:40	
<i>On the Factorization of Trajectory Lifting Maps</i> , pp. 4225-4230	
Tabuada, Paulo	Univ. of Notre Dame

11:40-12:00

Algebraic Structures of a Rational-In-The-State Representation after Immersion, pp. 4231-4236

Ohtsuka, Toshiyuki

Osaka Univ.

WeA03

Sensor Networks and Cooperative Control (Tutorial Session)

Giralda II

Chair: Cassandras, Christos G.

Co-Chair: Bullo, Francesco

Organizer: Cassandras, Christos G.

Boston Univ.
Univ. of California, Santa Barbara
Boston Univ.

10:00-10:40

Sensor Networks and Cooperative Control (I), pp. 4237-4238

Cassandras, Christos G.

Li, Wei

Boston Univ.
Boston Univ.

10:40-11:10

On Collective Motion in Sensor Networks: Sample Problems and Distributed Algorithms (I), pp. 4239-4244

Ganguli, Anurag

Susca, Sara

Martinez, Sonia

Bullo, Francesco

Cortes, Jorge

Univ. of Illinois, Urbana-Champaign
Univ. of California, Santa Barbara
Univ. of California, Santa Barbara
Univ. of California, Santa Cruz

11:10-11:40

Middleware and Abstractions in the Convergence of Control with Communication and Computation (I), pp. 4245-4250

Baliga, Girish

Graham, Scott

Kumar, P. R.

Univ. of Illinois, Urbana-Champaign
Air Force Inst. of Tech.
Univ. of Illinois, Urbana-Champaign

WeA04

Linear Identification I (Regular Session)

Utrera

Chair: Soderstrom, Torsten

Co-Chair: Zheng, Wei Xing

Uppsala Univ.
Univ. of Western Sydney

10:00-10:20

Noise Tolerant Iterative Learning Control for Identification of Continuous-Time Systems, pp. 4251-4256

Sugie, Toshiharu

Sakai, Fumitoshi

Kyoto Univ.
Nara National Coll. of Tech.

10:20-10:40

An Adaptive Algorithm for Fast Identification of IIR Systems, pp. 4257-4262

Feng, Da-Zheng

Zheng, Wei Xing

Xidian Univ.
Univ. of Western Sydney

10:40-11:00

Convergence of Bias-Eliminating Least Squares Methods for Identification of Dynamic Errors-In-Variables Systems, pp. 4263-4268

Soderstrom, Torsten

Hong, Mei

Zheng, Wei Xing

Uppsala Univ.
Uppsala Univ.
Univ. of Western Sydney

11:00-11:20

Robust Receding-Horizon Estimation for Discrete-Time Linear Systems in the Presence of Bounded Uncertainties, pp. 4269-4274

Alessandri, Angelo

Baglietto, Marco

Battistelli, Giorgio

National Res. Council of Italy
Univ. of Genova
Univ. of Genova

11:20-11:40

Exact Quantification of the Variance of Estimated Zeros, pp. 4275-4280

Mirtensson, Jonas

Hjalmarsson, Håkan

Royal Inst. of Tech.
Royal Inst. of Tech.

11:40-12:00

Accuracy Analysis of the Frisch Scheme for Identifying Errors-In-Variables Systems, pp. 4281-4286

Soderstrom, Torsten

Uppsala Univ.

WeA05

Linear and Bilinear Matrix Inequalities (Regular Session)

Lebrija

Chair: Hoepffner, Jerome

Co-Chair: Peres, Pedro L. D.

Royal Inst. of Tech.
Univ. of Campinas

10:00-10:20

Modeling Flow Statistics Using Convex Optimization, pp. 4287-4292

Hoepffner, Jerome

Royal Inst. of Tech.

10:20-10:40

Distributed Controller Design Aspects for Guaranteed Performance, pp. 4293-4298

Jiang, Shengxiang

Voulgaris, Petros G.

Univ. of Illinois, Urbana-Champaign
Univ. of Illinois, Urbana-Champaign

10:40-11:00

Generalizations of the Nevanlinna-Pick Interpolation Problem, pp. 4299-4304

Fu, Minyue
Mahata, Kaushik

The Univ. of Newcastle
The Univ. of Newcastle

11:00-11:20

Gain Scheduled State Feedback Control of Discrete-Time Systems with Time-Varying Uncertainties: An LMI Approach, pp. 4305-4310

Montagner, Vinícius F.
Oliveira, Ricardo C. L. F.
Leite, Valter J. S.
Peres, Pedro L. D.

Univ. of Campinas
Univ. of Campinas
CEFET/MG - UnED Div.
Univ. of Campinas

11:20-11:40

GPC-LPV: A Predictive LPV Controller Based on BMIs, pp. 4311-4317

Salcedo, Jose Vicente
Martínez Iranzo, Miguel Andrés
Ramos Fernández, César
Herrero Durá, Juan Manuel

Tech. Univ. of Valencia
Tech. Univ. of Valencia
Tech. Univ. of Valencia
Tech. Univ. of Valencia

11:40-12:00

Design of a Structurally Constrained Suboptimal Controller Using an LMI Method, pp. 4318-4323

Kim, Seog-Joo
Moon, Young-Hyun
Kwon, Soonman
Kim, Kook-Hun

Korea Electrotechnology Res. Inst.
Yonsei Univ.
Korea Electrotechnology Res. Inst.
KNICS

WeA06

Prado

Delay Systems I (Regular Session)

Chair: Fridman, E. M.
Co-Chair: Michiels, Wim

Tel Aviv Univ.
Katholieke Univ. Leuven

10:00-10:20

Robust Sampled-Data Control of Linear Singularly Perturbed Systems, pp. 4324-4329

Fridman, E. M.

Tel Aviv Univ.

10:20-10:40

New Frequency Domain Sufficient Conditions for Stability Analysis of Linear Neutral Time-Delay Systems, pp. 4330-4335

Chellaboina, VijaySekhar
Kamath, Ajeet
Haddad, Wassim M.

The Univ. of Tennessee
The Univ. of Tennessee
Georgia Inst. of Tech.

10:40-11:00

Pseudospectra for Analytic Matrix Functions and Application to Time-Delay Systems, pp. 4336-4341

Michiels, Wim
Green, Kirk
Wagenknecht, Thomas
Niculescu, Silviu-Iulian

Katholieke Univ. Leuven
Bristol Univ.
Bristol Univ.
Univ. de Tech. de Compiègne

11:00-11:20

A Switched-Resistors Implementation of Compensators for Wave Reflections in Transmission Lines, pp. 4342-4347

de Rinaldis, Alessandro
Astolfi, Alessandro
Ortega, Romeo
Spong, Mark W.

Supélec
Imperial Coll.
LSS - Supélec
Univ. of Illinois, Urbana-Champaign

11:20-11:40

Methods for Safety Verification of Time-Delay Systems, pp. 4348-4353

Prajna, Stephen
Jadbabaie, Ali

California Inst. of Tech.
Univ. of Pennsylvania

11:40-12:00

Delay-Dependent State Feedback Guaranteed Cost Control for Uncertain Singular Time-Delay Systems, pp. 4354-4359

Gao, Huanli
Zhu, Shuqian
Cheng, Zhaolin
Xu, Bugong

South China Univ. of Tech.
Shandong Univ.
Shandong Univ.
South China Univ. of Tech.

WeA07

Estepa

Control of Robot Manipulators (Regular Session)

Chair: Indri, Marina
Co-Chair: Bona, Basilio

Pol. di Torino
Pol. di Torino

10:00-10:20

Friction Compensation in Robotics: An Overview, pp. 4360-4367

Bona, Basilio
Indri, Marina

Pol. di Torino
Pol. di Torino

10:20-10:40	<i>Pose Regulation of Robot Manipulators with Dynamic Friction Compensation</i> , pp. 4368-4372	CITEDI - IPN CICESE, Mexico
	Moreno, Javier Kelly, Rafael	
10:40-11:00	<i>Adaptive Nonlinear Tracking Control of Kinematically Redundant Robot Manipulators with Sub-Task Extensions</i> , pp. 4373-4378	Clemson Univ. Clemson Univ. Clemson Univ. Clemson Univ.
	Tatlicioglu, Enver McIntyre, Michael Dawson, Darren M. Walker, Ian	
11:00-11:20	<i>Nonlinear Discrete-Time Control Approaches for Underactuated Manipulators</i> , pp. 4379-4384	Univ. of Hannover Rheinmetall Defence Electronics Univ. of Hannover Univ. of Hannover
	Weidemann, Dirk Scherer, Norbert Heimann, Bodo Abdellatif, Houssein	
11:20-11:40	<i>A Robust Differentiator-Controller Design for an Electropneumatic System</i> , pp. 4385-4390	INSA de Lyon INSA de Lyon INSA de Lyon
	Smaoui, Mohamed Brun, Xavier Thomasset, Daniel	
11:40-12:00	<i>A Non-Dexterous Dual Arm Robot's Feasible Orientations Along Desired Trajectories: Analysis & Synthesis</i> , pp. 4391-4396	Bhabha Atomic Res. Centre Indian Inst. of Tech. Bhabha Atomic Res. Centre
	Banerji, Amar Banavar, Ravi N. Venkatesh, Desikachar	

WeA08 Triana

Optimization I (Regular Session)		
	Chair: Nyman, Per-Ole Co-Chair: Hill, Robin	Narvik Univ. Coll. Rmit Univ.
10:00-10:20	<i>Relative Entropy and Moment Problems</i> , pp. 4397-4403	Univ. of Minnesota
	Georgiou, Tryphon T.	
10:20-10:40	<i>Linear Programming and L_1-Norm Minimization Problems with Convolution Constraints</i> , pp. 4404-4409	RMIT Univ.
	Hill, Robin	
10:40-11:00	<i>Generalized Pseudo-Inverse Based Nested Discrete-Time LQ-Control with Indefinite Cost</i> , pp. 4410-4415	Narvik Univ. Coll.
	Nyman, Per-Ole	
11:00-11:20	<i>Robust Linear Optimization: On the Benefits of Distributional Information and Applications in Inventory Control</i> , pp. 4416-4421	Boston Univ. Boston Univ.
	Paschalidis, Ioannis Kang, Seong-Cheol	
11:20-11:40	<i>Gas-Lift Allocation under Precedence Constraints: Piecewise-Linear Formulation and K-Covers</i> , pp. 4422-4427	Univ. Fed. de Santa Catarina Univ. Fed. de Santa Catarina
	Camponogara, Eduardo de Conto, Augusto Marasca	
11:40-12:00	<i>Numerical Optimization-Based Extremum Seeking Control of LTI Systems</i> , pp. 4428-4433	Univ. of Dayton Univ. of Dayton
	Zhang, Chunlei Ordóñez, Raúl	

WeA09 Nervion III

Model Predictive Control of Power Systems and Power Electronic Circuits (Invited Session)		
	Chair: Hiskens, Ian A. Co-Chair: Larsson, Mats Organizer: Hiskens, Ian A. Organizer: Larsson, Mats	Univ. of Wisconsin, Madison ABB Switzerland Ltd. Univ. of Wisconsin, Madison ABB Switzerland Ltd.
10:00-10:20	<i>An Adaptive Predictive Approach to Emergency Frequency Control in Electric Power Systems (I)</i> , pp. 4434-4439	ABB Switzerland Ltd.
	Larsson, Mats	

10:20-10:40		
	<i>Distributed Model Predictive Control for the Mitigation of Cascading Failures (I)</i> , pp. 4440-4445	
	Talukdar, Sarosh	Carnegie Mellon Univ.
	Jia, Dong	Carnegie Mellon Univ.
	Hines, Paul	Carnegie Mellon Univ.
	Krogh, Bruce H.	Carnegie Mellon Univ.
10:40-11:00		
	<i>On Complexity Reduction of Voltage Stabilization MPC Schemes by Partial Explicit Feedbacks (I)</i> , pp. 4446-4451	
	Attia, Sid Ahmed	ENSIEG - INPG
	Alamir, Mazen	ENSIEG - INPG
11:00-11:20		
	<i>Model Predictive Control Employing Trajectory Sensitivities for Power Systems Applications (I)</i> , pp. 4452-4456	
	Zima, Marek	ETH Zurich
	Andersson, Goran	ETH Zurich
11:20-11:40		
	<i>Optimal Control of the Boost Dc-Dc Converter (I)</i> , pp. 4457-4462	
	Beccuti, Andrea Giovanni	ETH Zurich
	Papafotiou, Georgios	ETH Zurich
	Morari, Manfred	ETH Zurich
11:40-12:00		
	<i>MPC-Based Load Shedding for Voltage Stability Enhancement (I)</i> , pp. 4463-4468	
	Hiskens, Ian A.	Univ. of Wisconsin, Madison
	Gong, Bo	Univ. of Wisconsin, Madison
WeA10		Arenal III
Sampled-Data Control I (Regular Session)		
	Chair: Rodrigues, Luis	Concordia Univ.
	Co-Chair: Cervin, Anton	Lund Univ.
10:00-10:20		
	<i>Optimal On-Line Sampling Period Assignment for Real-Time Control Tasks Based on Plant State Information</i> , pp. 4469-4474	
	Henriksson, Dan	Lund Univ.
	Cervin, Anton	Lund Univ.
10:20-10:40		
	<i>Adaptive Output Feedback Control of General MIMO Systems Using Multirate Sampling</i> , pp. 4475-4480	
	Mizumoto, Ikuro	Kumamoto Univ.
	Ohdaira, Satoshi	Kumamoto Univ.
	Chen, Tongwen	Univ. of Alberta
	Kumon, Makoto	Kumamoto Univ.
	Iwai, Zenta	Kumamoto Univ.
10:40-11:00		
	<i>Two-Level Numerical Procedure for Optimal Design of Digital Modal Controllers</i> , pp. 4481-4486	
	Polyakov, Konstantin	State Univ. of Ocean Tech.
	Rosenwasser, Efim N.	State Univ. of Ocean Tech.
	Lampe, Bernhard P.	Univ. of Rostock
11:00-11:20		
	<i>Sampled-Data State Feedback Control of Piecewise-Affine Systems</i> , pp. 4487-4492	
	Rodrigues, Luis	Concordia Univ.
11:20-11:40		
	<i>Model-Free Precompensator and Feedforward Tuning Based on the Correlation Approach</i> , pp. 4493-4498	
	Karimi, Alireza	Ec. Pol. Fed. de Lausanne
	Butcher, Mark Edward John	Ec. Pol. Fed. de Lausanne
	Longchamp, Roland	Ec. Pol. Fed. de Lausanne
11:40-12:00		
	<i>Sampled-Data H-Infinity Control Design for a Class of PWM Systems</i> , pp. 4499-4504	
	Fujioka, Hisaya	Kyoto Univ.
	Kao, Chung-Yao	The Univ. of Melbourne
	Almer, Stefan	Royal Inst. of Tech.
	Jonsson, Ulf T.	Royal Inst. of Tech.

WeA11		Carmona
Stochastic Optimal Decision and Control (Regular Session)		
Chair: Won, Chang-Hee		Univ. of North Dakota
Co-Chair: Akian, Marianne		INRIA
10:00-10:20		
<i>The Max-Plus Finite Element Method for Optimal Control Problems: Further Approximation Results</i> , pp. 4505-4510		
Akian, Marianne		INRIA
Gaubert, Stephane		INRIA
Lakhoua, Asma		INRIA
10:20-10:40		
<i>A Neural Approach to Active Estimation of Nonlinear Systems</i> , pp. 4511-4517		
Baglietto, Marco		Univ. of Genova
Garassino, Domenico		Univ. of Genova
Scardovi, Luca		Univ. of Genova
Zanchi, Lorenzo		Univ. of Genova
Zoppoli, Riccardo		Univ. of Genova
10:40-11:00		
<i>Stochastic Optimal Control with Neural Networks and Application to a Retailer Inventory Problem</i> , pp. 4518-4523		
Wang, Xiaohua		Univ. of Missouri - Rolla
Balakrishnan, S.N.		Univ. of Missouri - Rolla
Huang, Zhongwu		Univ. of Missouri - Rolla
11:00-11:20		
<i>Nonlinear N-Th Cost Cumulant Control and Hamilton-Jacobi-Bellman Equations for Markov Diffusion Process</i> , pp. 4524-4529		
Won, Chang-Hee		Temple Univ.
11:20-11:40		
<i>On Traveling Salesperson Problems for Dubins' Vehicle: Stochastic and Dynamic Environments</i> , pp. 4530-4535		
Savla, Ketan		Univ. of California, Santa Barbara
Bullo, Francesco		Univ. of California, Santa Barbara
Frazzoli, Emilio		Univ. of California, Los Angeles
11:40-12:00		
<i>Optimal Portfolio Control with Trading Strategies of Finite Variation</i> , pp. 4536-4541		
Gashi, Bujar		Brunel Univ.
Date, Paresh		Brunel Univ.
WeA12		Nervion II
Stability Theory (SIAM) (Regular Session)		
Chair: Pinsky, Mark A.		Univ. of Nevada.Reno
Co-Chair: Rogers, Eric		Univ. of Southampton
10:00-10:20		
<i>Absolute Stability Criteria for Systems with Sector or Norm Bounded Nonlinearities and Uncertain Delay</i> , pp. 4542-4547		
Zevin, Alexandr		Acad. of Sci. of Ukraine
Pinsky, Mark A.		Univ. of Nevada.Reno
10:20-10:40		
<i>Robust Root-Clustering of a Matrix in Intersections or Unions of Regions: Addendum</i> , pp. 4548-4553		
Bachelier, Olivier		LAI-ESIP
Henrion, Didier		LAAS - CNRS
Pradin, B.		LAAS - CNRS
Mehdi, Driss		LAI-ESIP
10:40-11:00		
<i>Causal and Stable Input/Output Structures on Multidimensional Behaviors</i> , pp. 4554-4559		
Wood, Jeffrey		Univ. of Southampton
Sule, Virendra		Indian Inst. of Tech., Bombay
Rogers, Eric		Univ. of Southampton
11:00-11:20		
<i>Backstepping with Bounded Feedback for Time-Varying Systems</i> , pp. 4560-4565		
Mazenc, Frédéric		INRIA Sophia Antipolis,
Bowong, Samuel		Inst. De Mathematiques Et De Sci. Physiques
11:20-11:40		
<i>Finite Time Stability and Quasihomogeneous Control Synthesis of Uncertain Switched Systems with Application to Underactuated Manipulators</i> , pp. 4566-4571		
Orlov, Yuri V.		CICESE
11:40-12:00		
<i>A Converse Lyapunov Theorem for Switched Linear Systems with Dwell Times</i> , pp. 4572-4577		
Wirth, Fabian R.		National Univ. of Ireland, Maynooth

WeA13	Ecija
Control of Mechanical Systems I (Regular Session)	
Chair: Pascoal, Antonio M.	Inst. Superior Técnico
Co-Chair: Blom, Henk A.P.	National Aerospace Lab. NLR
10:00-10:20	
<i>Maxwell Slip Model Based Identification and Control of Systems with Friction</i> , pp. 4578-4583	
Rizos, Demosthenis	Univ. of Patras
Fassois, Spilios D.	Univ. of Patras
10:20-10:40	
<i>Stability of Switched Seesaw Systems with Application to the Stabilization of Underactuated Vehicles</i> , pp. 4584-4589	
Aguiar, A. Pedro	Inst. Superior Técnico
Hespanha, João P.	Univ. of California, Santa Barbara
Pascoal, Antonio M.	Inst. Superior Técnico
10:40-11:00	
<i>Input-Output Decoupling for M-Inputs M-Outputs Linear Mechanical Systems through Interconnection</i> , pp. 4590-4595	
Menini, Laura	Univ. degli Studi di Roma, Tor Vergata
Tornambè, Antonio	Univ. degli Studi di Roma, Tor Vergata
Viola, Giuseppe	Univ. degli Studi di Roma, Tor Vergata
11:00-11:20	
<i>Variable Dynamic Assist Control on Haptic System for Human Adaptive Mechatronics</i> , pp. 4596-4601	
Suzuki, Satoshi	Tokyo Denki Univ., Akihabara
Furuta, Katsuhisa	Tokyo Denki Univ.
Pan, Yaodong	Tokyo Denki Univ., Hatoyama
Harashima, Fumio	Tokyo Denki Univ.
Kurihara, Keiichi	Tokyo Denki Univ.
11:20-11:40	
<i>An Application of Active Control to the Collector of an High Speed Pantograph</i> , pp. 4602-4609	
Collina, Andrea	Pol. di Milano
Facchinetti, Alan	Pol. di Milano
Fossati, Fabio	Univ. degli Studi di Catania
Resta, Ferruccio	Pol. di Milano
11:40-12:00	
<i>Hierarchical Tracking Control of Car-Like Mobile Robots</i> , pp. 4610-4615	
Tsai, Pu-Sheng	National Taiwan Univ.
Wang, Li-Sheng	National Taiwan Univ.
Chang, Fan Ren	National Taiwan Univ.
WeA14	
Networks I (Regular Session)	
Santa Cruz	
Chair: Boccaletti, Stefano	Istituto Nazionale Ottica Applicata
Co-Chair: Lestas, Ioannis	Univ. of Cambridge
10:00-10:20	
<i>Effects of Degree Correlation on the Synchronizability of Networks of Nonlinear Oscillators</i> , pp. 4616-4621	
Di Bernardo, Mario	Univ. di Napoli Federico II
Garofalo, Franco	Univ. di Napoli Federico II
Sorrentino, Francesco	Univ. di Napoli Federico II
10:20-10:40	
<i>Local and Long-Range Interactions for Distributed Control of a Group of Robots</i> , pp. 4622-4627	
Buscarino, Arturo	Univ. degli Studi di Catania
Fortuna, Luigi	Univ. degli Studi di Catania
Frasca, Mattia	Univ. degli Studi di Catania
Rizzo, Alessandro	Pol. di Bari
10:40-11:00	
<i>Synchronization Is Enhanced in Weighted Complex Networks*</i>	
Boccaletti, Stefano	Istituto Nazionale Ottica Applicata
11:00-11:20	
<i>Synchronization in Generalized Erdos-Renyi Networks of Nonlinear Oscillators</i> , pp. 4628-4633	
Preciado, Victor M.	Massachusetts Inst. of Tech.
Vergheze, George C.	Massachusetts Inst. of Tech.
11:20-11:40	
<i>On the Scalable Stability of Nonsymmetric Heterogeneous Networks</i> , pp. 4634-4639	
Lestas, Ioannis	Univ. of Cambridge
Vinnicombe, Glenn	Univ. of Cambridge
11:40-12:00	
<i>A Distributed Nyquist Criterion for Heterogeneous Networks</i> , pp. 4640-4645	
Lestas, Ioannis	Univ. of Cambridge
Vinnicombe, Glenn	Univ. of Cambridge

WeA15		Giralda V
Manufacturing Systems (Regular Session)		
Chair: Nijmeijer, Hendrik		Eindhoven Univ. of Tech.
Co-Chair: Zhao, Qianchuan		Tsinghua Univ.
10:00-10:20		
<i>A Modular Approach for Deadlock Avoidance in FMS</i> , pp. 4646-4651		
Piroddi, Luigi		Pol. Di Milano
Ferrarini, Luca		Pol. di Milano
10:20-10:40		
<i>Control of Manufacturing Systems Using State Feedback and Linear Programming</i> , pp. 4652-4657		
van Eekelen, Joost		Eindhoven Univ. of Tech.
Lefeber, Erjen		Eindhoven Univ. of Tech.
Roset, Bas		Eindhoven Univ. of Tech.
Nijmeijer, Hendrik		Eindhoven Univ. of Tech.
Rooda, J.E.		Eindhoven Univ. of Tech.
10:40-11:00		
<i>Supply Chain Coordination through Contract Negotiation</i> , pp. 4658-4663		
Arda, Yasemin		LAAS - CNRS
Hennet, Jean-Claude		LISA-ISTIA, Univ. d'Angers
11:00-11:20		
<i>Control of Unreliable Cooperative Multi-Site Production Systems</i> , pp. 4664-4669		
Boccardo, Mauro		Univ. di Perugia
Martinelli, Francesco		Univ. degli Studi di Roma, Tor Vergata
Valigi, Paolo		Univ. di Perugia
11:20-11:40		
<i>Production Control of a Manufacturing System Subject to Deterioration</i> , pp. 4670-4675		
Martinelli, Francesco		Univ. degli Studi di Roma, Tor Vergata
Piedimonte, Fabio		Univ. degli Studi di Roma, Tor Vergata
11:40-12:00		
<i>Planning Remanufacturing Systems by Constrained Ordinal Optimization Method with Feasibility Model</i> , pp. 4676-4681		
Song, Chen		Xian Jiaotong Univ.
Guan, Xiaohong		Tsinghua Univ.
Zhao, Qianchuan		Tsinghua Univ.
Jia, Qing-Shan		Tsinghua Univ.
WeA16		Giralda III
Analysis of Hybrid Systems (Regular Session)		
Chair: Lygeros, John		Univ. of Patras
Co-Chair: Sprinkle, Jonathan		Univ. of California, Berkeley
10:00-10:20		
<i>On Verification of Controlled Hybrid Dynamics through Ellipsoidal Techniques</i> , pp. 4682-4687		
Kurzhanski, Alexander B.		Univ. of California, Berkeley
Varaiya, Pravin		Univ. of California, Berkeley
10:20-10:40		
<i>Computability of Finite-Time Reachable Sets for Hybrid Systems</i> , pp. 4688-4693		
Collins, Pieter		Centrum voor Wiskunde en Informatica
Lygeros, John		Univ. of Patras
10:40-11:00		
<i>On the Partitioning of Syntax and Semantics for Hybrid Systems Tools</i> , pp. 4694-4699		
Sprinkle, Jonathan		Univ. of California, Berkeley
Ames, Aaron D.		Univ. of California, Berkeley
Pinto, Alessandro		Univ. of California, Berkeley
Zheng, Haiyang		Univ. of California, Berkeley
Sastry, Shankar		Univ. of California, Berkeley
11:00-11:20		
<i>Approximate Bisimulations for Constrained Linear Systems</i> , pp. 4700-4705		
Girard, Antoine		Univ. of Pennsylvania
Pappas, George J.		Univ. of Pennsylvania
11:20-11:40		
<i>Necessary and Sufficient Conditions for Reachability on a Simplex</i> , pp. 4706-4711		
Roszak, Bartek		Univ. of Toronto
Broucke, Mireille E.		Univ. of Toronto
11:40-12:00		
<i>Abstractions of Stochastic Hybrid Systems</i> , pp. 4712-4717		
Bujorianu, Manuela		Univ. Twente
Bujorianu, Marius Constantin		Univ. of Kent
Lygeros, John		Univ. of Patras

WeA17		Arenal I
Stability of Nonlinear Systems I (Regular Session)		
Chair: Grüne, Lars		Univ. of Bayreuth
Co-Chair: Fromion, Vincent		INRA
10:00-10:20		
<i>A Set Valued Characterization of ISDS Lyapunov Functions</i> , pp. 4718-4723		
Grüne, Lars		Univ. of Bayreuth
Saint-Pierre, Patrick		Univ. Paris Dauphine
10:20-10:40		
<i>Control-Lyapunov Functions for Systems Satisfying the Conditions of the Jurdjevic-Quinn Theorem</i> , pp. 4724-4729		
Malisoff, Michael		Louisiana State Univ.
Mazenc, Frédéric		Projet MERE, INRIA-INRA
10:40-11:00		
<i>Lyapunov Theorems for Systems Described by Retarded Functional Differential Equations</i> , pp. 4730-4735		
Karafyllis, Iasson		Univ. of Athens
11:00-11:20		
<i>Connecting Nonlinear Incremental Lyapunov Stability with the Linearizations Lyapunov Stability</i> , pp. 4736-4741		
Fromion, Vincent		INRA
Scorletti, Gerard		Univ. de Caen
11:20-11:40		
<i>Lyapunov-Based Approach for Finite Time Stability and Stabilization</i> , pp. 4742-4747		
Moulay, Emmanuel		Ec. Centrale de Lille
Perruquetti, Wilfrid		Ec. Centrale de Lille
11:40-12:00		
<i>Dynamic Dissipativity Theory for Stability of Nonlinear Feedback Dynamical Systems</i> , pp. 4748-4753		
Chellaboina, VijaySekhar		The Univ. of Tennessee
Haddad, Wassim M.		Georgia Inst. of Tech.
Kamath, Ajeet		The Univ. of Tennessee
WeA18		Giralda VI
Control in Electrical and Mechanical Systems (Interactive Session)		
Chair: Normey-Rico, Julio Elias		Fed. Univ. of Santa Catarina
Co-Chair: Zinober, Alan S.I.		Univ. of Sheffield
10:00-12:00		
<i>An Efficient Controller for SV-PWM VSI Based on the Multivariable Structure Function</i> , pp. 4754-4759		
Licéaga-Castro, Eduardo		SEPI ESIME Ticomán IPN
Ugalde-Loo, Carlos Ernesto		Univ. of Glasgow
Licéaga-Castro, Jesús Ulises		ITESM - CEM
Ponce, Pedro		ITESM-CCM
10:00-12:00		
<i>Sliding Motion and Direct Control of the Output Voltage in a Full Bridge Boost Converter</i> , pp. 4760-4765		
Fossas, Enric		Univ. Pol. de Catalunya
Olm, Josep M.		Univ. Pol. de Catalunya
Zinober, Alan S.I.		Univ. of Sheffield
10:00-12:00		
<i>Modeling of an Inkjet Printhead for Iterative Learning Control Using Bilaterally Coupled Multiports</i> , pp. 4766-4772		
Groot Wassink, M.B.		Delft Univ. of Tech.
Bosgra, O.H.		Delft Univ. of Tech.
Rixen, D.J.		Delft Univ. of Tech.
Koekebakker, S.H.		Océ Tech. B.V.
10:00-12:00		
<i>An Observer-Based Controller for Switch-Mode DC-DC Converters</i> , pp. 4773-4778		
González Fonseca, Nicolás		Univ. Autónoma de Nuevo León
De Leon, Jesus		Univ. Autónoma de Nuevo León
Leyva-Ramos, Jesus		Inst. Potosino de Investigación Científica y Tecnológica
10:00-12:00		
<i>A Sampled-Data Approach to DC-DC Buck Converter Design</i> , pp. 4779-4784		
Cifdaloz, Oguzhan		Arizona State Univ.
Konasani, Venkata Siva Ram Prasad		Arizona State Univ.
Rodriguez, Armando A.		Arizona State Univ.
Islam, Murshidul		Arizona State Univ.
Allee, David		Arizona State Univ.
10:00-12:00		
<i>Using Cyclic Executives for Achieving Closed Loop Co-Simulation</i> , pp. 4785-4790		
Gangoiti, Unai		Euskal Herriko Unib.
Marcos, Marga		Euskal Herriko Unib.
Estevez, Elisabet		Euskal Herriko Unib.

WeiA19		Giralda VII
Adaptive Control (Interactive Session)		
Chair: Lopez-Valcarce, Roberto		Univ. de Vigo
Co-Chair: Gordillo, Francisco		Univ. de Sevilla
10:00-12:00		
<i>Analysis of a First-Order Adaptive Recursive Predictor</i> , pp. 4791-4796		
Lopez-Valcarce, Roberto		Univ. de Vigo
10:00-12:00		
<i>Model Reference Adaptive Control of 2-D Discrete Systems with Unbounded Variables Along Two Dimensions</i> , pp. 4797-4802		
Madady, Ali		Islamic Azad Univ. of Islamshahr
10:00-12:00		
<i>Adaptive Cancellation of a Sinusoidal Disturbance with Rapidly Varying Frequency Using an Augmented Error Algorithm</i> , pp. 4803-4808		
Guo, Xiuyan		Univ. of Utah
Bodson, Marc		Univ. of Utah
10:00-12:00		
<i>On a Parameter Adaptive Extremum Controller</i> , pp. 4809-4814		
Egardt, Bo S.		Chalmers Univ. of Tech.
Larsson, Stefan		Chalmers Univ. of Tech.
10:00-12:00		
<i>Multi-Controller Adaptive Control (MCAC) for a Tracking Problem Using an Unfalsification Approach</i> , pp. 4815-4820		
Paul, Ayanendu		Marger Johnson and McCollom
Stefanovic, Margareta		Univ. of Southern California
Safonov, Michael G.		Univ. of Southern California
Akar, Mehmet		National Univ. of Ireland, Maynooth
10:00-12:00		
<i>A Globally Adaptive Internal Model Regulator for MIMO Linear Systems.</i> , pp. 4821-4826		
Obregón-Pulido, Guillermo		CUCEI, Univ. de Guadalajara
Castillo-Toledo, Bernardino		CINVESTAV-GDL
Loukianov, Alexander G.		CINVESTAV GDL
WeiA20		
Biological and Biomedical Systems (Interactive Session)		Giralda VIII
Chair: Jafari, Mehdi M.		Tyco Healthcare, Puritan Bennett
Co-Chair: Sreenath, N.		Case Western Res. Univ.
10:00-12:00		
<i>Comparison of Neural Networks, Fuzzy and Stochastic Prediction Models for Return of Consciousness after General Anesthesia</i> , pp. 4827-4832		
Nunes, Catarina S.		Univ. do Porto
Mendonça, Teresa		Univ. do Porto
Amorim, Pedro		Hospital Geral de Santo António
Ferreira, David A.		CECAV, Univ. de Trás-os-Montes e Alto Douro
Antunes, Luís		CECAV, Univ. de Trás-os-Montes e Alto Douro
10:00-12:00		
<i>Nonlinear Modeling of Brain Motor Waves Via Transcranial Magnetic Stimulation</i> , pp. 4833-4838		
d'Aloja, Giuseppe		Pol. di Bari
Lino, Paolo		Pol. di Bari
Maione, Bruno		Pol. di Bari
Rizzo, Alessandro		Pol. di Bari
10:00-12:00		
<i>Robust Feedback Design for Proportional Assist Ventilation System Dynamics and Problem Definition</i> , pp. 4839-4844		
Jafari, Mehdi M.		Tyco Healthcare, Puritan Bennett
Lopez, Francisco J.		Tyco Healthcare Puritan Bennett
10:00-12:00		
<i>EPSAC Predictive Control of Blood Glucose Level in Type I Diabetic Patients</i> , pp. 4845-4850		
Ionescu, Clara		Ghent Univ.
De Keyser, Robin M.C.		Ghent Univ.
10:00-12:00		
<i>From Networks to Systems to Complex Systems: A Signaling Pathway Coordination Case Study</i> , pp. 4851-4856		
Soebiyanto, Radina		Case Western Res. Univ.
Sreenath, N.		Case Western Res. Univ.
Mesarovic, Mihajlo		Case Western Res. Univ.
Volkenhauer, Olaf		Univ. of Rostock
10:00-12:00		
<i>Design and Validation of a Multiphase 3D Model to Simulate Tropospheric Pollution</i> , pp. 4857-4862		
Carnevale, Claudio		Univ. degli Studi di Brescia
Volta, Marialuisa		Univ. degli Studi di Brescia
Finzi, Giovanna		Univ. degli Studi di Brescia

WeB01		Giralda I
Hybrid Control Systems (Regular Session)		
Chair: Pappas, George J.		Univ. of Pennsylvania
Co-Chair: Polderman, Jan Willem		Univ. Twente
13:30-13:50		
<i>On the Design of Stable State Dependent Switching Laws for Single-Input Single-Output Systems</i> , pp. 4863-4866		
King, Christopher		Northeastern Univ.
Shorten, Robert		National Univ. of Ireland, Maynooth
13:50-14:10		
<i>Tools for Stability of Switching Linear Systems: Gain Automata and Delay Compensation</i> , pp. 4867-4872		
Langerak, Romanus		Univ. Twente
Polderman, Jan Willem		Univ. Twente
14:10-14:30		
<i>Switched Stabilization of Higher-Order Switched Linear Systems</i> , pp. 4873-4878		
Sun, Zhendong		National Univ. of Ireland, Maynooth
Ge, Shuzhi		National Univ. of Singapore
14:30-14:50		
<i>Thermodynamic Stabilization Via Energy Dissipating Hybrid Controllers</i> , pp. 4879-4884		
Haddad, Wassim M.		Georgia Inst. of Tech.
Chellaboina, VijaySekhar		The Univ. of Tennessee
Hui, Qing		Georgia Inst. of Tech.
Nersesov, Sergey		Villanova Univ.
14:50-15:10		
<i>Hybrid Controllers for Path Planning: A Temporal Logic Approach</i> , pp. 4885-4890		
Fainekos, Georgios E.		Univ. of Pennsylvania
Kress-Gazit, Hadas		Univ. of Pennsylvania
Pappas, George J.		Univ. of Pennsylvania
15:10-15:30		
<i>On Hybrid Controllers That Induce Input-To-State Stability with Respect to Measurement Noise</i> , pp. 4891-4896		
Sanfelice, Ricardo G.		Univ. of California, Santa Barbara
Teel, Andrew R.		Univ. of California, Santa Barbara
WeB02		Giralda IV
Feedback Linearization (Regular Session)		
Chair: Abdallah, Chaouki T.		Univ. of New Mexico
Co-Chair: Maggiore, Manfredi		Univ. of Toronto
13:30-13:50		
<i>Transverse Feedback Linearization of Multi-Input Systems</i> , pp. 4897-4902		
Nielsen, Christopher		Univ. of Toronto
Maggiore, Manfredi		Univ. of Toronto
13:50-14:10		
<i>Approximate Input-Output Linearization Using L2-Optimal Bilinearization</i> , pp. 4903-4908		
Müller, Bernhard		Univ. Erlangen-Nürnberg
Deutscher, Joachim		Univ. Erlangen-Nürnberg
14:10-14:30		
<i>Constructive Feedback Linearization of Underactuated Mechanical Systems with 2-DOF</i> , pp. 4909-4914		
Acosta, José Ángel		Univ. de Sevilla
Lopez-Martinez, Manuel		Univ. de Sevilla
14:30-14:50		
<i>Finite-Time Stability Design Via Feedback Linearization</i> , pp. 4915-4920		
Onori, Simona		Univ. degli Studi di Roma, Tor Vergata
Dorato, Peter		Univ. of New Mexico
Galeani, Sergio		Univ. degli Studi di Roma, Tor Vergata
Abdallah, Chaouki T.		Univ. of New Mexico
14:50-15:10		
<i>Exogenous Feedback Linearization of Discrete-Time Systems</i> , pp. 4921-4926		
Aranda-Bricaire, Eduardo		CINVESTAV
Moog, Claude		CNRS
15:10-15:30		
<i>A Robust Nonlinear Controller with Application to a Magnetic Bearing System</i> , pp. 4927-4932		
Franco, Ana Lucia Driemeyer		Univ. Fed. De Santa Catarina
Bourles, Henri		ENS de Cachan
Pieri, Edson Roberto De		Fed. Univ. of Santa Catarina

WeB03	Giralda II
Cooperative Control I (Regular Session)	
Chair: Castanon, David A.	Boston Univ.
Co-Chair: Kyrkjebø, Erik	Norwegian Univ. of Sci. & Tech.
13:30-13:50	
<i>Autopilot-Based Nonlinear UAV Formation Controller with Extremum-Seeking</i> , pp. 4933-4938	
Xie, Feng	Oklahoma State Univ.
Zhang, Ximing	Oklahoma State Univ.
Fierro, Rafael	Oklahoma State Univ.
Motter, Mark A.	Nasa Langley Res. Center
13:50-14:10	
<i>Stochastic Control Bounds on Sensor Network Performance</i> , pp. 4939-4944	
Castanon, David A.	Boston Univ.
14:10-14:30	
<i>State Synchronization in Local-Interaction Networks Is Robust with Respect to Time Delays</i> , pp. 4945-4950	
Tanner, Herbert	Univ. of New Mexico
Christodoulakis, Dimitrios	Univ. of New Mexico
14:30-14:50	
<i>Output Synchronization Control of Euler-Lagrange Systems with Nonlinear Damping Terms</i> , pp. 4951-4957	
Kyrkjebø, Erik	Norwegian Univ. of Sci. & Tech.
Pettersen, Kristin Y.	Norwegian Univ. of Sci. & Tech.
14:50-15:10	
<i>Approximate Control of Formations of Multiagent Systems</i> , pp. 4958-4963	
Lionis, Grigoris	National Tech. Univ. of Athens
Kyriakopoulos, Kostas J.	National Tech. Univ. of Athens
15:10-15:30	
<i>Error Amplification and Disturbance Propagation in Vehicle Strings with Decentralized Linear Control</i> , pp. 4964-4969	
Barooah, Prabir	Univ. of California, Santa Barbara
Hespanha, João P.	Univ. of California, Santa Barbara
WeB04	
Linear Identification II (Regular Session)	
Utrera	
Chair: Van den Hof, Paul M.J.	Delft Univ. of Tech.
Co-Chair: Hjalmarsson, Hakan	Royal Inst. of Tech.
13:30-13:50	
<i>An Alternative Paradigm for Probabilistic Uncertainty Bounding in Prediction Error Identification</i> , pp. 4970-4975	
Douma, Sippe G.	Delft Univ. of Tech.
Van den Hof, Paul M.J.	Delft Univ. of Tech.
13:50-14:10	
<i>On the Relation between CCA and Predictor-Based Subspace Identification.</i> , pp. 4976-4982	
Chiuso, Alessandro	Univ. di Padova
14:10-14:30	
<i>Robust Interpolation Using Interval Structures</i> , pp. 4983-4987	
Sánchez-Peña, Ricardo S.	Univ. Pol. de Catalunya
Sznaier, Mario	Pennsylvania State Univ.
Puig, Vicenç	Univ. Pol. de Catalunya
14:30-14:50	
<i>Adaptive Input Design in System Identification</i> , pp. 4988-4993	
Gerencsér, László	Hungarian Acad. of Sci.
Hjalmarsson, Hakan	Royal Inst. of Tech.
14:50-15:10	
<i>On Frequency Tracking Properties of a Generalized Adaptive Notch Filter</i> , pp. 4994-4999	
Niedzwiecki, Maciej	Gdansk Univ. of Tech.
15:10-15:30	
<i>Closed-Loop Subspace-Based Identification Algorithm Using High Order Cumulants*</i>	
Yang, Mengfei	Beijing Inst. of Control Engineering
Li, Kang	Chinese Acad. of Space Tech.
Zhang, Honghua	Chinese Acad. of Space Tech.

WeB05		Lebrija
LMIs in Control (Invited Session)		
Chair: Ebihara, Yoshio		Kyoto Univ.
Co-Chair: Peaucelle, Dimitri		LAAS - CNRS
Organizer: Ebihara, Yoshio		Kyoto Univ.
Organizer: Peaucelle, Dimitri		LAAS - CNRS
13:30-13:50		
<i>L2 Performance Design Problem for Systems Presenting Nested Saturations (I)</i> , pp. 5000-5005		
Tarbouriech, Sophie		LAAS - CNRS
Prieur, Christophe		LAAS - CNRS
Gomes Da Silva Jr., Joao Manoel		Univ. Fed. do Rio Grande do Sul
13:50-14:10		
<i>H-Infinity Parameter Dependent State Feedback Control of Linear Time-Varying Systems in Polytopic Domains (I)</i> , pp. 5006-5011		
Montagner, Vinicius F.		Univ. of Campinas
Peres, Pedro L. D.		Univ. of Campinas
14:10-14:30		
<i>Synthesis of Output Feedback Controllers for Descriptor Systems Satisfying Closed-Loop Dissipativity (I)</i> , pp. 5012-5017		
Masubuchi, Izumi		Hiroshima Univ.
14:30-14:50		
<i>On Robust Output Feedback Control for Polytopic Systems (I)</i> , pp. 5018-5023		
Bernussou, Jacques		LAAS - CNRS
Geromel, Jose C.		UNICAMP
Korogui, Rubens H.		Univ. of Campinas
14:50-15:10		
<i>An LMI Characterization of Polynomial Parameter-Dependent Lyapunov Functions for Robust Stability (I)</i> , pp. 5024-5029		
Oliveira, Ricardo C. L. F.		Univ. of Campinas
Leite, Valter J. S.		CEFET/MG - UnED Div.
de Oliveira, Mauricio C.		Univ. of California, San Diego
Peres, Pedro L. D.		Univ. of Campinas
15:10-15:30		
<i>Robust Performance Analysis of Linear Time-Invariant Uncertain Systems by Taking Higher-Order Time-Derivatives of the State (I)</i> , pp. 5030-5035		
Ebihara, Yoshio		Kyoto Univ.
Peaucelle, Dimitri		LAAS - CNRS
Arzelier, Denis		LAAS - CNRS
Hagiwara, Tomomichi		Kyoto Univ.
WeB06		Prado
Delay Systems II (Regular Session)		
Chair: Meinsma, Gjerrit		Univ. Twente
Co-Chair: Verriest, Erik I.		Georgia Inst. of Tech.
13:30-13:50		
<i>Stabilization and Finite-Gain Stabilizability of Continuous-Time Delay Linear Systems Subject to Input Saturation</i> , pp. 5036-5041		
Yakoubi, Karim		Univ. Paris - Sud 11 CNRS-Supélec
Chitour, Yacine		Univ. Paris - Sud 11, CNRS, Supélec
13:50-14:10		
<i>Disturbance Attenuation by Dynamic Output Feedback for Input-Delay Systems</i> , pp. 5042-5047		
Di Loreto, Michael		CNRS
Lafay, Jean-Francois		Ec. Centrale de Nantes
Loiseau, Jean Jacques		CNRS
14:10-14:30		
<i>Stochastic Stability of a Class of Distributed Delay Systems</i> , pp. 5048-5053		
Verriest, Erik I.		Georgia Inst. of Tech.
14:30-14:50		
<i>H-Infinity Control of Systems with Multiple I/O Delays. Part II: Simplifications</i> , pp. 5054-5059		
Meinsma, Gjerrit		Univ. Twente
Mirkin, Leonid		Technion - IIT
14:50-15:10		
<i>Complete Type Lyapunov-Krasovskii Functionals with a Given Cross Term in the Time Derivative</i> , pp. 5060-5064		
Mondie, Sabine		CINVESTAV
Kharitonov, V.L.		CINVESTAV
Santos, Omar		CINVESTAV
15:10-15:30		
<i>Delay-Dependent Robust Stabilization for Uncertain Singular Time-Delay Systems: Dynamic Output Feedback Case</i> , pp. 5065-5070		
Zhu, Shuqian		Shandong Univ.
Li, Zhenbo		Shandong Economic Univ.
Cheng, Zhaolin		Shandong Univ.
Feng, June		Shandong Univ.

WeB07	Estepa
Vehicle Control (Regular Session)	
Chair: Leith, Douglas J.	National Univ. of Ireland, Maynooth
Co-Chair: Suzuki, Tatsuya	Nagoya Univ.
13:30-13:50	
<i>Autonomous Motion of a Driverless Vehicle Operating among Dynamic Obstacles</i> , pp. 5071-5076	
Myers, Toby Jason	Griffith Univ.
Noel, Tony	INRIA
Parent, Michel	INRIA
Vlacic, Ljubo	Griffith Univ.
13:50-14:10	
<i>Modeling and Nonlinear Control of an Electrohydraulic Closed-Center Power-Steering System</i> , pp. 5077-5082	
Kemmetmueller, Wolfgang	Saarland Univ.
Kugi, Andreas	Saarland Univ.
Mueller, Steffen	BMW Group
14:10-14:30	
<i>Nonparametric Identification of Linearizations and Uncertainty Using Gaussian Process Models – Application to Robust Wheel Slip Control</i> , pp. 5083-5088	
Hansen, Jostein	Norwegian Univ. of Sci. & Tech.
Murray-Smith, Roderick	Univ. of Glasgow
Johansen, Tor Arne	Norwegian Univ. of Sci. & Tech.
14:30-14:50	
<i>A Novel Coordination Scheme Applied to Nonholonomic Mobile Robots</i> , pp. 5089-5094	
Gulec, Nusrettin	Sabanci Univ.
Unel, Mustafa	Sabanci Univ.
14:50-15:10	
<i>Modeling and Recognition of Human Driving Behavior Based on Stochastic Switched ARX Model</i> , pp. 5095-5100	
Suzuki, Tatsuya	Nagoya Univ.
Sekizawa, Shogo	Nagoya Univ.
Inagaki, Shinkichi	Nagoya Univ.
Hayakawa, Soichiro	Toyota Tech. Inst.
Tsuchida, Nuiro	Toyota Tech. Inst.
Tsuda, Taishi	Toyota Motor Corp.
Fujinami, Hiroaki	Toyota Motor Corp.
15:10-15:30	
<i>Robust Lateral Controller for 4-Wheel Steer Cars with Actuator Constraints</i> , pp. 5101-5106	
Leith, Douglas J.	Hamilton Inst.
Leithead, William	Univ. of Strathclyde
Vilaplana, M.	Hamilton Inst.
WeB08	Triana
Optimization II (Regular Session)	
Chair: Cruz, Jose, B	The Ohio State Univ.
Co-Chair: LASSAMI, Bilal	Supélec
13:30-13:50	
<i>An nD-Systems Approach to Global Polynomial Optimization with an Application to H2 Model Order Reduction</i> , pp. 5107-5112	
Bleylevens, Ivo	Univ. Maastricht
Peeters, Ralf	Univ. Maastricht
Hanzon, Bernard	Leiden Univ.
13:50-14:10	
<i>Sensitivity Analysis of Uncertainties in Dynamic Noncooperative Games Using a Multi-Modeling Method</i> , pp. 5113-5118	
Tan, Xiaohuan	The Ohio State Univ.
Cruz, Jose B	The Ohio State Univ.
14:10-14:30	
<i>Backstepping Controller Retuning Using Epsilon Subdifferential Optimization</i> , pp. 5119-5125	
Lassami, Bilal	Supélec
Font, Stephane	Supélec
14:30-14:50	
<i>A Decomposition Algorithm for Feedback Min-Max Model Predictive Control</i> , pp. 5126-5131	
Muñoz de la Peña, David	Univ. de Sevilla
Alamo, Teodoro	Univ. de Sevilla
Bemporad, Alberto	Univ. di Siena
14:50-15:10	
<i>Utility Optimal Scheduling for General Reward States and Stability Constraint</i> , pp. 5132-5137	
Chaporkar, Prasanna	Univ. of Pennsylvania
Sarkar, Saswati	Univ. of Pennsylvania

15:10-15:30

Preconditioned Conjugate Gradient Algorithm for Large Scale Problems with Box Constraints, pp. 5138-5143

Pytlak, Radoslaw
Tarnawski, Tomasz

Military Univ. of Tech.
Military Univ. of Tech.

WeB09

Nervion III

MPC Applications (Regular Session)

Chair: Boucher, Patrick
Co-Chair: Budman, Hector M.

Supélec
Univ. of Waterloo

13:30-13:50

Robust Nonlinear Receding-Horizon Control of Induction Motors, pp. 5144-5149

Boucher, Patrick
Dumur, Didier
Hedjar, Ramdane

Supélec
Supélec
Supélec

13:50-14:10

Using Predictive Techniques within CNC Machine Tools Feed Drives, pp. 5150-5155

Susanu, Mara
Dumur, Didier

Supélec
Supélec

14:10-14:30

Non-Linear Predictive Control for a Distillation Column, pp. 5156-5161

Rueda, Almudena
Cristea, Smaranda
de Keyser, Robin
de Prada, César

Univ. de Valladolid
Univ. de Valladolid
Univ. of Ghent
Univ. de Valladolid

14:30-14:50

Implementation of Model Predictive Control for Glucose Regulation on a General Purpose Microprocessor, pp. 5162-5167

Bleris, Leonidas
Kothare, Mayuresh V.

Lehigh Univ.
Lehigh Univ.

14:50-15:10

Adaptive Receding Horizon Control of Tubular Bioreactors, pp. 5168-5173

Igreja, José Manuel Cardoso
Lemos, Joao
Neves-Silva, Rui

INESC-ID - ISEL
INESC-ID - Inst. Superior Técnico, Univ. Tech. de Lisboa
Univ. Nova de Lisboa

15:10-15:30

Integration of Design and Control: A Robust Control Approach Using MPC, pp. 5174-5179

Chawankul, Nongluk
Budman, Hector M.
Douglas, Peter

Univ. of Waterloo
Univ. of Waterloo
Univ. of Waterloo

WeB10

Arenal III

Sampled-Data Control II (Regular Session)

Chair: Suchomski, Piotr
Co-Chair: Suchomski, Piotr

Gdansk Univ. of Tech.
Gdansk Univ. of Tech.

13:30-13:50

Transfer Functions of Sampled-Data Systems in the Lifted Domain, pp. 5180-5185

Mirkin, Leonid

Technion - IIT

13:50-14:10

A Frequency-Domain Solution to the Sampled-Data H2 Smoothing Problem, pp. 5186-5191

Mirkin, Leonid
Zaslavsky, Ron

Technion - IIT
Technion - IIT

14:10-14:30

Designing Low Parametric Sensitivity FWL Realizations of LTI Controllers/Filters within the Implicit State-Space Framework, pp. 5192-5197

Hilaire, Thibault
Chevrel, Philippe P.C.
Trinquet, Yvon

IRCCyN
IRCCyN / Ec. des Mines de Nantes
IRCCyN

14:30-14:50

Open-Loop Unstable Feedback Systems with Double-Sided Inputs: An Explicit Demonstration of Self-Consistency, pp. 5198-5203

Leithead, William
Ragnoli, Emanuele
O'Reilly, John

Univ. of Strathclyde
Hamilton Inst. National Univ. of Ireland, Maynooth
Univ. of Glasgow

14:50-15:10

Structural Properties of H-Inf Discrete-Time Controllers Based on J-Lossless Factorisations, pp. 5204-5209

Suchomski, Piotr

Gdansk Univ. of Tech.

15:10-15:30

H2 Optimal State-Feedback Control for Systems with Finite Jumps Corrupted by White Noise, pp. 5210-5214

Dragan, Vasile
Stoica, Adrian-Mihail

Romanian Acad.
Katholieke Univ. Leuven

WeB11	Carmona
Finance and Time Series (Regular Session)	
Chair: Hanson, Floyd B. Co-Chair: De Moor, Bart L.R.	Univ. of Illinois, Chicago Katholieke Univ. Leuven
13:30-13:50 <i>A Stochastic Feedback System Model of a Stock Exchange</i> , pp. 5215-5220 Gerencsér, László Mátyás, Zalán Száz, János	Hungarian Acad. of Sci. Hungarian Acad. of Sci. Corvinus Univ. of Budapest
13:50-14:10 <i>A Monte-Carlo Option-Pricing Algorithm for Log-Uniform Jump-Diffusion Model</i> , pp. 5221-5226 Zhu, Zongwu Hanson, Floyd B.	Univ. of Illinois, Chicago Univ. of Illinois, Chicago
14:10-14:30 <i>Filtering and Identification of Interest Rate Model with Stochastic Volatility</i> , pp. 5227-5232 Aihara, Shin Ichi Bagchi, Arunabha	Tokyo Univ. of Sci., Suwa Univ. Twente
14:30-14:50 <i>The Stock Markets As an Ineffective Sampler</i> , pp. 5233-5238 Antonelli, Gianluca Chiaverini, Stefano	Univ. di Cassino Univ. di Cassino
14:50-15:10 <i>Identification of Parameters in Neutral Functional Differential Equations with State-Dependent Delays</i> , pp. 5239-5244 Hartung, Ferenc Turi, Janos	Univ. of Veszprem Univ. of Texas, Dallas
15:10-15:30 <i>Wavelet-Based Space Partitioning for Symbolic Time Series Analysis</i> , pp. 5245-5250 Rajagopalan, Venkatesh Ray, Asok	Pennsylvania State Univ. Pennsylvania State Univ.
WeB12	
Distributed Parameter Systems III (Regular Session)	
Nervion II	
Chair: Bamieh, Bassam Co-Chair: Ennsbrunner, Helmut	Univ. of California, Santa Barbara Johannes Kepler Univ. Linz
13:30-13:50 <i>Feedback Stabilization Along a Path of Steady-States for 1-D Semilinear Heat and Wave Equations</i> , pp. 5251-5256 Coron, Jean-Michel Trelat, Emmanuel	Univ. Paris - Sud 11 Univ. Paris - Sud 11
13:50-14:10 <i>Time-Optimal Path Planning of Moving Sensors for Parameter Estimation of Distributed Systems</i> , pp. 5257-5262 Ucinski, Dariusz Chen, YangQuan	Univ. of Zielona Gora Utah State Univ.
14:10-14:30 <i>On the Geometrical Representation and Interconnection of Infinite Dimensional Port Controlled Hamiltonian Systems</i> , pp. 5263-5268 Ennsbrunner, Helmut Schlacher, Kurt	Johannes Kepler Univ. Linz Johannes Kepler Univ. Linz
14:30-14:50 <i>Output Tracking Control of a Flexible Robot Arm</i> , pp. 5269-5274 Nguyen, Tu Duc Egeland, Olav	Norwegian Univ. of Sci. & Tech. Norwegian Univ. of Sci. & Tech.
14:50-15:10 <i>The Nyquist Stability Criterion for a Class of Spatially Periodic Systems</i> , pp. 5275-5280 Fardad, Makan Bamieh, Bassam	Univ. of California, Santa Barbara Univ. of California, Santa Barbara
15:10-15:30 <i>Asymptotic Behavior of a Hyperbolic-Parabolic Coupled System Arising in Fluid-Structure Interaction*</i> Zhang, Xu Zuazua, Enrique	Univ. Autónoma de Madrid Univ. Autónoma de Madrid

WeB13		Ecija
Control of Mechanical Systems II (Regular Session)		
Chair: Hayakawa, Yoshikazu Co-Chair: Dixon, Warren E.		Nagoya Univ. Univ. of Florida
13:30-13:50		
<i>An Encompassing Formalization of Robust Computed Torque Schemes of Robot Systems</i> , pp. 5281-5286		
Elloumi, Hatem Bordier, Marc Madzi, Nadia		Ec. des Mines de Paris Ec. des Mines de Paris Ec. des Mines de Paris
13:50-14:10		
<i>Stabilization of a 3D Axially Symmetric Rigid Pendulum</i> , pp. 5287-5292		
Chaturvedi, Nalin A. Bacconi, Fabio Bernstein, Dennis S. McClamroch, N. Harris		Univ. of Michigan Univ. degli Studi di Firenze Univ. of Michigan Univ. of Michigan
14:10-14:30		
<i>Tracking Control for Robot Manipulators with Kinematic and Dynamic Uncertainty</i> , pp. 5293-5297		
Braganza, David Dixon, Warren E. Dawson, Darren M. Xian, Bin		Clemson Univ. Univ. of Florida Clemson Univ. Duke Univ.
14:30-14:50		
<i>Wave-Based Analysis and Wave Control of Ladder Networks</i> , pp. 5298-5303		
Nagase, Kenji Ojima, Hiroataka Hayakawa, Yoshikazu		Wakayama Univ. Ibaraki Univ. Nagoya Univ.
14:50-15:10		
<i>Experimental Validation of Nonlinear Dynamic Models for Single-Link Very Flexible Arms</i> , pp. 5304-5309		
Payo, Ismael Ramos, Francisco Cortázar, Osvaldo Daniel Feliu, Vicente		Univ. de Castilla - La Mancha Univ. de Castilla - La Mancha Univ. de Castilla - La Mancha Univ. de Castilla - La Mancha
15:10-15:30		
<i>Integration of Bilinear H-Infinity Control and Adaptive Inverse Control for Semi-Active Vibration Isolation of Structures</i> , pp. 5310-5316		
Sakai, Chiharu Terasawa, Takashi Sano, Akira		Keio Univ. Keio Univ. Keio Univ.
WeB14		
Networks II (Regular Session)		Santa Cruz
Chair: Ozdaglar, Asuman Co-Chair: Pavel, Lacro		Massachusetts Inst. of Tech. Univ. of Toronto
13:30-13:50		
<i>An Extension of Duality and Hierarchical Decomposition to a Game-Theoretic Framework</i> , pp. 5317-5323		
Pavel, Lacro		Univ. of Toronto
13:50-14:10		
<i>Costs of Competition in General Networks</i> , pp. 5324-5329		
Acemoglu, Daron Ozdaglar, Asuman		Massachusetts Inst. of Tech. Massachusetts Inst. of Tech.
14:10-14:30		
<i>Uniqueness of the Nash Equilibrium in Convex Routing Games: Topological Conditions</i> , pp. 5330-5335		
Richman, Oran Shimkin, Nahum		Technion - IIT Technion - IIT
14:30-14:50		
<i>Architecture and Scheduling Algorithm for a Multi-Channel Wireless Infrastructure Network with Diversity Management Layer</i> , pp. 5336-5341		
Huang, Yong Gong, Weibo Gupta, Dev		Univ. of Massachusetts Univ. of Massachusetts Newlans, Ltd.
14:50-15:10		
<i>Regulated Maximal Matching: A Distributed Scheduling Algorithm for Multi-Hop Wireless Networks with Node-Exclusive Spectrum Sharing</i> , pp. 5342-5347		
Wu, Xinzhou Srikant, R		Flarion Tech. Univ. of Illinois, Urbana-Champaign
15:10-15:30		
<i>On the Singular Behavior of a Queueing System with Random Connectivity</i> , pp. 5348-5353		
Michailidis, George Bambos, Nicholas		Univ. of Michigan Stanford Univ.

WeB15		Giralda V
Visual Servo Control (Regular Session)		
Chair: Siciliano, Bruno		Univ. degli Studi di Napoli Federico II
Co-Chair: Fujita, Masayuki		Tokyo Inst. of Tech.
13:30-13:50		
Eye-In-Hand/Eye-To-Hand Multi-Camera Visual Servoing , pp. 5354-5359		
Lippiello, Vincenzo		Univ. di Napoli Federico II
Siciliano, Bruno		Univ. di Napoli Federico II
Villani, Luigi		Univ. di Napoli Federico II
13:50-14:10		
Passivity-Based Control of Visual Feedback Systems with Dynamic Movable Camera Configuration , pp. 5360-5365		
Murao, Toshiyuki		Tokyo Inst. of Tech.
Kawai, Hiroyuki		Kanazawa Inst. of Tech.
Fujita, Masayuki		Tokyo Inst. of Tech.
14:10-14:30		
Directional Redundancy: A New Approach of the Redundancy Formalism , pp. 5366-5371		
Mansard, Nicolas		IRISA - ENS
Chaumette, Francois		IRISA - INRIA
14:30-14:50		
Adaptive Depth Estimation in Image Based Visual Servo Control of Dynamic Systems , pp. 5372-5378		
Mahony, Robert		The Australian National Univ.
Von Brasch, Arved		ANU
Corke, Peter		CSIRO
Hamel, Tarek		Univ. de Nice Sophia Antipolis
14:50-15:10		
Visual Servoing Based on an Analytical Homography Decomposition , pp. 5379-5384		
Vargas, Manuel		Univ. de Sevilla
Malis, Ezio		INRIA
15:10-15:30		
A Multicriteria Image-Based Controller Based on a Mixed Polytopic and Norm-Bounded Representation of Uncertainties , pp. 5385-5390		
Tarbouriech, Sophie		LAAS - CNRS
Soueres, Philippe		LAAS - CNRS
Gao, Bo		LAAS - CNRS
WeB16		Giralda III
Stability of Hybrid Systems (Regular Session)		
Chair: Liberzon, Daniel		Univ. of Illinois, Urbana-Champaign
Co-Chair: Bianchini, Gianni		Univ. degli Studi di Siena
13:30-13:50		
Convergent Piecewise-Affine Systems: Analysis and Design. Part I: Continuous Case , pp. 5391-5396		
Pavlov, Alexey		Norwegian Univ. of Sci. & Tech.
Van de Wouw, Nathan		Eindhoven Univ. of Tech.
Nijmeijer, Hendrik		Eindhoven Univ. of Tech.
13:50-14:10		
Convergent Piecewise Affine Systems: Analysis and Design. Part II: Discontinuous Case. , pp. 5397-5402		
Pavlov, Alexey		Norwegian Univ. of Sci. & Tech.
Pogromsky, Alexander		Eindhoven Univ. of Tech.
Van de Wouw, Nathan		Eindhoven Univ. of Tech.
Nijmeijer, Hendrik		Eindhoven Univ. of Tech.
Rooda, Koos		Eindhoven Univ. of Tech.
14:10-14:30		
Results on Input-To-State Stability for Hybrid Systems , pp. 5403-5408		
Cai, Chaohong		Univ. of California, Santa Barbara
Teel, Andrew R.		Univ. of California, Santa Barbara
14:30-14:50		
A Small-Gain Approach to Stability Analysis of Hybrid Systems , pp. 5409-5414		
Nešić, Dragan		The Univ. of Melbourne
Liberzon, Daniel		Univ. of Illinois, Urbana-Champaign
14:50-15:10		
Third-Order Nilpotency, Finite Switchings and Asymptotic Stability , pp. 5415-5420		
Sharon, Yoav		Tel Aviv Univ.
Margaliot, Michael		Tel Aviv Univ.
15:10-15:30		
Passivity Analysis of Discrete-Time Hybrid Systems Using Piecewise Polynomial Storage Functions , pp. 5421-5426		
Bemporad, Alberto		Univ. di Siena
Bianchini, Gianni		Univ. di Siena
Brogi, Filippo		Univ. di Siena
Chesi, Graziano		Univ. di Siena

WeB17		Arenal I
Stability of Nonlinear Systems II (Regular Session)		
Chair: Jouffroy, Jérôme		Norwegian Univ. of Sci. & Tech.
Co-Chair: Yamashita, Yuh		Hokkaido Univ.
13:30-13:50		
A Tight Small-Gain Theorem for Not Necessarily ISS Systems , pp. 5427-5431		
Angeli, David		Univ. degli Studi di Firenze
Astolfi, Alessandro		Imperial Coll.
13:50-14:10		
Lyapunov Functions for Time Varying Systems Satisfying Generalized Conditions of Matrosov Theorem , pp. 5432-5437		
Mazenc, Frédéric		INRIA Sophia Antipolis,
Nešić, Dragan		The Univ. of Melbourne
14:10-14:30		
Semi-Global Minimal Time Hybrid Robust Stabilization of Analytic Driftless Control-Affine Systems , pp. 5438-5443		
Prieur, Christophe		CNRS
Trelat, Emmanuel		Univ. Paris - Sud 11
14:30-14:50		
On a Topological Condition for Strongly Asymptotically Stable Differential Inclusions , pp. 5444-5449		
Yamashita, Yuh		Hokkaido Univ.
Tsuzuki, Takayuki		Hokkaido Univ.
Nakamura, Hisakazu		Nara Inst. of Sci. &Tech.
14:50-15:10		
Some Ancestors of Contraction Analysis , pp. 5450-5455		
Jouffroy, Jérôme		Norwegian Univ. of Sci. & Tech.
15:10-15:30		
A Simple Condition for Checking Non-Vanishing Basin of Attraction Stability for a Class of Positive Nonlinear Systems , pp. 5456-5461		
Shim, Hyungbo		Seoul National Univ.
Jo, Nam H.		Soongsil Univ.
WeB18		
Aerospace and Vehicle Control (Interactive Session)		Giralda VI
Chair: Oliveira, Paulo Jorge		Inst. for Systems and Robotics of Inst. Superior
Co-Chair: Rodriguez, Armando A.		Arizona State Univ.
13:30-15:30		
Digital Control of Fabry-Pérot Interferometers , pp. 5462-5467		
Canuto, Enrico S.		Pol. di Torino
Musso, Fabio		Pol. di Torino
Massotti, Luca		Pol. di Torino
13:30-15:30		
MMAE Terrain Reference Navigation for Underwater Vehicles Using Eigen Analysis , pp. 5468-5473		
Oliveira, P.		Inst. Superior Técnico and Inst. de Sistemas e Robótica
13:30-15:30		
Coordinated Box-Pushing of Multiple Biomimetic Robotic Fish , pp. 5474-5479		
Zhang, Dandan		Peking Univ.
Fang, Yimin		Peking Univ.
Wang, Long		Peking Univ.
Xie, Guangming		Peking Univ.
13:30-15:30		
Distributed Model Predictive Control for Multi-Vehicle Formation with Collision Avoidance Constraints , pp. 5480-5485		
Fukushima, Hiroaki		Univ. of Electro-Communications
Kon, Kazuyuki		Univ. of Electro-Communications
Matsuno, Fumitoshi		Univ. of Electro-Communications
13:30-15:30		
Saturation Prevention for MIMO LPV Systems: A Signal Governer Approach , pp. 5486-5491		
Cifdaloz, Oguzhan		Arizona State Univ.
Rodriguez, Armando A.		Arizona State Univ.
Yi, Yu-lung		Raytheon Missile Systems
Steenis, Richard		Arizona State Univ.
13:30-15:30		
Modeling and Feedback Control for Subsonic Cavity Flows: A Collaborative Approach , pp. 5492-5497		
Yan, Peng		The Ohio State Univ.
Debiasi, Marco		The Ohio State Univ.
Yuan, Xin		The Ohio State Univ.
Caraballo, Edgar		The Ohio State Univ.
Serrani, Andrea		The Ohio State Univ.
Ozbay, Hitay		Bilkent Univ.
Samimy, Mohammad		The Ohio State Univ.
Myatt, James		AFRL / VACA

WeIB19		Giralda VII
Nonlinear Adaptive Control (Interactive Session)		
Chair: Schilling, Klaus		Univ. Würzburg
Co-Chair: Rodellar, Jose		Univ. Pol. de Catalunya
13:30-15:30		
<i>An Adaptive Control for Rotating Stall and Surge of Jet Engines - a Function Approximation Approach</i> , pp. 5498-5503		
Tyan, Feng		Tamkang Univ.
Lee, Shih-Chiang		TamKang Univ.
13:30-15:30		
<i>Adaptive Backstepping Sliding Mode Control with Gaussian Networks for a Class of Nonlinear Systems with Mismatched Uncertainties</i> , pp. 5504-5509		
Ma, Lei		Julius-Maximilians Univ. Würzburg
Schilling, Klaus		Julius-Maximilians Univ. Würzburg
Schmid, Christian		Ruhr-Univ. Bochum
13:30-15:30		
<i>Stable Neural Hybrid Adaptive Control for Nonlinear Uncertain Impulsive Dynamical Systems</i> , pp. 5510-5515		
Hayakawa, Tomohisa		Japan Sci. & Tech. Agency
Haddad, Wassim M.		Georgia Inst. of Tech.
13:30-15:30		
<i>Control of Hysteretic Base-Isolated Structures: An Adaptive Backstepping Approach</i> , pp. 5516-5521		
Pozo, Francesc		Univ. Pol. de Catalunya
Ikhoulane, Fayçal		Univ. Pol. de Catalunya
Rodellar, Jose		Univ. Pol. de Catalunya
13:30-15:30		
<i>Adaptive Neural Network Output Feedback Control of Nonlinear Systems with Actuator Saturation</i> , pp. 5522-5527		
Gao, Wenzhi		Rockwell
Selmic, Rastko R.		Louisiana Tech. Univ.
13:30-15:30		
<i>Adaptive H_∞ Tracking Control Design Via Neural Networks of a Constrained Robot System</i> , pp. 5528-5533		
Petronilho, Andre		Univ. of Sao Paulo
Siqueira, Adriano A G		Univ. of Sao Paulo
Terra, Marco Henrique		Univ. of Sao Paulo, Sao Carlos
WeIB20		Giralda VIII
Biological and Medical Systems (Interactive Session)		
Chair: Paden, Brad		Univ. of California, Santa Barbara
Co-Chair: Landi, Alberto		Univ. di Pisa
13:30-15:30		
<i>Nonlinear Dynamic Lettuce Growth Model: Parameter Selection and Estimation for N-Limited Experiments</i> , pp. 5534-5539		
Ioslovich, Ilya		Tech. Israel Inst. of Tech.
Ramirez-Sosa M., Marco Ivan		Inst. Tecnológico y de Estudios Superiores de Monterrey
Gutman, Per-Ol		Tech. Inst. of Tech.
13:30-15:30		
<i>Convergence and Stability of Biochemical Reaction Systems of Rank One</i> , pp. 5540-5545		
Sbarciog, Mihaela		Ghent Univ.
Loccufier, Mia		Ghent Univ.
Noldus, Erik		Ghent Univ.
13:30-15:30		
<i>A Multiscale Model for the Controlled Selection Process of Ovulatory Follicles</i> , pp. 5546-5551		
Echenim, Nki		INRIA Rocquencourt
Sorine, Michel		INRIA Rocquencourt
Clement, Frédérique		INRIA Rocquencourt
13:30-15:30		
<i>Physiological Cybernetics: Model of Osmolality and Volemia</i> , pp. 5552-5557		
Ciofani, Gianni		Univ. of Pisa
Landi, Alberto		Univ. di Pisa
Mazzei, Daniele		Univ. of Pisa
Mazzoldi, Alberto		Univ. of Pisa
13:30-15:30		
<i>Volterra Model Inversion Using Restored Input Feedback. Application to an Anaerobic Digester.</i> , pp. 5558-5563		
Bibes, Guillaume		Univ. de Poitiers
Ouvrard, Régis		Univ. de Poitiers
Coirault, Patrick		Univ. de Poitiers
Trigeassou, Jean-claude		Univ. de Poitiers

13:30-15:30

Maglev Apparatus for Power Minimization and Control of Artificial Hearts, pp. 5564-5569

Samiappan, Chandrasekhar
Mirimateghi, Nasim
Paden, Brad
Antaki, James F.

Univ. of California, Santa Barbara
Univ. of California, Santa Barbara
Univ. of California, Santa Barbara
Univ. of Pittsburgh

WeIB21

Hall Triana

Output Feedback (Interactive Session)

Chair: Ahrens, Jeffrey
Co-Chair: Mukaidani, Hiroaki

Michigan State Univ.
Hiroshima Univ.

13:30-15:30

Output Feedback Variable Structure Control of Uncertain Linear Systems, pp. 5570-5575

Wang, Ning
Xu, Wenli
Zhao, Qianchuan

Tsinghua Univ.
Tsinghua Univ.
Tsinghua Univ.

13:30-15:30

Guaranteed Cost Control of Uncertain Singularly Perturbed Systems Via Static Output Feedback, pp. 5576-5581

Mukaidani, Hiroaki
Oya, Hidetoshi
Xu, Hua
Yamamoto, Toru

Hiroshima Univ.
The Univ. of Electro-Communications
Univ. of Tsukuba
Hiroshima Univ.

13:30-15:30

Nonlinear Output Feedback Control for Robust Stability, pp. 5582-5587

Xie, Chengkang
French, Mark

Southwest Univ.
Univ. of Southampton

13:30-15:30

Dynamic Output Feedback for Discrete-Time Systems under Amplitude and Rate Actuator Constraints, pp. 5588-5593

Gomes Da Silva Jr., Joao Manoel
Limón, Daniel
Alamo, Teodoro

Univ. Fed. do Rio Grande do Sul
Univ. de Sevilla
Univ. de Sevilla

13:30-15:30

On Global Output Feedback Tracking Control of Planar Robot Manipulators, pp. 5594-5599

Melhem, Khoder
Saad, Maarouf
Boukas, El-Kebir
Abou, Seraphin Chally

Ec. Pol. de Montreal
Ec. de Tech. Sup.
Ec. Pol. de Montreal
Ec. de Tech. Sup.

WeC01

Giralda I

Hybrid Control of Networked Embedded Systems (Tutorial Session)

Chair: Lamnabhi-Lagarrigue, Françoise
Co-Chair: Lygeros, John
Organizer: Lamnabhi-Lagarrigue, Françoise

CNRS
Univ. of Patras
CNRS

16:00-16:20

An Overview of Research Areas in Hybrid Control (I), pp. 5600-5605

Lygeros, John

Univ. of Patras

16:20-16:40

Model Predictive Control in Power Electronics: A Hybrid Systems Approach (I), pp. 5606-5611

Geyer, Tobias
Papafotiou, Georgios
Morari, Manfred

ETH Zurich
ETH Zurich
ETH Zurich

16:40-17:00

Hybrid Control Techniques for the Design of Industrial Controllers (I), pp. 5612-5617

Engell, Sebastian
Stursberg, Olaf

Univ. Dortmund
Univ. Dortmund

17:00-17:20

Hybrid Systems in Automotive Electronics Design (I), pp. 5618-5623

Balluchi, Andrea
Benvenuti, Luca
Sangiovanni-vincentelli, Alberto

PARADES G.E.I.E.
Univ. di Roma
Univ. of California, Berkeley

17:20-17:40

On Hybrid Control Problems in Communication Systems (I), pp. 5624-5629

Johansson, Karl Henrik
Santucci, Fortunato

Royal Inst. of Tech.
Univ. degli Studi dell'Aquila

WeC02	Giralda IV
Nonlinear Systems and Dissipativity (Regular Session)	
Chair: Sontag, Eduardo D. Co-Chair: Wirth, Fabian R.	Rutgers Univ. National Univ. of Ireland, Maynooth
16:00-16:20 <i>A Class of Port-Controlled Hamiltonian Systems</i> , pp. 5630-5632 Jayawardhana, Bayu Weiss, George	Imperial Coll. Imperial Coll.
16:20-16:40 <i>A Small-Gain Type Stability Criterion for Large Scale Networks of ISS Systems</i> , pp. 5633-5638 Dashkovskiy, Sergey Rüffer, Björn Sebastian Wirth, Fabian R.	Univ. Bremen Univ. Bremen National Univ. of Ireland, Maynooth
16:40-17:00 <i>Dissipativity Theory for Singular Systems. Part I: Continuous-Time Case</i> , pp. 5639-5644 Kablar, Natasa A.	Lola Inst.
17:00-17:20 <i>A Notion of Passivity Gain and a Generalization of the 'Secant Condition' for Stability</i> , pp. 5645-5649 Sontag, Eduardo D.	Rutgers Univ.
17:20-17:40 <i>Establishing liss Property of Interconnected Systems Via Parametrization of Supply Rates</i> , pp. 5650-5655 Ito, Hiroshi	Kyushu Inst. of Tech.
17:40-18:00 <i>Discrete Port-Hamiltonian Systems: Mixed Interconnections</i> , pp. 5656-5661 Talasila, Viswanath Clemente-Gallardo, Jesus van der Schaft, Arjan J.	Imperial Coll. Univ. de Zaragoza Univ. of Groningen
WeC03	
Cooperative Control II (Regular Session)	
Giralda II	
Chair: Chen, YangQuan Co-Chair: How, Jonathan P.	Utah State Univ. Massachusetts Inst. of Tech.
16:00-16:20 <i>Optimal Dynamic Actuator Location in Distributed Feedback Control of a Diffusion Process</i> , pp. 5662-5667 Chen, YangQuan Wang, Zhongmin Liang, Jinsong	Center for Self-Organizing and Intelligent Systems, Utah State Univ. Center for Self-Organizing and Intelligent Systems, Utah State Univ. Center for Self-Organizing and Intelligent Systems, Utah State Univ.
16:20-16:40 <i>Decentralized Task Assignment for Unmanned Aerial Vehicles</i> , pp. 5668-5673 Alighanbari, Mehdi How, Jonathan P.	Massachusetts Inst. of Tech. Massachusetts Inst. of Tech.
16:40-17:00 <i>A Hierarchical Approach to Multi-Player Pursuit-Evasion Differential Games</i> , pp. 5674-5679 Li, Dongxu Cruz, Jose B Chen, Genshe Kwan, Chi-Man Chang, Mou-Hsiung	The Ohio State Univ. The Ohio State Univ. Intelligent Automation, Inc. Intelligent Automation, Inc. U.S. Army Res. Office
17:00-17:20 <i>Robust UAV Search for Environments with Imprecise Probability Maps</i> , pp. 5680-5685 Bertuccelli, Luca F. How, Jonathan P.	Massachusetts Inst. of Tech. Massachusetts Inst. of Tech.
17:20-17:40 <i>On Rendezvous for Visually-Guided Agents in a Nonconvex Polygon</i> , pp. 5686-5691 Ganguli, Anurag Cortes, Jorge Bullo, Francesco	Univ. of Illinois, Urbana-Champaign Univ. of California, Santa Cruz Univ. of California, Santa Barbara
17:40-18:00 <i>Synchronization in Oscillator Networks: Switching Topologies and Non-Homogeneous Delays</i> , pp. 5692-5697 Papachristodoulou, Antonis Jadbabaie, Ali	California Inst. of Tech. Univ. of Pennsylvania

WeC04	Utrera
Identification (Regular Session)	
Chair: Fujisaki, Yasumasa	Kobe Univ.
Co-Chair: Akcay, Huseyin	Anadolu Univ.
16:00-16:20	
<i>The Size of the Membership Set in the Presence of Disturbance and Parameter Uncertainty</i> , pp. 5698-5703	
Kitamura, Wataru	Kobe Univ.
Fujisaki, Yasumasa	Kobe Univ.
Bai, Er-Wei	The Univ. of Iowa
16:20-16:40	
<i>Likelihood Bounds for Constrained Estimation with Uncertainty</i> , pp. 5704-5709	
Samar, Sikandar	Stanford Univ.
Gorinevsky, Dimitry	Honeywell Lab.
Boyd, Stephen P.	Stanford Univ.
16:40-17:00	
<i>Signal Analysis, Moment Problems & Uncertainty Measures</i> , pp. 5710-5715	
Karlsson, Johan	Royal Inst. of Tech.
Georgiou, Tryphon T.	Univ. of Minnesota
17:00-17:20	
<i>Imposing Symmetry in Least Squares Support Vector Machines Regression</i> , pp. 5716-5721	
Espinoza, Marcelo	Katholieke Univ. Leuven
Suykens, Johan A.K.	Katholieke Univ. Leuven
De Moor, Bart L.R.	Katholieke Univ. Leuven
17:20-17:40	
<i>Parameters Identification in a Physical System for Thermal Efficiency Prediction</i> , pp. 5722-5727	
PEREZ, Laetitia	Univ. of Perpignan
Autrique, Laurent	Univ. de Perpignan
Batsale, J. C.	Trefle-Ensam
17:40-18:00	
<i>Identification of Continuous-Time Power Spectra by Generalized Fourier Series</i> , pp. 5728-5733	
Akcay, Huseyin	Anadolu Univ.
Turkay, Semiha	Anadolu Univ.
WeC05	Lebrija
LMIs (Regular Session)	
Chair: Arzelier, Denis	LAAS - CNRS
Co-Chair: Sabatier, Jocelyn	LAPS
16:00-16:20	
<i>Robust Analysis and Synthesis of Linear Polytopic Discrete-Time Periodic Systems Via LMIs</i> , pp. 5734-5739	
Arzelier, Denis	LAAS - CNRS
Peaucelle, Dimitri	LAAS - CNRS
Farges, Christophe	LAAS - CNRS
Daafouz, Jamal	CRAN-ENSEM-INPL
16:20-16:40	
<i>LMI Formulations for Designing Controllers According to Time Response and Stability Margin Constraints</i> , pp. 5740-5745	
Abbas-Turki, Mohamed	Supélec
Duc, Gilles	Supélec
Clement, Benoit	Supélec
16:40-17:00	
<i>Structured H₂ Controller Synthesis Via a Dilated LMI Based Algorithm</i> , pp. 5746-5751	
Yagoubi, Mohamed	Ec. des Mines de Nantes (IRCCyN)
Chevrel, Philippe P.C.	IRCCyN / Ec. des Mines de Nantes
17:00-17:20	
<i>Robust Performance Analysis for Slowly Time-Varying Perturbations</i> , pp. 5752-5757	
Koroglu, Hakan	Delft Univ. of Tech.
Scherer, Carsten W.	Delft Univ. of Tech.
17:20-17:40	
<i>On Fractional Systems H_∞ -Norm Computation</i> , pp. 5758-5763	
Sabatier, Jocelyn	LAPS - Bordeaux 1 Univ.
Moze, Mathieu	Bordeaux 1 Univ.
Oustaloup, Alain	Bordeaux 1 Univ., ENSEIRB
17:40-18:00	
<i>LMI Based Robust Output Feedback MPC</i> , pp. 5764-5769	
Granado, Ernesto	Univ. Simon Bolivar
Colmenares, William	Univ. Simon Bolivar
Bernussou, Jacques	LAAS - CNRS
Garcia, Germain	LAAS - CNRS

WeC06	Prado
Delay Systems III (Regular Session)	
Chair: Jiang, Zhong-Ping Co-Chair: Kojima, Akira	Pol. Univ. Tokyo Metro. Inst. of Tech.
16:00-16:20 <i>Generalized Preview and Delayed H-Infinity Control: Output Feedback Case</i> , pp. 5770-5775 Kojima, Akira	Tokyo Metropolitan Univ.
16:20-16:40 <i>Finite-Time Global Stabilization by Means of Time-Varying Distributed Delay Feedback</i> , pp. 5776-5781 Karafyllis, Iasson	Univ. of Athens
16:40-17:00 <i>A Lyapunov-Krasovskii Methodology for ISS of Time-Delay Systems</i> , pp. 5782-5787 Pepe, Pierdomenico Jiang, Zhong-Ping	Univ. degli Studi dell'Aquila Pol. Univ.
17:00-17:20 <i>Robust Stabilization of Nonlinear Time Delay Systems Using Convex Optimization</i> , pp. 5788-5793 Papachristodoulou, Antonis	California Inst. of Tech.
17:20-17:40 <i>Unknown Input Observers Design for Time-Delay Systems: Application to an Open-Channel</i> , pp. 5794-5799 Koenig, D. Bedjaoui, Nadia Litrico, Xavier	INPG - ESISAR Cemagref Cemagref
WeC07	Estepa
Applications of Adaptive Control (Regular Session)	
Chair: Dasgupta, Soura Co-Chair: Niedzwiecki, Maciej	The Univ. of Iowa Tech. Univ. of Gdansk
16:00-16:20 <i>Robustly L_{inf}-Stable Implementation of the Adaptive Inverse Control Scheme for Noise Cancellation</i> , pp. 5800-5807 Perez Arancibia, Nestor Osvaldo Tsao, Tsu-Chin	Univ. of California, Los Angeles Univ. of California, Los Angeles
16:20-16:40 <i>Stability of Adaptive Delta Modulators with a Forgetting Factor and Constant Inputs</i> , pp. 5808-5813 Dandach, Sandra Hala Dasgupta, Soura Anderson, Brian D.O.	The Univ. of Iowa The Univ. of Iowa The Australian National Univ.
16:40-17:00 <i>Generalized Adaptive Notch Filters - Does Gradient Smoothing Technique Help?</i> , pp. 5814-5819 Niedzwiecki, Maciej Kaczmarek, Piotr	Gdansk Univ. of Tech. Gdansk Univ. of Tech.
17:00-17:20 <i>Support Vector Based Novelty Detection for Fault Tolerant Control</i> , pp. 5820-5825 Saludes, Sergio Fuente, Maria Jesus	CARTIF Univ. de Valladolid
17:20-17:40 <i>Robust Adaptive-Q with Two Period Plug in Repetitive Control Applied to Hard Disk Servo Problem*</i> kalyanam, krishnamoorthy Tsao, Tsu-chin	UCLA UCLA
17:40-18:00 <i>Trajectory Tracking of a Piezoelectric System Using State Compensated Iterative Learning Control</i> , pp. 5826-5831 Chien, Chiang-Ju Lee, Fu-Shin Wang, Jhen-Cheng	Huafan Univ. Huafan Univ. Huafan Univ.
WeC08	Triana
Optimization III (Regular Session)	
Chair: Lasserre, Jean B. Co-Chair: Notarstefano, Giuseppe	CNRS Univ. di Padova
16:00-16:20 <i>On the Properties of Solutions to a Differential Inclusion Associated with a Nonsmooth Constrained Optimization Problem</i> , pp. 5832-5836 Nistri, Paolo Quincampoix, Marc	Univ. degli Studi di Siena Univ. de Bretagne Occidentale
16:20-16:40 <i>SOS Approximation of Polynomials Nonnegative on an Algebraic Set</i> , pp. 5837-5841 Lasserre, Jean B.	CNRS
16:40-17:00 <i>Real-Time Dynamic Optimization of Nonlinear Systems: A Flatness-Based Approach</i> , pp. 5842-5847 Guay, Martin	Queen's Univ.

17:00-17:20
Trajectory Manifold Exploration for the PVTOL Aircraft, pp. 5848-5853
 Notarstefano, Giuseppe
 Hauser, John
 Frezza, Ruggero
 Univ. di Padova
 Univ. of Colorado, Boulder
 Univ. di Padova

17:20-17:40
Limit Points of the Monotonic Schemes for Quantum Control, pp. 5854-5858
 Salomon, Julien
 Lab. Jacques-Louis Lions

17:40-18:00
Optimal Resource Partitioning in a Military Conflict Based on Lanchester Attrition Models, pp. 5859-5864
 Sheeba, P.S.
 Ghose, Debasish
 Indian Inst. of Sci.
 Indian Inst. of Sci.

WeC09 Nervion III
Nonlinear and Uncertain Systems (SIAM) (Regular Session)

Chair: Yau, Stephen S.-T. Univ. of Illinois, Chicago
 Co-Chair: Diehl, Moritz Univ. of Heidelberg

16:00-16:20
*Computation of the (J, J') -Lossless Factorization for General Rational Matrices**
 Chu, Delin National Univ. of Singapore
 Ho, Daniel W. C. City Univ. of Hong Kong

16:20-16:40
Filtering Problem with Nonlinear Observers and Drift Term Equal to Gradient Vector Field Plus Affine Vector Field, pp. 5865-5870
 Yau, Stephen S.-T. Univ. of Illinois, Chicago
 Jia, Lixing Chicago State Univ.

16:40-17:00
Real-Time Iterations for Nonlinear Optimal Feedback Control, pp. 5871-5876
 Diehl, Moritz Univ. of Heidelberg
 Bock, Hans Georg Univ. of Heidelberg
 Schloeder, Johannes Univ. of Heidelberg

17:00-17:20
Sub-Optimal Control in Presence of Unobservable Disturbances, pp. 5877-5882
 Quincampoix, Marc Univ. de Bretagne Occidentale
 Veliov, Vladimir Vienna Univ. of Tech.

17:20-17:40
*Differential Games with Ergodic Payoff**
 Ghosh, Mrinal Kanti Indian Inst. of Mathematics
 Kurada, Mallikarjuna Rao Univ. of Texas, Dallas

17:40-18:00
Two Dual Classes of Time-Varying Well-Posed Linear Systems Constructed from Passive Systems, pp. 5883-5886
 Weiss, George Imperial Coll.
 Schnaubelt, Roland Univ. of Halle

WeC10 Arenal III
Model Reduction (Regular Session)

Chair: Kanno, Masaaki Univ. of Cambridge
 Co-Chair: Gugercin, Serkan Virginia Pol. Inst. and State Univ.

16:00-16:20
H2 Model Reduction Using LMIs, pp. 5887-5892
 Kanno, Masaaki Japan Sci. & Tech. Agency

16:20-16:40
From IIR to FIR Digital MIMO Models: A Constructive Hankel Norm Approximation Method, pp. 5893-5898
 Chai, Li HangZhou Dianzi Univ.
 Zhang, Jingxin Monash Univ.
 Zhang, Cishen Nanyang Tech. Univ.
 Mosca, Edoardo Univ. of Florence

16:40-17:00
A Recursive Algorithm for Reducing the Order of Controller While Guaranteeing Performance, pp. 5899-5904
 Malik, Waqar Texas A & M Univ.
 Darbha, Swaroop Texas A & M Univ.
 Bhattacharyya, Shankar P. Texas A & M Univ.

17:00-17:20
An Iterative SVD-Krylov Based Method for Model Reduction on Large-Scale Dynamical Systems, pp. 5905-5910
 Gugercin, Serkan Virginia Pol. Inst. and State Univ.

17:20-17:40
Optimal Model Simplification of Quasirational Distributed Systems and Their Use for Rapid Design of Simple Controllers, pp. 5911-5916
 Taiwo, Oluwafemi Tech. Univ. Clausthal
 Reinicke, Kurt, M. Tech. Univ. Clausthal

WeC11	Carmona
Filtering and Statistical Learning (Regular Session)	
Chair: Nurdin, Hendra Ishwara Co-Chair: Campillo, Fabien	Australian National Univ. IRISA - INRIA Rennes
16:00-16:20	
<i>Filtering of Differential Nonlinear Systems Via a Carleman Approximation Approach</i> , pp. 5917-5922	
Germani, Alfredo Manes, Costanzo Palumbo, Pasquale	Univ. degli Studi dell'Aquila Univ. degli Studi dell'Aquila IASI - CNR
16:20-16:40	
<i>Recursive Maximum Likelihood Estimation for Structural Health Monitoring: Tangent Filter Implementations</i> , pp. 5923-5928	
Campillo, Fabien Mevel, Laurent	IRISA - INRIA Rennes IRISA
16:40-17:00	
<i>A PCA Based Linear Dynamic System for Demand Forecasting in Semiconductor Industry*</i>	
Zhang, Feng	Fairchild Semiconductor
17:00-17:20	
<i>A New Approach to Spectral Factorization of a Class of Matrix-Valued Spectral Densities</i> , pp. 5929-5934	
Nurdin, Hendra Ishwara	The Australian National Univ.
17:20-17:40	
<i>Optimal Filtering for HMM Governed by Special Jump Processes</i> , pp. 5935-5940	
Borisov, Andrey Stefanovich, Alexey	Inst. of Informatics Problems of RAS Moscow State Aviation Inst.
17:40-18:00	
<i>An Event Based Approach for Assessing the Effect of Random Delays on State Estimation*</i>	
Ramalingam, Santhosh Kumar Narasimhan, Shankar Khan, Mohammad Emtiyaz Raghavan, Harigopal Brahmajosyula, Jagadeesh	Purdue Univ. Indian Inst. of Tech. Madras Honeywell Tech. Solutions Ltd Univ. of Alberta Honeywell Tech. Solutions Ltd
WeC12	
Distributed Parameter Systems IV (Regular Session)	
Nervion II	
Chair: Krstic, Miroslav Co-Chair: Duncan, Stephen	Univ. of California, San Diego Univ. of Oxford
16:00-16:20	
<i>Controlling Spatially Invariant Systems Using Finite Arrays of Actuators and Sensors</i> , pp. 5941-5946	
Duncan, Stephen	Univ. of Oxford
16:20-16:40	
<i>The Infinite-Dimensional Continuous Time Kalman-Yakubovick-Popov Inequality (for Scattering Supply Rate)</i> , pp. 5947-5952	
Arov, Damir Z. Staffans, Olof J.	South-Ukrainian Pedagogical Univ. Lbo Akademi
16:40-17:00	
<i>Conservativity and Time-Flow Invertibility of Boundary Control Systems</i> , pp. 5953-5958	
Malinen, Jarmo	Helsinki Univ. of Tech.
17:00-17:20	
<i>A Closed-Form Observer for the Channel Flow Navier-Stokes System</i> , pp. 5959-5964	
Vazquez, Rafael Krstic, Miroslav	Univ. of California, San Diego Univ. of California, San Diego
17:20-17:40	
<i>Dynamical Analysis of a Tubular Biochemical Reactor Infinite-Dimensional Nonlinear Model</i> , pp. 5965-5970	
Laabissi, Mohamed Winkin, Joseph J. Dochain, Denis Achhab, M. Elarbi	Univ. Chouad'b Doukkali Univ. of Namur (fundp) Univ. Catholique de Louvain Univ. Chouad'b Doukkali
17:40-18:00	
<i>Laplace and Cayley Transforms - an Approximation Point of View</i> , pp. 5971-5976	
Havu, Ville Seppo Ilmari Malinen, Jarmo	Helsinki Univ. of Tech. Helsinki Univ. of Tech.

WeC13		Ecija
Modelling of Mechanical Systems (Regular Session)		
Chair: Melchiorri, Claudio		Univ. degli Studi di Bologna
Co-Chair: Scherpen, Jacquélien M.A.		Delft Univ. of Tech.
16:00-16:20		
<i>Port Contact Systems for Irreversible Thermodynamic Systems</i> , pp. 5977-5982		
Eberard, Damien		Univ. of Lyon 1
Maschke, Bernhard		Univ. Claude Bernard Lyon 1
van der Schaft, Arjan J.		Univ. of Groningen
16:20-16:40		
<i>An Electrical Interpretation of Mechanical Systems Via the Pseudo-Inductor in the Brayton-Moser Equations</i> , pp. 5983-5988		
de Rinaldis, Alessandro		Supélec
Scherpen, Jacquélien M.A.		Delft Univ. of Tech.
16:40-17:00		
<i>Port-Based Modelling and Control of the Mindlin Plate</i> , pp. 5989-5994		
Macchelli, Alessandro		Univ. degli Studi di Bologna
Melchiorri, Claudio		Univ. degli Studi di Bologna
Bassi, Luca		Univ. degli Studi di Bologna
17:00-17:20		
<i>Time-Reversal Symmetry, Poincare Recurrence, Irreversibility, and the Entropic Arrow of Time: From Mechanics to System Thermodynamics</i> , pp. 5995-6002		
Haddad, Wassim M.		Georgia Inst. of Tech.
Chellaboina, VijaySekhar		The Univ. of Tennessee
Nersesov, Sergey		Villanova Univ.
17:20-17:40		
<i>A Power-Based Perspective for Mechanical Systems</i> , pp. 6003-6008		
Jeltsema, Dimitri		Delft Univ. of Tech.
Scherpen, Jacquélien M.A.		Delft Univ. of Tech.
17:40-18:00		
<i>Formal Distributed Port Hamiltonian Representations of Field Equations</i> , pp. 6009-6015		
Nishida, Gou		Tokyo Inst. of Tech.
Yamakita, Masaki		Tokyo Inst. of Tech.
WeC14		Santa Cruz
Stochastic Control in Wireless Networks (Invited Session)		
Chair: Javidi, Tara		Univ. of California, San Diego
Co-Chair: Liu, Mingyan		Univ. of Michigan
Organizer: Sarkar, Saswati		Univ. of Pennsylvania
Organizer: Liu, Mingyan		Univ. of Michigan
Organizer: Javidi, Tara		Univ. of California, San Diego
16:00-16:20		
<i>A Large Deviations Analysis of Scheduling in Wireless Networks (I)</i> , pp. 6016-6021		
Ying, Lei		Univ. of Illinois, Urbana-Champaign
Srikant, R		Univ. of Illinois, Urbana-Champaign
Dullerud, Geir E.		Univ. of Illinois, Urbana-Champaign
16:20-16:40		
<i>Joint Scheduling of Rate-Guaranteed and Best-Effort Services Over a Wireless Channel (I)</i> , pp. 6022-6027		
Zafer, Murtaza		Massachusetts Inst. of Tech.
Modiano, Eytan		Massachusetts Inst. of Tech.
16:40-17:00		
<i>The Impact of Imperfect Information in Multi-Channel Wireless Systems (I)</i> , pp. 6028-6033		
Guha, Ratul K.		Univ. of Pennsylvania
Sarkar, Saswati		Univ. of Pennsylvania
17:00-17:20		
<i>Dynamic Bandwidth Allocation for Low Power Devices with Random Connectivity (I)</i> , pp. 6034-6039		
Ehsan, Navid		Univ. of Michigan
Liu, Mingyan		Univ. of Michigan
17:20-17:40		
<i>Power Control Algorithm for Providing Packet Error Rate Guarantees in Ad-Hoc Networks (I)</i> , pp. 6040-6045		
La, Richard		Univ. of Maryland
Ren, Tianmin		Univ. of Maryland
17:40-18:00		
<i>Jointly Optimal MAC and Transport Layers in CDMA Broadband Networks (I)</i> , pp. 6046-6052		
Price, Jennifer		Univ. of California, San Diego
Javidi, Tara		Univ. of California, San Diego

WeC15		Giralda V
Computer Vision (Regular Session)		
Chair: Picci, Giorgio		Univ. di Padova
Co-Chair: Sznaier, Mario		Pennsylvania State Univ.
16:00-16:20		
<i>Learning and Exploiting Invariants for Multi-Target Tracking and Data Association</i> , pp. 6053-6058		
Frezza, Ruggero		Univ. di Padova
Chiuso, Alessandro		Univ. di Padova
16:20-16:40		
<i>Reciprocal Realization and Modeling of Textured Images</i> , pp. 6059-6064		
Chiuso, Alessandro		Univ. di Padova
Ferrante, Augusto		Univ. di Padova
Picci, Giorgio		Univ. di Padova
16:40-17:00		
<i>Semi-Blind Model (In)Validation with Applications to Texture Classification.</i> , pp. 6065-6070		
Sznaier, Mario		Pennsylvania State Univ.
Mazzaro, Maria Cecilia		GE Global Res.
Camps, Octavia I.		Pennsylvania State Univ.
17:00-17:20		
<i>Geometric Observers for Dynamically Evolving Curves</i> , pp. 6071-6077		
Niethammer, Marc		Georgia Inst. of Tech.
Vela, Patricio A.		Georgia Inst. of Tech.
Tannenbaum, Allen		Univ. of Minnesota
17:20-17:40		
<i>Visual Tracking Control of Aerial Robotic Systems with Adaptive Depth Estimation</i> , pp. 6078-6084		
Metni, Najib		Lab. Central des Ponts et Chaussées
Hamel, Tarek		Univ. de Nice Sophia Antipolis
Derx, François		Lab. Central des Ponts et Chaussées
17:40-18:00		
<i>Vision Based Following of Locally Linear Structures Using an Unmanned Aerial Vehicle</i> , pp. 6085-6090		
Rathinam, Sivakumar		Univ. of California, Berkeley
Kim, Zuwhan		Univ. of California - Berkeley
Soghikian, Aram		Univ. of California, Berkeley
Sengupta, Raja		Univ. of California, Berkeley
WeC16		Giralda III
Stochastic Hybrid Systems (Regular Session)		
Chair: Vidal, Rene		Johns Hopkins Univ.
Co-Chair: Marcus, Steven I.		Univ. of Maryland
16:00-16:20		
<i>Recursive Learning Automata for Control of Partially Observable Markov Decision Processes</i> , pp. 6091-6096		
Chang, Hyeong Soo		Sogang Univ.
Fu, Michael C.		Univ. of Maryland
Marcus, Steven I.		Univ. of Maryland
16:20-16:40		
<i>An Algorithmic Estimation Scheme for Hybrid Stochastic Systems</i> , pp. 6097-6102		
Malcolm, William P.		The National ICT Australia
Elliott, Robert		Univ. of Calgary
Dufour, Francois		Univ. of Bordeaux
Arulampalam, Sanjeev		Defence Sci. & Tech. Organisation
16:40-17:00		
<i>Stochastic Semantics for Communicating Piecewise Deterministic Markov Processes</i> , pp. 6103-6108		
Strubbe, Stefan		Univ. Twente
van der Schaft, Arjan J.		Univ. of Groningen
17:00-17:20		
<i>Algorithmic Bisimulation for Communicating Piecewise Deterministic Markov Processes</i> , pp. 6109-6114		
Strubbe, Stefan		Univ. Twente
van der Schaft, Arjan J.		Univ. of Groningen
17:20-17:40		
<i>Recursive Identification of Switched ARX Models with Unknown Number of Models and Unknown Orders</i> , pp. 6115-6121		
Hashambhoy, Yasmin		Johns Hopkins Univ.
Vidal, Rene		Johns Hopkins Univ.
17:40-18:00		
<i>Hinf Model Approximation for Discrete-Time Markovian Jump Systems with Mode-Dependent Time Delays</i> , pp. 6122-6127		
Wang, Qing		The Univ. of Hong Kong
Lam, James		Univ. of Hong Kong

WeC17		Arenal I
Nonlinear Stabilization (Regular Session)		
Chair: Sepulchre, Rodolphe J. Co-Chair: Gray, W. Steven		Univ. de Liege Old Dominion Univ.
16:00-16:20		
<i>Input-To-Output Stabilization of Nonlinear Systems Via Backstepping</i> , pp. 6128-6133		
Efimov, Denis Fradkov, Alexander L.	Inst. of Problems of Mechanical Engineering Inst. of Problems of Mechanical Engineering	
16:20-16:40		
<i>A New Method to Design Discontinuous Stabilizing Controllers for Cascade Systems</i> , pp. 6134-6139		
Ogata, Akihiro Saito, Osami		Chiba Univ. Chiba Univ.
16:40-17:00		
<i>Local Convergence of the Feedback Product Via the Asymptotics of the Catalan Numbers</i> , pp. 6140-6145		
Gray, W. Steven Li, Yaqin		Old Dominion Univ. Old Dominion Univ.
17:00-17:20		
<i>Timing Feedback Control of a Rhythmic System</i> , pp. 6146-6151		
Ronsse, Renaud Lefevre, Philippe Sepulchre, Rodolphe J.		Univ. de Liege Univ. Catholique de Louvain Univ. de Liege
17:20-17:40		
<i>Asymptotic Properties of Extended Kalman Filters for a Class of Nonlinear Systems</i> , pp. 6152-6157		
Ahrens, Jeffrey Khalil, Hassan K.		Michigan State Univ. Michigan State Univ.
17:40-18:00		
<i>Constrained Minimum-Time-Oriented Stabilization of Extended Chained Form Systems</i> , pp. 6158-6163		
Hably, Ahmad Marchand, Nicolas Alamir, Mazen	Lab. d'Automatique de Grenoble CNRS ENSIEG - INPG	
WeIC18		Giralda VI
Mechanical Systems I (Interactive Session)		
Chair: Marconi, Lorenzo Co-Chair: O'Connor, William J		Univ. degli Studi di Bologna Univ. Coll. Dublin
16:00-18:00		
<i>Model Orbit Robust Stabilization (MORS) of Pendubot with Application to Swing up Control</i> , pp. 6164-6169		
Orlov, Yuri V. Aguilar, Luis Acho, Leonardo		CICESE CITEDI-IPN CITEDI-IPN
16:00-18:00		
<i>Robust Acceleration Control of Electrodynamical Shaker Using Mu-Synthesis</i> , pp. 6170-6175		
Uchiyama, Yasuhiro Mukai, Masakazu Fujita, Masayuki		IMV Corp. Kyushu Univ. Tokyo Inst. of Tech.
16:00-18:00		
<i>On the Driven Inverted Pendulum</i> , pp. 6176-6180		
Hauser, John Saccon, Alessandro Frezza, Ruggero		Univ. of Colorado, Boulder Univ. di Padova Univ. di Padova
16:00-18:00		
<i>Excellent Control of Flexible Systems Via Control of the Actuator-System Interface</i> , pp. 6181-6186		
O'Connor, William J		UCD Dublin
16:00-18:00		
<i>Levitation and Propulsion Control of a Magnetic Levitation System with Two Degrees of Freedom</i> , pp. 6187-6191		
Castro-Linares, Rafael Estrada-Durán, David		CINVESTAV CINVESTAV
16:00-18:00		
<i>Robust Vertical/Lateral/Longitudinal Control of an Helicopter with Constant Yaw-Attitude</i> , pp. 6192-6197		
Béjar Domínguez, Manuel Isidori, Alberto Marconi, Lorenzo Naldi, Roberto		Univ. de Sevilla Washington Univ. Univ. degli Studi di Bologna Univ. degli Studi di Bologna

WeIC19		Giralda VII
Methods in Linear and Nonlinear Control (Interactive Session)		
Chair: Qiu, Li		Hong Kong Univ. of Sci. & Tech.
Co-Chair: Ushio, Toshimitsu		Osaka Univ.
16:00-18:00		
<i>Multi-Resource Allocation Control for Fair QoS Management in Real-Time Systems</i> , pp. 6198-6203		
Harada, Fumiko		Osaka Univ.
Ushio, Toshimitsu		Osaka Univ.
Nakamoto, Yukikazu		Univ. of Hyogo
16:00-18:00		
<i>On Performance Limitation in Tracking Sinusoids</i> , pp. 6204-6209		
Su, Weizhou		South China Univ. of Tech.
Qiu, Li		Hong Kong Univ. of Sci. & Tech.
Chen, Jie		Univ. of California, Riverside
16:00-18:00		
<i>Min-Max MPC Using a Tractable QP Problem</i> , pp. 6210-6215		
Alamo, Teodoro		Univ. de Sevilla
Ramirez, Daniel R.		Univ. de Sevilla
Muñoz de la Peña, David		Univ. de Sevilla
16:00-18:00		
<i>The Three-Tank System: A Remote and Virtual Control Laboratory Using Easy Java Simulations*</i>		
Duro, Natividad		Univ. Nacional de Educacion a Distancia
Dormido, Raquel		Univ. Nacional de Educacion a Distancia
Renato Vargas, Hector		Univ. Nacional de Educacion a Distancia
Dormido, Sebastián		Univ. Nacional de Educacion a Distancia
Sánchez Moreno, José		Univ. Nacional de Educacion a Distancia
Pastor, Rafael		Univ. Nacional de Educacion a Distancia
Dormido Canto, Sebastián		Univ. Nacional de Educacion a Distancia
16:00-18:00		
<i>Improved Computation of Ellipsoidal Invariant Sets for Saturated Control Systems</i> , pp. 6216-6221		
Alamo, Teodoro		Univ. de Sevilla
Cepeda, Alfonso		Univ. de Sevilla
Limón, Daniel		Univ. de Sevilla
16:00-18:00		
<i>Interactive 3D Simulation of Flat Systems: The SpiderCrane As a Case Study</i> , pp. 6222-6227		
Bucciari, Davide		Ec. Pol. Fed. de Lausanne
Sánchez Moreno, José		Univ. Nacional de Educacion a Distancia
Dormido, Sebastián		Univ. Nacional de Educacion a Distancia
Muellhaupt, Philippe		Ec. Pol. Fed. de Lausanne
Bonvin, Dominique		Ec. Pol. Fed. de Lausanne
WeIC20		Giralda VIII
Biological and Bioprocess Systems (Interactive Session)		
Chair: Bates, Declan G.		Univ. of Leicester
Co-Chair: Swierniak, Andrzej		Silesian Tech. Univ.
16:00-18:00		
<i>Positive Dynamic Systems Resulting from Modeling Cancer Chemotherapy</i> , pp. 6228-6233		
Swierniak, Andrzej		Silesian Tech. Univ.
16:00-18:00		
<i>Robustness Analysis of Biochemical Networks Using Mu-Analysis and Hybrid Optimisation</i> , pp. 6234-6239		
Kim, Jongrae		Univ. of Leicester
Bates, Declan G.		Univ. of Leicester
Postlethwaite, Ian		Univ. of Leicester
Ma, Lan		Johns Hopkins Univ.
Iglesias, Pablo A.		Johns Hopkins Univ.
16:00-18:00		
<i>Continuous-Discrete Observer for Crystal Size Distribution of Batch Crystallization Process</i> , pp. 6240-6244		
Bakir, Toufik		Univ. Claude Bernard Lyon 1
Othman, Sami		Univ. Claude Bernard Lyon 1
Puel, François		Univ. Claude Bernard Lyon 1
Hammouri, Hassan		Univ. Claude Bernard Lyon 1
16:00-18:00		
<i>Oscillatory Conditions for Nonlinear Systems with Delay</i> , pp. 6245-6249		
Efimov, Denis		Inst. of Problems of Mechanical Engineering
Fradkov, Alexander L.		Inst. of Problems of Mechanical Engineering

16:00-18:00
Virtual Leader Approach to Coordinated Control of Multiple Mobile Agents with Asymmetric Interactions, pp. 6250-6255
 Shi, Hong Peking Univ.
 Wang, Long Peking Univ.
 Chu, Tianguang Peking Univ.

16:00-18:00
State Reconstruction in Spatially Distributed BioProcess Systems Using Reduced Order Models: Application to the Gluconic Acid Production, pp. 6256-6261
 García, Miriam R. IIM-CSIC
 Vilas, Carlos IIM-CSIC
 Banga, Julio R. IIM-CSIC
 Lyubenova, Velislava Inst. of Control and System Res. Bulgarian Acad. Sci.
 Ignatova, Maya Inst. of Control and System Res. Bulgarian Acad. of Sci.
 Alonso, Antonio A. IIM-CSIC

16:00-18:00
Modeling the Detection of Motion Direction Signals in the Visual Cortex of Flies, pp. 8379-8384
 Chen, Baili Texas Tech. Univ.
 Martin, Clyde F. Texas Tech. Univ.

WeIC21 Hall Triana
Fault Tolerant Systems (Interactive Session)

Chair: Theilliol, Didier Univ. Henri Poincare, Nancy 1
 Co-Chair: Zhao, Qing Univ. of Alberta

16:00-18:00
Adaptive Feature Based Control of Compact Disk Players, pp. 6262-6267
 Odgaard, Peter Fogh Aalborg Univ.
 Stoustrup, Jakob Aalborg Univ.
 Vidal, Enrique Bang & Olufsen a/s

16:00-18:00
Design of a Robust Polytopic Unknown Input Observer for FDI: Application for Systems Described by a Multi-Model Representation, pp. 6268-6273
 Rodrigues, Mickael Univ. Henri Poincare, Nancy 1
 Theilliol, Didier Univ. Henri Poincare, Nancy 1
 Sauter, Dominique D.J. Univ. Henri Poincare, Nancy 1

16:00-18:00
Design of Stochastic Fault Tolerant Control for H2 Performance, pp. 6274-6279
 Tao, Feng Univ. of Alberta
 Zhao, Qing Univ. of Alberta

16:00-18:00
Stabilizing Controller Parametrization of Fault Tolerant Control Systems, pp. 6280-6285
 Li, Hongbin Univ. of Alberta
 Zhao, Qing Univ. of Alberta

16:00-18:00
An Experiment-Based Methodology for Robust Design of Optimal Residual Generators, pp. 6286-6291
 Romano, Daniele Univ. di Cagliari
 Kinnaert, Michel Univ. Libre de Bruxelles

16:00-18:00
Fault Accommodation Strategy for LTI Systems Based on GIMC Structure: Additive Faults, pp. 6292-6297
 Campos-Delgado, Daniel U. UASLP
 Palacios, Elvia UASLP
 Espinoza-Trejo, Diego Rivelino UASLP

ThA01 Giralda I
Diagnosis in Discrete-Event Systems (Regular Session)

Chair: Fabre, Eric IRISA - INRIA
 Co-Chair: Thistle, John G. Univ. of Waterloo

08:30-08:50
Decentralized Diagnosis of Discrete Event Systems Using Unconditional and Conditional Decisions, pp. 6298-6304
 Wang, Yin Univ. of Michigan
 Yoo, Tae-sic Idaho National Lab.
 Lafortune, Stephane Univ. of Michigan

08:50-09:10
Distributed Diagnosis for Petri Net Models with Unobservable Interactions Via Common Places, pp. 6305-6310
 Jiroveanu, George Ghent Univ.
 Boel, Rene K. Univ. of Ghent

09:10-09:30	<i>Computation of Diagnosable Fault-Occurrence Indices for Systems with Repeatable-Faults</i> , pp. 6311-6316 Zhou, Changyan Kumar, Ratnesh	Iowa State Univ. Iowa State Univ.
09:30-09:50	<i>Uncomputability of Supremal Local Supports in Distributed Diagnosis</i> , pp. 6317-6322 Thistle, John G. Su, Rong	Univ. of Waterloo Eindhoven Univ. of Tech.
09:50-10:10	<i>Fault Detection for Discrete Event Systems Using Petri Nets with Unobservable Transitions</i> , pp. 6323-6328 Giua, Alessandro Seatzu, Carla	Univ. di Cagliari Univ. di Cagliari
10:10-10:30	<i>Distributed Diagnosis Based on Trellis Processes</i> , pp. 6329-6334 Fabre, Eric	IRISA - INRIA

ThA02		Giralda IV
Nonlinear Observers (Regular Session)		
	Chair: Kravaris, Costas Co-Chair: Barbot, Jean Pierre	Univ. of Patras ENSEA
08:30-08:50	<i>Probabilistic Curve Evolution Using Particle Filters</i> , pp. 6335-6340 Pan, Yongsheng Birdwell, J. Douglas Djouadi, Seddik	The Univ. of Tennessee The Univ. of Tennessee The Univ. of Tennessee
08:50-09:10	<i>A New Observation Algorithm for Nonlinear Systems with Unknown Inputs</i> , pp. 6341-6346 Barbot, Jean Pierre Boutat, Driss Floquet, Thierry	ENSEA Ensi De Bourges Ec. Centrale de Lille
09:10-09:30	<i>On the Observer Problem for Discrete-Time Control Systems</i> , pp. 6347-6352 Karafyllis, Iasson Kravaris, Costas	Univ. of Athens Univ. of Patras
09:30-09:50	<i>Observer Design for Nonlinear Systems: An Approach Based on the Differential Mean Value Theorem</i> , pp. 6353-6358 Zemouche, Ali Boutayeb, M. Bara, Iulia G.	Univ. Louis Pasteur Univ. Louis Pasteur Univ. Louis Pasteur, LSIT - EAVR
09:50-10:10	<i>A High Gain Observer for a Class of Implicit Systems</i> , pp. 6359-6363 El Assoudi, Abdellatif El Yaagoubi, El hassane Hammouri, Hassan	ENSEM ENSEM, Univ. Hassan II ain chock Univ. Claude Bernard Lyon 1
10:10-10:30	<i>Dynamic Observer Error Linearization</i> , pp. 6364-6369 Back, Juhoon Yu, Kyung Tak Seo, Jin H.	Imperial Coll. Seoul National Univ. Seoul National Univ.

ThA03		Giralda II
Cooperative Control III (Regular Session)		
	Chair: Pereira, Fernando Lobo Co-Chair: Mesbahi, Mehran	Univ. do Porto. Inst. For Systems & Robotics Univ. of Washington
08:30-08:50	<i>Synchronization of State Based Control Processes with Delayed and Asynchronous Measurements</i> , pp. 6370-6375 Hindi, Haitham Crawford, Lara S. Fromherz, Markus	Palo Alto Res. Center Palo Alto Res. Center Palo Alto Res. Center
08:50-09:10	<i>Achieving Coordination Tasks in Finite Time Via Nonsmooth Gradient Flows</i> , pp. 6376-6381 Cortes, Jorge	Univ. of California, Santa Cruz
09:10-09:30	<i>Agreement in Presence of Noise: Pseudogradients on Random Geometric Networks</i> , pp. 6382-6387 Hatano, Yuko Das, Arindam Kumar Mesbahi, Mehran	Univ. of Washington Univ. of Washington Univ. of Washington

09:30-09:50	<i>Controlling Connectivity of Dynamic Graphs</i> , pp. 6388-6393 Zavlanos, Michael Pappas, George J.	Univ. of Pennsylvania Univ. of Pennsylvania
09:50-10:10	<i>Motion Planning and Control of Coordinated Systems</i> , pp. 6394-6399 Sousa, Joao Pereira, Fernando Lobo	Univ. do Porto Univ. do Porto
10:10-10:30	<i>Relative Sensing Networks: Observability, Estimation, and the Control Structure</i> , pp. 6400-6405 Sandhu, Jasmine Mesbahi, Mehran Tsukamaki, Takashi	Univ. of Washington Univ. of Washington The Boeing Co.
ThA04		Utrera
Identification - Nonlinear (Regular Session)		
	Chair: Bai, Er-Wei Co-Chair: Milanese, Mario	The Univ. of Iowa Pol. di Torino
08:30-08:50	<i>Identification of an Additive NFIR System</i> , pp. 6406-6411 Bai, Er-Wei	The Univ. of Iowa
08:50-09:10	<i>Estimation and Rejection of Unknown Sinusoidal Disturbances in Non-Minimum-Phase Nonlinear Output-Feedback Systems</i> , pp. 6412-6417 Ding, Zhengtao	The Univ. of Manchester
09:10-09:30	<i>Parametric Identification of Nonlinear Systems: Guaranteed Confidence Regions</i> , pp. 6418-6423 Dalai, Marco Weyer, Erik Campi, M. C.	Univ. of Brescia The Univ. of Melbourne Univ. di Brescia
09:30-09:50	<i>Non-Parametric Identification of Multi-Channel Hammerstein Systems by Generalized Kernel Methods*</i> Pawlak, Mirosław Hasiewicz, Zygmunt	Univ. of Manitoba Wrocław Univ. of Tech.
09:50-10:10	<i>Guaranteed Robust Nonlinear State Estimator with Application to Global Vehicle Tracking</i> , pp. 6424-6429 Kieffer, Michel Seigneur, Emmanuel Lambert, Alain Walter, Eric Maurin, Thierry	CNRS-Supélec-Univ. Paris - Sud 11 IEF - CNRS Univ. Paris - Sud 11 IEF - CNRS - Univ. Paris - Sud 11 CNRS-Supélec-Univ. Paris - Sud 11 IEF - CNRS - Univ. Paris - Sud 11
10:10-10:30	<i>Identification of Nonlinear Maps in Interconnected Systems</i> , pp. 6430-6435 Hsu, Kenneth Vincent, Tyrone L. Novara, Carlo Milanese, Mario Poolla, Kameshwar	Univ. of California, Berkeley Colorado School of Mines Pol. di Torino Pol. di Torino Univ. of California, Berkeley
ThA05		Lebrija
Linear Controller Design (Regular Session)		
	Chair: Zattoni, Elena Co-Chair: Bates, Declan G.	Univ. degli Studi di Bologna Univ. of Leicester
08:30-08:50	<i>Control Oriented Uncertainty Modelling Using Mu Sensitivities and Skewed Mu Analysis Tools</i> , pp. 6436-6441 Marcos, Andrés Bates, Declan G. Postlethwaite, Ian	Univ. of Leicester Univ. of Leicester Univ. of Leicester
08:50-09:10	<i>Controller Certification</i> , pp. 6442-6447 Park, Jisang Bitmead, Robert	Univ. of California, San Diego Univ. of California, San Diego
09:10-09:30	<i>Measurable Signal Decoupling through Self-Bounded Controlled Invariants: Minimal Unassignable Dynamics of Feedforward Units for Pre-Stabilized Systems</i> , pp. 6448-6453 Marro, Giovanni Zattoni, Elena	Univ. degli Studi di Bologna Univ. degli Studi di Bologna

09:30-09:50	<i>Identification and Control: Joint Input Design and H-Infinity State Feedback with Ellipsoidal Parametric Uncertainty</i> , pp. 6454-6459	Royal Inst. of Tech. Royal Inst. of Tech.
	Barenthin, Marta Hjalmarsson, Hakan	
09:50-10:10	<i>Efficient Convex Design of Robust Feedforward Controllers</i> , pp. 6460-6465	ONERA-CERT / DCSD ONERA-CERT / DCSD
	Ferreres, Gilles Roos, Clément	
10:10-10:30	<i>Pre-Filter Design for Tracking Error Specifications in MIMO-QFT</i> , pp. 6466-6471	K.N. Toosi Univ. of Tech. K.N. Toosi Univ. of Tech. K.N. Toosi Univ. of Tech.
	Alavi, Seyyed Mohammad Mahdi Khaki Sedigh, Ali Labibi, Batool	

ThA06 Prado

Applications of Robust Control (Regular Session)

	Chair: Rodriguez, Armando A. Co-Chair: Fuchshumer, Stefan	Arizona State Univ. Johannes Kepler Univ. Linz
08:30-08:50	<i>Globally Stabilizing Robust Adaptive Voltage and Speed Regulator for Large-Scale Power Systems</i> , pp. 6472-6479	Royal Military Coll. of Canada Ec. de Tech. Sup. Univ. du Québec Ec. de Tech. Sup.
	okou, Francis A. Dessaint, Louis-A. Akhrif, Ouassima	
08:50-09:10	<i>A Repetitive Based Controller for a Shunt Active Filter to Compensate for Reactive Power and Harmonic Distortion</i> , pp. 6480-6485	IPICYT LSS - Supélec Imperial Coll. IPICYT IPICYT
	Escobar, Gerardo Ortega, Romeo Astolfi, Alessandro Martinez, Misael Leyva-Ramos, Jesus	
09:10-09:30	<i>H Infinity Cruise-To-Hover Conversion for a Tilt-Wing Rotorcraft</i> , pp. 6486-6491	Arizona State Univ. Arizona State Univ. Jet Propulsion Lab. Arizona State Univ. Arizona State Univ. Honeywell, AZ Arizona State Univ.
	Dickeson, Jeffrey Mix, David R. Koenig, John Cifdaloz, Oguzhan Rodriguez, Armando A. Linda, Karen M. Wells, Valana	
09:30-09:50	<i>Nonlinear Vehicle Dynamics Control - a Flatness Based Approach</i> , pp. 6492-6497	Johannes Kepler Univ. Linz Johannes Kepler Univ. Linz Johannes Kepler Univ. Linz
	Fuchshumer, Stefan Schlacher, Kurt Rittenschober, Thomas	
09:50-10:10	<i>Multivariable Control for Reference Tracking on Half Car Test Rig</i> , pp. 6498-6503	Katholieke Univ. Leuven Katholieke Univ. Leuven Katholieke Univ. Leuven Katholieke Univ. Leuven
	Vaes, David Smolders, Kris Swevers, Jan Sas, Paul	
10:10-10:30	<i>On a Robust Bounded Control Design of the Combined Wheel Slip for an Autonomous 4WS4WD Ground Vehicle</i> , pp. 6504-6509	Southern Taiwan Univ. of Tech. Southern Taiwan Univ. of Tech. Southern Taiwan Univ. of Tech.
	Peng, Shou-Tao Sheu, Jer-Jia Chang, Chau-Chin	

ThA07 Estepa

Stability and Structure Assignment (Regular Session)

	Chair: Polyak, B.T. Co-Chair: Duan, Guang-Ren	Moscow Inst. of Control Sci. Harbin Inst. of Tech.
08:30-08:50	<i>Geometry of the Stability Domain in the Parameter Space: D-Decomposition Technique</i> , pp. 6510-6515	Moscow Inst. of Physics and Tech. Moscow Inst. of Control Sci.
	Gryazina, Elena Polyak, B.T.	

08:50-09:10	<i>Further Results on Structural Assignment of Linear Systems</i> , pp. 6516-6521	Univ. of Virginia Univ. of Virginia National Univ. of Singapore
	Liu, Xinmin Lin, Zongli Chen, Ben M.	
09:10-09:30	<i>Classification of Linear Planar Systems with Hybrid Feedback Control</i> , pp. 6522-6526	Weizmann Inst. of Sci. Perm State Tech. Univ. Perm State Univ. Norwegian Univ. of Life Sci.
	Litsyn, Elena Myasnikova, Marina Nepomnyashchikh, Yuri V. Ponosov, Arcady	
09:30-09:50	<i>Pole Placement of Time-Varying State Space Representations</i> , pp. 6527-6532	Helsinki Univ. of Tech. Helsinki Univ. of Tech.
	Zenger, Kai Ylinen, Raimo	
09:50-10:10	<i>The Complete Set of PID Controllers with Guaranteed Gain and Phase Margins</i> , pp. 6533-6538	Ajou Motor Coll. Chungbuk National Univ.
	Kim, Keunsik Kim, Young Chol	
10:10-10:30	<i>Parametric Approaches for Eigenstructure Assignment in High-Order Descriptor Linear Systems</i> , pp. 6539-6544	Harbin Inst. of Tech.
	Duan, Guang-Ren	

ThA08	Triana
Computational Methods I (Regular Session)	

	Chair: Varga, Andras Co-Chair: Benner, Peter	German Aerospace Center TU Chemnitz
08:30-08:50	<i>On Solving Periodic Differential Matrix Equations with Applications to Periodic System Norms Computation</i> , pp. 6545-6550	German Aerospace Center
	Varga, Andras	
08:50-09:10	<i>New Hamiltonian Eigensolvers with Applications in Control</i> , pp. 6551-6556	TU Chemnitz Univ. of Zagreb
	Benner, Peter Kressner, Daniel	
09:10-09:30	<i>Model Reduction Via Projection of State Space Systems</i> , pp. 6557-6560	Univ. Catholique de Louvain Univ. Catholique de Louvain
	Vandendorpe, Antoine Van Dooren, Paul	
09:30-09:50	<i>Extrapolation Based Interval Approach to Compute the Frequency Responses of Non-Rational Transfer Functions with Nonlinear Parametric Dependencies</i> , pp. 6561-6566	Indian Inst. of Tech. Indian Inst. of Tech., Bombay,
	Nataraj, P.S.V. Sondur, Shanta	
09:50-10:10	<i>Observers for Interval Systems Using Set and Trajectory-Based Approaches</i> , pp. 6567-6572	Univ. Pol. de Catalunya Univ. Pol. de Catalunya Univ. Pol. de Catalunya
	Puig, Vicenç Stancu, Alexandru Quevedo, Joseba	
10:10-10:30	<i>A Class of Higher Order Algorithms for Computing Polynomial Zeros</i> , pp. 6573-6578	Univ. of Minnesota
	Hasan, Mohammed A.	

ThA09	Nervion III
Nonlinear Discrete-Time Systems (Regular Session)	

	Chair: Kotsios, Stelios Co-Chair: Lee, Ti-Chung	Univ. of Athens Ming Hsin Univ. of Sci. & Tech.
08:30-08:50	<i>Controlled Lagrangian and Stabilization of Discrete Mechanical Systems</i> , pp. 6579-6584	Univ. of Michigan Univ. of Michigan California Inst. of Tech. North Carolina State Univ.
	Bloch, Anthony M. Leok, Melvin Marsden, Jerrold E. Zenkov, Dmitry	
08:50-09:10	<i>On Uniform Global Asymptotic Stability of Nonlinear Discrete-Time Systems</i> , pp. 6585-6590	Ming Hsin Univ. of Sci. & Tech. Pol. Univ.
	Lee, Ti-Chung Jiang, Zhong-Ping	

- 09:10-09:30
Summation-Type Conditions for Uniform Asymptotic Convergence in Discrete-Time Systems: Applications in Identification, pp. 6591-6596
 Loria, Antonio CNRS
 Lamnabhi-Lagarrigue, Françoise CNRS
 Nešić, Dragan The Univ. of Melbourne
- 09:30-09:50
On the Differential/difference Representation of Sampled Dynamics, pp. 6597-6602
 Monaco, Salvatore Univ. di Roma La Sapienza
 Normand-Cyrot, Marie-dorothee CNRS-ESE
- 09:50-10:10
A Model Matching Algorithm for a Class of Nonlinear Discrete Systems. a Symbolic Approach., pp. 6603-6607
 Kotsios, Stelios Univ. of Athens
- 10:10-10:30
Virtual Reference Feedback Tuning for Non-Linear Systems, pp. 6608-6613
 Campi, M. C. Univ. di Brescia
 Savaresi, Sergio M. Pol. Di Milano

ThA10 Arenal III
Stochastic and Randomized Algorithms for Optimization and Control (Invited Session)

- Chair: Piccoli, Benedetto IAC - CNR
 Co-Chair: Dabbene, Fabrizio Pol. di Torino
 Organizer: Piccoli, Benedetto IAC - CNR
 Organizer: Dabbene, Fabrizio Pol. di Torino
- 08:30-08:50
Average and Worst-Case Techniques in Convex Optimization with Stochastic Uncertainty (I), pp. 6614-6619
 Calafiore, Giuseppe Pol. di Torino
 Dabbene, Fabrizio Pol. di Torino
- 08:50-09:10
A Method for Stopping Nonconvergent Stochastic Approximation Processes (I), pp. 6620-6625
 Hutchison, David W. Johns Hopkins Univ.
 Spall, James C. Johns Hopkins Univ.
- 09:10-09:30
Relative Frequencies of Non-Homogeneous Markov Chains in Simulated Annealing and Related Algorithms (I), pp. 6626-6631
 Hannig, Jan Colorado State Univ.
 Chong, Edwin K. P. Colorado State Univ.
 Kulkarni, Sanjeev R. Princeton Univ.
- 09:30-09:50
The Realization Problem for Hidden Markov Models: The Complete Realization Problem (I), pp. 6632-6637
 Vidyasagar, Mathukumalli Tata Consultancy Services
- 09:50-10:10
Randomized Algorithms for Platform-Based Design (I), pp. 6638-6643
 Agostini, Andrea Univ. di Pisa
 Balluchi, Andrea PARADES G.E.I.E.
 Bicchi, Antonio Univ. di Pisa
 Piccoli, Benedetto IAC - CNR
 Sangiovanni-Vincentelli, Alberto Univ. of California, Berkeley
 Zadarnowska, Katarzyna Wroclaw Univ. of Tech.
- 10:10-10:30
Polynomial-Time Probabilistic Observability Analysis of Sampled-Data Piecewise Affine Systems, pp. 6644-6649
 Azuma, Shun-ichi Kyoto Univ.
 Imura, Jun-ichi Tokyo Inst. of Tech.

ThA11 Carmona
Stochastic Systems I (SIAM) (Regular Session)

- Chair: Budhiraja, Amaxjit Univ. of North Carolina at Chapel Hill
 Co-Chair: Fragoso, Marcelo Lab. Nacional de Computacao Cientifica
- 08:30-08:50
Optimal Consumption-Investment Problems in Incomplete Markets with Random Coefficients, pp. 6650-6655
 Castañeda-Leyva, Netzahualcōyotl Univ. Autónoma de Aguascalientes
 Hernandez-Hernandez, Daniel CIMAT
- 08:50-09:10
Stability of Stochastic Approximation under Verifiable Conditions, pp. 6656-6661
 Andrieu, Christophe Univ. of Bristol
 Moulines, Eric ENST-Paris
 Priouret, Pierre Univ. Paris VI

09:10-09:30	<i>Stochastic Approximations and Differential Inclusions*</i>	
	Benaïm, Michel	Univ. de Neuchatel
	Hofbauer, Josef	Univ. Coll.
	Sorin, sylvain	Univ. P et M Curie - Paris 6
09:30-09:50	<i>New Approach to Detectability of Discrete-Time Infinite Markov Jump Linear Systems</i> , pp. 6662-6667	
	Costa, Eduardo F.	Univ. de Sao Paulo
	Do Val, Joao B.R.	UNICAMP
	Fragoso, Marcelo	Lab. Nacional de Computacao Cientifica
09:50-10:10	<i>HJB Equations for Ergodic Control Problems for Constrained Diffusions in Polyhedral Domains.</i> , pp. 6668-6672	
	Borkar, Vivek S.	Tata Inst. of Fundamental Res.
	Budhiraja, Amarjit	Univ. of North Carolina at Chapel Hill

ThA12		Nervion II
Distributed Optimization for Control Over Networks (Invited Session)		
	Chair: Dunbar, William B.	Univ. of California
	Co-Chair: Shamma, Jeff S.	Univ. of California, Los Angeles
	Organizer: Dunbar, William B.	Univ. of California, Santa Cruz
08:30-08:50	<i>A Distributed Receding Horizon Control Algorithm for Dynamically Coupled Nonlinear Systems (I)</i> , pp. 6673-6679	
	Dunbar, William B.	Univ. of California, Santa Cruz
08:50-09:10	<i>Stability and Optimality of Distributed Model Predictive Control (I)</i> , pp. 6680-6685	
	Venkat, Aswin N.	Univ. of Wisconsin, Madison
	Rawlings, James B.	Univ. of Wisconsin, Madison
	Wright, Stephen Joseph	Univ. of Wisconsin, Madison
09:10-09:30	<i>A Simple Condition for the Convexity of Optimal Control Over Networks with Delays (I)</i> , pp. 6686-6691	
	Rotkowitz, Michael	Stanford Univ.
	Cogill, Randy	Stanford Univ.
	Lall, Sanjay	Stanford Univ.
09:30-09:50	<i>Joint Strategy Fictitious Play with Inertia for Potential Games (I)</i> , pp. 6692-6697	
	Marden, Jason	Univ. of California, Los Angeles
	Arslan, Gurdal	Univ. of Hawaii at Manoa
	Shamma, Jeff S.	Univ. of California, Los Angeles
09:50-10:10	<i>Consensus Filters for Sensor Networks and Distributed Sensor Fusion (I)</i> , pp. 6698-6703	
	Olfati-Saber, Reza	Dartmouth Coll.
	Shamma, Jeff S.	Univ. of California, Los Angeles
10:10-10:30	<i>Networked Control System Design Over a Wireless LAN</i> , pp. 6704-6709	
	Drew, Michael	Univ. of California, Berkeley
	Liu, Xiangheng	Stanford Univ.
	Goldsmith, Andrea	Stanford Univ.
	Hedrick, Karl	Univ. of California, Berkeley

ThA13		Ecija
Control in Automotive Applications (Regular Session)		
	Chair: Stotsky, Alexander A.	Volvo Car Corp.
	Co-Chair: Bokor, Jozsef	Hungarian Acad. of Sci.
08:30-08:50	<i>Adaptive Estimation of the Engine Friction Torque</i> , pp. 6710-6715	
	Stotsky, Alexander A.	Volvo Car Corp.
08:50-09:10	<i>Differential Game Based Safe Controller Design for Intelligent Cruise Control</i> , pp. 6716-6721	
	Zheng, Zhibo	Columbia Univ.
	Sousa, Joao	Univ. do Porto
	Girard, Anouck	Columbia Univ.
09:10-09:30	<i>The Design of an Integrated Control System in Heavy Vehicles Based on an LPV Method</i> , pp. 6722-6727	
	Gaspar, Peter	Computer & Automation Inst. of HAS
	Szabo, Zoltan	Hungarian Acad. of Sci.
	Bokor, Jozsef	Hungarian Acad. of Sci.

09:30-09:50	<i>Vehicle Velocity Estimation Using Nonlinear Observers</i> , pp. 6728-6733	
	Imstrand, Lars	Sintef ICT
	Johansen, Tor Arne	Norwegian Univ. of Sci. & Tech.
	Fossen, Thor I.	Norwegian Univ. of Sci. & Tech.
	Kalkkuhl, Jens Christian	DaimlerChrysler AG
	Suissa, Avshalom	DaimlerChrysler AG
09:50-10:10	<i>Observability Matrix and Parameter Identification: Application to Vehicle Tyre Cornering Stiffness</i> , pp. 6734-6739	
	STEPHANT, Joanny	Heudiasyc Lab. UMR CNRS/UTC 6599
	Charara, Ali	UMR CNRS 6599
10:10-10:30	<i>Modeling and Control of Diesel Auxiliary Power Unit for Series Hybrid Electric Vehicles*</i>	
	He, Bin	Tsinghua Univ.
	Ouyang, minggao	Tsinghua Univ.
	Lu, Languang	Tsinghua Univ.

ThA14		Santa Cruz
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Analysis and Control of Networks - Part I: Congestion Control (Invited Session)		
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	Chair: Bařar, Tamer	Univ. of Illinois, Urbana-Champaign
	Co-Chair: Chisci, Luigi	Univ. degli Studi di Firenze
	Organizer: Bařar, Tamer	Univ. of Illinois, Urbana-Champaign
	Organizer: Chisci, Luigi	Univ. degli Studi di Firenze
	Organizer: Di Bernardo, Mario	Univ. di Napoli Federico II
08:30-08:50	<i>A Global Stability Result in Utility-Based Congestion Control (I)</i> , pp. 6740-6743	
	Imer, Orhan Cagri	Univ. of Illinois, Urbana-Champaign
	Bařar, Tamer	Univ. of Illinois, Urbana-Champaign
08:50-09:10	<i>Local Analysis of Structural Limitations of Network Congestion Control (I)</i> , pp. 6744-6749	
	Jacobsson, Krister	Royal Inst. of Tech.
	Hjalmarsson, Hakan	Royal Inst. of Tech.
09:10-09:30	<i>Congestion Control and Sizing Router Buffers in the Internet (I)</i> , pp. 6750-6755	
	Mascolo, Saverio	Pol. di Bari
	Vacirca, Francesco	Univ. di Roma, La Sapienza
09:30-09:50	<i>Performance of Robust AQM Controllers in Multibottleneck Scenarios (I)</i> , pp. 6756-6761	
	Di Bernardo, Mario	Univ. di Napoli Federico II
	Garofalo, Franco	Univ. di Napoli Federico II
	Manfredi, Sabato	Univ. di Napoli Federico II
09:50-10:10	<i>Synchronization of TCP Flows in Networks with Small DropTail Buffers (I)</i> , pp. 6762-6767	
	Han, Huaizhong	Univ. of Massachusetts
	Hollot, C. V.	Univ. of Massachusetts
	Towsley, Don	Univ. of Massachusetts
	Chait, Yossi	Univ. of Massachusetts
10:10-10:30	<i>H2 Performance Limitation of Congestion Controller for TCP/AQM Network Systems</i> , pp. 6768-6773	
	Tsumura, Koji	The Univ. of Tokyo
	Hara, Shinji	The Univ. of Tokyo
	Nakajima, Atsushi	The Univ. of Tokyo

ThA15		Giralda V
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Electromechanical and Power Systems (Regular Session)		
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	Chair: Daafouz, Jamal	CRAN -INPL
	Co-Chair: Alamo, Teodoro	Univ. de Sevilla
08:30-08:50	<i>A Hybrid System Approach to Power Systems Voltage Control</i> , pp. 6774-6779	
	Beccuti, Andrea Giovanni	ETH Zurich
	Geyer, Tobias	ETH Zurich
	Morari, Manfred	ETH Zurich
08:50-09:10	<i>Improved Numerical Integration Method for Power/Power Electronic Systems Simulation Based on Three-Point Collocation</i> , pp. 6780-6787	
	Meliopoulos, Sakis	Georgia Inst. of Tech.
	Cokkinides, George	Georgia Inst. of Tech.
	Stefopoulos, George	Georgia Inst. of Tech.

09:10-09:30	<i>A Nonlinear Controller Design for Embedded Electrical Networks</i> , pp. 6788-6793	ENSIEG - INPG ENSIEG - INPG INPG UJF
	Georges, Didier Besancon, Gildas Ferrand, Nicolas Retiere, Nicolas	
09:30-09:50	<i>Model Predictive Control of Transistor Pulse Converter for Feeding Electromagnetic Valve Actuator with Energy Storage</i> , pp. 6794-6799	Insitut für Automatisierung und Informatik Univ. of Applied Sci. Wolfsburg Tech. Univ. Kaiserslautern
	Kubasiak, Nicolai Mercorelli, Paolo Liu, Steven	
09:50-10:10	<i>Discontinuous Sliding Surface For a General Electromechanical System with Time-Invariant Uncertainties</i> , pp. 6800-6805	Renault CNRS
	Jerouane, Mohammed Lamnabhi-Lagarrigue, Françoise	
10:10-10:30	<i>Nonlinear Adaptive Speed Tracking Control for Sensorless Permanent Magnet Step Motors</i> , pp. 6806-6811	Univ. degli Studi di Roma, Tor Vergata Univ. degli Studi di Roma, Tor Vergata
	Tomei, Patrizio Verrelli, Cristiano Maria	
ThA16		Giralda III
Mechanical Systems/Robotics (Regular Session)		
	Chair: Reza Moheimani, S.O. Co-Chair: Johansson, Rolf	The Univ. of Newcastle Lund Univ.
08:30-08:50	<i>Self Calibrating Procedure for a 3D Force Observer</i> , pp. 6812-6817	Univ. de Jaén Lund Inst. of Tech. Univ. de Jaén Lund Univ.
	Gamez Garcia, Javier Robertsson, Anders Gomez-Ortega, J. Johansson, Rolf	
08:50-09:10	<i>Stabilization of Underactuated 3D Pendulum Using Partial Angular Velocity Feedback</i> , pp. 6818-6823	Univ. of Michigan Univ. of Michigan
	Chaturvedi, Nalin A. McClamroch, N. Harris	
09:10-09:30	<i>Multivariable PPF Control of an Active Structure</i> , pp. 6824-6829	The Univ. of Newcastle The Univ. of Newcastle The Univ. of Newcastle
	Moheimani, S.O. Reza Vautier, Benjamin Jean Guillaume Bhikkaji, Bharath	
09:30-09:50	<i>Active Control of a Tensegrity Plane Grid</i> , pp. 6830-6834	Univ. Montpellier II Univ. Montpellier II Univ. Montpellier II Univ. Montpellier II
	Averseng, Julien Dubé, Jean-François Crosnier, Bernard Motro, René	
09:50-10:10	<i>Control of Mechanical Systems with Cyclic Coordinates Using Higher Order Averaging</i> , pp. 6835-6840	Arizona State Univ. Univ. of Michigan Univ. of Michigan
	Sanyal, Amit Bloch, Anthony M. McClamroch, N. Harris	
10:10-10:30	<i>PID Controller Design for a Flexible-Link Manipulator</i> , pp. 6841-6846	National Cheng Kung Univ. National Cheng Kung Univ.
	Ho, Ming-Tzu Tu, Yi-Wei	
ThA17		Arenal I
Stabilization and Control of Nonlinear Systems (Regular Session)		
	Chair: Chitour, Yacine Co-Chair: Dixon, Warren E.	Univ. Paris - Sud 11, CNRS, Supélec Univ. of Florida
08:30-08:50	<i>On the PE Stabilization of Time-Varying Systems: Open Questions and Preliminary Answers</i> , pp. 6847-6852	CNRS Univ. Paris Sud ENSIEG - INPG Univ. Paris - Sud 11, CNRS, Supélec
	Loria, Antonio Chaillet, Antoine Besancon, Gildas Chitour, Yacine	
08:50-09:10	<i>Ultimate Boundedness Sets for Continuous-Time Linear Systems with Deadzone Feedback Controls</i> , pp. 6853-6858	Univ. of Campinas
	Milani, Basilio E. A.	

09:10-09:30	<i>Energy-Based Nonlinear Control of Underactuated Euler-Lagrange Systems Subject to Impacts</i> , pp. 6859-6864	Univ. of Florida Univ. of Florida Univ. of Florida
	Hu, Guoqiang Dixon, Warren E. Makkar, Charu	
09:30-09:50	<i>An Application of the Sum of Squares Decomposition to the L2 Gain Computation for a Class of Non Linear Systems</i> , pp. 6865-6868	Univ. Liverpool
	Prempain, Emmanuel	
09:50-10:10	<i>Power Series Solution of the Hamilton-Jacobi-Bellman Equation for Descriptor Systems</i> , pp. 6869-6874	Linköpings Univ. Linköpings Univ.
	Sjöberg, Johan Glad, S. Torkel	

ThIA18	Giralda VI
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Computational Methods for Controller Design (Interactive Session)	
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	Chair: Jugo, Josu Co-Chair: Alonso, Antonio A.	Euskal Herriko Unib. IIM-CSIC
08:30-10:30	<i>A Systematic Approach to the Design of Robust Diagonal Dominance Based MIMO Controllers</i> , pp. 6875-6880	UMIST The Univ. of Manchester UMIST
	Chughtai, Saulat Shuja Nobakhti, Amin Wang, Hong	
08:30-10:30	<i>Robust Controller Design Based on Genetic Algorithms and System Simulation</i> , pp. 6881-6886	Slovak Univ. of Tech. Slovak Univ. of Tech.
	Sekaj, Ivan Sramek, Marian	
08:30-10:30	<i>Analysis and Control Design of MIMO Systems Based on Symmetry Properties</i> , pp. 6887-6892	Euskal Herriko Unib. Euskal Herriko Unib.
	Jugo, Josu Arredondo, Iñigo	
08:30-10:30	<i>A Nonsmooth Optimization Approach to H-Infinity Synthesis</i> , pp. 6893-6898	Univ. of Ballarat The Australian National Univ.
	Mammadov, Musa Orsi, Robert	
08:30-10:30	<i>Global Optimization for Integrated Design and Control of Computationally Expensive Process Models</i> , pp. 6899-6904	IIM-CSIC Wageningen Univ. IIM-CSIC IIM-CSIC
	Egea, Jose A. Vries, Dirk Alonso, Antonio A. Banga, Julio R.	
08:30-10:30	<i>RST-Controller Design for Sinewave References by Means of an Auxiliary Diophantine Equation</i> , pp. 6905-6910	Univ. of Strasbourg I (Univ. Louis Pasteur) Supélec
	Ostertag, Eric Godoy, Emmanuel	

ThIA19	Hall Triana
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Hybrid Systems (Interactive Session)	
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	Chair: Bemporad, Alberto Co-Chair: Ferrari-Trecate, Giancarlo	Univ. di Siena INRIA
08:30-10:30	<i>Hybrid Static Output Feedback Stabilization of Two-Dimensional LTI Systems: A Geometric Method</i> , pp. 6911-6916	Osaka Prefecture Univ. Osaka Prefecture Univ. Osaka Prefecture Univ. Osaka Prefecture Univ.
	Zhai, Guisheng Kondo, Hideaki Imae, Joe Kobayashi, Tomoaki	
08:30-10:30	<i>Exact Smoothers for Discrete-Time Hybrid Stochastic Systems</i> , pp. 6917-6921	Univ. of Calgary National ICT Australia Univ. of Bordeaux
	Elliott, Robert J. Malcolm, William Dufour, Francois	
08:30-10:30	<i>Computation of Observability Regions for Piecewise Affine Systems : A Projection-Based Algorithm</i> , pp. 6922-6927	Renault SAS INRIA
	Gati, Mehdi Ferrari-Trecate, Giancarlo	

08:30-10:30	<i>Distribution-Free Mode-Estimators for a Class of Discrete-Time Jump-Linear Systems</i> , pp. 6928-6933 Choukroun, Daniel Speyer, Jason L.	Univ. of California, Los Angeles Univ. of California, Los Angeles
08:30-10:30	<i>Approximate Trajectories and Sampling Methods for Impulsive Systems</i> , pp. 6934-6939 Wolenski, Peter R. Zabic, Stanislav	Louisiana State Univ. Louisiana State Univ.
08:30-10:30	<i>Optimal Control of a Two-Stage Stochastic Hybrid Manufacturing System with Poisson Arrivals and Exponential Service Times</i> , pp. 6940-6945 Gokbayrak, Kagan Selvi, Omer	Bilkent Univ. Bilkent Univ.

ThIA20	Giralda VII
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Methods in Remote and Network Control (Interactive Session)		
	Chair: Rovithakis, George A. Co-Chair: La Scala, Barbara	Aristotle Univ. of Thessaloniki The Univ. of Melbourne
08:30-10:30	<i>Towards Satisfying an Application Level Quality Measure Via a Neural Network TCP-Like Protocol</i> , pp. 6946-6951 Houmkozis, Christos Rovithakis, George A.	Aristotle Univ. of Thessaloniki Aristotle Univ. of Thessaloniki
08:30-10:30	<i>Modelling 802.11 Wireless Links</i> , pp. 6952-6957 Duffy, K. Malone, D.W. Leith, Douglas J.	Hamilton Inst. Hamilton Inst. Hamilton Inst.
08:30-10:30	<i>A Nested Noncooperative OSNR Game in Optical Links with Dynamic Gain Filters</i> , pp. 6958-6965 Pavel, Lacra	Univ. of Toronto
08:30-10:30	<i>Minimum Necessary Data Rates for Accurate Track Fusion</i> , pp. 6966-6971 La Scala, Barbara Evans, Robin J.	The Univ. of Melbourne The Univ. of Melbourne
08:30-10:30	<i>Passive Bilateral Control of Teleoperators under Time Delay and Scaling Factors</i> , pp. 6972-6977 Boukhnifer, moussa FERREIRA, Antoine	ENSI de Bourges-Univ. d'Orléans Univ. d'Orléans- ENSI de Bourges
08:30-10:30	<i>On Combinatorial Optimization Problems with Mobile Sites and Resources</i> , pp. 6978-6983 Salapaka, Srinivasa	Univ. of Illinois, Urbana-Champaign

ThB01	Giralda I
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Recent Trends in Hybrid and Switched Systems (Regular Session)		
	Chair: Alessandri, Angelo Co-Chair: Krogh, Bruce H.	National Res. Council of Italy Carnegie Mellon Univ.
11:00-11:20	<i>Reachability Analysis of Affine Systems Using Epsilon-Decomposition</i> , pp. 6984-6990 Han, Zhi Krogh, Bruce H.	Carnegie Mellon Univ. Carnegie Mellon Univ.
11:20-11:40	<i>Generalised Filters and Stochastic Sampling Zeros</i> , pp. 6991-6996 Yuz, Juan I. Goodwin, Graham C.	The Univ. of Newcastle The Univ. of Newcastle
11:40-12:00	<i>Buffer Management for Power Reduction Using Hybrid Control</i> , pp. 6997-7002 Hu, Jianghai Lu, Yung-Hsiang	Purdue Univ. Purdue Univ.
12:00-12:20	<i>Dissipativity Theory for Switched Systems</i> , pp. 7003-7008 Zhao, Jun Hill, David J.	Northeastern Univ. The Australian National Univ.
12:20-12:40	<i>A Numerical Algorithm for Solving the Absolute Stability Problem in R^3</i> , pp. 7009-7013 Margaliot, Michael Yfoulis, Christos	Tel Aviv Univ. National Univ. of Ireland, Maynooth

12:40-13:00

Luenberger Observers for Switching Discrete-Time Linear Systems, pp. 7014-7019

Alessandri, Angelo
Baglietto, Marco
Battistelli, Giorgio

National Res. Council of Italy
Univ. of Genova
Univ. of Genova

ThB02

Giralda IV

Observers for Nonlinear Systems I (Regular Session)

Chair: Barbot, Jean Pierre
Co-Chair: M'Saad, Mohammed

ENSEA
ENSICAEN

11:00-11:20

A Novel Hybrid Angle Tracking Observer for Resolver to Digital Conversion, pp. 7020-7025

Hoseinnezhad, Reza
Harding, Peter

Swinburne Univ. of Tech.
Pacifica Group Tech.

11:20-11:40

Output Dependent Observability Linear Normal Form, pp. 7026-7030

Zheng, Gang
Boutat, Driss
Barbot, Jean Pierre

ENSEA
Ensi De Bourges
ENSEA

11:40-12:00

Observers Based Synchronization and Input Recovery for a Class of Nonlinear Chaotic Models., pp. 7031-7036

Cherrier, Estelle
Boutayeb, M.
Ragot, Jose

CRAN-INPL
Univ. Louis Pasteur
CRAN-INPL

12:00-12:20

A Set of Adaptive Observers for a Class of MIMO Nonlinear Systems, pp. 7037-7042

Farza, Mondher
M'Saad, Mohammed
Maatoug, Tarak
Koubaa, Yassine

ENSICAEN
ENSICAEN
ISET Gabes
ENIS Sfax

12:20-12:40

On the Number of Integrators Needed for Dynamic Observer Error Linearization Via Integrators, pp. 7043-7047

Yu, Kyung Tak
Jo, Nam H.
Seo, Jin H.

Asri, Seoul National Univ.
Soongsil Univ.
Asri, Seoul National Univ.

12:40-13:00

An Algorithm for Dynamic Linearization by Generalized Output Injection, pp. 7048-7053

Yu, Kyung Tak
Back, Juhoon
Seo, Jin H.

Asri, Seoul National Univ.
Imperial Coll.
Asri, Seoul National Univ.

ThB03

Giralda II

Cooperative Control IV (Regular Session)

Chair: Giarre, Laura
Co-Chair: Bliman, Pierre-Alexandre J

Univ. di Palermo
INRIA Rocquencourt

11:00-11:20

Distributed Consensus in Networks of Dynamic Agents, pp. 7054-7059

Bauso, Dario
Giarre, Laura
Pesenti, Raffaele

Univ. di Palermo
Univ. di Palermo
Univ. di Palermo

11:20-11:40

Distributed Balancing of AAVs for Uniform Surveillance Coverage, pp. 7060-7065

Moore, Brandon
Passino, Kevin

The Ohio State Univ.
The Ohio State Univ.

11:40-12:00

Average Consensus Problems in Networks of Agents with Delayed Communications, pp. 7066-7071

Bliman, Pierre-Alexandre J
Ferrari-Trecate, Giancarlo

INRIA Rocquencourt
INRIA

12:00-12:20

Stability of Formations with Delays in Information Exchange., pp. 7072-7077

Ketema, Yohannes

Univ. of Minnesota

12:20-12:40

Communication Design for Coordinated Control with a Non-Standard Information Structure, pp. 7078-7083

Kang, Keunmo
Yan, Jun
Bitmead, Robert

Univ. of California, San Diego
Univ. of California, San Diego
Univ. of California, San Diego

12:40-13:00

Coordinated Path Following Control of Multiple Wheeled Robots with Directed Communication Links, pp. 7084-7089

Ghabcheloo, Reza
Pascoal, Antonio M.
Silvestre, Carlos
Kaminer, Isaac

Inst. Superior Técnico
Inst. Superior Técnico
Inst. Superior Técnico
Naval Postgraduate School

ThB04

Utrera

Subspace Methods in Identification (Regular Session)

Chair: Benveniste, Albert
Co-Chair: Akcay, Huseyin

IRISA - INRIA
Anadolu Univ.

11:00-11:20

Stochastic Subspace Identification of Linear Systems with Observation Outliers, pp. 7090-7095

Tanaka, Hideyuki
ALMutawa, Jaafar
Katayama, Tohru

Kyoto Univ.
Kyoto Univ.
Kyoto Univ.

11:20-11:40

Non Stationary Consistency of Covariance Based Subspace Methods, pp. 7096-7101

Benveniste, Albert
Mevel, Laurent

IRISA - INRIA
IRISA

11:40-12:00

A Subspace-Based Approach to Lagrange-Sylvester Interpolation of Rational Matrix Functions, pp. 7102-7107

Akcay, Huseyin
Turkay, Semiha

Anadolu Univ.
Anadolu Univ.

12:00-12:20

Subspace Intersection Identification of Hammerstein-Wiener Systems, pp. 7108-7113

Goethals, Ivan
Pelckmans, Kristiaan
Hoegaerts, Luc
Suykens, J.A.K.
De Moor, Bart L.R.

Katholieke Univ. Leuven
Katholieke Univ. Leuven
Katholieke Univ. Leuven
Katholieke Univ. Leuven
Katholieke Univ. Leuven

12:20-12:40

A Subspace Approach for Identifying Bilinear Systems with Deterministic Inputs, pp. 7114-7119

Ramos, Jose A.
Lopes dos Santos, P.

Purdue Univ. at Indianapolis
Univ. do Porto

12:40-13:00

Identification of Bilinear Systems Using an Iterative Deterministic-Stochastic Subspace Approach, pp. 7120-7126

Lopes dos Santos, P.
Ramos, Jose A.
Martins de Carvalho, J.L.

Univ. do Porto
Purdue Univ. at Indianapolis
Univ. do Porto

ThB05

Lebrija

Linear and Multivariable Control (Regular Session)

Chair: Werner, Herbert
Co-Chair: Prattichizzo, Domenico

Hamburg Univ. of Tech.
Univ. di Siena

11:00-11:20

Model-Based PID Tuning for High-Order Processes: When to Approximate, pp. 7127-7132

Visioli, Antonio

Univ. of Brescia

11:20-11:40

Improved Cascade Control Structure for Controlling Unstable and Integrating Processes, pp. 7133-7138

Kaya, Ibrahim
Atherton, Derek P.

Inonu Univ.
Univ. of Sussex

11:40-12:00

Tuning of a PID Controller Using a Multi-Objective Optimization Technique Applied to a Neutralization Plant, pp. 7139-7143

Popov, Andrey
Frag, Adel Oram
Werner, Herbert

Tech. Univ. Hamburg - Harburg
Tech. Univ. Hamburg - Harburg
Hamburg Univ. of Tech.

12:00-12:20

Correlation-Based Tuning of Linear Multivariable Decoupling Controllers, pp. 7144-7149

Miskovic, Ljubisa
Karimi, Alireza
Bonvin, Dominique
Gevers, Michel

Ec. Pol. Fed. de Lausanne
Ec. Pol. Fed. de Lausanne
Ec. Pol. Fed. de Lausanne
Univ. Catholique de Louvain

12:20-12:40

Beyond the Existence of Diagonal Controllers: From the Relative Gain Array to the Multivariable Structure Function., pp. 7150-7156
Licéaga-Castro, Eduardo
Licéaga-Castro, Jesús Ulises
Ugalde-Loo, Carlos Ernesto
SEPI ESIME Ticomán IPN
ITESM - CEM
Univ. of Glasgow

12:40-13:00

A Geometric Solution to the Squaring down Problem, pp. 7157-7162
Ntogramatzidis, Lorenzo
Prattichizzo, Domenico
Univ. degli Studi di Bologna
Univ. di Siena

ThB06

Prado

Delay Systems IV (Regular Session)

Chair: Shaked, Uri
Co-Chair: Olgac, Nejat
Tel Aviv Univ.
Univ. of Connecticut

11:00-11:20

H-Infinity Full Information Control of Discrete-Time Systems with Multiple Input Delays, pp. 7163-7168
Zhang, Huanshui
Xie, Lihua
Duan, Guang-Ren
The Graduate School of Harbin Inst. of Tech.
Nanyang Tech. Univ.
Harbin Inst. of Tech.

11:20-11:40

*Complete Stability Map of Neutral Type First Order - Two Time Delay Systems**
Sipahi, Rifat
Olgac, Nejat
Breda, Dimitri
Univ. of Connecticut
Univ. of Connecticut
Univ. of Udine

11:40-12:00

H-Infinity Guaranteed Cost Computation for Uncertain Time-Delay Systems, pp. 7169-7174
Gonçalves, Eduardo N.
Bastos, Saulo B.
Palhares, Reinaldo M.
Takahashi, Ricardo H. C.
Mesquita, Renato C.
Campos, Claudio D.
Ekel, Petr Ya.
CEFET - Minas Gerais
Fed. Univ. of Minas Gerais
Fed. Univ. of Minas Gerais
Fed. Univ. of Minas Gerais
Fed. Univ. of Minas Gerais
Pontifical Catholic Univ. of Minas Gerais
Pontifical Catholic Univ. of Minas Gerais

12:00-12:20

Stability and L2-Gain Analysis of Systems with Time-Varying Delays: Input-Output Approach, pp. 7175-7180
Fridman, E. M.
Shaked, Uri
Tel Aviv Univ.
Tel Aviv Univ.

12:20-12:40

On the Design of Robust H-Infinity Filter-Based Tracking Controller for a Class of Linear Time Delay Systems with Parametric Uncertainties, pp. 7181-7186
Alif, Adil
Darouach, Mohamed
Boutayeb, M.
IUT de Longwy
Univ. Henri Poincare-Nancy
Univ. Louis Pasteur

12:40-13:00

*Output Feedback H_{∞} Control of 2-D Discrete State-Delayed Systems**
Peng, Dan
Guan, Xinping
Long, Chengnian
Yanshan Univ.
Yanshan Univ.
Yanshan Univ.

ThB07

Estepa

Observers for Linear Systems (Regular Session)

Chair: Commault, Christian.
Co-Chair: Hadjicostis, Christoforos
Lab. d'Automatique de Grenoble
Univ. of Illinois, Urbana-Champaign

11:00-11:20

Robust Sensor Location Optimization and Controller Design in Distributed Parameter Systems Using Functional Observers, pp. 7187-7192
Demetriou, Michael A.
Worcester Pol. Inst.

11:20-11:40

Observability Recovering by Additional Sensor Implementation in Linear Structured Systems, pp. 7193-7197
Commault, Christian.
Dion, Jean-Michel
Trinh, Do Hieu
Lab. d'Automatique de Grenoble
URA CNRS
Lab. d'Automatique de Grenoble

11:40-12:00

A Finite Time Functional Observer for Linear Systems, pp. 7198-7203
Raff, Tobias
Menold, Patrick H.
Ebenbauer, Christian
Allgöwer, Frank
Univ. of Stuttgart
Univ. of Stuttgart
Univ. of Stuttgart
Univ. of Stuttgart

12:00-12:20

A State Predictor for Multivariable Systems Including Multiple Delays in Each Output Path, pp. 7204-7209

Sawaguchi, Yoshihito
Furutani, Eiko
Araki, Mituhiko

Kyoto Univ.
Kyoto Univ.
Kyoto Univ.

12:20-12:40

On Delayed Observers for Linear Systems with Unknown Inputs, pp. 7210-7215

Sundaram, Shreyas
Hadjicostis, Christoforos

Univ. of Illinois, Urbana-Champaign
Univ. of Illinois, Urbana-Champaign

12:40-13:00

Preferential Estimation for Uncertain Linear Systems at Steady State: Application to Filamentous Fungal Fermentation, pp. 7216-7221

Bodizs, Levente
Srinivasan, B.
Bonvin, Dominique

Ec. Pol. Fed. de Lausanne
Ec. Pol. Montreal
Ec. Pol. Fed. de Lausanne

ThB08

Triana

Computational Methods II (Regular Session)

Chair: Karcianas, Nicos
Co-Chair: Dorea, Carlos E.T.

City Univ.
Univ. Fed. da Bahia, Escola Pol.

11:00-11:20

Structural Identification: The Computation of the Generic McMillan Degree, pp. 7222-7227

Karcianas, Nicos
Sagianos, Evangelos
Milonidis, Efstathios

City Univ.
City Univ.
City Univ.

11:20-11:40

A State Bounding Observer for Uncertain Non-Linear Continuous-Time Systems Based on Zonotopes, pp. 7228-7234

Combastel, Christophe

ECS - ENSEA

11:40-12:00

Design of Set-Invariant Estimators for Linear Discrete-Time Systems, pp. 7235-7240

Dorea, Carlos E.T.
Caldeira Pimenta, Antonio Carlos

Univ. Fed. da Bahia
Univ. Fed. da Bahia

12:00-12:20

Parameter Space PID Design Based on Simulation and Its Application, pp. 7241-7246

Saeki, Masami
Takahashi, Akihisa

Hiroshima Univ.
Hiroshima Univ.

12:20-12:40

Solution to High-Order Generalized Sylvester Matrix Equations, pp. 7247-7252

Duan, Guang-Ren

Harbin Inst. of Tech.

12:40-13:00

Design of Dynamical Compensators for Matrix Second-Order Linear Systems: A Parametric Approach, pp. 7253-7257

Wu, Yun-li
Duan, Guang-Ren

Harbin Inst. of Tech.
Harbin Inst. of Tech.

ThB09

Nervion III

Nonlinear Tracking (Regular Session)

Chair: Qian, Chunjiang
Co-Chair: Manton, Jonathan H.

Univ. of Texas, San Antonio
The Univ. of Melbourne

11:00-11:20

Reliable Tracking Algorithms for Principal and Minor Eigenvector Computations, pp. 7258-7263

Baumann, Markus
Helmke, Uwe R.
Manton, Jonathan H.

Univ. Wuerzburg
Univ. of Wuerzburg
The Australian National Univ.

11:20-11:40

Feedforward Control of Nonlinear Systems Using Fictitious Inputs, pp. 7264-7269

Deutscher, Joachim
Anritter, Felix
Schmidt, Klaus

Univ. Erlangen-Nürnberg
Univ. Erlangen-Nürnberg
Univ. Erlangen-Nürnberg

11:40-12:00

Leader/Follower Synchronization of Satellite Attitude without Angular Velocity Measurements, pp. 7270-7277

Bondhus, Anne Karin
Pettersen, Kristin Y.
Gravdahl, Jan Tommy

Norwegian Univ. of Sci. & Tech.
Norwegian Univ. of Sci. & Tech.
Norwegian Univ. of Sci. & Tech.

12:00-12:20

Global Practical Output Regulation of a Class of Nonlinear Systems by Output Feedback, pp. 7278-7283

Gong, Qi
Qian, Chunjiang

Naval Postgraduate School
Univ. of Texas, San Antonio

12:20-12:40

Path-Following Approach to Control Effort Reduction of Tracking Feedback Laws, pp. 7284-7289

Dacic, Dragan B.
Subbotin, Maxim V.
Kokotovic, Petar V.

The Univ. of Melbourne
Univ. of California, Santa Barbara
Univ. of California, Santa Barbara

12:40-13:00

Vertically Transverse Functions As an Extension of the Transverse Function Control Approach for Second-Order Systems, pp. 7290-7295

Lizarraga Navarro, David A.
Sosa Zúñiga, José Miguel

Inst. Potosino de Investigación Científica y Tecnológica
Inst. Potosino de Investigación Científica y Tecnológica

ThB10

Arenal III

Stochastic Search and Optimization I (Regular Session)

Chair: Pereira, Fernando Lobo
Co-Chair: Feinberg, Eugene A.

Univ. do Porto. Inst. For Systems & Robotics
SUNY at Stony Brook

11:00-11:20

Simulation-Based Optimal Sensor Scheduling with Application to Observer Trajectory Planning, pp. 7296-7301

Singh, Sumeetpal S.
Kantas, Nikolas
Vo, Ba-Ngu
Doucet, Arnaud
Evans, Rob

Univ. of Cambridge
Cambridge Univ. Engineering Dept.
The Univ. of Melbourne
Univ. of British Columbia
The Univ. of Melbourne

11:20-11:40

Nondegenerate Necessary Conditions of Optimality for Problems without Normality Assumptions, pp. 7302-7307

Arutyunov, Aram V.
Pereira, Fernando Lobo

Peoples Friendship Univ. Russia
Univ. do Porto.

11:40-12:00

Optimality Condition for the Receding Horizon Control of Markov Jump Linear Systems with Non-Observed Chain and Linear Feedback

Controls, pp. 7308-7313

Vargas, Alessandro N.
Do Val, Joao B.R.
Costa, Eduardo F.

Univ. Estadual de Campinas
UNICAMP
Univ. de Sao Paulo

12:00-12:20

On State Space Reduction in Sequential Decision Processes, pp. 7314-7319

Feinberg, Eugene A.

SUNY at Stony Brook

12:20-12:40

Symmetry of Solutions to the Optimal Sojourn Time Control Problem, pp. 7320-7325

Hu, Jianghai

Purdue Univ.

12:40-13:00

*Optimization in Newsboy Problems under Parameter Uncertainty Via Statistical Inference Equivalence Principle**

Nechval, Nicholas

Univ. of Latvia

ThB11

Carmona

Stochastic Systems II (Regular Session)

Chair: Pavon, Michele
Co-Chair: Savkin, Andrey V.

Univ. di Padova
Univ. of New South Wales

11:00-11:20

Direction Change Detection from Noisy Data and Application to Mud Logging Data Processing, pp. 7326-7331

Zhang, Qinghua
Fréchin, Nicolas
Guezé, Nicolas

INRIA
Geoservices
Geoservices

11:20-11:40

A New Algorithm for Kullback-Leibler Approximation of Spectral Densities, pp. 7332-7337

Pavon, Michele
Ferrante, Augusto

Univ. di Padova
Univ. di Padova

11:40-12:00

Almost Sure Nonobservability and Unstabilizability of Unstable Noisy Plants Via Communication Channels with Packet Losses, pp. 7338-

7341

Matveev, Alexey S.
Savkin, Andrey V.

St. Petersburg State Univ.
Univ. of New South Wales

12:00-12:20

Maximal Solution to Perturbed Algebraic Riccati Equations Arising in Markovian Jump Control Revisited, pp. 7342-7346

Baczynski, Jack
Fragoso, Marcelo D.

Lab. Nacional de Computacao Cientifica
Lab. Nacional de Computacao Cientifica

12:20-12:40

Asymptotically Optimal Sequential Change-Point Detection under Composite Hypotheses, pp. 7347-7351

Brodsky, Boris
Darkhovsky, Boris

Central Inst. for Mathematics and Ec. RAS
Inst. for Systems Analysis RAS

12:40-13:00

Stochastic H_2/H_∞ Control with (x, U, V) -Dependent Noise, pp. 7352-7357

Zhang, Weihai
Zhang, Huanshui
Chen, Bor Sen

Jinan Shandong PRC
The Graduate School of Harbin Inst. of Tech.
National Tsing Hua Univ.

ThB12

Nervion II

PDE & Process Control (Regular Session)

Chair: Berenguel, Manuel
Co-Chair: Balogh, Andras

Univ. of Almería
The Univ. of Texas - Pan American

11:00-11:20

A Closed Form Feedback Controller for Stabilization of Linearized Navier-Stokes Equations: The 2D Poiseuille Flow, pp. 7358-7365

Vazquez, Rafael
Krstic, Miroslav

Univ. of California, San Diego
Univ. of California, San Diego

11:20-11:40

Active Flow Control Over a Backward-Facing Step, pp. 7366-7371

Emami-Naeini, Abbas
McCabe, Sarah
de Roover, Dick
Ebert, J.L.
Kosut, Robert L.

SC Solutions, Inc.
SC Solutions, Inc.
SC Solutions, Inc.
SC Solutions, Inc.
SC Solutions, Inc.

11:40-12:00

Predictive Control of a Complex District Heating Network, pp. 7372-7377

Sandou, Guillaume
Font, Stephane
Tebbani, Sihem
Hiret, Arnaud
Mondon, Christian

Supélec
Supélec
Supélec
Electricité de France
Electricité de France

12:00-12:20

Forced Oscillations of a Membrane with Quadratic Nonlinearity, pp. 7378-7383

Balogh, Andras
Varlamov, Vladimir

The Univ. of Texas - Pan American
The Univ. of Texas - Pan American

12:20-12:40

Averaging Level Control of Multiple Tanks: A Passivity Based Approach, pp. 7384-7389

Sbarbaro, Daniel G.
Ortega, Romeo

Univ. de Concepcion
LSS - Supélec

12:40-13:00

Distributed Delay Model for Density Wave Dynamics in Gas Lifted Wells, pp. 7390-7397

Sinègre, Laure
Petit, Nicolas
Ménégatti, Philippe

Ec. des Mines de Paris
Ec. des Mines de Paris
TOTAL

ThB13

Ecija

Modelling and Applications (Regular Session)

Chair: Barbieri, Enrique
Co-Chair: Landau, Ioan Dore

Univ. of Houston
ENSIEG

11:00-11:20

An Analytically Tractable Model for Combustion Instability, pp. 7398-7403

Bouziani, Fethi
Landau, Ioan Dore
Bitmead, Robert
Besancon-Voda, Alina

INPG
ENSIEG
Univ. of California, San Diego
LAG - ENSIEG

11:20-11:40

Transboundary Pollution and Local Emission Impact in Tropospheric Ozone Accumulation Processes: Control Strategy Modelling Assessment, pp. 7404-7409

Gabusi, Veronica
Pisoni, Enrico
Volta, Marialuisa

Univ. degli Studi di Brescia
Univ. degli Studi di Brescia
Univ. degli Studi di Brescia

11:40-12:00

Modelling and Simulation of Central Receiver Solar Thermal Power Plants, pp. 7410-7415

Yebra, Luis José
Berenguel, Manuel
Dormido, Sebastián
Romero, Manuel

CIEMAT
Univ. of Almería
Univ. Nacional de Educacion a Distancia
CIEMAT

12:00-12:20

Control Theory Inspired Considerations of the Mathematical Models of Defibrillation, pp. 7416-7421

Muzdeka, Slobodanka
Barbieri, Enrique

Katholieke Univ. Leuven
Univ. of Houston

12:20-12:40

[LPV Modeling of Atmospheric Re-Entry Demonstrator for Guidance Re-Entry Problem](#), pp. 7422-7427

Zerar, Madjid
Cazaurang, Franck
Zolghadri, Ali

Bordeaux 1 Univ.
Bordeaux 1 Univ.
Bordeaux 1 Univ.

12:40-13:00

[Towards a Co-Contraction Muscle Control Strategy for Paraplegics](#), pp. 7428-7433

Mohammed, Samer
Fraisse, Philippe
Guiraud, David
Poignet, Philippe
El Makssoud, Hassan

Univ. de Montpellier II
Univ. de Montpellier II
INRIA
Univ. de Montpellier II
Univ. de Montpellier II

ThB14

Santa Cruz

Analysis and Control of Networks - Part II: Resource Management (Invited Session)

Chair: Başar, Tamer
Co-Chair: Chisci, Luigi
Organizer: Başar, Tamer
Organizer: Chisci, Luigi
Organizer: Di Bernardo, Mario

Univ. of Illinois, Urbana-Champaign
Univ. degli Studi di Firenze
Univ. of Illinois, Urbana-Champaign
Univ. degli Studi di Firenze
Univ. di Napoli Federico II

11:00-11:20

[Using Radio Network Feedback to Improve TCP Performance Over Cellular Networks \(I\)](#), pp. 7434-7439

Möller, Niels
Cabrera Molero, Ines
Johansson, Karl Henrik
Petersson, Justus
Robert, Skog
Arvidsson, Lke

Royal Inst. of Tech.
Royal Inst. of Tech.
Royal Inst. of Tech.
Ericsson AB
Ericsson AB
Ericsson AB

11:20-11:40

[Queue-Based Power Control in UMTS Systems \(I\)](#), pp. 7440-7445

Chisci, Luigi
Mucchi, Lorenzo
Pecorella, Tommaso

Univ. degli Studi di Firenze
Univ. of Florence
CNIT

11:40-12:00

[Distributed Averaging on Asynchronous Communication Networks \(I\)](#), pp. 7446-7451

Mehyar, Mortada
Spanos, Demetri
Pongsajapan, John
Low, Steven
Murray, Richard M.

California Inst. of Tech.
California Inst. of Tech.
California Inst. of Tech.
California Inst. of Tech.
California Inst. of Tech.

12:00-12:20

[A Neural Network Solution to QoS-IP Team-Optimal Dynamic Routing \(I\)](#), pp. 7452-7459

Baglietto, Marco
Battistelli, Giorgio
Bolla, Raffaele
Bruschi, Roberto
Davoli, Franco
Zoppoli, Riccardo

Univ. of Genova
Univ. of Genova
Univ. of Genova
Univ. of Genova
Univ. of Genova
Univ. of Genova

12:20-12:40

[On-Line Bandwidth Control for Quality of Service Mapping in Telecommunication Networks \(I\)](#), pp. 7460-7465

Mongelli, Maurizio
Marchese, Mario

DIST-Univ. of Genoa
DIST-Univ. of Genoa

12:40-13:00

[On Revenue Generation When Auctioning Network Resources](#), pp. 7466-7471

Maheswaran, Rajiv T.
Başar, Tamer

Univ. of Southern California
Univ. of Illinois, Urbana-Champaign

ThB15

Giralda V

Aerospace Control (Regular Session)

Chair: Di Benedetto, M. Domenica
Co-Chair: Joly-Blanchard, Ghislaine

Univ. degli Studi dell'Aquila
Univ. de Tech. de Compiègne

11:00-11:20

[Error Detection within a Specific Time Horizon and Application to Air Traffic Management](#), pp. 7472-7477

Di Benedetto, Maria Domenica
Di Gennaro, Stefano
D'Innocenzo, Alessandro

Univ. degli Studi dell'Aquila
Univ. degli Studi dell'Aquila
Univ. degli Studi dell'Aquila

11:20-11:40	<i>A Global Non-Linear Control Design for a PVTOL Vehicle with Aerodynamics</i> , pp. 7478-7483	
	Wood, Rohin	Univ. of Adelaide
	Cazzolato, Ben	Univ. of Adelaide
	Halim, Dunant	Univ. of Adelaide
11:40-12:00	<i>Electric Station Keeping of Geostationary Satellites: A Differential Inclusion Approach</i> , pp. 7484-7489	
	Losa, Damiana	Ec. des Mines de Paris
	Lovera, Marco	Pol. di Milano
	Drai, Rémi	Ec. des Mines de Paris
	Dargent, Thierry	Alcatel Space
	Amalric, Joel	Alcatel Space
12:00-12:20	<i>Joint Integrated PDA Avoiding Track Coalescence</i> , pp. 7490-7495	
	Blom, Henk A.P.	National Aerospace Lab. NLR
	Mušicki, Darko	The Univ. of Melbourne
	Bloem, Edwin A.	National Aerospace Lab. NLR
12:20-12:40	<i>Identifiability and Estimation of Aircraft Parameters and Delays by Using Optimal Input Design.</i> , pp. 7496-7501	
	Jauberthie, Carine	Univ. Toulouse LAAS
	Denis-Vidal, Lilianne	Univ. of Lille, France Gradient
	Joly-Blanchard, Ghislaine	Univ. de Tech. de Compiègne
12:40-13:00	<i>Robust Output Command Tracking for Linear Systems with Nonlinear Uncertain Structure with Application to Flight Control</i> , pp. 7502-7507	
	Skarpelis, Michael	HALKIS Inst. of Tech.
	Koumboulis, Fotios	HALKIS Inst. of Tech.
	Roussos, Nectarios	HALKIS Inst. of Tech.
ThB16		Giralda III
Mechanical Systems and MEMS (Regular Session)		
	Chair: Schlacher, Kurt	Johannes Kepler Univ. Linz
	Co-Chair: Toda, Masayoshi	Tokyo Univ. of Marine Sci. & Tech.
11:00-11:20	<i>Control of Underactuated Mechanical Systems by the Transverse Function Approach</i> , pp. 7508-7513	
	Morin, Pascal	INRIA Sophia Antipolis
	Samson, Claude	INRIA Sophia Antipolis
11:20-11:40	<i>A Globally Convergent Steering Algorithm for Regular Nonholonomic Systems</i> , pp. 7514-7519	
	Jean, Frederic	Ec. Nat. Sup. des Tech. Avancees
	Oriolo, Giuseppe	Univ. di Roma
	Vendittelli, Marilena	Univ. di Roma
11:40-12:00	<i>Energy-Based Nonlinear Control of Hydraulically Actuated Mechanical Systems</i> , pp. 7520-7525	
	Grabmair, Gernot	Johannes Kepler Univ. Linz
	Schlacher, Kurt	Johannes Kepler Univ. Linz
12:00-12:20	<i>A Theoretic Analysis of a Control System Structure of Towed Underwater Vehicles</i> , pp. 7526-7533	
	Toda, Masayoshi	Tokyo Univ. of Marine Sci. & Tech.
12:20-12:40	<i>Improving the Performance of an Electrostatically Actuated MEMS by Nonlinear Control: Some Advances and Comparisons</i> , pp. 7534-7539	
	Zhu, Guchuan	Ec. Pol. de Montreal
	Lévine, Jean	Ec. des Mines de Paris, CAS
	Praly, Laurent	Ec. des Mines de Paris, CAS
12:40-13:00	<i>Dynamic Re-Optimization of a MEMS Controller in Presence of Unmodeled Uncertainties</i> , pp. 7540-7545	
	Unnikrishnan, Nishant	Univ. of Missouri - Rolla
	Durbha, Venkat	Univ. of Missouri - Rolla
	Balakrishnan, S.N.	Univ. of Missouri - Rolla

ThB17		Arenal I
Constrained Control I (Regular Session)		
Chair: Lin, Zongli		Univ. of Virginia
Co-Chair: Sun, Jing		Univ. of Michigan
11:00-11:20		
<i>Disturbance Attenuation for Linear Systems Subject to Actuator Saturation Using Output Feedback</i> , pp. 7546-7551		
Wu, Fen		North Carolina State Univ.
Zheng, Qian		North Carolina State Univ.
Lin, Zongli		Univ. of Virginia
11:20-11:40		
<i>Constructive Design of Output Feedback Weakened Anti-Windup Compensators for Linear Systems with Additive/multiplicative Perturbations</i> , pp. 7552-7557		
Galeani, Sergio		Univ. degli Studi di Roma, Tor Vergata
Paoletti, Simone		Univ. di Siena
11:40-12:00		
<i>Output Feedback Reference Governor for Nonlinear Systems</i> , pp. 7558-7563		
Hatanaka, Takeshi		Kyoto Univ.
Takaba, Kiyotsugu		Kyoto Univ.
12:00-12:20		
<i>Approaches to Computationally Efficient Implementation of Gain Governors for Nonlinear Systems with Pointwise-In-Time Constraints</i> , pp. 7564-7569		
Kolmanovsky, Ilya V.		Ford Motor Co.
Sun, Jing		Univ. of Michigan
12:20-12:40		
<i>Anti-Windup in Mid-Ranging Control</i> , pp. 7570-7575		
Haugwitz, Staffan		Lund Inst. of Tech. Lund Univ.
Karlsson, Maria		Lund Inst. of Tech. Lund Univ.
Velut, Stephane		Lund Inst. of Tech. Lund Univ.
Hagander, Per		Lund Inst. of Tech. Lund Univ.
12:40-13:00		
<i>Optimal Design of a Feedback Controller That Achieves Output Regulation in the Presence of Actuator Saturation</i> , pp. 7576-7580		
Wada, Nobutaka		Hiroshima Univ.
Sugiyama, Daisuke		Hiroshima Univ.
Saeki, Masami		Hiroshima Univ.
ThIB18		Giralda VI
Computer-Aided Design (Interactive Session)		
Chair: Henrion, Didier		LAAS - CNRS
Co-Chair: Marcos, Marga		Euskal Herriko Unib.
11:00-13:00		
<i>Solving Polynomial Static Output Feedback Problems with PENBMI</i> , pp. 7581-7586		
Henrion, Didier		LAAS - CNRS
Löfberg, Johan		ETH Zürich
Kocvara, Michal		Acad. of Sci. of the Czech Republic
Stingl, Michael		Univ. of Erlangen
11:00-13:00		
<i>Polynomial Feedback and Observer Design Using Nonquadratic Lyapunov Functions</i> , pp. 7587-7592		
Ebenbauer, Christian		Univ. of Stuttgart
Renz, Jonathan		Univ. of Stuttgart
Allgöwer, Frank		Univ. of Stuttgart
11:00-13:00		
<i>Simulink-Rtwtgt Co-Design of Real Time Digital Interfaces</i> , pp. 7593-7596		
Bakhti, Abderrachid		Univ. of Setif
Benbaouche, Lahcene		ESTP
11:00-13:00		
<i>Object-Oriented Modelling & Simulation of Power Plants with Modelica</i> , pp. 7597-7602		
Casella, Francesco		Pol. di Milano
Leva, Alberto		Pol. di Milano
11:00-13:00		
<i>2x2 Individual Channel Design MATLAB® Toolbox</i> , pp. 7603-7608		
Ugalde-Loo, Carlos Ernesto		Univ. of Glasgow
Licéaga-Castro, Eduardo		SEPI ESIME Ticomán IPN
Licéaga-Castro, Jesús Ulises		ITESM - CEM
11:00-13:00		
<i>MAXIS-G: A Software for Computing Polyhedral Invariant Sets for Constrained LPV Systems</i> , pp. 7609-7614		
Miani, Stefano		Univ. degli Studi di Udine
Savorgnan, Carlo		Univ. degli Studi di Udine

ThIB19		Hall Triana
DES and Supervisory Control (Interactive Session)		
Chair: Seatzu, Carla		Univ. di Cagliari
Co-Chair: Silva, C. A.		Inst. Superior Técnico, Univ. Tech. de Lisboa
11:00-13:00		
<i>Supervisory Control of a Database Unit</i> , pp. 7615-7620		
Wu, Neng Eva		Binghamton Univ.
Metzler, James		Binghamton Univ.
Linderman, Mark		AFRL/IFSB
11:00-13:00		
<i>Extremal Trajectories in P-Time Event Graphs: Application to Control Synthesis with Specifications.</i> , pp. 7621-7626		
Declerck, Philippe		Univ. d'Angers
Didi Alaoui, Mohamed Khalid		Univ. d'Angers
11:00-13:00		
<i>Nonblocking Directed Control of Discrete Event Systems</i> , pp. 7627-7632		
Huang, Jing		Iowa State Univ.
Kumar, Ratnesh		Iowa State Univ.
11:00-13:00		
<i>Just-In Time Concrete Delivery Using a Hybrid GA-ACO Approach</i> , pp. 7633-7638		
Silva, C. A.	Inst. Superior Técnico, Univ. Tech. de Lisboa	
Faria, J. M.	Inst. Superior Técnico, Univ. Tech. de Lisboa	
Abrantes, P.	Inst. Superior Técnico, Univ. Tech. de Lisboa	
Sousa, Joao M. C.	Inst. Superior Técnico, Univ. Tech. de Lisboa	
Surico, M.		Pol. di Bari
Naso, D.		Pol. di Bari
11:00-13:00		
<i>Identification of Free-Labeled Petri Nets Via Integer Programming</i> , pp. 7639-7644		
Giua, Alessandro		Univ. di Cagliari
Seatzu, Carla		Univ. di Cagliari
11:00-13:00		
<i>On Controllability of Timed Continuous Petri Net Systems: The Join Free Case</i> , pp. 7645-7650		
Jiménez, Emilio		Univ. of La Rioja
Júlvez, Jorge		Univ. of Zaragoza
Recalde, Laura		Univ. of Zaragoza
Silva, Manuel		Univ. of Zaragoza
ThIB20		
Supervisory and Fault-Tolerant Control (Interactive Session)		Giralda VII
Chair: Simani, Silvio		Univ. of Ferrara
Co-Chair: Saif, Mehrdad		Simon Fraser Univ.
11:00-13:00		
<i>Identification of Residual Generators for Fault Detection of Linear Dynamic Models</i> , pp. 7651-7655		
Simani, Silvio		Univ. of Ferrara
Diversi, Roberto		Univ. degli Studi di Bologna
Soverini, Umberto		Univ. degli Studi di Bologna
11:00-13:00		
<i>Diagnosis and On-Line Parametric Estimation of Simulated Moving Bed</i> , pp. 7656-7661		
Youssef, Bilal		INPG
Alamir, Mazen		ENSIEG - INPG
Ibrahim, Fadi		INPG
11:00-13:00		
<i>Sensor Fusion by Using a Sliding Observer for an Underwater Breathing System</i> , pp. 7662-7667		
Carotenuto, Salvatore		Univ. degli Studi di Napoli
Iannelli, Luigi		Univ. of Sannio in Benevento
Manfredi, Sabato		Univ. di Napoli Federico II
Santini, Stefania		Univ. di Napoli Federico II
11:00-13:00		
<i>Robust Fault Diagnosis for a Satellite System Using a Neural Sliding Mode Observer</i> , pp. 7668-7673		
Wu, Qing		Simon Fraser Univ.
Saif, Mehrdad		Simon Fraser Univ.
11:00-13:00		
<i>Distributed Fault Tolerant Control of the Two-Tanks System Benchmark</i> , pp. 7674-7679		
Capiluppi, Marta		Univ. degli Studi di Bologna
Paoli, Andrea		Univ. degli Studi di Bologna
11:00-13:00		
<i>Simulation of Monitoring and Diagnosis of Flotation Columns Operation Using Projection Techniques</i> , pp. 7680-7685		
Bergh, Luis		Santa Maria Univ.
Leon, Angelica		Santa Maria Univ.

ThIB21	Giralda VIII
New Trends in Control (Interactive Session)	
Chair: De Santis, Elena Co-Chair: De Persis, Claudio	Univ. degli Studi dell'Aquila Univ. di Roma
11:00-13:00 <i>Invariant Equilibria of Polytopic Games Via Optimized Robust Control Invariance</i> , pp. 7686-7691 Raković, Sasa V. De Santis, Elena caravani, paolo	Imperial Coll. Univ. degli Studi dell'Aquila Univ. of L'AQUILA
11:00-13:00 <i>Control Storage Function Approach to Nonlinear L^2-Gain State Feedback Control Problem*</i> Wu, Jenq-Lang Yung, Chee-Fai	Hwa-Hsia Inst. of Tech. National Taiwan Ocean Univ.
11:00-13:00 <i>On Infimum Quantization Density for Multiple-Input Systems</i> , pp. 7692-7697 Haimovich, Hernan Seron, Maria	The Univ. of Newcastle The Univ. of Newcastle
11:00-13:00 <i>On Feedback Stabilization of Nonlinear Systems under Quantization</i> , pp. 7698-7703 De Persis, Claudio	Univ. di Roma
11:00-13:00 <i>Symmetric Controller Design for Symmetric Plant Using Matrix Inequality Conditions</i> , pp. 7704-7707 Nagashio, Tomoyuki Kida, Takashi	Univ. of Electro-Communications Univ. of Electro-Communications
11:00-13:00 <i>Generation of Autonomous Oscillations Via Output Feedback</i> , pp. 7708-7713 Gomez-Estern, Fabio Gordillo, Francisco Aracil, Javier Barreiro, Antonio	Univ. de Sevilla Univ. de Sevilla Univ. de Sevilla Univ. of Vigo
ThC01	
Timed Discrete Event Systems (Regular Session)	
Giralda I	
Chair: Stursberg, Olaf Co-Chair: Loiseau, Jean-Jacques	Univ. Dortmund CNRS
14:30-14:50 <i>Receding Horizon Control for a Class of Discrete Event Systems with Real-Time Constraints</i> , pp. 7714-7719 Miao, Lei Cassandras, Christos G.	Boston Univ. Boston Univ.
14:50-15:10 <i>Analysis of Logic Controllers by Transformation of SFC into Timed Automata</i> , pp. 7720-7725 Stursberg, Olaf Lohmann, Sven	Univ. Dortmund Univ. Dortmund
15:10-15:30 <i>Flow-Invariant Sets with Respect to the Markings of Timed Continuous Petri Nets</i> , pp. 7726-7731 Matcovschi, Mihaela-Hanako Pastravanu, Octavian C.	Tech. Univ. Tech. Univ.
15:30-15:50 <i>Implementation of a Fluctuation Smoothing Production Control Policy in IBM's 200mm Wafer Fab</i> , pp. 7732-7737 Morrison, James R. Campbell, Brian Dews, Elizabeth LaFreniere, John	IBM IBM IBM IBM
15:50-16:10 <i>Control of Linear Min-Plus Systems under Temporal Constraints</i> , pp. 7738-7743 Amari, Sodd Demongodin, Isabel Loiseau, Jean Jacques	IRCCyN - UMR CNRS Univ. d'Angers CNRS
16:10-16:30 <i>Interval Analysis in Dioid : Application to Robust Open-Loop Control for Timed Event Graphs</i> , pp. 7744-7749 Lhommeau, Mehdi Hardouin, Laurent Ferrier, Jean-Louis Ouerghi, Iteb	Univ. d'Angers Univ. d'Angers Univ. d'Angers Univ. d'Angers

ThC02	Giralda IV
Observers for Nonlinear Systems II (Regular Session)	
Chair: Khorrami, Farshad	Pol. Univ.
Co-Chair: Karagiannis, Dimitrios	Imperial Coll.
14:30-14:50	
<i>Robust Adaptive Observer Design for Uncertain Systems with Bounded Disturbances</i> , pp. 7750-7755	
Stepanyan, Vahram	Virginia Pol. Inst. and State Univ.
Hovakimyan, Naira	Virginia Pol. Inst. and State Univ.
14:50-15:10	
<i>State Estimation for Repetitive Processes Using Iteratively Improving Moving Horizon Observers</i> , pp. 7756-7761	
Alvarado, Ignacio	Univ. de Sevilla
Findeisen, Rolf	Univ. of Stuttgart
Kühl, Peter	Univ. of Heidelberg
Allgöwer, Frank	Univ. of Stuttgart
Limón, Daniel	Univ. de Sevilla
15:10-15:30	
<i>Output Feedback Control for a Class of Uncertain MIMO Nonlinear Systems with Non-Symmetric Input Gain Matrix</i> , pp. 7762-7767	
Zhang, Ximing T.	Oklahoma State Univ.
Behal, A.	Clarkson Univ.
Dawson, Darren M.	Clemson Univ.
Xian, Bin	Duke Univ.
15:30-15:50	
<i>Robust Rotor Flux and Speed Control of Induction Motors Using On-Line Time-Varying Rotor Resistance Adaptation</i> , pp. 7768-7774	
Kenné, Godpromesse	IUT Fotso Victor de Bandjoun - Univ. De Dschang
Ahmed-Ali, Tarek	ENSIETA
Nkwawo, Homère	IUT de Villetaneuse
Lamnabhi-Lagarrigue, Françoise	CNRS
15:50-16:10	
<i>Nonlinear Observer Design Using Invariant Manifolds and Applications</i> , pp. 7775-7780	
Karagiannis, Dimitrios	Imperial Coll.
Astolfi, Alessandro	Imperial Coll.
16:10-16:30	
<i>Adaptive Output-Feedback Stabilization and Disturbance Attenuation for Feedforward Systems with ISS Appended Dynamics</i> , pp. 7781-7786	
Krishnamurthy, Prashanth	Pol. Univ.
Khorrami, Farshad	Pol. Univ.
ThC03	Giralda II
Max-Plus Algebra and Max-Plus Systems (Invited Session)	
Chair: De Schutter, Bart	Delft Univ. of Tech.
Co-Chair: van den Boom, Ton J. J.	Delft Univ. of Tech.
Organizer: De Schutter, Bart	Delft Univ. of Tech.
Organizer: van den Boom, Ton J. J.	Delft Univ. of Tech.
14:30-14:50	
<i>Solutions of Max-Plus Linear Equations and Large Deviations (I)</i> , pp. 7787-7792	
Akian, Marianne	INRIA
Gaubert, Stephane	INRIA
Kolokoltsov, Vassili	Inst. of the Information Transmission Problems, Russ. Acad. Sci.
14:50-15:10	
<i>Series Expansions of Generalized Products (I)</i> , pp. 7793-7798	
Leahu, Haralambie	Vrije Univ.
Heidergott, Bernd	Vrije Univ.
15:10-15:30	
<i>On the Model Reference Control for Max-Plus Linear Systems (I)</i> , pp. 7799-7803	
Maia, Carlos Andrey	Univ. Fed. de Minas Gerais
Hardouin, Laurent	Univ. d'Angers
Santos-Mendes, Rafael	Univ. Estadual de Campinas
Cottenceau, Bertrand	Univ. d'Angers
15:30-15:50	
<i>On a Proof of the General Version of the Spectral Theorem in Max-Plus Algebra (I)</i> , pp. 7804-7809	
van der Woude, Jacob	Delft Univ. of Tech.
Olsder, Geert Jan	Delft Univ. of Tech.
15:50-16:10	
<i>Cycle Time Assignability and Feedback Design for Min-Max-Plus Systems (I)</i> , pp. 7810-7815	
Tao, Yuegang	Chinese Acad. of Sci.
Liu, Guo-Ping	Univ. of Glamorgan

16:10-16:30

On MPC for Max-Plus-Linear Systems: Analytic Solution and Stability, pp. 7816-7821

van den Boom, Ton J. J.
De Schutter, Bart
Necoara, Ion

Delft Univ. of Tech.
Delft Univ. of Tech.
Delft Univ. of Tech.

ThC04

Utrera

Adaptive Neural/Fuzzy Control (Regular Session)

Chair: Liu, Derong
Co-Chair: Alexandridis, Antonis

Univ. of Illinois, Chicago
Univ. of Patras

14:30-14:50

Adaptive Neural Tracking for a Class of SISO Uncertain and Stochastic Nonlinear Systems, pp. 7822-7827

Psillakis, Haris
Alexandridis, Antonis

Univ. of Patras
Univ. of Patras

14:50-15:10

Sensor Validation and Outlier Detection with Adaptive Fuzzy Limits, pp. 7828-7833

Näsi, Jari
Sorsa, Aki
Leiviskä, Kauko

Univ. of Oulu
Univ. of Oulu
Univ. of Oulu

15:10-15:30

*Adaptive Neural Controller and Direct Adaptive Controllers for Robot Manipulators in the Joint Space**

Nardênio Almeida Martins, Nardênio
Maycol de Alencar, Maycol

UEM - Univ. Estadual de Maringá
UEM

15:30-15:50

A New Adaptive Fuzzy Iterative Learning Control for Nonlinear Systems with Repeatable Control Tasks, pp. 7834-7839

Chien, Chiang-Ju

Huafan Univ.

15:50-16:10

GPS Navigation Using Fuzzy Neural Network Aided Adaptive Extended Kalman Filter, pp. 7840-7845

Jwo, Dah-Jing
Huang, Hung-Chih

National Taiwan Ocean Univ.
National Taiwan Ocean Univ.

16:10-16:30

Robust Adaptive Fuzzy Output Control for Nonlinear Uncertain Systems, pp. 7846-7851

Zhang, Mingjun
Zhang, Huaguang
Liu, Derong

Northeastern Univ. and Beihua Univ.
Northeastern Univ.
Univ. of Illinois, Chicago

ThC05

Lebrija

Linear Systems (Regular Session)

Chair: Basilio, João Carlos
Co-Chair: Leventides, John G

Univ. Fed. de Rio de Janeiro
City Univ.

14:30-14:50

Zero Structure Assignment of Matrix Pencils by Additive Structured Transformations, pp. 7852-7857

Karcanias, Nicos
Leventides, John G
Kraounakis, Stelios

City Univ.
City Univ.
City Univ.

14:50-15:10

Robust Exact Pole Placement Via an LMI-Based Algorithm, pp. 7858-7863

Ait Rami, Mustapha
EL Faiz, Samira
Benzaouia, Abdellah

Univ. Cadi Ayyad
Univ. Cadi Ayyad
Univ. Cadi Ayyad

15:10-15:30

Rational Stabilizing Commutative Controllers for Unstable Plant, pp. 7864-7869

Moreira, Marcos Vicente
Basilio, João Carlos
Kouvaritakis, Basil

Univ. Fed. de Rio de Janeiro
Univ. Fed. de Rio de Janeiro
Oxford Univ.

15:30-15:50

On the Use of the Averaging Method for the Characteristic Multiplier Placement Problem, pp. 7870-7875

Jikuya, Ichiro
Hodaka, Ichijo

Nagoya Univ.
Nagoya Univ.

15:50-16:10

A New Architecture for Robust Model Reference Control, pp. 7876-7881

Pedret, Carles
Vilanova, Ramon
Moreno Ortiz, Romualdo
Serra Pujol, Ignasi

Univ. Autònoma de Barcelona
Univ. Autònoma de Barcelona
Univ. Autònoma de Barcelona
Univ. Autònoma de Barcelona

16:10-16:30

[An L2-Based Approach for Wavelet Approximation](#), pp. 7882-7887

Karel, Joel
Peeters, Ralf
Westra, Ronald
Haddad, Sandro
Serdijn, Wouter

Univ. Maastricht
Univ. Maastricht
Univ. Maastricht
Delft Univ. of Tech.
Delft Univ. of Tech.

ThC06

Prado

H-Infinity Control (Regular Session)

Chair: Qiu, Li
Co-Chair: Rogers, Eric

Hong Kong Univ. of Sci. & Tech.
Univ. of Southampton

14:30-14:50

[Near Optimal H-Inf Tracking for a Compact Set of Plants](#), pp. 7888-7893

Miller, Daniel E.
Qiu, Li

Univ. of Waterloo
Hong Kong Univ. of Sci. & Tech.

14:50-15:10

[Loop Shaping Robust Control for Teleoperation System](#), pp. 7894-7899

Boukhniher, moussa
Ferreira, Antoine
Fontaine, Jean-Guy

ENSI de Bourges-Univ. d'Orléans
Univ. d'Orléans- ENSI de Bourges
ENSI de Bourges-Univ. d'Orléans

15:10-15:30

[Mixed H₂/H_∞ and Robust Control of Differential Linear Repetitive Processes](#), pp. 7900-7905

Paszke, Wojciech
Galkowski, Krzysztof
Rogers, Eric
Kummert, Anton
Owens, David H.

Univ. of Zielona Gora
Univ. of Zielona Gora
Univ. of Southampton
Univ. of Wuppertal
The Univ. of Sheffield

15:30-15:50

[Optimal Multivariable Control for Wind Energy Conversion System - a Comparison between H₂ and H_∞ Controllers](#), pp. 7906-7911

Rocha, Ronilson
Martins Filho, Luiz Siqueira
Bortolus, Marcos Vinicius

Fed. Univ. of Ouro Preto
Fed. Univ. of Ouro Preto
Fed. Univ. of Minas Gerais

15:50-16:10

[State-Space Mu-Analysis for an Experimental Drive-By-Wire Vehicle](#), pp. 7912-7917

Halton, Mark
Hayes, Martin J.
Iordanov, Petar

Univ. of Limerick
Univ. of Limerick
National Univ. of Ireland, Maynooth

16:10-16:30

[Adaptive H_∞ Control Design for a Class of LPV Systems](#), pp. 7918-7923

Karimi, Hamid Reza
Moshiri, Behzad
Jabehdar Maralani, Parviz
Lohmann, Boris

Univ. of Tehran
Univ. of Tehran
Univ. of Tehran
Tech. Univ. München

ThC07

Estepa

Linear Estimation and Filtering (Regular Session)

Chair: Lindquist, Anders G.
Co-Chair: Shafai, Bahram

Royal Inst. of Tech.
Northeastern Univ.

14:30-14:50

[The Covariance Extension Equation Revisited](#), pp. 7924-7930

Byrnes, Christopher I.
Fanizza, Giovanna
Lindquist, Anders G.

Washington Univ.
Royal Inst. of Tech.
Royal Inst. of Tech.

14:50-15:10

[Comparison of Systems Using Diffusion Maps](#), pp. 7931-7936

Vaidya, Umesh
Hagen, Gregory
Lafon, Stephane
Banaszuk, Andrzej
Mezic, Igor
Coifman, Ronald R.

United Tech. Res. Center
United Tech. Res. Center
Yale Univ.
United Tech. Res. Center
Univ. of California, Santa Barbara
Yale Univ.

15:10-15:30

[Effects of a Partial Lag on the Achievable Performance of the Hinf Fixed-Lag Smoothing](#), pp. 7937-7942

Kristalny, Maxim
Mirkin, Leonid

Technion - IIT
Technion - IIT

15:30-15:50	Sampled-Data Observer Design: A Dynamical Approach. , pp. 7943-7948	
	Pertew, Amr	Univ. of Alberta
	Marquez, Horacio J.	Univ. of Alberta
	Zhao, Qing	Univ. of Alberta
15:50-16:10	Constrained Quadratic Minimizations for Signal Processing and Communications , pp. 7949-7953	
	Pezeshki, Ali	Colorado State Univ.
	Scharf, Louis L.	Colorado State Univ.
	Lundberg, Magnus	Lulea Univ. of Tech.
	Chong, Edwin K. P.	Colorado State Univ.
16:10-16:30	Robust Kalman Filtering with Application to Tracking of Partial in Music Signals , pp. 7954-7959	
	Satar-Boroujeni, Hamid	Northeastern Univ.
	Shafai, Bahram	Northeastern Univ.

ThC08 Triana

Computational Methods III (Regular Session)		
	Chair: Van Dooren, Paul	Univ. Catholique de Louvain
	Co-Chair: Magni, Jean-Francois	ONERA-CERT
14:30-14:50	A Comparison of Resultant Type and ERES Methods for Computing the Greatest Common Divisor of Several Polynomials*	
	Christou, Dimitrios	National Kapodistrian Univ. of Athens
	Mitrouli, Marilena	
	Triantafyllou, Dimitrios	Univ. of Athens
14:50-15:10	On Computing the Complex Stability Radius , pp. 7960-7964	
	Overton, Michael	New York Univ.
	Van Dooren, Paul	Univ. Catholique de Louvain
15:10-15:30	Improving the Efficiency of Rapidly-Exploring Random Trees Using a Potential Function Planner , pp. 7965-7970	
	Garcia, Ian	Massachusetts Inst. of Tech.
	How, Jonathan P.	Massachusetts Inst. of Tech.
15:30-15:50	An LFT Approach to Robust Gain Scheduling , pp. 7971-7976	
	Magni, Jean-Francois	ONERA-CERT
15:50-16:10	On Jacobian Evaluation for Numerical Integration of DAEs with Partial Symbolic Information , pp. 7977-7981	
	Najafi, Masoud	INRIA
	Nikoukhah, Ramine	INRIA
16:10-16:30	Computational Experience in Solving Algebraic Riccati Equations , pp. 7982-7987	
	Sima, Vasile	National Inst. For Res. & Develop. In Informatics

ThC09 Nervion III

Nonlinear Systems (Regular Session)		
	Chair: Bullinger, Eric C.	Univ. of Stuttgart
	Co-Chair: Kotta, Ülle	Inst. of Cybernetics at TUT
14:30-14:50	Area Contraction of K-Dimensional Surfaces and Almost Global Asymptotic Stability , pp. 7988-7993	
	Aeyels, Dirk	Ghent Univ.
	De Smet, Filip	Ghent Univ.
	Langerock, Bavo	Ghent Univ.
14:50-15:10	System Analysis of a Programmed Cell Death Model , pp. 7994-7999	
	Bullinger, Eric	Hamilton Inst.
15:10-15:30	Counterclockwise Dynamics of a Rate-Independent Semilinear Duhem Model , pp. 8000-8005	
	Padthe, Ashwani	Univ. of Michigan
	Oh, JinHyoung	Univ. of Michigan
	Bernstein, Dennis S.	Univ. of Michigan
15:30-15:50	Reachable Set of Bilinear Control System with Time Varying Drift , pp. 8006-8011	
	Yuan, Haidong	Harvard Univ.
	Khaneja, Navin	Harvard Univ.

15:50-16:10

Remarks on Monotone Control Systems with Multi-Valued Input-State Characteristics, pp. 8012-8017

De Leenheer, Patrick
Malisoff, Michael

Univ. of Florida
Louisiana State Univ.

16:10-16:30

Equivalence to a (Strict) Feedforward Form of Nonlinear Discrete-Time Single-Input Control Systems, pp. 8018-8021

Moog, Claude
Kotta, Ülle

CNRS
Inst. of Cybernetics at TUT

ThC10

Stochastic Search and Optimization II (Regular Session)

Arenal III

Chair: Campi, M. C.
Co-Chair: Patek, Stephen D.

Univ. di Brescia
Univ. of Virginia

14:30-14:50

A Two-Timescale Simulation-Based Gradient Algorithm for Weighted Cost Markov Decision Processes, pp. 8022-8027

He, Ying
Fu, Michael C.
Marcus, Steven I.

Univ. of Maryland
Univ. of Maryland
Univ. of Maryland

14:50-15:10

Adaptive Power System Stabilizer Using ANFIS and Genetic Algorithms, pp. 8028-8033

Fraille-Ardanuy, Jesús
Zufiria, Pedro J.

Univ. Pol. de Madrid
Univ. Pol. de Madrid

15:10-15:30

Adaptive Optimization of Markov Reward Processes, pp. 8034-8041

Campos-Nanez, Enrique
Patek, Stephen D.

George Washinton Univ.
Univ. of Virginia

15:30-15:50

On Two-Stage Portfolio Allocation Problems with Affine Recourse, pp. 8042-8047

Calafiore, Giuseppe
Campi, M.C.

Pol. di Torino
Univ. di Brescia

15:50-16:10

RBF Neural Networks and Genetic Algorithms Based Optimization Control of Aluminum Powder Nitrogen Atomization Process, pp. 8048-8053

Shao, Cheng
Zhang, Yonghui

Dalian Univ. of Tech.
Dalian Univ. of Tech.

16:10-16:30

Minimax Identification of Linear Systems by Probability Criterion, pp. 8054-8057

Pankov, Alexei R.
Popov, Alex
Siemenikhin, Konstantin V.
Platonov, Eugene N.

Moscow Aviation Inst.
Moscow Aviation Inst.
Moscow Aviation Inst.
Moscow Aviation Inst.

ThC11

Stochastic Systems III (Regular Session)

Carmona

Chair: Moore, Kevin L.
Co-Chair: Kovaleva, Agnessa S.

Johns Hopkins Univ. Applied Physics Lab.
Russian Acad. of Sci.

14:30-14:50

On Solving Controlled Markov Set-Chains Via Multi-Policy Improvement, pp. 8058-8063

Chang, Hyeong Soo
Chong, Edwin K. P.

Sogang Univ.
Colorado State Univ.

14:50-15:10

A Schur Algorithm for Symmetric Inner Functions, pp. 8064-8069

Olivi, Martine
Hanzon, Bernard
Peeters, Ralf

INRIA
Cork Univ.
Univ. Maastricht

15:10-15:30

Linear Independency of Interval Vectors and Its Applications to Robust Controllability Tests, pp. 8070-8075

Ahn, Hyo-Sung
Moore, Kevin L.
Chen, YangQuan

Utah State Univ.
Colorado School of Mines
Utah State Univ.

15:30-15:50

Large Deviations Estimates of Escape Time for Lagrangian Systems, pp. 8076-8081

Kovaleva, Agnessa S.

Russian Acad. of Sci.

15:50-16:10

On Stochastic Analysis Approaches for Comparing Complex Systems, pp. 8082-8087

Mehta, Prashant G.
Vaidya, Umesh

Univ. of Illinois, Urbana-Champaign
United Tech. Res. Center

16:10-16:30

A Statistical Inference Method for the Stochastic Reachability Analysis, pp. 8088-8093

Bujorianu, Manuela

Univ. Twente

ThC12

Nervion II

Control of Systems with Hard Nonlinearities (Regular Session)

Chair: Corradini, Maria Letizia

Co-Chair: Chen, Ben M.

Univ. di Camerino

National Univ. of Singapore

14:30-14:50

Improving Transient Performance in Tracking Control for a Class of Nonlinear Discrete-Time Systems with Input Saturation, pp. 8094-8099

He, Yingjie

Chen, Ben M.

Lan, Weiyao

National Univ. of Singapore

National Univ. of Singapore

National Univ. of Singapore

14:50-15:10

Performance Analysis of Saturated Systems Via Two Forms of Differential Inclusions, pp. 8100-8105

Hu, Tingshu

Teel, Andrew R.

Zaccarian, Luca

Univ. of Massachusetts, Lowell

Univ. of California, Santa Barbara

Univ. degli Studi di Roma, Tor Vergata

15:10-15:30

Non-Quadratic Lyapunov Functions for Performance Analysis of Saturated Systems, pp. 8106-8111

Hu, Tingshu

Teel, Andrew R.

Zaccarian, Luca

Univ. of Massachusetts, Lowell

Univ. of California, Santa Barbara

Univ. degli Studi di Roma, Tor Vergata

15:30-15:50

Robust Control of Nonlinear Uncertain Systems with Sandwiched Backlash., pp. 8112-8117

Corradini, Maria Letizia

Orlando, Giuseppe

Parlangeli, Gianfranco

Univ. di Camerino

Univ. di Ancona

Univ. di Lecce

15:50-16:10

Local Stability Analysis of Saturating Systems Via Polynomial Programming, pp. 8118-8123

Sugie, Toshiharu

Ueda, Katsuki

Kyoto Univ.

Kyoto Univ.

16:10-16:30

On the Relation between Analysis and Synthesis Conditions for Discrete-Time Systems with Saturation Nonlinearities, pp. 8124-8131

Kiyama, Tsuyoshi

Sawada, Kenji

Osaka Univ.

Osaka Univ.

ThC13

Ecija

Modeling (Regular Session)

Chair: Walter, Eric

Co-Chair: Lozano, Rogelio

CNRS-Supélec-Univ. Paris - Sud 11

Univ. de Tech. de Compiègne

14:30-14:50

On Duhem Models for Sliding and Presliding Friction, pp. 8132-8137

Oh, JinHyoung

Padthe, Ashwani K.

Bernstein, Dennis S.

Rizos, Demosthenis

Fassois, Spiliotis D.

Univ. of Michigan

Univ. of Michigan

Univ. of Michigan

Univ. of Patras

Univ. of Patras

14:50-15:10

Combined a Priori Knowledge and Structural Model Closed-Loop Identification of High Temperature Industrial Furnaces, pp. 8138-8143

Vinsonneau, B.

Goodall, D. P.

Brie, D.

Burnham, K.J.

Coventry Univ.

Coventry Univ.

Univ. Henri Poincaré, Nancy 1

Coventry Univ.

15:10-15:30

Modeling and Control of a Small Aircraft Having Two Tilting Rotors, pp. 8144-8149

Kendoul, Farid

Fantoni, Isabelle

Lozano, Rogelio

Univ. of Tech. of Compiègne

Univ. de Tech. de Compiègne

Univ. de Tech. de Compiègne

15:30-15:50

Linear Modeling Error and Steady-State Behaviour of Nonlinear Dynamical Systems, pp. 8150-8155

Schweickhardt, Tobias

Allgöwer, Frank

Univ. of Stuttgart

Univ. of Stuttgart

15:50-16:10

Estimating Derivatives and Integrals with Kriging, pp. 8156-8161

Vazquez, Emmanuel

Walter, Eric

Supélec

CNRS-Supélec-Univ. Paris - Sud 11

16:10-16:30

[Dealing with Collinearity in FIR Models Using Multiscale Estimation](#), pp. 8162-8167

Nounou, Mohamed

United Arab Emirates Univ.

ThC14

Santa Cruz

Control Over Networks (Regular Session)

Chair: Lemmon, Michael

Univ. of Notre Dame

Co-Chair: Liberzon, Daniel

Univ. of Illinois, Urbana-Champaign

14:30-14:50

[Semi-Blind Receiver for the Fiber-Wireless Uplink Channel](#), pp. 8168-8173

Favier, Gerard

CNRS - UNSA

Kibangou, Alain

Univ. of Nice Sophia Antipolis

14:50-15:10

[Detectability and Output Feedback Stabilizability of Nonlinear Networked Control Systems](#), pp. 8174-8178

Savkin, Andrey V.

Univ. of New South Wales

15:10-15:30

[Distributed Kalman Filter with Embedded Consensus Filters](#), pp. 8179-8184

Olfati-Saber, Reza

Dartmouth Coll.

15:30-15:50

[Limited-Delay Coding of Individual Sequences with Piecewise Different Behavior](#), pp. 8185-8190

György, András

Computer and Automation Res. Inst. of the Hungarian Acad. of Sci

Linder, Tamás

Queen's Univ.

Lugosi, Gábor

Pompeu Fabra Univ.

15:50-16:10

[Optimal Dynamic Bit Assignment in Noise-Free Quantized Linear Control Systems](#), pp. 8191-8196

Ling, Qiang

Seagate Tech.

Lemmon, Michael

Univ. of Notre Dame

16:10-16:30

[Input-To-State Stabilization of Linear Systems with Quantized Feedback](#), pp. 8197-8202

Liberzon, Daniel

Univ. of Illinois, Urbana-Champaign

Nešić, Dragan

The Univ. of Melbourne

ThC15

Giralda V

Emerging Control Theory and Applications (Regular Session)

Chair: Hara, Shinji

The Univ. of Tokyo

Co-Chair: Basso, Michele

Univ. degli Studi di Firenze

14:30-14:50

[Equivalence between Local Tracking Procedures and Monotonic Algorithms in Quantum Control](#), pp. 8203-8208

Turinici, Gabriel

Paris Dauphine Univ.

14:50-15:10

[Local Reachability of Stochastic Quantum Dynamics with Application to Feedback Control of Single-Spin Systems](#), pp. 8209-8214

Yamamoto, Naoki

California Inst. of Tech.

Machida, Hiroshi

Univ. of Tokyo

Tsumura, Koji

Univ. of Tokyo

Hara, Shinji

Univ. of Tokyo

15:10-15:30

[A Dynamic Programming Approach to the Impulse Control Synthesis Problem](#), pp. 8215-8220

Daryin, Alexander

Lomonosov Moscow State Univ.

Kurzhanski, A.B.

Lomonosov Moscow State Univ.

Seleznev, Alexey

Lomonosov Moscow State Univ.

15:30-15:50

[Harmonic Bounds in Atomic Force Microscopy](#), pp. 8221-8226

Materassi, Donatello

Univ. degli Studi di Firenze

Salapaka, Murti V.

Iowa State Univ.

Basso, Michele

Univ. degli Studi di Firenze

15:50-16:10

[Extremum Seeking Applied to the Plasma Control System of the Frascati Tokamak Upgrade](#), pp. 8227-8232

Centioli, Cristina

ENEA

Iannone, Francesco

ENEA

Mazza, Giulio

ENEA

Panella, Maurizio

ENEA

Pangione, Luigi

Univ. degli Studi di Roma, Tor Vergata

Podda, Salvatore

ENEA

Tuccillo, Angelo A.

ENEA

Vitale, Vincenzo

ENEA

Zaccarian, Luca

Univ. degli Studi di Roma, Tor Vergata

16:10-16:30

On-Line Calculation of Feedforward Trajectories for Tokamak Plasma Shape Control, pp. 8233-8239

Walker, Michael
Johnson, Robert D.
Leuer, James A.
Penaflo, Benjamin P.

General Atomics
General Atomics
General Atomics
General Atomics

ThC16

Giralda III

Mechanical Systems II (Regular Session)

Chair: Canudas de Wit, Carlos
Co-Chair: Mizuno, Takeshi

ENSIEG - INPG
Saitama Univ.

14:30-14:50

Integrated Structure and Control Design of Modular Tensegrities, pp. 8240-8245

Masic, Milenko
Skelton, Robert E.
de Oliveira, Mauricio Carvalho

Univ. of California, San Diego
Univ. of California, San Diego
Univ. of California, San Diego

14:50-15:10

Time-Energy Optimal Control of Hyper-Actuated Mechanical Systems with Geometric Path Constraints, pp. 8246-8253

Aldrich, Jack
Skelton, Robert E.

California Inst. of Tech.
Univ. of California, San Diego

15:10-15:30

Pneumatic Three-Axis Vibration Isolation System Using Negative Stiffness, pp. 8254-8259

Mizuno, Takeshi
Murashita, Masato
Takasaki, Masaya
Ishino, Yuji

Saitama Univ.
Saitama Univ.
Saitama Univ.
Saitama Univ.

15:30-15:50

D-OSKIL: A New Mechanism for Suppressing Stick-Slip in Oil Well Drillstrings, pp. 8260-8265

Canudas de Wit, Carlos
Corchero, Miguel A.
Rubio, Francisco R.
Navarro, Eva

CNRS-Grenoble
Univ. de Sevilla
Univ. de Sevilla
IMP

15:50-16:10

Control of the Inertia Wheel Pendulum by Bounded Torques, pp. 8266-8270

Santibanez, Victor
Kelly, Rafael
Sandoval, Jesus

Inst. Tecnológico de la Laguna
CICESE
CICESE

16:10-16:30

Mechanical Systems and Rendez-Vous Controllability, pp. 8271-8275

Bombrun, Alex
Pomet, Jean-Baptiste
Sigalotti, Mario

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ThC17

Arenal I

Constrained Control II (Regular Session)

Chair: Lin, Zongli
Co-Chair: Ohta, Yoshito

Univ. of Virginia
Osaka Univ.

14:30-14:50

Exact Determinations of the Maximal Output Admissible Set for a Class of Nonlinear Systems, pp. 8276-8281

Hirata, Kenji
Ohta, Yoshito

Osaka Univ.
Osaka Univ.

14:50-15:10

The Duality Relation between Maximal Output Admissible Set and Reachable Set, pp. 8282-8287

Limpiyamit, Akarawit
Ohta, Yoshito

Osaka Univ.
Osaka Univ.

15:10-15:30

On-Line Tuning of Controllers for Systems with Constraints, pp. 8288-8293

Baric, Miroslav
Baotic, Mato
Morari, Manfred

ETH Zurich
Univ. of Zagreb
ETH Zurich

15:30-15:50

Disturbance Tolerance and Rejection of Linear Systems with Imprecise Knowledge of Actuator Input Output Characteristics, pp. 8294-8299

Fang, Haijun
Lin, Zongli
Shamash, Yacov

Univ. of Virginia
Univ. of Virginia
SUNY

15:50-16:10

Asymptotic Tracking for State-Constrained Monotone Systems, pp. 8300-8305

Chisci, Luigi
Falugi, Paola

Univ. degli Studi di Firenze
Univ. degli Studi di Firenze

16:10-16:30

Integrator Backstepping Using Barrier Functions for Systems with Multiple State Constraints, pp. 8306-8312

Ngo, Khoi Ba
Mahony, Robert
Jiang, Zhong-Ping

The Australian National Univ.
The Australian National Univ.
Pol. Univ.

ThIC18

Giralda VI

Robotic Applications (Interactive Session)

Chair: Longhi, Sauro
Co-Chair: Lehmann, Arne

Univ. Pol. delle Marche
Forschungszentrum Karlsruhe

14:30-16:30

On Synchronous Robotic Networks - Part II: Time Complexity of Rendezvous and Deployment Algorithms, pp. 8313-8318

Martinez, Sonia
Bullo, Francesco
Cortes, Jorge
Frazzoli, Emilio

Univ. of California, Santa Barbara
Univ. of California, Santa Barbara
Univ. of California, Santa Cruz
Univ. of California, Los Angeles

14:30-16:30

Low-Level Finger Coordination for Compliant Anthropomorphic Robot Grippers, pp. 8319-8324

Lehmann, Arne
Mikut, Ralf
Osswald, Dirk

Forschungszentrum Karlsruhe
Forschungszentrum Karlsruhe
Univ. Karlsruhe

14:30-16:30

Passive Dynamic Control and Its Application to Balance Servo, pp. 8325-8330

Minamiyama, Yasuhiro
Kiyota, Takanori
Sasaki, Takumi
Sugimoto, Noboru

Kyushu Univ.
The Univ. of Kitakyushu
The Univ. of Kitakyushu
The Univ. of Kitakyushu

14:30-16:30

Combining a Novel Computer Vision Sensor with a Cleaning Robot to Achieve Autonomous Pig House Cleaning, pp. 8331-8336

Andersen, Nils A.
Braithwaite, Ian David
Blanke, Mogens
Sorensen, Torben

Tech. Univ. of Denmark
Tech. Univ. of Denmark
Tech. Univ. of Denmark
Tech. Univ. of Denmark

14:30-16:30

Sonar and Video Data Fusion for Robot Localization and Environment Feature Estimation, pp. 8337-8342

Bonci, Andrea
Ippoliti, Gianluca
La Manna, Alessia
Longhi, Sauro
Sartini, Laura

Univ. Pol. delle Marche
Univ. Pol. delle Marche
Univ. Pol. delle Marche
Univ. Pol. delle Marche
Univ. Pol. delle Marche

14:30-16:30

Performance of Mobile Haptic Interface, pp. 8343-8348

Formaglio, Alessandro
Giannitrapani, Antonio
Barbagli, Federico
Franzini, Massimiliano
Prattichizzo, Domenico

Univ. di Siena
Univ. di Siena
Percro, Scuola Superiore S. Anna
Univ. di Siena
Univ. di Siena

ThIC19

Hall Triana

Logic Control (Interactive Session)

Chair: Bonfe, Marcello
Co-Chair: Ferrarini, Luca

Univ. di Ferrara
Pol. di Milano

14:30-16:30

Unified Modeling and Verification of Logic Controllers for Physical Systems, pp. 8349-8354

Bonfe, Marcello
Fantuzzi, Cesare
Secchi, Cristian

Univ. di Ferrara
Univ. degli Studi di Modena e Reggio Emilia
Univ. degli Studi di Modena e Reggio Emilia

14:30-16:30

A Modular Control Design Method for a Flexible Manufacturing Cell Including Error Handling, pp. 8355-8360

Castelnuovo, Adamo
Ferrarini, Luca

Pol. di Milano
Pol. di Milano

14:30-16:30	<i>A Modular Formal Model for Pallet Transportation System in Machining Centres Automation</i> , pp. 8361-8366 Ferrarini, Luca Castelnuovo, Adamo	Pol. di Milano Pol. di Milano
14:30-16:30	<i>Formalization and Visualization of Non-Binary PLC Programs</i> , pp. 8367-8372 Bani Younis, Mohammed Frey, Georg	Univ. of Kaiserslautern Univ. of Kaiserslautern
14:30-16:30	<i>PLC Based Governor for Reversible Pumped Turbines*</i> Liu, Changyu	Huazhong Univ. of Sci. & Tech.
14:30-16:30	<i>A Tool Integration Framework for Industrial Distributed Control Systems</i> , pp. 8373-8378 Estevez, Elisabet Marcos, Marga Gangoiti, Unai Orive, Dario	Euskal Herriko Unib. Euskal Herriko Unib. Euskal Herriko Unib. Euskal Herriko Unib.
ThPPL		Giralda I
Plenary Session II and Closing Ceremony (Plenary Session)		
	Chair: Birdwell, J. Douglas Co-Chair: Camacho, Eduardo F.	The Univ. of Tennessee Univ. de Sevilla
17:00-18:15	<i>Reducing Highway Congestion: An Empirical Approach*</i> Varaiya, Pravin P.	Univ. of California, Berkeley