

IEEE TRANSACTIONS ON AUTOMATIC CONTROL

A PUBLICATION OF THE IEEE CONTROL SYSTEMS SOCIETY



JUNE 2016

VOLUME 61

NUMBER 6

IETAA9

(ISSN 0018-9286)

Scanning the Issue	1421
--------------------------	------

REGULAR PAPERS

Stability Analysis and Control of Rigid-Body Systems With Impacts and Friction	M. Posa, M. Tobenkin, and R. Tedrake	1423
Model Reduction of Neutral Linear and Nonlinear Time-Invariant Time-Delay Systems With Discrete and Distributed Delays	G. Scarciootti and A. Astolfi	1438
Ensemble Observability of Linear Systems	S. Zeng, S. Waldherr, C. Ebenbauer, and F. Allgöwer	1452
Stability and Criticality Analysis for Integer Linear Programs With Markovian Problem Data	J. Las Fargeas, M. Niendorf, P. T. Kabamba, and A. R. Girard	1466
Convergence Analysis of Distributed Set-Valued Information Systems	A. Fagiolini, N. Dubbini, S. Martini, and A. Bicchi	1477
Robust Distributed Average Consensus via Exchange of Running Sums	C. N. Hadjicostis, N. H. Vaidya, and A. D. Domínguez-García	1492
An iISS Framework for Stochastic Robustness of Interconnected Nonlinear Systems	H. Ito and Y. Nishimura	1508
Opinion Dynamics in Social Networks With Hostile Camps: Consensus vs. Polarization	A. V. Proskurnikov, A. S. Matveev, and M. Cao	1524
Safety Controller Synthesis for Incrementally Stable Switched Systems Using Multiscale Symbolic Models	A. Girard, G. Gössler, and S. Mouelhi	1537
Robust Distributed Consensus Using Total Variation	W. Ben-Ameur, P. Bianchi, and J. Jakubowicz	1550
Bounded Disturbance Amplification for Mass Chains with Passive Interconnection	K. Yamamoto and M. C. Smith	1565
Event-Triggered Stabilization of Linear Systems Under Bounded Bit Rates	P. Tallapragada and J. Cortés	1575

TECHNICAL NOTES AND CORRESPONDENCE

Novel Criteria for Exponential Stability of Linear Neutral Time-Varying Differential Systems	P. H. A. Ngoc and H. Trinh	1590
On the Stability and Robust Stability of Networked Dynamic Systems	T. Zhou and Y. Zhang	1595
Tracking the Algebraic Multiplicity of Crossing Imaginary Roots for Generic Quasipolynomials: A Vandermonde-Based Approach	I. Boussaada and S-I. Niculescu	1601
Noise-to-State Stability of Random Switched Systems and Its Applications	H. Zhang, Y. Xia, and Z. Wu	1607
Active Disturbance Rejection Control Approach to Output-Feedback Stabilization of a Class of Uncertain Nonlinear Systems Subject to Stochastic Disturbance	B-Z. Guo, Z-H. Wu, and H-C. Zhou	1613
Almost Sure Exponential Stabilization by Discrete-Time Stochastic Feedback Control	X. Mao	1619
Robust Synchronization for Multistable Systems	H. Ahmed, R. Ushirobira, D. Efimov, and W. Perruquetti	1625
Multi(2)-Rate Control From a 2-Periodic Perspective: Generalized 2-Rate Control	S. Chakraborty and S. K. Das	1631
Chang Transformation for Decoupling of Singularly Perturbed Linear Time-Varying Systems	X. Yang and J. J. Zhu	1637
Kalman Filtering With Relays Over Wireless Fading Channels	A. S. Leong and D. E. Quevedo	1643
Stability Analysis for a Class of Partial Differential Equations via Semidefinite Programming	G. Valmorbida, M. Ahmadi, and A. Papachristodoulou	1649

(Contents Continued on Back Cover)



An Extension of Petersen's Lemma on Matrix Uncertainty	X. Ji and H. Su	1655
On Pinning Controllability of Boolean Control Networks	J. Lu, J. Zhong, C. Huang, and J. Cao	1658
Scaled Consensus Problems on Switching Networks	D. Meng and Y. Jia	1664
Sampled Measurement Output Feedback Control of Multi-Agent Systems With Jointly-Connected Topologies	X. Chen, Z. Chen, and C. Mei	1670
Design of Stabilizing Switching Laws for Mixed Switched Affine Systems	M. Hajiahmadi, B. De Schutter, and H. Hellendoorn	1676
On the Convergence of Piecewise Linear Strategic Interaction Dynamics on Networks	B. Gharesifard, B. Touri, T. Başar, and J. Shamma	1682
Design of Proportional-Integral-Retarded (PIR) Controllers for Second-Order LTI Systems	A. Ramírez, S. Mondié, R. Garrido, and R. Sipahi	1688
Dissipativity-Based Filtering for Fuzzy Switched Systems With Stochastic Perturbation	P. Shi, X. Su, and F. Li	1694
Finite-Time Connectivity-Preserving Consensus of Networked Nonlinear Agents With Unknown Lipschitz Terms	Y. Cao, W. Ren, D. W. Casbeer, and C. Schumacher	1700
