

Automatic Control, IEEE Transactions on



Popular

Early Access

Current Issue























Past Issues

About Journal

Submit Your Manuscript

Popular Articles (July 2015)

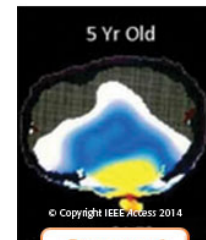
Includes the top 50 most frequently downloaded documents for this publication according to the most recent monthly usage statistics.

<input type="checkbox"/> Select All Results	Sort by: Most Popular
<input type="checkbox"/>	<p>1. A new look at the statistical model identification</p> <p>Akaike, H. Publication Year: 1974 , Page(s): 716 - 723 Cited by: Papers (9289) Patents (26)</p> <p>   Abstract PDF (896 KB)</p>
<input type="checkbox"/>	<p>2. Nonlinear Complementary Filters on the Special Orthogonal Group</p> <p>Mahony, R. ; Hamel, T. ; Pfimlin, Jean-Michel Publication Year: 2008 , Page(s): 1203 - 1218 Cited by: Papers (147) Patents (4)</p> <p>   Abstract PDF (941 KB)  HTML</p>
<input type="checkbox"/>	<p>3. Consensus problems in networks of agents with switching topology and time-delays</p> <p>Olfati-Saber, R. ; Murray, R.M. Publication Year: 2004 , Page(s): 1520 - 1533 Cited by: Papers (2149) Patents (3)</p> <p>   Abstract PDF (536 KB)  HTML</p>
<input type="checkbox"/>	<p>4. Parametric Robust Structured Control Design</p> <p>Apkarian, P. ; Minh Ngoc Dao ; Noll, D. Publication Year: 2015 , Page(s): 1857 - 1869</p> <p>   Abstract PDF (1063 KB)  HTML</p>
<input type="checkbox"/>	<p>5. Principal component analysis in linear systems: Controllability, observability, and model reduction</p> <p>Moore, B. Publication Year: 1981 , Page(s): 17 - 32 Cited by: Papers (1067) Patents (3)</p> <p>   Abstract PDF (1296 KB)</p>
<input type="checkbox"/>	<p>6. Two-Dimensional Dissipative Control and Filtering for Roesser Model</p> <p>Choon Ki Ahn ; Peng Shi ; Basin, M.V. Publication Year: 2015 , Page(s): 1745 - 1759</p> <p>   Abstract PDF (1530 KB)  HTML</p>
<input type="checkbox"/>	<p>7. A Framework for the Event-Triggered Stabilization of Nonlinear Systems</p> <p>Postoyan, R. ; Tabuada, P. ; Netic, D. ; Anta, A.</p>

Sponsor

















































IEEE Access[®]
The Journal for rapid open access publishing



















































Would you give your child a cell phone?
















































Comment Now
on this controversial topic in IEEE Access.**Comment**










































The journal for rapid open access publishing.






<p>Publication Year: 2015 , Page(s): 982 - 996</p> <p>   Abstract PDF (508 KB)  HTML</p>	
<input type="checkbox"/>	<p>8. Event-Triggering Sampling Based Leader-Following Consensus in Second-Order Multi-Agent Systems </p> <p>Huaqing Li ; Xiaofeng Liao ; Tingwen Huang ; Wei Zhu Publication Year: 2015 , Page(s): 1998 - 2003</p> <p>   Abstract PDF (494 KB)  HTML</p>
<input type="checkbox"/>	<p>9. Norm-Controllability of Nonlinear Systems </p> <p>Muller, M.A. ; Liberzon, D. ; Allgower, F. Publication Year: 2015 , Page(s): 1825 - 1840</p> <p>   Abstract PDF (577 KB)  HTML</p>
<input type="checkbox"/>	<p>10. State-space solutions to standard H_2 and H_∞ control problems </p> <p>Doyle, J.C. ; Glover, Keith ; Khargonekar, P.P. ; Francis, B.A. Publication Year: 1989 , Page(s): 831 - 847 Cited by: Papers (1581) Patents (4)</p> <p>   Abstract PDF (1496 KB)</p>
<input type="checkbox"/>	<p>11. Analyzing Convergence and Rates of Convergence of Particle Swarm Optimization Algorithms Using Stochastic Approximation Methods </p> <p>Quan Yuan ; Yin, G. Publication Year: 2015 , Page(s): 1760 - 1773</p> <p>   Abstract PDF (1087 KB)  HTML</p>
<input type="checkbox"/>	<p>12. Observation of Nonlinear Differential-Algebraic Systems With Unknown Inputs </p> <p>Bejarano, F.J. ; Perruquetti, W. ; Floquet, T. ; Zheng, G. Publication Year: 2015 , Page(s): 1957 - 1962</p> <p>   Abstract PDF (289 KB)  HTML</p>
<input type="checkbox"/>	<p>13. The $calH_2$ Control Problem for Quadratically Invariant Systems With Delays </p> <p>Lamperski, A. ; Doyle, J.C. Publication Year: 2015 , Page(s): 1945 - 1950</p> <p>  Abstract PDF (310 KB)  HTML</p>
<input type="checkbox"/>	<p>14. Closed-Loop Optimal Experiment Design: Solution via Moment Extension </p> <p>Hildebrand, R. ; Gevers, M. ; Solari, G.E. Publication Year: 2015 , Page(s): 1731 - 1744</p> <p>   Abstract PDF (580 KB)  HTML</p>
<input type="checkbox"/>	<p>15. Attack Detection and Identification in Cyber-Physical Systems </p> <p>Pasqualetti, F. ; Dorfler, F. ; Bullo, F. Publication Year: 2013 , Page(s): 2715 - 2729 Cited by: Papers (14)</p> <p>   Abstract PDF (3839 KB)  HTML</p>
<input type="checkbox"/>	<p>16. Flocking for multi-agent dynamic systems: algorithms and theory </p> <p>Olfati-Saber, R. Publication Year: 2006 , Page(s): 401 - 420 Cited by: Papers (1035) Patents (1)</p> <p>   Abstract PDF (880 KB)  HTML</p>
<input type="checkbox"/>	<p>17. Divided State Feedback Control of Stochastic Systems </p> <p>Xueyan Zhao ; Feiqi Deng</p>

	<p>Publication Year: 2015 , Page(s): 1870 - 1885</p> <p>   Abstract PDF (733 KB)  HTML</p>	
<input type="checkbox"/>	<p>18. Distributed Controllers for Multi-Agent Coordination Via Gradient-Flow Approach</p> <p>Sakurama, K. ; Azuma, S.-I. ; Sugie, T. Publication Year: 2015 , Page(s): 1471 - 1485</p> <p>   Abstract PDF (709 KB)  HTML</p>	
<input type="checkbox"/>	<p>19. Control of Heterogeneous Groups of Systems Interconnected Through Directed and Switching Topologies</p> <p>Hoffmann, C. ; Eichler, A. ; Werner, H. Publication Year: 2015 , Page(s): 1904 - 1909</p> <p>   Abstract PDF (1436 KB)  HTML</p>	
<input type="checkbox"/>	<p>20. Coordination of groups of mobile autonomous agents using nearest neighbor rules</p> <p>Jadbabaie, A. ; Jie Lin ; Morse, A.S. Publication Year: 2003 , Page(s): 988 - 1001 Cited by: Papers (2299) Patents (9)</p> <p>   Abstract PDF (832 KB)  HTML</p>	
<input type="checkbox"/>	<p>21. Indefinite Mean-Field Stochastic Linear-Quadratic Optimal Control</p> <p>Yuan-Hua Ni ; Ji-Feng Zhang ; Xun Li Publication Year: 2015 , Page(s): 1786 - 1800</p> <p>   Abstract PDF (373 KB)  HTML</p>	
<input type="checkbox"/>	<p>22. Distributed Subgradient Methods for Multi-Agent Optimization</p> <p>Nedic, A. ; Ozdaglar, A. Publication Year: 2009 , Page(s): 48 - 61 Cited by: Papers (240)</p> <p>   Abstract PDF (420 KB)  HTML</p>	
<input type="checkbox"/>	<p>23. Multirate Output Feedback Control of Nonlinear Networked Control Systems</p> <p>Beikzadeh, H. ; Marquez, H.J. Publication Year: 2015 , Page(s): 1939 - 1944</p> <p>   Abstract PDF (343 KB)  HTML</p>	
<input type="checkbox"/>	<p>24. Synchronization Reachable Topology and Synchronization of Discrete-Time Linear Multi-Agent Systems</p> <p>Xingping Wang ; Jiandong Zhu ; Zhaolin Cheng Publication Year: 2015 , Page(s): 1927 - 1932</p> <p>   Abstract PDF (259 KB)  HTML</p>	
<input type="checkbox"/>	<p>25. Dynamic Triggering Mechanisms for Event-Triggered Control</p> <p>Girard, A. Publication Year: 2015 , Page(s): 1992 - 1997</p> <p>   Abstract PDF (478 KB)  HTML</p>	
<input type="checkbox"/>	<p>26. Game Interactions and Dynamics on Networked Populations</p> <p>Madeo, D. ; Mocenni, C. Publication Year: 2015 , Page(s): 1801 - 1810</p> <p>   Abstract PDF (1782 KB)  HTML</p>	
<input type="checkbox"/>	<p>27. A new model for control of systems with friction</p> <p>De Wit, C.C. ; Olsson, H. ; Astrom, K.J. ; Lischinsky, P.</p>	

	<p>Publication Year: 1995 , Page(s): 419 - 425 Cited by: Papers (639) Patents (1)</p> <p>   Abstract PDF (572 KB)</p>	
<input type="checkbox"/>	<p>28. Information flow and cooperative control of vehicle formations</p> <p>Fax, J.A. ; Murray, R.M. Publication Year: 2004 , Page(s): 1465 - 1476 Cited by: Papers (1147)</p> <p>   Abstract PDF (560 KB)  HTML</p>	
<input type="checkbox"/>	<p>29. Robust Constrained Control for MIMO Nonlinear Systems Based on Disturbance Observer</p> <p>Chen, M. ; Shi, P. ; Lim, C. Publication Year: 2015 , Page(s): 1</p> <p>   Abstract PDF (292 KB)</p>	
<input type="checkbox"/>	<p>30. Designing Fully Distributed Consensus Protocols for Linear Multi-Agent Systems With Directed Graphs</p> <p>Zhongkui Li ; Guanghui Wen ; Zhisheng Duan ; Wei Ren Publication Year: 2015 , Page(s): 1152 - 1157 Cited by: Papers (1)</p> <p>   Abstract PDF (325 KB)  HTML</p>	
<input type="checkbox"/>	<p>31. Control Design for Trajectory Tracking With Untimed Petri Nets</p> <p>Lefebvre, D. ; Leclercq, E. Publication Year: 2015 , Page(s): 1921 - 1926 Cited by: Papers (1)</p> <p>   Abstract PDF (908 KB)  HTML</p>	
<input type="checkbox"/>	<p>32. Symmetric Linear Model Predictive Control</p> <p>Danielson, C. ; Borrelli, F. Publication Year: 2015 , Page(s): 1244 - 1259</p> <p>   Abstract PDF (1031 KB)  HTML</p>	
<input type="checkbox"/>	<p>33. Discussion Aspects of High Order Sliding Mode Control</p> <p>Utkin, V. Publication Year: 2015 , Page(s): 1</p> <p>   Abstract PDF (333 KB)</p>	
<input type="checkbox"/>	<p>34. A Small-Gain Approach to Robust Event-Triggered Control of Nonlinear Systems</p> <p>Tengfei Liu ; Zhong-Ping Jiang Publication Year: 2015 , Page(s): 2072 - 2085</p> <p>   Abstract PDF (603 KB)  HTML</p>	
<input type="checkbox"/>	<p>35. Distributed Optimization With Local Domains: Applications in MPC and Network Flows</p> <p>Mota, J.F.C. ; Xavier, J.M.F. ; Aguiar, P.M.Q. ; Puschel, M. Publication Year: 2015 , Page(s): 2004 - 2009</p> <p>   Abstract PDF (455 KB)  HTML</p>	
<input type="checkbox"/>	<p>36. Optimization of Average Rewards of Time Nonhomogeneous Markov Chains</p> <p>Xi-Ren Cao Publication Year: 2015 , Page(s): 1841 - 1856</p> <p>   Abstract PDF (387 KB)  HTML</p>	
<input type="checkbox"/>	<p>37. Adaptive Cooperative Output Regulation for a Class of Nonlinear Multi-Agent Systems</p> <p>Lu Liu</p>	

	<p>Publication Year: 2015 , Page(s): 1677 - 1682</p> <p>   Abstract PDF (351 KB)  HTML</p>	
<input type="checkbox"/>	<p>38. Kalman filtering with intermittent observations</p> <p>Sinopoli, B. ; Schenato, L. ; Franceschetti, M. ; Poolla, K. ; Jordan, M.I. ; Sastry, S.S.</p> <p>Publication Year: 2004 , Page(s): 1453 - 1464</p> <p>Cited by: Papers (591) Patents (3)</p> <p>   Abstract PDF (656 KB)  HTML</p>	
<input type="checkbox"/>	<p>39. Cooperative Global Robust Output Regulation for a Class of Nonlinear Multi-Agent Systems With Switching Network</p> <p>Wei Liu ; Jie Huang</p> <p>Publication Year: 2015 , Page(s): 1963 - 1968</p> <p>   Abstract PDF (367 KB)  HTML</p>	
<input type="checkbox"/>	<p>40. L1 Adaptive Control for a Class of Uncertain Nonaffine-in-Control Nonlinear Systems</p> <p>Choe, R. ; Xargay, E. ; Hovakimyan, N.</p> <p>Publication Year: 2015 , Page(s): 1</p> <p>   Abstract PDF (503 KB)</p>	
<input type="checkbox"/>	<p>41. On the Maximum Coverage Area of Wireless Networked Control Systems With Maximum Cost-Efficiency Under Convergence Constraint</p> <p>Kilinc, D. ; Ozger, M. ; Akan, O.B.</p> <p>Publication Year: 2015 , Page(s): 1910 - 1914</p> <p>   Abstract PDF (416 KB)  HTML</p>	
<input type="checkbox"/>	<p>42. Fault Detection and Isolation in Inertial Measurement Units Based on Bounding Sets</p> <p>Bras, S. ; Rosa, P. ; Silvestre, C. ; Oliveira, P.</p> <p>Publication Year: 2015 , Page(s): 1933 - 1938</p> <p>   Abstract PDF (302 KB)  HTML</p>	
<input type="checkbox"/>	<p>43. Styled-Velocity Flocking of Autonomous Vehicles: A Systematic Design</p> <p>Thanh-Trung Han ; Shuzhi Sam Ge</p> <p>Publication Year: 2015 , Page(s): 2015 - 2030</p> <p>   Abstract PDF (595 KB)  HTML</p>	
<input type="checkbox"/>	<p>44. Finite-Time Stabilization and Optimal Feedback Control</p> <p>Haddad, W.M. ; L'Affitto, A.</p> <p>Publication Year: 2015 , Page(s): 1</p> <p>   Abstract PDF (327 KB)</p>	
<input type="checkbox"/>	<p>45. A Nonlinear Stochastic Filter for Continuous-Time State Estimation</p> <p>Ghoreyshi, A. ; Sanger, T.D.</p> <p>Publication Year: 2015 , Page(s): 2161 - 2165</p> <p>   Abstract PDF (465 KB)  HTML</p>	
<input type="checkbox"/>	<p>46. Secure Estimation and Control for Cyber-Physical Systems Under Adversarial Attacks</p> <p>Fawzi, H. ; Tabuada, P. ; Diggavi, S.</p> <p>Publication Year: 2014 , Page(s): 1454 - 1467</p> <p>Cited by: Papers (3)</p> <p>   Abstract PDF (654 KB)  HTML</p>	
<input type="checkbox"/>	<p>47. Fault Detection Filter Design With Optimization and Partial Decoupling</p> <p>Xiaobo Li ; Liu, H.H.T. ; Bin Jiang</p>	

Publication Year: 2015 , Page(s): 1951 - 1956 📄 🔒 📄 Abstract PDF (421 KB) 📄 HTML	
<input type="checkbox"/>	<p>48. A Graph Laplacian Approach to Coordinate-free Formation Stabilization for Directed Networks </p> <p>Lin, Z. ; Wang, L. ; Han, Z. ; Fu, M. Publication Year: 2015 , Page(s): 1</p> <p>📄 🔒 📄 Abstract PDF (433 KB)</p>
<input type="checkbox"/>	<p>49. Random Coordinate Descent Methods for ℓ_0 Regularized Convex Optimization </p> <p>Patrascu, A. ; Necoara, I. Publication Year: 2015 , Page(s): 1811 - 1824</p> <p>📄 🔒 📄 Abstract PDF (540 KB) 📄 HTML</p>
<input type="checkbox"/>	<p>50. An algorithm for tracking multiple targets </p> <p>Reid, D.B. Publication Year: 1979 , Page(s): 843 - 854 Cited by: Papers (791) Patents (26)</p> <p>📄 🔒 📄 Abstract PDF (1184 KB)</p>

Aims & Scope

Meet Our Editors

Further Links

In the IEEE Transactions on Automatic Control, the IEEE Control Systems Society publishes high-quality papers on the theory, design, and applications of control engineering. Two types of contributions are regularly considered

Editor-in-Chief

P. J. Antsaklis
 Dept. Electrical Engineering
 University of Notre Dame

[Personal Sign In](#) | [Create Account](#)

IEEE Account

- » [Change Username/Password](#)
- » [Update Address](#)

Purchase Details

- » [Payment Options](#)
- » [Order History](#)
- » [Access Purchased Documents](#)

Profile Information

- » [Communications Preferences](#)
- » [Profession and Education](#)
- » [Technical Interests](#)

Need Help?

- » [US & Canada: +1 800 678 4333](#)
- » [Worldwide: +1 732 981 0060](#)
- » [Contact & Support](#)

[About IEEE Xplore](#) | [Contact Us](#) | [Help](#) | [Terms of Use](#) | [Nondiscrimination Policy](#) | [Sitemap](#) | [Privacy & Opting Out of Cookies](#)

A not-for-profit organization, IEEE is the world's largest professional association for the advancement of technology.

© Copyright 2015 IEEE - All rights reserved. Use of this web site signifies your agreement to the terms and conditions.