

CONTROL SYSTEMS SOCIETY

OCTOBER

2012



Publications Content Digest

TABLE OF CONTENTS

Vice-President

Publications Activities

FRANCIS J. DOYLE III

University of California

Journal Editors

IEEE Transactions on Automatic Control

PANOS J. ANTSAKLIS

University of Notre Dame

<http://www.nd.edu/~ieeetac>

IEEE Transactions on Control Systems Technology

THOMAS PARISINI

Imperial College, UK

<http://www.ieeecss.org/publications/tcst>

IEEE Control Systems Magazine

RICHARD D. BRAATZ

Massachusetts Institute of Technology

<http://www.ieeecss.org/publications/tcst>

Electronics Editor

E-letter on Systems, Control and Signal Processing

MAGNUS EGERSTEDT

Georgia Institute of Technology

<http://www.ieeecss.org/publications/e-letter/e-letter>

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IEEE TRANSACTIONS ON AUTOMATIC CONTROL

A PUBLICATION OF THE IEEE CONTROL SYSTEMS SOCIETY



OCTOBER 2012

VOLUME 57

NUMBER 9

IETAA9

(ISSN 0018-9286)

Table of Contents
Full Text: [PDF](#) [40 KB]

IEEE Transactions on Automatic Control
publication information
Full Text: [PDF](#) [38 KB]

Scanning The Issue
Full Text: [PDF](#) [39 KB]

Papers

Distributed Averaging Under Constraints on
Information Exchange: Emergence of Lévy
Flights
J. Wang, N. Elia
[Abstract](#) | Full Text: [PDF](#) [455 KB]

Choice Prediction With Semidefinite
Optimization When Utilities are Correlated
V. K. Mishra, K. Natarajan, H. Tao, C.-P. Teo
[Abstract](#) | Full Text: [PDF](#) [1028 KB]

A Metric Between Probability Distributions on
Finite Sets of Different Cardinalities and
Applications to Order
Reduction
M. Vidyasagar
[Abstract](#) | Full Text: [PDF](#) [4819 KB]

Dynamics of Human Head and Eye Rotations
Under Donders' Constraint
B. K. Ghosh, I. B. Wijayasinghe
[Abstract](#) | Full Text: [PDF](#) [932 KB]

Dynamic Approximate Solutions of the HJ
Inequality and of the HJB Equation for Input-
Affine Nonlinear Systems
M. Sassano, A. Astolfi
[Abstract](#) | Full Text: [PDF](#) [1166 KB]

Scheduling in Mobile Ad Hoc Networks
With Topology and Channel-State
Uncertainty
L. Ying, S. Shakkottai
[Abstract](#) | Full Text: [PDF](#) [3154 KB]

Estimation of a Low-Intensity Filtered
Poisson Process in Additive White Gaussian
Noise
A. Komarek
[Abstract](#) | Full Text: [PDF](#) [415 KB]

Active Robust Fault Detection in Closed-
Loop Systems: Quadratic Optimization
Approach
A. Esna Ashari, R. Nikoukhah, S. L. Campbell
[Abstract](#) | Full Text: [PDF](#) [679 KB]

Distributed Parameter Estimation Over
Unreliable Networks With Markovian
Switching Topologies
Q. Zhang, J. -F. Zhang
[Abstract](#) | Full Text: [PDF](#) [598 KB]

Time and Spectral Domain Relative
Entropy: A New Approach to Multivariate
Spectral Estimation
A. Ferrante, C. Masiero, and M. Pavon
[Abstract](#) | Full Text: [PDF](#) [850 KB]

Control-Theoretic Approach to
Communication With Feedback
E. Ardestanizadeh, M. Franceschetti
[Abstract](#) | Full Text: [PDF](#) [272 KB]

Jump Control of Probability Densities With
Applications to Autonomous Vehicle
Motion
A. R. Mesquita, J. P. Hespanha
[Abstract](#) | Full Text: [PDF](#) [2698 KB]

Technical Notes and Correspondence

Robust Control for Nonlinear Systems Using Passivity-Based Robust Right Coprime Factorization

M. Deng, N. Bu

[Abstract](#) | Full Text: [PDF](#) [292 KB]

Robust Controller Design of Uncertain Discrete Time-Delay Systems With Input Saturation and Disturbances

S. Xu, G. Feng, Y. Zou, J. Huang

[Abstract](#) | Full Text: [PDF](#) [247 KB]

Coupled Distributed Estimation and Control for Mobile Sensor Networks

R. Olfati-Saber, P. Jalalkamali

[Abstract](#) | Full Text: [PDF](#) [441 KB]

Semistability of Nonlinear Systems Having a Connected Set of Equilibria and Time-Delays

Q. Hui

[Abstract](#) | Full Text: [PDF](#) [252 KB]

Sufficient Conditions for Decentralized Potential Functions Based Controllers Using Canonical Vector Fields

D. V. Dimarogonas

[Abstract](#) | Full Text: [PDF](#) [489 KB]

Adaptive Output Feedback Control of Uncertain Nonlinear Systems With Hysteresis Nonlinearity

J. Zhou, C. Wen, T. Li

[Abstract](#) | Full Text: [PDF](#) [714 KB]

Simplified Rapid Switching Gain Scheduling for a Class of LPV Systems

A. Dehghani, M. C. Rotkowitz, B. D. O.

Anderson, S. H. Cha

[Abstract](#) | Full Text: [PDF](#) [244 KB]

Consensus of Multi-Agent Networks With Aperiodic Sampled Communication Via Impulsive Algorithms Using Position-Only Measurements

Z. -W. Liu, Z.-H. Guan, X. Shen, G. Feng

[Abstract](#) | Full Text: [PDF](#) [546 KB]

Sampled-Data Synchronization Control of Dynamical Networks With Stochastic Sampling

B. Shen, Z. Wang, X. Liu

[Abstract](#) | Full Text: [PDF](#) [363 KB]

Event Based State Estimation With Time Synchronous Updates

J. Sijs, M. Lazar

[Abstract](#) | Full Text: [PDF](#) [325 KB]

Global Bounded Synchronization of General Dynamical Networks With Nonidentical Nodes

J. Zhao, D. J. Hill, T. Liu

[Abstract](#) | Full Text: [PDF](#) [646 KB]

Output Feedback Regulation of a Chain of Integrators With an Unbounded Time-Varying Delay in the Input

M. -S. Koo, H.-L. Choi, J.-T. Lim

[Abstract](#) | Full Text: [PDF](#) [312 KB]

Characterization and Stability of Autonomous Positive Descriptor Systems

M. A. Rami, D. Napp

[Abstract](#) | Full Text: [PDF](#) [204 KB]

Constrained Nonlinear Polynomial Time-Delay Systems: A Sum-of-Squares Approach to Estimate the Domain of Attraction

G. Franzè, D. Famularo, A. Casavola

[Abstract](#) | Full Text: [PDF](#) [476 KB]

Hamiltonian Identification Through Enhanced Observability Utilizing Quantum Control

Z. Leghtas, G. Turinici, H. Rabitz, P. Rouchon

[Abstract](#) | Full Text: [PDF](#) [276 KB]

Robust Control of Constrained Linear Systems With Bounded Disturbances

R. Ghaemi, J. Sun, I. V. Kolmanovskiy

[Abstract](#) | Full Text: [PDF](#) [358 KB]

On Achieving Size-Independent Stability Margin of Vehicular Lattice Formations With Distributed Control

H. Hao, P. Barooah

[Abstract](#) | Full Text: [PDF](#) [354 KB]

Stability Analysis for High Frequency Networked Control Systems

H. Yang, Y. Xia, P. Shi, M. Fu

[Abstract](#) | Full Text: [PDF](#) [522 KB]

IEEE Control Systems Society Information

Full Text: [PDF](#) [42 KB]



OCTOBER 2012

Volume 32

Number 5

Front Cover

Full Text: [PDF](#) [375 KB]

Table of Contents

Full Text: [PDF](#) [489 KB]

Control Engineering and the Birth of Aviation
[From the Editor]

R. D. Braatz

Full Text: [PDF](#) [111 KB]

Unmanned Aerial Vehicles [About This Issue]

R. D. Braatz

Full Text: [PDF](#) [1544 KB]

Open Access and the Future of Scientific
Publishing [President's Message]

C. G. Cassandras

Full Text: [PDF](#) [433 KB]

CSS News

Full Text: [PDF](#) [593 KB]

IEEE Home Video Tutorials [25 Years Ago]

R. Findeisen

Full Text: [PDF](#) [101 KB]

IEEE Control Systems Magazine Board

Full Text: [PDF](#) [101 KB]

On Internal Stability and Unstable Pole-Zero
Cancellations

[Feedback]

R. D. Braatz

Full Text: [PDF](#) [101 KB]

[Feedback]

R. L. Kosut

Full Text: [PDF](#) [379 KB]

Society Awards [Member Activities]

S. S. Ge

Full Text: [PDF](#) [206 KB]

Mathukumalli Vidyasagar [People in Control]

Full Text: [PDF](#) [279 KB]

Jozsef Bokor [People in Control]

Full Text: [PDF](#) [1035 KB]

Le Yi Wang [People in Control]

Full Text: [PDF](#) [189 KB]

Mayuresh V. Kothare [People in Control]

Full Text: [PDF](#) [271 KB]

Unmanned Aerial Vehicles and Control:
Lockheed Martin Advanced Technology
Laboratories

K. Fregene

Full Text: [PDF](#) [878 KB]

Autopilots for Ultra Lightweight Robotic Birds:
Automatic Altitude Control and System
Integration of a Sub-10 g Weight Flapping-
Wing Micro Air Vehicle

F. -Y. Hsiao, L.-J. Yang, S. -H. Lin, C. -L. Chen
J. -F. Shen

Full Text: [PDF](#) [3303 KB]

Time-Critical Cooperative Control of Multiple Autonomous Vehicles: Robust Distributed Strategies for Path-Following Control and Time-Coordination over Dynamic Communications Networks
E. Xargay, V. Dobrokhodov,
I. Kaminer, A. M. Pascoal,
N. Hovakimyan, C. Cao
Full Text: [PDF](#) [3805 KB]

Autonomous Control of Unmanned Combat Air Vehicles: Design of a Multimodal Control and Flight Planning Framework for Agile Maneuvering
N. K. Ure, G. Inalhan
Full Text: [PDF](#) [5479 KB]

Robust Adaptive Markov Decision Processes: Planning with Model Uncertainty
L. F. Bertuccelli, A. Wu, J. P. How
Full Text: [PDF](#) [1896 KB]

Getting the Message About Noise Across, Loud and Clear [Focus on Education]
A. J. Fleming
Full Text: [PDF](#) [636 KB]

Tracking and Data Fusion: A Handbook of Algorithms (Bar-Shalom, Y. et al; 2011)
[Lecture Notes]
C. -Y. Chong
Full Text: [PDF](#) [198 KB]

Book Announcements [Bookshelf]
Full Text: [PDF](#) [1941 KB]

Symposium on Emerging Topics in Control and Modeling: Cyberphysical Systems [Conference Reports]
V. Chandan, K. Deng, D. Huang,
G. Mohan, M. Negrete-Pincetic,
A. Tilton
Full Text: [PDF](#) [1106 KB]

Nikolai Nikolaevich Krasovskii (Nikolai Nikolayevich Krasovsky [Obituary]
A. B. Kurzhanski
Full Text: [PDF](#) [173 KB]

Conference Calendar
Full Text: [PDF](#) [86 KB]

IEEE Control Systems Society
Full Text: [PDF](#) [59 KB]

Not So Random [Random Inputs]
Full Text: [PDF](#) [562 KB]

Upcoming IEEE Conferences

Important Dates



Special Session proposal submission:
FEBRUARY 20, 2012 [Closed]

Tutorial and workshop proposals submission:
FEBRUARY 20, 2012 [Closed]

Technical paper submission:
FEBRUARY 20, 2012 [Closed]

Notification of acceptance:
LATE MAY 2012 [Closed]

Final camera-ready paper due:
JUNE 26, 2012 [Closed]

Early/author registration ends:
JUNE 26, 2012 [Closed]

Conference Dates
OCTOBER 3-5, 2012

Keynote Speakers



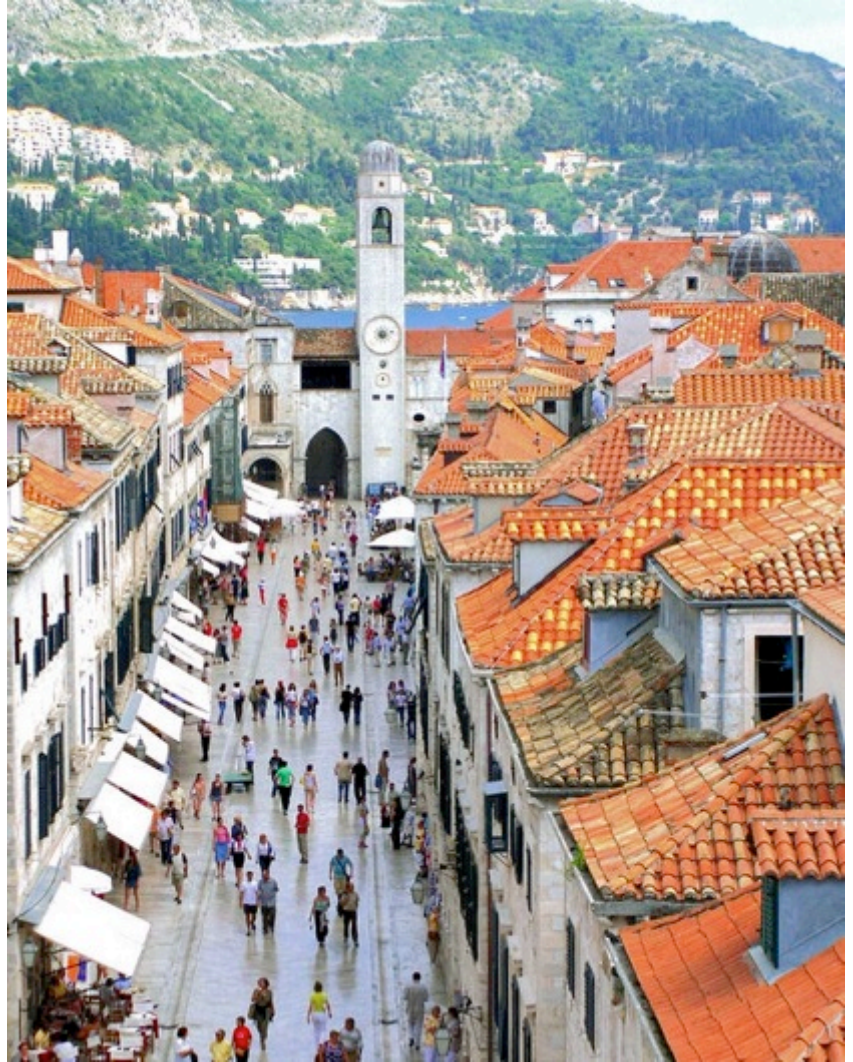
Richard D. Braatz
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MIT, USA

Dario Floreano
Laboratory of Intelligent Systems
EPFL, Switzerland

Frank Lewis
ARRI
University of Texas at Arlington, USA

Iven Mareels
Biomedical Engineering
University of Melbourne, Australia

www.msc2012.org



MSC 2012

OCTOBER 3-5, 2012

DUBROVNIK, CROATIA

IEEE Multi-Conference on Systems and Control

MSC 2012 will be a three-day event, preceded by a full day of Tutorials and Workshops. The conference proceedings will be included in **IEEE Xplore** and indexed by **INSPEC** and **Ei-Compindex**.



51ST IEEE CONFERENCE ON DECISION AND CONTROL
MAUI, HAWAII
DECEMBER 10-13, 2012

CDC 2012



The CDC is recognized as the premier scientific and engineering conference dedicated to the advancement of the theory and practice of systems and control. The CDC annually brings together an international community of researchers and practitioners in the field of automatic control to discuss new research results, perspectives on future developments, and innovative applications relevant to decision making, automatic control, and related areas.

The 51st IEEE Conference on Decision and Control will be held Monday through Thursday, December 10-13, 2012 at the Grand Wailea, Maui, Hawaii. The conference will be followed by technical workshops on **Friday, December 14, 2012.**

Important Dates

Submissions Site Open:
JANUARY 4, 2012

Invited Session Proposals Due:
MARCH 1, 2012 [Closed]

Initial Paper Submissions Due:
MARCH 7, 2012 [Closed]

Workshop Proposals Due:
MAY 10, 2012 [Closed]

Paper and Workshop Decision Notification:
JULY 2012 [Closed]

Final Submission Open:
AUGUST 1, 2012 [Closed]

Registration Opens:
AUGUST 1, 2012

Accepted Papers Due:
SEPTEMBER 5, 2012 [Closed]



2013 American Control Conference
WASHINGTON, D. C.
JUNE 17-19, 2013

ACC 2013

The ACC is internationally recognized as a premier scientific and engineering conference dedicated to the advancement of control theory and practice. The ACC brings together an international community of researchers and practitioners to discuss the latest findings in control research practice.

The 2013 ACC will feature several kinds of presentations including contributed and invited papers, invited sessions, tutorial sessions and special sessions along with workshops and exhibits.

The conference will also feature theme tracks in sustainability, societal challenges for control and smart healthcare systems.

The 2013 American Control Conference will be held Monday through Wednesday, June 17-19, at the Renaissance Washington, D. C. Downtown Hotel, which is centrally located in Washington, D. C., within 7 blocks of the White House, the U. S. Capitol Building, the National Mall and the Smithsonian Institution. The hotel is also within 2 blocks of an extensive restaurant district.

Important Dates

Draft Manuscripts due:
SEPTEMBER 24, 2012 [Closed]

Acceptance Notice:
By JANUARY 31, 2013

Final Manuscript Submission due:
MARCH 15, 2013

www.a2c2.org/conferences/acc2013/index.html



Special Issue

Relaxation Methods in Identification and Estimation Problems

The subject of system identification has a long history, and it still remains one of the most active fields of research in the control community. In the literature at large, particular attention has been devoted in recent years to the convexification of estimation problems, and convexification has become one of the major topics in system identification. A number of different approaches have recently emerged in the optimization community to address the problem of approximating the global solution of some classes of nonconvex optimization problems. The common idea behind all these approaches is to construct specific convex relaxations, which are guaranteed to converge, under proper assumptions and conditions, to the global optima of the original nonconvex problem.

The aim of this special issue is twofold: first, to highlight the fact that many challenging open problems in system identification and estimation can be reliably addressed via a convexification/relaxation approach; secondly, to show that the interplay between the optimization and the control communities can suggest new exciting research directions in identification and estimation problems. The topics relevant to this special issue include (but are not limited to) the following relaxation approaches to linear and nonlinear identification and estimation problems: LMI/SDP relaxations, L1-based sparsification approaches, probabilistic/randomized methods, rank/nuclear-norm minimization.

Accepting submissions until: NOVEMBER 1, 2012

Guest Editors

Diego Regruto

Dipartimento di Automatica e
Informatica Politecnico di
Torino Corso Duca degli
Abruzzi, 24 10129 Torino, Italy

diego.regruto@polito.it

Fabrizio Dabbene

CNR-IEIIT c/o Politecnico di
Torino Corso Duca degli
Abruzzi, 24 10128 Torino, Italy

fabrizio.dabbene@polito.it

Daniel E. Rivera

School for Engineering of Matter,
Transport, and Energy Mail Stop
876106 Arizona State University
Tempe, Arizona 85287 USA

daniel.rivera@asu.edu

To submit a paper, please visit:

www.css.paperplaza.net/journals/tac/scripts/login.pl



Special Issue

Control of Cyber-Physical Systems

Cyber-physical systems are engineered systems whose operations are monitored, coordinated, controlled, and integrated by computing and communication cores interacting with the physical environment. Cyber-physical systems transform how we interact with the physical world just like the Internet has transformed how we interact with one another. Advances in this field will have an enormous societal impact and economic benefit in areas such as energy, transportation, manufacturing, health, agriculture and many more.

Recently there has been an enormous scientific and industrial interest in cyber-physical systems. Consequently theories, tools, and practices for the design and operation of these systems are emerging. The aim of this special issue is to capture the latest developments in the fundamentals and applications of control of cyber-physical systems. We solicit papers on the following topics:

- Abstractions and heterogeneous models for cyber-physical systems
- Architectures for cyber-physical systems
- High-confidence and safety-critical networked control systems
- Modular and component-based design of cyber-physical systems
- Embedded computing and communication in cyber-physical systems
- Optimization and resource allocation in cyber-physical systems
- Real-time scheduling and performance of cyber-physical systems
- Distributed implementation and fault detection in cyber-physical systems
- Verification and run-time monitoring of cyber-physical systems
- Cyber-security and trust in control of cyber-physical systems

We expect that some of the papers will describe emerging applications in intelligent transportation, power systems, smart buildings, medical devices, mobile robotics, process industry etc.

Submission site opens: NOVEMBER 1, 2012

Guest Editors

Karl H. Johansson

ACCESS Linnaeus Center and
School of Electrical
Engineering, Royal Institute of
Technology, Stockholm 10044,
Sweden

kallej@kth.se

George J. Pappas

Department of Electrical and
Systems Engineering,
University of Pennsylvania,
Philadelphia, PA 19104, USA

pappasg@upenn.edu

Paulo Tabuada

Department of Electrical
Engineering, University of
California, Los Angeles, CA
90095, USA

tabuada@ee.ucla.edu

Claire J. Tomlin

Department of Electrical
Engineering and Computer
Sciences, University of
California, Berkeley, CA 94720,
USA

tomlin@eecs.berkeley.edu

To submit a paper on
November 1st, please visit:

www.css.paperplaza.net/journals/tac/scripts/login.pl