# **Curriculum Vitae**

## Dimos V. Dimarogonas, PhD

#### **Office Address**

School of Electrical Engineering Automatic Control KTH Royal Institute of Technology Osquldas v. 10 SE-100 44 Stockholm, Sweden

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**Date of Birth:** June 17<sup>111</sup>, 1978, Athens, GREECE

Citizenship: Greek

#### **EDUCATION**

PhD in Mechanical Engineering: **National Technical University of Athens** Athens, GREECE (3/2002-3/2007)

Dissertation Title: "Development of Decentralized Hybrid Control Methodologies with

Application to the Collision Avoidance Problem"

Advisor: Prof. Kostas Kyriakopoulos

Eng. Diploma: **National Technical University of Athens** Athens, GREECE Diploma in Electrical and Computer Engineering, Telecommunications Section (9/1996-9/2001)

Dipl. Thesis Title: "Max-Plus Control of Discrete-Event Dynamical Systems"

Advisor: Prof. Petros Maragos

GPA: 8.15/10.0.

Docent in Automatic Control, KTH Royal Institute Of Technology, 2012.

#### RESEARCH INTERESTS

Multi-Agent Systems, Autonomous Robots, Networked Control, Air Traffic Control, Hybrid Systems and Control, Distributed Formal Methods.

#### PROFESSIONAL EXPERIENCE

## Automatic Control Lab, School of Electrical Eng., KTH Royal Inst. Of Technology Stockholm, SWEDEN

4/2014-

Associate Professor, (Swedish: Universitetslektor)

#### Automatic Control Lab, School of Electrical Eng., KTH Royal Inst. Of Technology

Stockholm, SWEDEN

10/2010- 3/2014

Assistant Professor, (Swedish: Bitr. Universitetslektor)

#### Greek Army (Στρατός Ξηράς), fulfillment of compulsory military service

Greece

5/2010-9/2010

# Laboratory for Information and Decision Systems, Massachusetts Inst. Of Technology (MIT)

Cambridge, MA, USA

2/2009-3/2010:

Post Doctoral Research Associate

Research Supervisor: Professor Emilio Frazzoli.

### Automatic Control Lab, School of Electrical Eng., KTH Royal Inst. Of Technology

Stockholm, SWEDEN

5/2007-2/2009:

KTH ACCESS Postdoc (selected among 100 candidates both in 2007 and 2008)

Research Supervisor: Professor Karl Henrik Johansson.

#### Control Sys. Lab., Mech. Eng. Dept., National Tech. Univ. of Athens

Athens, GREECE

3/2002-3/2007:

PhD Candidate

Advisor: Professor Kostas J. Kyriakopoulos.

#### **ACTIVITIES**

#### **PROJECTS**

ERC Starting Grant BUCOPHSYS, H2020, "Bottom-up hybrid control and planning synthesis with application to multi-robot multi-human coordination", Principal Investigator (PI), 2015-2020.

Knut and Alice Wallenberg Foundation Project IPSYS, "Interactive Physical Systems: Moduli Spaces, Inference and Control", co-Principal Investigator (co-PI), 2015-2020.

EU H2020 Project AEROWORKS, "Collaborative Aerial Workers", Principal Investigator (PI), 2015-2018.

Swedish Research Council (VR), "Robust hybrid controller synthesis for multi-agent systems from local task specifications", Principal Investigator (PI), 2014-2018.

EU STREP FP7 Project COMPANION, "COoperative dynamic forMation of Platoons for sAfe and eNergy-optImized gOods transportatioN", FP7 Programme of the European Commission, co-Principal Investigator (co-PI), 2013-2016.

KTH ACCESS High Risk High Payoff Project, Shaping up networked systems through controlling their statistical moments, with Xiaoming Hu, 2013-2015.

EU STREP FP7 Project RECONFIG, "Cognitive, Decentralized Coordination of Heterogeneous Multi-Robot Systems via Reconfigurable Task Planning", FP7 Programme of the European Commission, Coordinator and Principal Investigator (PI), 2013-2016.

Swedish Research Council (VR), via grant 2009-3948, "Decentralized control of multiagent systems with limited communication capabilities", Principal Investigator (PI), 2010-2014.

Swedish Research Council (VR), NSF-VR Nordic Research Opportunity Program, Principal Investigator (PI), 2012.

KTH funding for the project Situated Audio Visual Interaction with Robots (SAVIR), KTH Strategic Research Area, The Next Generation: Human Robot Interaction, Robotic Focus Project, co-PI, 2010-1011.

Member of the NASA sponsored project "IDEAS: Influence of Degraded Environment on Airspace Safety". NASA, 2008-2011.

Member of the project "TAIS AURES: Cooperative guard and search:flexible autonomous UGV systems". Swedish Governmental Agency for Innovation Systems, 2007-2009.

Project Leader of the ACCESS Linnaeus Center Project on Wireless Sensing and Actuation. Research on coding, control and estimation for wireless sensor and actuator networks, 2008.

Member of the EU STREP Project ISWARM, "Intelligent Small World Autonomous Robots for Micro-Manipulation", (IST-2004-507006). European Commission, FP6-2002-IST-1, (IST Future and Emerging Technologies, Integrated Project - IP) 2004-7.

Work Package Leader of the EU STREP Project HYBRIDGE, "Distributed Control and Stochastic Analysis of Hybrid Systems Supporting Safety Critical Real-Time Systems Design", IST-2001-32460, 2002-2005.

#### SUPERVISION

#### **Current Postdocs**

Dimitris Boskos, PhD from National Technical University of Athens, from August 2014.

Jana Tumova, PhD from Masaryk University, from April 2013.

Davide Liuzza, KTH, PhD from Univ. of Naples, co-supervised with Prof. Karl Henrik Johansson, 2013-.

#### **Former Postdocs**

Tao Yang, KTH, PhD from Washington State University, co-supervised with Prof. Karl Henrik Johansson, 2012-14.

Ziyang Meng, KTH, PhD from Shanghai Jiaotong University, co-supervised with Prof. Karl Henrik Johansson, 2012-14.

Yiannis Karayiannidis, KTH, PhD from AUTH, co-supervised with Prof. Danica Kragic, 2011.

#### **Current PhD Students**

Alexandros Nikou, KTH EES, main supervisor, from 2015.

Pedro Pereira, KTH EES, main supervisor, from 2014.

Antonio Adaldo, KTH EES, co-supervised with Prof. Karl H. Johansson, from 2014.

Meng Guo, KTH EES, main supervisor, co-supervisor Prof. Karl Henrik Johansson, from 2011, Lic 2013.

Sebastian van de Hoef, KTH EES, main supervisor, co-supervisor Prof. Karl Henrik Johansson, from 2013.

Yuencheng Yang, KTH Opt&Sys, co-supervised with Prof. Xiaoming Hu, from 2011.

Martin Andreasson, KTH EES, co-supervised with Prof. Henrik Sandberg and Prof. Karl H. Johansson, from 2011, Lic 2013.

Alejandro Marzinotto, KTH CSC CVAP, co-supervised with Prof. Danica Kragic, from 2013.

Michele Colledanchise, KTH CSC CVAP, co-supervised with Prof. Petter Ögren, from 2013.

#### Former PhD students

Giannis Roussos, NTUA, co-supervised with Prof. Kostas J. Kyriakopoulos, 2008-2010, graduated 2015.

Alina Eqtami, NTUA, co-supervised with Prof. Kostas J. Kyriakopoulos, from 2008, graduated August 2013. Currently postdoc at Harvard University.

#### MS Thesis:

Pete Watcharawit, "Applying Agent-Based Modeling to Studying Emergent Behaviors of the Immune System Cells", KTH EES, 2015, supervised with Dr. Petter Brodin (Karolinska Institutet).

Ioannis Hatzis, "Motion Planning of Multi-Agent Systems under Temporal Logic Specifications", KTH EES, 2015.

Luca Macellari, "Average Consensus with Prescribed Performance Guarantees for Multiagent Double-Integrator Systems", KTH EES, 2015.

Steffen Linsenmayer "Event-triggered control of multi-agent systems with double-integrator dynamics: Application to vehicle platooning and flocking algorithms", KTH EES, 2014. With University of Stuttgart.

Ernest Company, "Formal Methods Based Hybrid Control Synthesis for Multi-Agent Systems", KTH EES, 2014. With University of Valencia.

Liangrui Huang, "Relaxations in Communication Constrains and Task Specifications in a Multi-agent System under Independent and Dependent specifications", KTH EES, 2014.

Naomi Anveden Hertzberg, "Coordinated Control of Multiple Autonomous Underwater Vehicles", KTH EES, 2014.

Philipp Köhler, "Double-integrator leader-follower networks: Sufficient conditions for connectivity maintenance", KTH EES, 2014. With University of Stuttgart.

Geoffray Battiston, "Collaborative Action Planning for Humanoid Robots Exchanging a Small Object", KTH EES, 2014.

Olivier Balland, "Collaborative motion planning of humanoid robots", KTH EES, 2014.

Anton Hou, "Analysis and Design of Dynamic Behavior for Embedded Systems Using Policy-Based Design", KTH EES, 2014. With Detlef Scholle (Alten).

Diogo Almeida, "Event-Triggered Attitude Stabilization of a Quadcopter", KTH EES, 2014.

Lorris Robin Dola, "Biomimetic trajectory tracking by means of event-based control", KTH EES, 2014.

Maryam Oryani, "Applying Agent-Based Modeling to Studying Emergent Behaviors of the Immune System Cells", KTH EES, 2014, supervised with Dr. Petter Brodin (Karolinska Institutet).

Johanna Orihuela Swartling, "Circumnavatigation control of multiple quadrotors", KTH EES, 2014.

Kazumune Hashimoto, "Distributed Aperiodic Model Predictive Control for perturbed multi-agent systems", KTH EES, 2013.

Adrien Rigaud, "Formal control synthesis for complex collaborative LTL tasks", School of Electrical Engineering, KTH EES, 2013.

Etienne Dargaud, "Pick-up and delivery planning in multi-agent systems under temporal logic specifications", KTH EES, 2013.

Martina Zambelli, "Nonholonomic Stabilization with Prescribed Performance Guarantees", KTH EES, 2013.

Sebastian van de Hoef, "Extended Consensus Algorithms", KTH EES, 2013.

Haukur Ingi Heidarsson, "Simulation and Implementation of Temporal Logic-based Motion Planning for Autonomous Vehicles", KTH EES, 2013.

Philipp Heer, "Decentralized MPC for smart grid applications", KTH EES, 2013.

Matteo Vanin, "Modeling, identification and navigation of autonomous air vehicles", KTH EES, 2013.

Dinsefa Muhammed Mustefa, "Dual Arm Robot Control Based on Navigation Function with Prescribed Performance Guarantees", KTH CSC and KTH EES, 2013.

Michele Colledanchise, "Stabilization and Collision Avoidance of Non-point Agents in Dynamic Environments: A Potential Field Approach", KTH EES, 2012.

Axel Klingenstein, "Cooperation of Aerial and Ground Vehicles", KTH EES, 2012.

Alejandro Marzinotto, "Decentralized Collaborative Control of Aerial and Ground Vehicles", KTH EES, 2012.

Nicolas Vinikoff, "Some Fundamental Limitations of Networked Control Systems", KTH EES, 2012.

Sergej Golfinger, "Event-triggered control for synchronization", KTH EES, 2012. With University of Stuttgart.

Mazin Yousif, "Aperiodic Wireless Control of a Water Tank System", KTH EES, 2011. With University of Grenoble.

Meng Guo: "Quantized Cooperative Control", KTH EES, 2011.

Kim Vizins: "Modelling and Control of Dual Arm Robotic Manipulators", KTH EES, 2011. (co-supervised with Prof. Bo Wahlberg).

Georg Seyboth: "Event-based Control for Multi-Agent Systems", KTH EES, 2010. With University of Stuttgart.

Joel Rundgren: "Modelling and Control of an SMT Robot", KTH EES, 2010.

Pedro Teixeira, "Event-Based Coordination of Multi-Agent Systems", KTH EES, 2008. With Universidade do Porto.

Fotios Katsilieris, "Search and Secure Using Mobile Robots", KTH EES, 2008.

#### **REVIEWING**

Frequent reviewer of papers for the following journal/conferences: IEEE International Conference on Robotics and Automation, IEEE Int. Conf. on Intelligent Robots and Systems, American Control Conference, IEEE Conference on Decision and Control, IEEE Transactions on Automatic Control, IEEE Transactions on Robotics, IEEE Transactions on Autom. Science in Engineering, Automatica, International Journal on Systems Science, Robotics and Autonomous Systems, Mediterranean Control Conference, Hybrid Systems: Computation & Control Conference, International Journal of Control, International Journal of Robust and Nonlinear Control, Asian Journal of Control, IEEE Robotics Magazine, European Control Conference.

#### EDITORIAL/CONFERENCE COMMITTEE SERVICE

Associate Editor, Automatica, 2013-.

Associate Editor, IET Control Theory and Applications, 2013-.

Associate Editor, IEEE Transactions on Automation Science and Engineering, 2015-.

Member of the International Program Committee for the IEEE Conference on Control Applications (CCA), Sydney, Australia, October 2015.

Publicity Co-Chair of the ACM/IEEE 6th International Conference on Cyber-Physical Systems, ICCPS 2015, Seattle, USA, April 2015.

Member of the International Program Committee for the 14<sup>th</sup> European Control Conference (ECC15), Linz, Austria, July 2015.

Member of the Program Committee for the 2015 Robotics: Science and Systems Conference (RSS), Rome, Italy, July 2015.

Member of the International Program Committee for the IEEE Conference on Control Applications (CCA), Antibes, France, October 2014.

Member of the Program Committee for the 2014 Robotics: Science and Systems Conference (RSS), UC Berkeley, CA, USA, July 2014.

Member of the International Program Committee for the 13<sup>th</sup> European Control Conference (ECC14), Strasbourg, France, June 2014.

Member of the International Program Committee for the 13th Conference on Mobile Robots and Competitions, ROBOTICA 2013, Portugal, April 2013.

Member of the International Program Committee for the 12<sup>th</sup> European Control Conference (ECC13), Zurich, Switzerland, July 2013.

Member of the International Program Committee for the 12<sup>th</sup> International Conference on Control, Automation, Robotics and Vision, ICARCV 2012, China, December 2012.

Member of the International Program Committee for the 9th International Conference on Informatics in Control, Automation and Robotics (ICINCO), Rome, Italy, July 2012.

Member of the International Program Committee for the 10th IFAC Symposium on Robot Control (SYROCO 2012), Dubrovnik, Croatia, on September 05-07, 2012.

Associate Editor for the IEEE International Conference on Robotics and Automation (ICRA), St. Paul, Minnesota, USA, May 2012.

Member of the Conference Editorial Board of the IEEE Robotics and Automation Society (RAS), since 2011.

Member of the International Program Committee for the 3rd International Workshop on Wireless Sensor, Actuator and Robot Networks (WiSARN), Shanghai, China, April 2011, in conjuction with IEEE INFOCOM 2011.

Member of the International Program Committee for the 11th Conference on Mobile Robots and Competitions, ROBOTICA 2011 Lisbon, Portugal, April 2011.

Member of the International Program Committee for the 6th annual IEEE Conference on Automation Science and Engineering (IEEE CASE), sponsored by the IEEE Robotics and Automation Society (RAS), August 2010 in Toronto, Ontario, Canada.

Member of the International Program Committee for the 1st International Workshop on Wireless Sensor, Actuator and Robot Networks (WiSARN), Montreal, Montreal, Canada, June 2010, in conjuction with IEEE WoWMoM 2010.

Member of the International Program Committee for the 10th Conference on Mobile Robots and Competitions, ROBOTICA 2010 Leiria, Portugal, March 2010.

Program Committee Chair for ACCESS 1<sup>st</sup> Industrial Workshop, Stockholm, Sweden, March 2008.

#### **DEPARTMENTAL SERVICE**

Experimental Lab Director, Automatic Control Lab, School of EE, KTH, 2011-2012.

#### ASSIGNMENTS AS OUTSIDE EXPERT

Reviewer for project proposals to the Romanian Research Council, summer 2011.

Reviewer for proposals to the Programme Inter Carnot Fraunhofer, 2011

#### TEACHING EXPERIENCE

**Lecturer and Course Responsible**: FEL3230 Hybrid Systems, School of Electrical Engineering, KTH ACCESS specialized graduate course, Spring 2015.

**Lecturer and Course Responsible**: EL2910/FEL3330 Networked and Multi-Agent Control Systems, School of Electrical Engineering, KTH, Spring 2013.

**Lecturer and Course Responsible**: FEL3330 Networked and Multi-Agent Control Systems, School of Electrical Engineering, KTH ACCESS specialized graduate course, Spring 2011.

**Lecturer and Course Responsible**: EL2450 Hybrid and Embedded Control Systems, School of Electrical Engineering, KTH, undergraduate course, Spring 2011, Spring 2012, Spring 2013, Spring 2014, Spring 2015.

**Guest Lecturer**: Construction of Autonomous Unmanned Aerial Vehicles, KTH Dept of Machine Design, graduate course, Spring 2011.

**Reading Group** on Secure and Reconfigurable Multiagent and Networked Control Systems, School of Electrical Engineering, KTH, Spring 2011.

**Teaching Assistant:** M.E. Department, NTUA Spring 2004, Spring 2005 Assisted in teaching an undergraduate level course on *Digital Control Systems*.

**Teaching Assistant:** M.E. Department, NTUA Spring 2006 Assisted in teaching a graduate level course on *Adaptive Control*.

**Teaching Assistant:** Department of Aeronautics and Astronautics, MIT Fall 2009 Assisted in teaching a graduate level course on *Multi-Agent Systems*.

#### AWARDS

2013 IEEE Transactions on Automatic Control Outstanding Reviewer.

2007 and 2008 KTH ACCESS Linnaeus Center Award for best post-doctorial application, selected in the four winning candidates out of more than one hundred applications.

General Chair's Recognition Award for Interactive Papers for the paper *Event-triggered* control for multi-agent systems, by D. V. Dimarogonas and K. H. Johansson, presented at the IEEE CDC, Shanghai, China, 2009.

#### **INVITED TALKS (last updated 1/2012)**

- P9. "Bridging the gap between multi-agent navigation and networked control", KTH ACCESS Internal Lecture Series, Stockholm, Sweden, June 2011.
- P8. "Bridging the gap between multi-agent navigation and networked control", Institute of Information and Communication Technologies, Electronics and Applied Mathematics, Université catholique de Louvain, Louvain-la-Neuve, Belgium, May 2011.
- P7. "Bridging the gap between multi-agent navigation and networked control", Department of Electrical Engineering and Information Technology, Institut fur Systemtheorie und Regelungstechnik Universitaet Stuttgart, Stuttgart, Germany, November 2010.
- P6. "Connectivity Maintenance Control Strategies in Multi-Robot Systems", Department of Electrical Engineering and Information Technology, Technsiche Universität München, Munich, Germany, February 2009.

- P5. "Decentralized Control Methods for Navigation of Multi-Agent Systems to Cooperative and Non-cooperative Equilibria", CCRL-CoTeSys Central Robotics Laboratory Technsiche Universität München, Munich, Germany, July 2008.
- P4. "Analysis of robot navigation schemes using Rantzer's dual Lyapunov theorem", Delft Center for Systems and Control, Delft University of Technology, Delft, the Netherlands, May 2008.
- P3. "Decentralized Control Methods for Navigation of Multi-Agent Systems", Département d'Automatique de Grenoble and France and Inria Rhones Alpes, Grenoble, France, November 2007.
- P2. "Decentralized Control Methods for Navigation of Multi-Agent Systems to Cooperative and Non-cooperative Equilibria", Automatic Control Lab, School of Electrical Engineering, Royal Institute of Technology, Stockholm, Sweden, January 2007.
- P1. "Decentralized Navigation Concepts for Multi-Agent Systems to Cooperative & Non-Cooperative Equilibria", Dynamics and Control Systems Lab, School of Aerospace Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA, October 2005.

#### RESEARCH VISITS

Control Group, Univ. of Cambridge, Cambrige, UK

11/2002 Visiting Graduate Student Invited by Professor John Lygeros.

**DCSL Lab., School of Aerospace Eng., Georgia Inst. of Technology,** Atlanta, Georgia 10/2005 *Visiting Graduate Student* Invited by Professor Panagiotis Tsiotras.

#### **SEMINARS**

June 2003: DISC Summer School on Modeling and Control of Hybrid Systems, Veldhoven, the Netherlands.

September 2004: HYBRIDGE Summer School on Hybrid Systems, University of Patras, Greece.

#### **PUBLICATIONS**

#### ACCEPTED PUBLICATIONS (in reversed chronological order)

#### **Journal Papers**

J34. Antonio Adaldo, Francesco Alderisio, Davide Liuzza, Guodong Shi, Dimos V. Dimarogonas, Mario di Bernardo and Karl H. Johansson, Event-Triggered Pinning Control of Switching Networks, *IEEE Transactions on Control of Network Systems*, to appear, 2015.

- J33. Georg S. Seyboth, Dimos V. Dimarogonas, Karl H. Johansson, Paolo Frasca and Frank Allgower, On Robust Synchronization of Heterogeneous Linear Multi-Agent Systems with Static Couplings, *Automatica*, Vol. 53, pp. 392-399, March 2015.
- J32. Ross Anderson, Dejan Milutinovic and Dimos V. Dimarogonas, Self-Triggered Sampling for Second-Moment Stability of State-Feedback Controlled SDE Systems, *Automatica*, *Vol. 54*, *pp. 8-15*, *April 2015*.
- J31. Ziyang Meng, Tao Yang, Dimos V. Dimarogonas and Karl H. Johansson, Coordinated Output Regulation of Heterogeneous Linear Systems under Switching Topologies, *Automatica*, *Vol. 53*, *pp. 362-368*, *March 2015*.
- J30. Martina Zambelli, Yiannis Karayiannidis and Dimos V. Dimarogonas, Posture regulation for unicycle-like robots with prescribed performance guarantees, *IET Control Theory & Applications*, *Vol. 9, No. 2, pp. 192-202, February 2015*.
- J29. Kazumune Hashimoto, Shuichi Adachi and Dimos V. Dimarogonas, Distributed Aperiodic Model Predictive Control for Multi-Agent systems, *IET Control Theory & Applications*, *Vol. 9*, *No. 1*, *pp. 10-20*, *January 2015*.
- J28. Meng Guo and Dimos V. Dimarogonas, Multi-agent Plan Reconfiguration under Local LTL Specifications, *International Journal of Robotics Research*, Vol. 34, No. 2, pp. 218-235, February 2015.
- J27. Rosario Aragues, Guodong Shi, Dimos V. Dimarogonas, Carlos Sagues, Karl H. Johansson and Youcef Mezouar, Distributed algebraic connectivity estimation for undirected graphs with upper and lower bounds, *Automatica*, *Vol.* 50, no. 12, 3253-3259, *December* 2014.
- J26. Johanna Orihuela Swartling, Iman Shames, Karl H. Johansson and Dimos V. Dimarogonas, Collective Circumnavigation, *Unmanned Systems*, Vol. 2, No. 03, pp. 219-229, July 2014.
- J25. Martin Andreasson, Dimos V. Dimarogonas, Henrik Sandberg and Karl H. Johansson, Distributed Control of Networked Dynamical Systems: Static Feedback, Integral Action and Consensus, *IEEE Transactions on Automatic Control*, Vol. 59, No. 7, pp. 1750-1764, July 2014.
- J24. Ziyang Meng, Dimos V. Dimarogonas and Karl H. Johansson, Leader-follower Coordinated Tracking of Multiple Heterogeneous Lagrange Systems Using Continuous Control, *IEEE Transactions on Robotics*, Vol. 30, No. 3, pp. 739-745, June 2014.
- J23. Yuecheng Yang, Dimos V. Dimarogonas and Xiaoming Hu, Opinion consensus of modified Hegselmann-Krause models, *Automatica*, vol. 50, no. 2, pp. 622-627, February 2014.
- J22. Tao Yang, Ziyang Meng, Dimos V. Dimarogonas and Karl H. Johansson, Global Consensus for Discrete-time Multi-Agent Systems with Input Saturation Constraints, *Automatica*, vol. 50, no. 2, pp. 499-506, February 2014.
- J21. Meng Guo, Michael M. Zavlanos and Dimos V. Dimarogonas, Controlling the Relative Agent Motion in Multi-Agent Formation Stabilization, *IEEE Transactions on Automatic Control*, Vol. 59. No. 3, pp. 820-826, March 2014.

- J20. Pablo Millan Gata, Luis Orihuela, Carlos Vivas, Francisco R. Rubio, Dimos V. Dimarogonas and Karl H. Johansson, Sensor-network-based robust distributed control and estimation, Control Engineering Practice, Vol. 21. No. 9, pp. 1238-1249, September 2013.
- J19. Meng Guo and Dimos V. Dimarogonas, Consensus with Quantized Relative State Measurements, Automatica, Vol. 49, No. 8, pp. 2531–2537, August 2013.
- J18. Maria Guinaldo, Dimos V. Dimarogonas, Karl H. Johansson, José Sánchez Moreno and Sebastián Dormido, "Distributed Event-Based Control Strategies for Interconnected Linear Systems", IET Control Theory & Applications, Vol. 7, No. 6, pp. 877-886, April 2013.
- J17. Meng Guo and Dimos V. Dimarogonas, "Nonlinear Consensus via Continuous, Sampled, and Aperiodic Updates", International Journal of Control, Vol. 86, No. 4, pp. 567-578, April 2013.
- J16. Georg S. Seyboth, Dimos V. Dimarogonas and Karl H. Johansson, "Event-based Broadcasting for Multi-agent Average Consensus", Automatica, Vol. 49, No. 1, pp. 245-252, January 2013.
- J15. Christian Smith, Yiannis Karayiannidis, Lazaros Nalpantidis, Xavi Gratal, Peng Qi, Dimos V. Dimarogonas, and Danica Kragic, "Dual Arm Manipulation a Survey", Robotics and Autonomous Systems, Vol. 60, No. 10, pp. 1340-1353, October 2012.
- J14. Dimos V. Dimarogonas, "Sufficient Conditions for Decentralized Potential Functions Based Controllers using Canonical Vector Fields", IEEE Transactions on Automatic Control, Vol. 57, No. 10, pp. 2621-2626, October 2012.
- J13. Dimos V. Dimarogonas, Emilio Frazzoli and Karl H. Johansson, "Distributed Event-Triggered Control for Multi-Agent Systems", IEEE Transactions on Automatic Control, to appear, 2012.
- J12. Giannis Roussos, Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, "3D Navigation and Collision Avoidance for Nonholonomic Aircraft-like Vehicles", International Journal of Adaptive Control and Signal Processing, Vol. 24, No. 10, pp. 900-920, September 2010.
- J11. Dimos V. Dimarogonas and Karl H. Johansson, "Stability analysis for multi-agent systems using the incidence matrix: quantized communication and formation control", Automatica, Vol. 46, No. 4, pp. 695-700, April 2010.
- J10. Dimos V. Dimarogonas and Karl H. Johansson, "Bounded Control of Network Connectivity in Multi-Agent Systems", IET Control Theory & Applications, Vol. 4, No. 8, pp. 1330-1338, August 2010.
- J9. Tove Gustavi, Dimos V. Dimarogonas, Magnus Egerstedt and Xiaoming Hu, "Sufficient conditions for connectivity maintenance and rendezvous in leader-follower networks", Automatica, Vol. 46, No. 1, pp. 133-139, January 2010.
- J8. Dimos V. Dimarogonas, Panagiotis Tsiotras and Kostas J. Kyriakopoulos, "Leader-Follower Cooperative Attitude Control of Multiple Rigid Bodies", Systems and Control Letters, Vol. 58, No. 6, pp. 429-435, June 2009.

- J7. Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, "Inverse agreement protocols with application to distributed multi-agent dispersion", IEEE Transactions on Automatic Control, Vol. 54, No. 3, pp. 657-663, March 2009.
- J6. Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, "Connectedness Preserving Distributed Swarm Aggregation for Multiple Kinematic Robots", IEEE Transactions on Robotics, Vol. 24, No. 5, pp. 1213-1223, October 2008.
- J5. Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, "A connection between formation infeasibility and velocity alignment in kinematic multi-agent systems", Automatica, Vol. 44, No. 10, pp. 2648-2654, October 2008.
- J4. Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, "On the rendezvous problem for multiple nonholonomic agents", IEEE Transactions on Automatic Control, Vol .52, No. 5, pp. 916-922, May 2007.
- J3. Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, "Decentralized navigation functions for multiple agents with limited sensing capabilities", Journal of Intelligent and Robotic Systems, Vol. 48, No. 3, pp. 411-433, March 2007.
- J2. Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, "A Feedback Control Scheme for Multiple Independent Dynamic Non-point Agents", International Journal of Control, Vol. 79, No. 12, pp. 1613-1623, December 2006.
- J1. Dimos V. Dimarogonas, Savvas G. Loizou, Kostas J. Kyriakopoulos and Michael M. Zavlanos, "A Feedback Stabilization and Collision Avoidance Scheme for Multiple Independent Non-point Agents", Automatica, Vol. 42, No. 2, pp. 229-243, February 2006.

#### **Book Chapters**

B1. Dimos V. Dimarogonas, Savvas G. Loizou and Kostas J. Kyriakopoulos, "Multirobot Navigation Functions II: Towards Decentralization", in Stochastic Hybrid Systems: Theory and Safety Critical Applications, H.A.P Blom and J. Lygeros (eds.), Springer Lecture Notes in Control and Information Sciences, Vol. 337, 2006.

#### **Conference Papers**

- C106. Antonio Adaldo, Davide Liuzza, Dimos V. Dimarogonas and Karl H. Johansson, Control of Multi-Agent Systems with Event-Triggered Cloud Access, 2015 European Control Conference, Linz, Austria, to appear.
- C105. Yuecheng Yang, Dimos V. Dimarogonas and Xiaoming Hu, Shaping up crowd of agents through controlling their statistical moments, 2015 European Control Conference, Linz, Austria, to appear.
- C104. Kazumune Hashimoto, Shuichi Adachi and Dimos V. Dimarogonas, Self-triggered Nonlinear Model Predictive Control for Networked Control Systems, 2015 American Control Conference, Chicago, IL, to appear.

- C103. Martin Andreasson, Roger Wiget, Dimos V. Dimarogonas, Karl Henrik Johansson and Goran Andersson, Distributed Primary Frequency Control through Multi-Terminal HVDC Transmission Systems, 2015 American Control Conference, Chicago, IL, to appear.
- C102. Steffen Linsenmayer and Dimos V. Dimarogonas, Event-triggered Control for Vehicle Platooning, 2015 American Control Conference, Chicago, IL, to appear.
- C101. Sebastian van de Hoef, Karl H. Johansson and Dimos V. Dimarogonas, Fuel-Optimal Centralized Coordination of Truck-Platooning Based on Shortest Paths, 2015 American Control Conference, Chicago, IL, to appear.
- C100. Ziyang Meng, Tao Yang, Guodong Shi, Dimos V. Dimarogonas, Yiguang Hong and Karl H. Johansson, Optimal Target Aggregation of Multiple Mechanical Systems, 53<sup>rd</sup> IEEE Conference on Decision and Control, Los Angeles, CA, December 2014, to appear.
- C99. Sebastian van de Hoef, Dimos V. Dimarogonas and Panagiotis Tsiotras, Spectral Analysis of Extended Consensus Algorithms for Multi-agent Systems, 53<sup>rd</sup> IEEE Conference on Decision and Control, Los Angeles, CA, December 2014, to appear.
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#### WORKSHOP PARTICIPATIONS

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