

# Curriculum Vitae

**Dimos V. Dimarogonas, PhD**

## Office Address

School of Electrical Engineering and Computer Science (EECS)  
Decision and Control Systems  
KTH Royal Institute of Technology  
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**E-mail:** [dimos@kth.se](mailto:dimos@kth.se)

**Web:** <http://people.kth.se/~dimos/>

**Date of Birth:** June 17<sup>th</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**

### **Decision and Control Systems, School of Electrical Engineering and Computer Science (EECS), KTH Royal Institute Of Technology**

Stockholm, SWEDEN

5/2017-

*Professor*

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

Stockholm, SWEDEN

4/2014-4/2017

*Associate Professor, (Swedish: Universitetslektor)*

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

Stockholm, SWEDEN

10/2010- 3/2014

*Assistant Professor, (Swedish: Bitr. Universitetslektor)*

### **Greek Army (Στρατός Ήλλάδας), 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 Dept., 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**

Wallenberg Autonomous Systems Program WASP NEST Project DISCOVER “Distributed Control in Weightless Environments”, Coordinator and Principal Investigator (PI), 2022-2027.

WASP-DDLS (Data-Drive Life Science) Project, “Understanding the human immune cell interaction network”, WASP Principal Investigator (PI), 2022-2027.

Digital Futures Partner Innovation Project, “Towards Safe Smart Construction: Algorithms”, Digital Twins and Infrastructures, Principal Investigator (PI), 2022-2024.

EU H2020 Project CANOPIES, “A Collaborative Paradigm for Human Workers and Multi-Robot Teams in Precision Agriculture Systems”, H2020 Programme of the European Commission, Principal Investigator (PI), 2021-2024.

ERC Consolidator Grant LEAFHOUND, H2020, “Leader-follower hybrid control and task planning for multi-agent systems under spatiotemporal logic specifications”, Principal Investigator (PI), 2020-2025.

Swedish Research Council (VR), “Refinable Hybrid Control Synthesis for Multi-agent Systems”, Principal Investigator (PI), 2018-2022.

Wallenberg Autonomous Systems Program WASP-NTU Collaboration Project, “Scalable Multi-Robot Sensor Fusion, Localization, Navigation, and Control”, KTH Principal Investigator (PI), 2018-2021.

Wallenberg Academy Fellow grant, Principal Investigator (PI), 2016-2021. Granted Prolongation, 2022-2027.

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.

SSF Smart Systems COIN, “Co-adaptive human-robot interactive systems”, Swedish Foundation for Strategic Research 2015 Smart Systems Call, Coordinator and Principal Investigator (PI), 2016-2021.

EU H2020 Project Co4Robots, “Achieving Complex Collaborative Missions via Decentralized Control and Coordination of Interacting Robots”, H2020 Programme of the European Commission, Coordinator and Principal Investigator (PI), 2017-2020.

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.

SRA ICT TNG Faculty project TouCHES, 1.5 MSEK, Principal Investigator (PI), Coordinator: Prof. Carlo Fischione, SRA ICT TNG Program, 2016-2019.

SRA ICT TNG Faculty project STaRT, 1.5 MSEK, Principal Investigator (PI), Coordinator: Prof. Jana Tumova, SRA ICT TNG Program, 2017-2020.

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 multi-agent 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, 2010-2011.

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**

[Maryam Sharifi](#), PhD from University of Tehran, from September 2020.

[Carlos Rodriguez de Cos](#), PhD from University of Sevilla, from March 2021.

[Pian Yu](#), PhD from KTH, from March 2021.

Chengshuai Wu, PhD from Zhejiang University, from January 2022.

Esteban Restrepo, PhD from Paris-Saclay University, from January 2022.

Pouria Tajvar, PhD from KTH, from February 2022.

### **Former Postdocs**

[Jana Tumova](#), PhD from Masaryk University, 2013-2016. Now Associate Professor at KTH EECS.

[Pierre-Jean Meyer](#), PhD from University of Grenoble, 2015-2017. Now Assistant Professor at Université Gustave Eiffel.

[Leonardo Colombo](#), PhD from Instituto de Ciencias Matematicas (CSIC-UAM-UCM-UC3M), 2017-2018. Now Researcher at ICMAT Madrid.

[Meng Guo](#), PhD from KTH, 2017-2018. Now Senior Researcher at Bosch Stuttgart.

[Dimitris Boskos](#), PhD from National Technical University of Athens, 2014-2018. Now Assistant Professor at TU Delft.

[Kazumune Hashimoto](#), PhD from Keio University, Japan, 2018. Now Assistant Professor at Osaka University.

[Soulaïmane Berkane](#), PhD from University of Western Ontario, 2018-2019. Now Assistant Professor at the University of Quebec in Outaouais.

[Pedro Miraldo](#), PhD from University of Coimbra, 2018-2019. Now Assistant Professor at IST Lisbon.

Andrea Bisoffi, PhD from University of Trento, 2017-2019. Now Postdoc at University of Groningen.

Dionysis Theodosis, PhD from NTUA, 2017-2019. Now Postdoc at TU Crete.

Christoforos Keroglou, PhD from University of Cyprus, 2019. Now Researcher at the Democritus University of Thrace.

Christos Constantinou, PhD from Cyprus University of Technology, 2019-2020.

Wei Ren, PhD from University of Science and Technology of China, 2018-2020. Now Postdoc at UC Louvain.

Shahab Heshmati-alamdari, PhD from NTUA, 2019-2020. Now Researcher at TU Munich.

Luis Guerrero Bonilla, PhD from GRASP UPenn, 2019-2020. Now Postdoc at GaTech.

[Pushpak Jagtap](#), PhD from TU Munich, 2020-2021. Now Assistant Professor at Robert Bosch Center for Cyber-Physical Systems, IISc Bangalore.

[Ami Sakakibara](#), PhD from Osaka University, 2020-2021.

[Wenceslao Shaw-Cortez](#), PhD from University of Melbourne, 2019-2021. Now Senior Researcher at the Pacific Northwest National Labs, USA.

Tao Yang, KTH, PhD from Washington State University, co-supervised with Prof. Karl Henrik Johansson, 2012-14. Currently Assistant Professor at Univ. North Texas, USA.

Ziyang Meng, KTH, PhD from Shanghai Jiaotong University, co-supervised with Prof. Karl Henrik Johansson, 2012-14. Currently Ass. Professor at Tsinghua Univ., China.

Yiannis Karayiannidis, KTH, PhD from AUTH, co-supervised with Prof. Danica Kragic, 2011. Currently Assistant Professor at Chalmers, Sweden.

Davide Liuzza, KTH, PhD from Univ. of Naples, co-supervised with Prof. Karl Henrik Johansson, 2013-2015.

## Current PhD Students

[Farhad Mehdifar](#), KTH EECS, from 2021.

[Mayank Sewlia](#), KTH EECS, from 2020.

[Adrian Wiltz](#), KTH EECS, from 2020.

[Maria Charitidou](#), KTH EECS, from 2019.

[Pedro Roque](#), KTH EECS, from 2019.

[Xiao Tan](#), KTH EECS, from 2018.

[Fei Chen](#), KTH EECS, from 2018.

[Peter Varnai](#), KTH EECS, from 2017.

## Former PhD students

[Pian Yu](#), [Task-oriented control and coordination of multi-agent systems under varying constraints](#), KTH EECS, co-supervisor Prof. Carlo Fischione, 2016-2021. Now postdoc at KTH.

[Lars Lindemann](#), [Planning and Control of Multi-Agent Systems under Signal Temporal Logic Specifications](#), KTH EECS, co-supervisor Prof. Jana Tumova, 2016-2020. Now postdoc at UPenn.

[Christos Verginis](#), [Planning and Control of Uncertain Cooperative Mobile Manipulator-Endowed Systems under Temporal Logic Tasks](#), KTH EECS, co-supervisor Prof. Danica Kragic, 2015-2020. Now Assistant Professor at Uppsala University, Sweden.

[Alexandros Nikou](#), [Robust and Decentralized Control of Multi-agent Systems under High-level Tasks](#), KTH EECS, co-supervisor Prof. Jana Tumova, 2015-2019. Now at Ericsson Research, Stockholm, Sweden.

[Philipp Schillinger](#), [Specification Decomposition and Formal Behavior Generation in Multi-Robot Systems](#), KTH EECS, Bosch Industrial PhD student, co-supervisor Dr. Mathias Buerger (Bosch), 2015-2019. Now at Bosch Stuttgart.

[Pedro Pereira](#), [Geometric Control of Thrust Propelled Systems](#), KTH EECS, co-supervisor Prof. Jana Tumova, 2014-2019. Now at Mynaric Lasercom, Munich, Germany.

[Sebastian van de Hoef](#), [Coordination of Heavy-Duty Vehicle Platooning](#), KTH EECS, co-supervisor Prof. Karl Henrik Johansson, 2013-2018. Now at HERE Technologies, Langen, Germany.

[Meng Guo](#), [Hybrid Control of Multi-robot Systems under Complex Temporal Tasks](#), KTH EES, co-supervisor Prof. Karl Henrik Johansson, 2011-2016. Now Assistant Professor at Peking University, China.

[Antonio Adaldo](#), [Event-triggered and cloud-support control of multi-robot systems](#), KTH EECS, main supervisor Prof. Karl H. Johansson, 2014-2018. Now at Mathworks, Cambridge, UK.

[Sofie Ahlberg, fd. Andersson](#), KTH EECS, 2016-2022.


Kazumune Hashimoto, Keio University, Japan, main supervisor Prof Suichi Adachi, graduated 2018. Now Assistant Professor at Osaka University.

Giannis Roussos, NTUA, main supervisor Prof. Kostas J. Kyriakopoulos, 2008-2010.

Alina Eqtami, NTUA, main supervisor Prof. Kostas J. Kyriakopoulos, from 2008, graduated August 2013.

Yuencheng Yang, KTH Opt&Sys, main supervisor Prof. Xiaoming Hu, 2011-2016.

Alejandro Marzinotto, KTH CSC CVAP, main supervisor Prof. Danica Kragic, 2013-2017.

Michele Colledanchise, KTH CSC CVAP, main supervisor Prof. Petter gren, 2013-2017.

[Martin Andreasson](#), KTH EES, main supervisors Prof. Henrik Sandberg and Prof. Karl H. Johansson. [In Memoriam](#)

## **MSc Thesis**

Hashem Ghasemi, “Toward Adaptation of Data-Enabled Predictive Control for Nonlinear Systems”, KTH EECS, 2022.

Haoxiang Shi, “Robot Control Using Path Integral Policy Improvement and Deep Dynamics Models”, KTH EECS, 2022.

Roberto Castro Sundin, “Model Predictive Control for Cooperative Multi-UAV Systems”, KTH EECS, 2021.



Maxime Boutot, "Towards Real-Time Deep Learning Tubes: Trajectory Tracking with a Quadrotor", KTH EECS, 2021, with EPFL.

Marc Seidel, "Periodic Event-triggered Consensus for Multi-agent Systems Based on Non-monotonic Lyapunov Functions", KTH EECS, 2020, with Univ. of Stuttgart.

Kartik Seshadri Chari, "Dynamic Modelling and Optimal Control of Autonomous Heavy-duty Vehicles", KTH EECS, 2020, with Scania.

Akash Singh, "Platoon Coordination under Signal Temporal Logic Specifications", KTH EECS, 2020.

Elisa Bin, "MPC-based Visual Servo Control for UAVs", KTH EECS, 2020.

Cecilia Martínez Martín, "Development of an automated space rated solar panel array for future lunar rover mission", KTH EECS, 2020.

Adrian Wiltz, "Distributed Robust Model Predictive Control of Multi-agent Systems", KTH EECS, 2020, with Univ. of Stuttgart.

Jonathan Blixt, "Learning-Based Auto-Tuning for Motion Controllers of Mobile Robots", KTH EECS, 2019, with Ocado.

Nicola Lissandrini, "Non-linear Model Predictive Control for Ground-Aerial Cooperative Robots", KTH EECS, 2019, with Univ. of Padova.

Jakub Nowak, "Robust Control of Coupled Multi-robot Systems under Signal Temporal Logic Specifications with Collision Avoidance", KTH EECS, 2018.

Tengfan Lin, "A Graphical User Interface for the Hybrid Control of Multi-Robot Systems under Linear Temporal Logic", KTH EECS, 2018.

Lukas Schönbacher, "A Graphical User Interface for the Hybrid Control of Multi-Robot Systems under Linear Temporal Logic", KTH EECS, 2018, with ETHZ.

Ruth Aleksandrauskaite, "Analysis of Velocity Estimation Methods for High-Performance Motion Control Systems", KTH EECS, 2018, with Mycronic AB.

Nadine Drollinger, "Developing a System for Robust Planning using Linear Temporal Logic", KTH EECS, 2018.

Yu Wang, "Cooperative Transportation of Mobile Manipulators with Collision Avoidance", KTH EECS, 2018.

Pedro Roque, "Heterogeneous Collaborative Aerial Manipulation", KTH EECS, 2017.

Daniel Müller, “Trajectory generation under metric interval temporal logic specification”, KTH EES, 2017, with Univ. Stuttgart.

Imran Khan, “Decentralized Navigation of Multiple Quadrotors using Model Predictive Control”, KTH EES, 2017.

Thomas Garrett, “A Discrete Büchi Automata Distance for Formal Methods Based Control”, KTH EES, 2017.

Alexandros Filotheou, “Robust Decentralized Control of Cooperative Multi-robot Systems”, KTH EES, 2017.

Giorgio Corra, “Motion planning for coverage with vision-inspired sensors”, KTH EES, 2016.

Paul Rouse, “Multi agent control with LTL specifications and abstraction with input memories”, KTH EES, 2016.

Ziwei Xu, “LTL motion planning with collision avoidance for a team of quadrotors”, KTH EES, 2016.

Sofie Andersson, “Automatic Control Design Synthesis under Metric Interval Temporal Logic Specifications”, KTH EES, 2016.

Lars Lindemann, “Robust Model Predictive Control of Linear Systems under Signal Temporal Logic Specifications”, KTH EES, 2016.

Manuel Herzog, “Design and Implementation and Analysis of a Controller for a Load Suspended from an Aerial Vehicle”, KTH EES, 2016, with University of Stuttgart.

Riccardo Zanella, Design, “Implementation and Test of Decoupled Controllers for Mobile Manipulation with Aerial Robots”, KTH EES, 2016, with University of Padova.

Viking Flyhammar, “A Method Based on Bayesian Networks for Estimation of Test Confidence”, KTH EES, 2015, supervised by Dr. Jana Tumova and Dr. Mattias Nyberg (Scania).

Anders Gidmark, “Using CSPs (Constraint Satisfaction Problems) to analyze functional safety of vehicles with high variability”, KTH EES, 2015, supervised by Dr. Jana Tumova and Dr. Mattias Nyberg (Scania).

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 Multi-agent 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, “Circumnavigation 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.

## **EDITORIAL/CONFERENCE COMMITTEE SERVICE**

Associate Editor, IEEE Transactions on Control of Network Systems, 2019-.

Associate Editor, Automatica, 2013-.

Associate Editor, Unmanned Systems, 2018-.

Associate Editor, IET Control Theory and Applications, 2013-2018.

Associate Editor, IEEE Transactions on Automation Science and Engineering, 2015-2018.

Member of Conference Editorial Board of the IEEE Control Systems Society (CSS), since 2016.

Member of the International Program Committee for the 7th IFAC Conference on Analysis and Design of Hybrid Systems (ADHS), Brussels, Belgium, July 2020.

Member of the International Program Committee for the 15<sup>th</sup> International Workshop on Discrete Event Systems (WODES), Rio De Janeiro, Brazil, May 2020.

Member of the International Program Committee for the IEEE International Conference on Robotics and Automation (ICRA), 2020-.

Member of the International Program Committee for the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2020-.

Tutorials and Workshops Co-Chair, 18<sup>th</sup> European Control Conference (ECC20), St. Petersburg, Russia, May 2020.

Regional Chair, 17<sup>th</sup> International Conference on Control and Automation (ICCA), Naples, Italy, June 2022.

Regional Chair, 15<sup>th</sup> International Conference on Control and Automation (ICCA), Edinburgh, UK, July 2019.

Member of the International Program Committee for the 17<sup>th</sup> European Control Conference (ECC19), Naples, Italy, June 2019.

Member of the International Program Committee for the 2019 IEEE International Conference on Robotics and Automation (ICRA), Montreal, Canada, May 2019.

Member of the International Program Committee for the 14<sup>th</sup> International Symposium on Distributed Autonomous Robotic Systems (DARS), Univ. Colorado at Boulder, USA, October 2018.

Member of the Technical Program Committee for the 57<sup>th</sup> IEEE Conference on Decision and Control (CDC), Miami Beach, FL, USA, December 2018.

Member of the International Program Committee for the 16<sup>th</sup> European Control Conference (ECC18), Limassol, Cyprus, June 2018.

Member of the International Program Committee for the 14<sup>th</sup> International Workshop on Discrete Event Systems (WODES), Sorrento Coast, Italy, May 2018.

Member of the International Program Committee for the 6<sup>th</sup> IFAC Conference on Analysis and Design of Hybrid Systems (ADHS), Oxford, UK, July 2018.

Senior Editor of the IEEE Conference on Automation Science and Engineering (CASE) Conference Editorial Board, 2017-2019.

Member of the International Program Committee for the 13<sup>th</sup> International Symposium on Distributed Autonomous Robotic Systems (DARS), London, UK, November 2016.

Member of the International Program Committee for the 15<sup>th</sup> European Control Conference (ECC16), Aalborg, Denmark, June 2016.

Member of the International Program Committee for the 13<sup>th</sup> International Workshop on Discrete Event Systems (WODES), Xi'an, China, May 2016.

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 6<sup>th</sup> 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), 2011-12.

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

### **UNIVERSITY/SCHOOL/DEPARTMENTAL SERVICE**

Affiliated Faculty, WASP Autonomous Systems Program, from 2021.

Affiliated Faculty, Digital Futures, from 2021.

Member of KTH Selection Committee for KAW Fellow Nomination, from 2019.

Member of Program Council for Systems, Control and Robotics MSc Program, KTH, 2019-pres.

KTH ACCESS Linnaeus Centre, Vice Deputy Chair of CPS Thematic Area, 2015-2018.

Smart Mobility Lab co-director, Smart Mobility Lab, School of EECS, KTH, 2013-.

Affiliated Faculty, KTH SRA ICT TNG, from 2015.

Affiliated Faculty, KTH ACCESS Linnaeus Centre, from 2010.

Affiliated Faculty, KTH Centre for Autonomous Systems, from 2011.

### **ASSIGNMENTS AS PUBLIC EXAMINER/OPPONENT**

Member of the PhD jury for Esteban Restrepo, ONERA, France, 2021.

Member of the PhD committee of Nelson Chan, University of Groningen, Groningen, Netherlands, 2021.

Member of the PhD committee of Steffen Linsenmayer, University of Stuttgart, Germany, 2021.

Member of the PhD committee of Anna Mannucci, Univ. Pisa, Italy, 2020.

Member of the PhD committee of Shahab Heshmati, NTUA, Greece, 2019.

Member of the PhD committee of Silun Zhang, KTH, Sweden, 2019.

Lic Opponent of Fredrik Hagebring, Chalmers, Sweden, January 2019.



Member of the PhD committee of Danial Senejohnny, University of Groningen, Groningen, Netherlands, November 2018.

Member of the PhD committee of Vladislav Nenchev, TU Berlin, Germany, November 2018.

Member of the PhD committee of Ernesto Aranda Escolástico, UNED, Madrid, Spain, September 2018.

Member of the PhD committee of Anqi Fu, TU Delft, Delft, Netherlands, February 2018.

Member of the PhD jury for Christophe Viel, ONERA, France, September 2017.

Member of the PhD committee of Kristian Klausen, NTNU, Trondheim, Norway, June 2017.

Member of the PhD committee of Jingbo Wu, University of Stuttgart, Germany, April 2017.

Member of the PhD jury for Laura Dal Col, LAAS CNRS, Toulouse, France, October 2016.

External reviewer for the PhD Examination of Eoin Devane, University of Cambridge, UK, February 2016.

Member of the PhD committee of Johannes Nygren, Uppsala University, Sweden, February 2016.

Member of the PhD committee of Georg Seyboth, University of Stuttgart, Germany, January 2016.

Lic Opponent of Emil Fresk, LTU, Sweden, November 2015.

PhD Opponent of Thaker Nayl, LTU, Sweden, June 2015.

Member of the PhD committee of Giannis Roussos, NTUA, Greece, March 2015.

Member of the PhD committee of Ali Saidi, KTH, Sweden, November 2013.

Member of the PhD jury for Maria Guinaldo Losada, UNED, Spain, July 2013.

Member of the PhD committee of Alina Eqtami, NTUA, Greece, July 2013.

Member of the PhD jury for Gabriel Rodrigues De Campos, University of Grenoble, France, November 2012.

Member of the PhD committee for Dimitra Panagou, NTUA, Greece, August 2012.

Member of the PhD jury for Rosario Aragues Munoz, University of Zaragoza, Spain, March 2012.

### **ASSIGNMENTS AS OUTSIDE EXPERT**

Reviewer for project applications for the European Research Council (ERC), 2016-.

Reviewer for national research evaluation of Dutch Research Council, 2020.

Reviewer for national research evaluation of Italian Research Council, summer 2016.

Reviewer for national research projects for Swiss Research Council, summer 2016.

Reviewer for national research projects for Austrian Research Council, 2017.

Reviewer for national research projects for Israeli Research Council, 2017.

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

Reviewer for proposals to the Programme Inter Carnot Fraunhofer, 2011.

Reviewer for faculty promotion and tenure applications (USA, UK, EU), 2017-.

Evaluation committee for two full professor positions in EU universities, 2019, 2020

### **TEACHING EXPERIENCE**

**Lecturer and Course Responsible:** FEL3230 Hybrid Systems, School of Electrical Engineering, KTH ACCESS specialized graduate course, Spring 2015, Spring 2018, Fall 2021.

**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, Fall 2016, Fall 2019.

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

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

**Reading Group** on Formal Methods for Control, School of Electrical Engineering, KTH, 2013-2017.

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

## **AWARDS**

2021 My PhD student Christos Verginis is the recipient of the EECI European PhD Award on Control for Complex and Heterogeneous Systems.

2021 My PhD student Christos Verginis is among the 4 finalists for the euRobotics George Giralt PhD award edition 2021.

2020 My PhD student Pian Yu is among the 5 finalists for Best Student Paper Award at ACC 2020

2019 My PhD student Lars Lindemann receives the Outstanding Student Paper Award at IEEE CDC 2019

2018 My PhD student Lars Lindemann is among the 5 finalists for Best Student Paper Award at the American Control Conference 2018.

2018 My first PhD student Meng Guo is among the three finalists for the EECI European PhD Award on Control for Complex and Heterogeneous Systems.

2017 Meng Guo (my first PhD student) is among the 5 finalists for the euRobotics George Giralt PhD award edition 2017.

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 (partial list)**

2022, University of Southern California, USA  
2022, Peking University, China  
2021, DISC Summer School on Multi-Robot Systems, Delft, Netherlands  
2021, Yale University, USA  
2020, Technion, Israel  
2020, University of Minnesota, USA  
2020, Robotics Research Jam Sessions Workshop, University of Pisa, Italy  
2019, ICMAT Madrid, Spain  
2019, University of Magdeburg, Germany  
2019, Chalmers University, Sweden  
2018, University of Groningen, the Netherlands, JC Willems Seminar Series  
2018, FORTH, Greece, Greek ERC Grantees Workshop, Invited Speaker  
2018, DECOD Workshop, Toulouse, France  
2018, TU Berlin, Germany  
2018, IEEE/RSJ IROS, Workshop on Multi-Robot Perception-Driven Control and Planning  
2018, Dagstuhl Seminar Mach.Learn. & Mod. Checking, Invited Speaker (could not attend)  
2017, European Robotics Forum, Edinburgh, Invited Speaker  
2017, The Royal Swedish Academy Of Sciences, Stockholm, Invited Talk  
2017, Workshop on Hybrid Dynamical Systems, Univ Trento, Italy, Invited Speaker  
2017, AEROWORKS Aerial Robotics Workshop, Univ Patras, Greece, Invited Speaker  
2016, ANR CO4 Workshop, Toulouse, France, Invited Speaker  
2015, Oberwolfach CPS Workshop, Germany, Invited Speaker  
2014, IEEE CDC, Invited Paper in session on Formal Methods for Control  
2014, RSS Workshop on Formal Methods for Control  
2014, IEEE IROS, Workshop on Connectivity methods for Formation Control  
2014, ACC, Invited Paper in session on Formal Methods for Control  
2013, IEEE CDC, Invited Paper in session on Event-triggered Control  
2013, ECC, Invited Paper in session on Event-triggered Control  
2012, IEEE CDC, Invited Paper in session on Event-triggered Control  
2012, University of Twente, the Netherlands  
2012, Linkoping University, Sweden  
2011, Universite catholique de Louvain, Louvain-la-Neuve, Belgium  
2010, Universitaet Stuttgart, Stuttgart, Germany  
2010, IEEE ICRA, Workshop on Search and Pursuit/ Evasion in the Physical World  
2009, LIDS, MIT, Boston, USA  
2009, Technische Universitat Munchen, Munich, Germany  
2008, TU Delft, the Netherlands  
2008, Technische Universitat Munchen, Munich, Germany  
2007, Département d'Automatique de Grenoble and Inria Rhones Alpes, Grenoble, France  
2007, IEEE ICRA, Workshop on Collective Behaviors inspired by Biological and Biochemical Systems  
2005, Georgia Institute of Technology, Atlanta, Georgia, USA

**PUBLICATIONS-** <https://people.kth.se/~dimos/publication.html>

**Google Scholar Profile:** [https://scholar.google.se/citations?user=Z5npQ\\_gAAAAJ&hl=en](https://scholar.google.se/citations?user=Z5npQ_gAAAAJ&hl=en)

### **Journal Papers**

[J118] Xiao Tan, Wenceslao Shaw Cortez and Dimos V. Dimarogonas, High-order Barrier Functions: Robustness, Safety and Performance-Critical Control, *IEEE Transactions on Automatic Control*, 2021, to appear.

[J117] Pian Yu and Dimos V. Dimarogonas, Distributed motion coordination for multi-robot systems under LTL specifications, *IEEE Transactions on Robotics*, 2021, to appear.

[J116] Juan Ignacio Giribet, Leonardo Colombo, Patricio Moreno, Ignacio Mas and Dimos V. Dimarogonas, Dual Quaternion Cluster-Space Formation Control, *IEEE Robotics and Automation Letters*, 2021, to appear.

[J115] Maria Charitidou and Dimos V. Dimarogonas, Signal Temporal Logic Task Decomposition via Convex Optimization, *IEEE Control Systems Letters (L-CSS)*, 2021, to appear.

[J114] Soulimane Berkane, Andrea Bisoffi and Dimos V. Dimarogonas, Obstacle Avoidance via Hybrid Feedback, *IEEE Transactions on Automatic Control*, 2021, to appear.

[J113] Michalis Logothetis, George Karras, Konstantinos Alevizos, Christos Verginis, Pedro Roque, Konstantinos Roditakis, Alexandros Makris, Sergio Garcia, Philipp Schillinger, Alessandro Di Fava, Patrizio Pelliccione, Antonis Argyros, Kostas J. Kyriakopoulos and Dimos V. Dimarogonas, A Decentralized Framework for Efficient Cooperation of Heterogeneous Robotic Agents, *IEEE Robotics and Automation Magazine*, 2021, to appear.

[J112] Alexandros Nikou, Christos K. Verginis, Shahab Heshmati-alamdari and Dimos V. Dimarogonas, [A Robust Nonlinear MPC Framework for Control of Underwater Vehicle Manipulator Systems under High-Level Tasks](#), *IET Control Theory & Applications*, Vol. 15, No. 3, pp. 323-337, February 2021.

[J111] Soulimane Berkane and Dimos V. Dimarogonas, [Constrained Stabilization on the n-Sphere](#), *Automatica*, Vol. 125, pp. 109416, March 2021.

[J110] Pedro O. Pereira, Jorge Cortes and Dimos V. Dimarogonas, [Aerial slung-load position tracking under unknown wind forces](#), *IEEE Transactions on Automatic Control*, 2020, to appear.

[J109] Lars Lindemann and Dimos V. Dimarogonas, [Funnel Control for Fully Actuated Systems under a Fragment of Signal Temporal Logic Specifications](#), *Nonlinear Analysis: Hybrid Systems*, Vol. 39, pp. 100973, February 2021.

[J108] Luis Guerrero-Bonilla and Dimos V. Dimarogonas, [Perimeter surveillance based on set-invariance](#), *IEEE Robotics and Automation Letters*, Vol. 6, No. 1, pp. 9-16, January 2021.

- [J107] Fei Chen and Dimos V. Dimarogonas, [Leader-follower Formation Control with Prescribed Performance Guarantees](#), *IEEE Transactions on Control of Network Systems*, 2020, to appear.
- [J106] Christos K. Verginis and Dimos V. Dimarogonas, [Adaptive Robot Navigation with Collision Avoidance Subject to 2nd-order Uncertain Dynamics](#), *Automatica*, Vol. 123, pp. 109303, January 2021.
- [J105] Christos K. Verginis and Dimos V. Dimarogonas, [Asymptotic Tracking of Second-Order Nonsmooth Feedback Stabilizable Unknown Systems with Prescribed Transient Response](#), *IEEE Transactions on Automatic Control*, 2020, to appear.
- [J104] Rosario Aragues, Dimos V. Dimarogonas, Pablo Guallar and Carlos Sagues, [Intermittent Connectivity Maintenance with Heterogeneous Robots](#), *IEEE Transactions on Robotics*, Vol. 37, No. 1, pp. 225-245, February 2021.
- [J103] Lars Lindemann and Dimos V. Dimarogonas, [Barrier Function-based Collaborative Control of Multiple Robots under Signal Temporal Logic Tasks](#), *IEEE Transactions on Control of Network Systems*, Vol. 7, No. 4, pp. 1916-1928, December 2020.
- [J102] Alexandros Nikou, Shahab Heshmati-alamdari and Dimos V. Dimarogonas, [Scalable Time-constrained Planning of Multi-robot Systems](#), *Autonomous Robots*, Vol. 44, No. 8, pp. 1451-1467, November 2020.
- [J101] Leonardo Jesus Colombo and Dimos V. Dimarogonas, [Symmetry Reduction in Optimal Control of Multi-Agent Systems on Lie Groups](#), *IEEE Transactions on Automatic Control*, Vol. 65, No. 11, pp. 4973-4980, November 2020.
- [J100] Shahab Heshmati-alamdari, Alina Eqtami, George C. Karras, Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, [A Self-triggered Position Based Visual Servoing Model Predictive Control Scheme for Underwater Robotic Vehicles](#), *Machines*, Vol. 8, No. 2, pp. 33, June 2020.
- [J99] Sleiman Safaoui, Lars Lindemann, Dimos V. Dimarogonas, Iman Shames and Tyler H. Summers, [Control Design for Risk-Based Signal Temporal Logic Specifications](#), *IEEE Control Systems Letters (L-CSS)*, Vol. 4, No. 4, pp. 1000-1005, May 2020.
- [J98] Shahab Heshmati-alamdari, Alexandros Nikou and Dimos V. Dimarogonas, [Robust Trajectory Tracking Control for Underactuated Autonomous Underwater Vehicles in Uncertain Environments](#), *IEEE Transactions on Automation Science and Engineering*, 2020, to appear.
- [J97] Andrea Bisoffi and Dimos V. Dimarogonas, [Satisfaction of linear temporal logic specifications through recurrence tools for hybrid systems](#), *IEEE Transactions on Automatic Control*, Vol. 66, No. 2, pp. 818-825, February 2021.
- [J96] Wei Ren and Dimos V. Dimarogonas, [Symbolic Abstractions for Nonlinear Control Systems via Feedback Refinement Relation](#), *Automatica*, Vol. 114, pp. 108828, April 2020.
- [J95] Dimitris Boskos and Dimos V. Dimarogonas, [Finite Horizon Discrete Models for Multi-Agent Control Systems with Coupled Dynamics](#), *Automatica*, Vol. 115, pp. 108838, May 2020.

- [J94] Lars Lindemann, Jakub Nowak, Lukas Schonbachler, Meng Guo, Jana Tumova and Dimos V. Dimarogonas, [Coupled Multi-Robot Systems under Linear Temporal Logic and Signal Temporal Logic Tasks](#), *IEEE Transactions on Control Systems Technology*, Vol. 29, No. 2, pp. 858-865, March 2021.
- [J93] Pedro O. Pereira and Dimos V. Dimarogonas, [Pose Stabilization of a Bar Tethered to Two Aerial Vehicles](#), *Automatica*, Vol. 112, pp. 108695, February 2020.
- [J92] Xiao Tan, Soulaymane Berkane and Dimos V. Dimarogonas, [Constrained Attitude Maneuvers on SO\(3\): Rotation Space Sampling, Planning and Low-Level Control](#), *Automatica*, Vol. 112, pp. 108659, February 2020.
- [J91] Kazumune Hashimoto and Dimos V. Dimarogonas, [Resource-aware networked control systems under temporal logic specifications](#), *Discrete Event Dynamic Systems*, Vol. 29, No. 4, pp. 473-499, December 2019.
- [J90] Kazumune Hashimoto, Michelle S. Chong and Dimos V. Dimarogonas, [Distributed L1-state-and-fault estimation for Multi-agent systems](#), *IEEE Transactions on Control of Network Systems*, Vol. 7, No. 2, pp. 493-502, June 2020.
- [J89] Pedro O. Pereira and Dimos V. Dimarogonas, [Pose and Position Trajectory Tracking for Aerial Transportation of a Rod-Like Object](#), *Automatica*, Vol. 109, pp. 108547, November 2019.
- [J88] Dimitris Boskos and Dimos V. Dimarogonas, [Abstractions of Varying Decentralization Degree for Reachability of Coupled Multi-Agent Systems](#), *SIAM Journal on Control and Optimization*, Vol. 57, No. 5, pp. 3471-3495, 2019.
- [J87] Leonardo Jesus Colombo and Dimos V. Dimarogonas, [Motion Feasibility Conditions for Multi-Agent Control Systems on Lie Groups](#), *IEEE Transactions on Control of Network Systems*, 2019, to appear.
- [J86] Yulong Gao, Pian Yu, Dimos V. Dimarogonas, Karl H. Johansson and Lihua Xie, [Robust Self-triggered Control for Time-varying and Uncertain Constrained Systems via Reachability Analysis](#), *Automatica*, Vol. 107, pp. 574-581, September 2019.
- [J85] Kazumune Hashimoto, Adnane Saoud, Masako Kishida, Toshimitsu Ushio and Dimos V. Dimarogonas, [A symbolic approach to the self-triggered design for networked control systems](#), *IEEE Control Systems Letters (L-CSS)*, Vol. 3, No. 4, pp. 1050-1055, June 2019.
- [J84] Lars Lindemann and Dimos V. Dimarogonas, [Control Barrier Functions for Multi-Agent Systems under Conflicting Local Signal Temporal Logic Tasks](#), *IEEE Control Systems Letters (L-CSS)*, Vol. 3, No. 3, pp. 757-762, July 2019. Outstanding Student Paper Award at IEEE CDC 2019.
- [J83] Christos K. Verginis and Dimos V. Dimarogonas, [Closed-Form Barrier Functions for Multi-Agent Ellipsoidal Systems with Uncertain Lagrangian Dynamics](#), *IEEE Control Systems Letters (L-CSS)*, Vol. 3, No. 3, pp. 727-732, May 2019.

- [J82] Lars Lindemann and Dimos V. Dimarogonas, [Feedback Control Strategies for Multi-Agent Systems under a Fragment of Signal Temporal Logic Tasks](#), *Automatica*, Vol. 106, pp. 284-293, August 2019.
- [J81] Dionysios Theodosis and Dimos V. Dimarogonas, [Event-Triggered Control of Nonlinear Systems with Updating Threshold](#), *IEEE Control Systems Letters (L-CSS)*, Vol. 3, No. 3, pp. 655-660, May 2019.
- [J80] Pedro O. Pereira, Dimitris Boskos and Dimos V. Dimarogonas, [A Common Framework for Complete and Incomplete Attitude Synchronization in Networks with Switching Topology](#), *IEEE Transactions on Automatic Control*, Vol. 65, No. 1, pp. 271-278, January 2020.
- [J79] Steffen Linsenmayer, Dimos V. Dimarogonas and Frank Allgower, [Periodic Event-Triggered Control for Networked Control Systems Based on Non-Monotonic Lyapunov Functions](#), *Automatica*, Vol. 106, pp. 35-46, August 2019.
- [J78] Kazumune Hashimoto and Dimos V. Dimarogonas, [Synthesizing communication plans for reachability and safety specifications](#), *IEEE Transactions on Automatic Control*, Vol. 65, No. 2, pp. 561-576, February 2020.
- [J77] Zhongqi Sun, Li Dai, Kun Liu, Dimos V. Dimarogonas and Yuanqing Xia, [Robust Self-Triggered MPC with Adaptive Prediction Horizon for Perturbed Nonlinear Systems](#), *IEEE Transactions on Automatic Control*, Vol. 64, No. 11, pp. 4780-4787, November 2019.
- [J76] Pierre-Jean Meyer and Dimos V. Dimarogonas, [Hierarchical Decomposition of LTL Synthesis Problem for Nonlinear Control Systems](#), *IEEE Transactions on Automatic Control*, Vol. 64, No. 11, pp. 4676-4683, November 2019.
- [J75] Alexandros Nikou and Dimos V. Dimarogonas, [Decentralized Tube-based Model Predictive Control of Uncertain Nonlinear Multi-Agent Systems](#), *International Journal of Robust and Nonlinear Control*, Vol. 29, No. 10, pp. 2799-2818, July 2019.
- [J74] Christos K. Verginis, Alexandros Nikou and Dimos V. Dimarogonas, [Robust Formation Control in SE\(3\) for Tree-Graph Structures with Prescribed Transient and Steady State Performance](#), *Automatica*, Vol. 103, pp. 543-548, May 2019.
- [J73] Sebastian van de Hoef, Jonas Mårtensson, Dimos V. Dimarogonas and Karl H. Johansson, [A Predictive Framework for Dynamic Heavy-Duty Vehicle Platoon Coordination](#), *ACM Transactions on Cyber-Physical Systems*, Vol. 4, No. 1, Art. 5, November 2019.
- [J72] Pian Yu and Dimos V. Dimarogonas, [Explicit computation of sampling period in periodic event-triggered multi-agent control under limited data rate](#), *IEEE Transactions on Control of Network Systems*, Vol. 6, No. 4, pp. 1366-1378, December 2019.
- [J71] Lars Lindemann and Dimos V. Dimarogonas, [Robust Control for Signal Temporal Logic Specifications using Discrete Average Space Robustness](#), *Automatica*, Vol. 101, pp. 377-387, March 2019.



- [J70] Christos K. Verginis, Matteo Mastellaro and Dimos V. Dimarogonas, [Robust Cooperative Manipulation without Force/Torque Measurements: Control Design and Experiments](#), *IEEE Transactions on Control Systems Technology*, 2018, to appear.
- [J69] Dimitris Boskos and Dimos V. Dimarogonas, [Decentralized abstractions for multi-agent systems under coupled constraints](#), *European Journal of Control*, Vol. 45, pp. 1-16, January 2019.
- [J68] Shahab Heshmati-alamdari, Charalampos P. Bechlioulis, George C. Karras, Alexandros Nikou, Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, [A Robust Interaction Control Approach for Underwater Vehicle Manipulator Systems](#), *Annual Reviews in Control*, Vol. 46, pp. 315-325, 2018.
- [J67] Xinlei Yi, Kun Liu, Dimos V. Dimarogonas and Karl H. Johansson, [Dynamic Event-Triggered and Self-Triggered Control for Multi-Agent Systems](#), *IEEE Transactions on Automatic Control*, Vol. 64, No. 8, pp. 3300-3307, August 2019.
- [J66] Alexandros Nikou, Dimitris Boskos, Jana Tumova and Dimos V. Dimarogonas, [On the Timed Temporal Logic Planning of Coupled Multi-Agent Systems](#), *Automatica*, Vol. 97, pp. 339-345, November 2018.
- [J65] Yuecheng Yang, Dimos V. Dimarogonas and Xiaoming Hu, [Opinion consensus under external influences](#), *Systems and Control Letters*, Vol. 119, pp. 23-30, September 2018.
- [J64] Lars Lindemann and Dimos V. Dimarogonas, [Control Barrier Functions for Signal Temporal Logic Tasks](#), *IEEE Control Systems Letters (L-CSS)*, Vol. 3, No. 1, pp. 96-101, January 2019.
- [J63] Alexandros Filotheou, Alexandros Nikou and Dimos V. Dimarogonas, [Robust Decentralized Navigation of Multi-Agent Systems with Collision Avoidance and Connectivity Maintenance Using Model Predictive Controllers](#), *International Journal of Control*, 2018.
- [J62] Philipp Schillinger, Mathias Buerger and Dimos V. Dimarogonas, [Simultaneous Task Allocation and Planning for Temporal Logic Goals in Heterogeneous Multi-Robot Systems](#), *International Journal of Robotics Research*, Vol. 37, No. 7, pp. 818-838, June 2018.
- [J61] Pian Yu, Carlo Fischione and Dimos V. Dimarogonas, [Distributed Event-Triggered Communication and Control of Linear Multi-Agent Systems Under Tactile Communication](#), *IEEE Transactions on Automatic Control*, Vol. 63, No. 11, pp. 3979-3985, November 2018.
- [J60] Kazumune Hashimoto, Shuichi Adachi and Dimos V. Dimarogonas, [Aperiodic Sampled-Data Control via Explicit Transmission Mapping: A Set Invariance Approach](#), *IEEE Transactions on Automatic Control*, Vol. 63, No. 10, pp. 3523-3530, October 2018.
- [J59] Pierre-Jean Meyer and Dimos V. Dimarogonas, [Compositional abstraction refinement for control synthesis](#), *Nonlinear Analysis: Hybrid Systems*, Vol. 27, pp. 437-451, February 2018.
- [J58] Christos K. Verginis and Dimos V. Dimarogonas, [Timed Abstractions for Distributed Cooperative Manipulation](#), *Autonomous Robots*, Vol. 42, No. 4, pp. 781-799, April 2018.

- [J57] Shiyu Zhao, Dimos V. Dimarogonas, Zhiyong Sun and Dario Bauso, [A General Approach to Coordination Control of Mobile Agents with Motion Constraints](#), *IEEE Transactions on Automatic Control*, Vol. 63, No. 5, pp. 1509-1516, May 2018.
- [J56] Davide Liuzza, Dimos V. Dimarogonas and Karl H. Johansson, [Generalized PID synchronization of higher-order nonlinear systems with a recursive Lyapunov approach](#), *IEEE Transactions on Control of Network Systems*, Vol. 5, No. 4, pp. 1608-1621, December 2018.
- [J55] Steffen Linsenmayer, Dimos V. Dimarogonas and Frank Allgower, [Event-based vehicle coordination using nonlinear unidirectional controllers](#), *IEEE Transactions on Control of Network Systems*, Vol. 5, No. 4, pp. 1575-1584, December 2018.
- [J54] Antonio Adaldo, Davide Liuzza, Dimos V. Dimarogonas and Karl H. Johansson, [Cloud-Supported Formation Control of Second-Order Multi-Agent Systems](#), *IEEE Transactions on Control of Network Systems*, Vol. 5, No. 4, pp. 1563-1574, December 2018.
- [J53] Ziyang Meng, Tao Yang, Guodong Shi, Dimos V. Dimarogonas, Yiguang Hong and Karl H. Johansson, [Targeted Agreement of Multiple Lagrangian Systems](#), *Automatica*, Vol. 84, pp. 109-116, October 2017.
- [J52] Sebastian van de Hoef, Karl H. Johansson and Dimos V. Dimarogonas, [Fuel-Efficient En Route Formation of Truck Platoons](#), *IEEE Transactions on Intelligent Transportation Systems*, Vol. 19, No. 1, pp. 102-112, January 2018.
- [J51] Kazumune Hashimoto, Shuichi Adachi and Dimos V. Dimarogonas, [Event-Triggered Intermittent Sampling for Nonlinear Model Predictive Control](#), *Automatica*, Vol. 81, pp. 148-155, July 2017.
- [J50] Dimitris Boskos and Dimos V. Dimarogonas, [Robustness and Invariance of Connectivity Maintenance Control for Multiagent Systems](#), *SIAM Journal on Control and Optimization*, Vol. 55, No. 3, pp. 1887-1914, June 2017.
- [J49] Christos K. Verginis, Charalampos P. Bechlioulis, Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, [Robust Distributed Control Protocols for Large Vehicular Platoons with Prescribed Transient and Steady State Performance](#), *IEEE Transactions on Control Systems Technology*, Vol. 26, No. 1, pp. 299-304, January 2018.
- [J48] Luca Macellari, Yiannis Karayiannidis and Dimos V. Dimarogonas, [Multi-agent Second Order Average Consensus with Prescribed Transient Behavior](#), *IEEE Transactions on Automatic Control*, Vol. 62, No. 10, pp. 5282-5288, October 2017.
- [J47] Gabriel Rodrigues de Campos, Dimos V. Dimarogonas, Alexandre Seuret and Karl H. Johansson, [Distributed control of compact formations for multi-robot swarms](#), *IMA Journal of Mathematical Control and Information*, 2017, <https://doi.org/10.1093/imamci/dnw073>.
- [J46] Meng Guo and Dimos V. Dimarogonas, [Task and Motion Coordination for Heterogeneous Multi-agent Systems with Loosely-coupled Local Tasks](#), *IEEE Transactions on Automation Science and Engineering*, Vol. 14, No. 2, pp. 797-808, April 2017.

- [J45] Pedro O. Pereira and Dimos V. Dimarogonas, [Family of Controllers for Attitude Synchronization on the Sphere](#), *Automatica*, Vol. 75, pp. 271-281, January 2017.
- [J44] Davide Liuzza, Dimos V. Dimarogonas, Mario di Bernardo and Karl H. Johansson, [Distributed Model Based Event-Triggered Control for Synchronization of Multi-Agent Systems](#), *Automatica*, Vol. 73, pp. 1-7, November 2016.
- [J43] Ziyang Meng, Dimos V. Dimarogonas and Karl H. Johansson, [Attitude coordinated control of multiple underactuated axisymmetric spacecraft](#), *IEEE Transactions on Control of Network Systems*, Vol. 4, No. 4, pp. 816-825, December 2017.
- [J42] Meng Guo, Charalampos P. Bechlioulis, Kostas J. Kyriakopoulos and Dimos V. Dimarogonas, [Hybrid Control of Multi-agent Systems with Contingent Temporal Tasks and Prescribed Formation Constraints](#), *IEEE Transactions on Control of Network Systems*, Vol. 4, No. 4, pp. 781-792, December 2017.
- [J41] Martin Andreasson, Roger Wiget, Dimos V. Dimarogonas, Karl H. Johansson and Goran Andersson, [Distributed Frequency Control through MTDC Transmission Systems](#), *IEEE Transactions on Power Systems*, Vol. 32, No. 1, pp. 250-260, January 2017.
- [J40] Kazumune Hashimoto, Shuichi Adachi and Dimos V. Dimarogonas, [Self-triggered Model Predictive Control for Nonlinear Input-Affine Dynamical Systems via Adaptive Control Samples Selection](#), *IEEE Transactions on Automatic Control*, Vol. 62, No. 1, pp. 177-189, January 2017.
- [J39] Martin Andreasson, Dimos V. Dimarogonas, Henrik Sandberg and Karl H. Johansson, [Distributed Controllers for Multi-Terminal HVDC Transmission Systems](#), *IEEE Transactions on Control of Network Systems*, Vol. 4, No. 3, pp. 564-574, September 2017.
- [J38] Jana Tumova and Dimos V. Dimarogonas, [Multi-Agent Planning under Local LTL Specifications and Event-Based Synchronization](#), *Automatica*, Vol. 70, pp. 239-248, August 2016.
- [J37] Xiangyu Meng, Ziyang Meng, Tongwen Chen, Dimos V. Dimarogonas and Karl Henrik Johansson, [Pulse Width Modulation for Multi-Agent Systems](#), *Automatica*, Vol. 70, pp. 173-178, August 2016.
- [J36] Meng Guo, Jana Tumova and Dimos V. Dimarogonas, [Communication-Free Multi-Agent Control under Local Temporal Tasks and Relative-Distance Constraints](#), *IEEE Transactions on Automatic Control*, Vol. 61, No. 12, pp. 3948-3962, December 2016.
- [J35] Tao Yang, Ziyang Meng, Dimos V. Dimarogonas and Karl H. Johansson, [Periodic Behaviors for Discrete-time Second-order Multi-agent Systems with Input Saturation Constraints](#), *IEEE Transactions on Circuits and Systems II*, Vol. 63, No. 7, pp. 663-667, July 2016.
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