

Andrea Gasparri

Associate Professor

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June 2016

I Education

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| 2008 | Ph.D. in Computer Science and Automation, Faculty of Engineering / Department of Computer Science and Automation, Roma Tre University, Italy. |
| 2004 | MSc <i>summa cum laude</i> in Computer Science Faculty of Engineering / Department of Computer Science and Automation, Roma Tre University, Italy. |

II Position

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| 2016–Present | Associate Professor , Department of Engineering, Roma Tre University, Italy |
| 2014–2016 | Assistant Professor (Tenured) , Department of Engineering, Roma Tre University, Italy |
| 2011–2014 | Assistant Professor (Tenure track) , Faculty of Engineering / Department of Computer Science and Automation, Roma Tre University, Italy |
| May 2013 –
June 2013 | Visiting Professor , Ming Hsieh Institute, Department of Electrical Engineering, University of Southern California, California – USA |
| April 2012 –
May 2012 | Visiting Professor , Faculté des Sciences Appliquées, Ecole Polytechnique de Bruxelles, Université Libre de Bruxelles, Bruxelles – Belgium |
| 2008–2011 | Postdoctoral Scholar , Faculty of Engineering / Department of Computer Science and Automation, Roma Tre University, Italy |
| July 2008 –
Sept. 2008 | Visiting Scholar , CCNY Robotics Lab, Electrical Engineering Department, The City College of New York (CCNY), New York – USA |
| April 2007 –
Sept. 2007 | Visiting Scholar , ANRG, Department of Electrical Engineering, University of Southern California, California – USA |

III Fellowships and Awards

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| 2014 | Italian National Scientific Qualification for Associate Professor , (Research Area: Automation, National Code: 09/G1) |
| 2013 | Distinguished Visiting Fellow Program from the Ming Hsieh Institute in the Ming Hsieh Department of Electrical Engineering of the University of Southern California (USA) |
| 2010–2014 | Research Grant FIRB “Futuro in Ricerca 2008” , project “Networked Collaborative Team of Autonomous Robots (NECTAR)”, Italian Ministry of Research and Education (MIUR). Acceptance Rate 2.8% |

IV Supervision of Graduate Students and Postdoctoral Fellows

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| 2008–2014 | (Co)-Advisor 3 Postdocs, 5 Ph.D., 10 Master Students Department of Engineering, Roma Tre University, Italy |
| 2013–2014 | Co-Advisor Graduate Student, Université Libre de Bruxelles / Belgium |

V Teaching Activities

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| 2011–2015 | Professor – System and Control Theory (12 ECTS), Roma Tre University / Italy |
| 2008–2011 | Professor – System and Control Theory (6 ECTS), Roma Tre University / Italy |
| 2007–2008 | Teaching Assistant – Automatic Control (6 ECTS), Roma Tre University / Italy |

VI Organization of Scientific Meetings

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| 2015 | Co-Organizer of the Workshop “Taxonomies of Interconnected Systems: Partial and Imperfect Information in Multi-Agent Networks”, 54th IEEE Conference on Decision and Control (CDC 2015) / roughly 50 participants (expected) / Osaka – Japan. |
| 2015 | Co-Organizer of the Workshop “Taxonomies of Interconnected Systems: Asymmetric Interactions in Distributed Robotics”, IEEE International Conference on Robotics and Automation (ICRA 2015) / roughly 50 participants (expected) / Washington – USA. |
| 2015 | Co-Organizer of the Workshop “Taxonomies of Interconnected Systems: Asymmetry and Directedness in Multi-Agent Interactions”, The 2015 American Control Conference (ACC 2015) / roughly 50 participants / Illinois – USA. |
| 2014 | Co-Organizer of the Workshop “Taxonomies of Interconnected Systems: Topology in Distributed Robotics”, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2014) / roughly 50 participants / Illinois – USA |

VII Institutional Responsibilities

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| 2011–Present | Faculty member , Department of Engineering, Roma Tre University / Italy |
| 2011–Present | Member of the Computer Science Engineering Teaching Committee, Department of Engineering, Roma Tre University / Italy |
| 2011–Present | Member of the Faculty Council, Roma Tre University / Italy |
| 2013–Present | Member of the Doctoral School Board in Computer Science and Automation, Department of Engineering, Roma Tre University / Italy |

VIII Membership of Scientific Societies

2014–Present	Steering Committee Member , Technical Committee on “Multi-Robot Systems” of the IEEE Robotics and Automation Society
2015–Present	Committee Member , Technical Committee on “Networks and Communication Systems” of the IEEE Control Systems Society
2009–Present	IEEE Professional Membership

IX Professional Activities

A Conference Reviewer (Partial List)

- IEEE International Conference on Robotics and Automation (ICRA)
- IEEE International Conference on Intelligent Robots and Systems (IROS)
- IEEE American Control Conference (ACC)
- IEEE Control and Decision Conference (CDC)

B Journal Reviewer (Partial List)

- IEEE Transactions on Robotics
- IEEE Transactions on Automatic Control
- IEEE Transactions on Mobile Computing
- IFAC Automatica
- IEEE Transactions on Network Science and Engineering
- IEEE Systems Journal

C Conference Technical Program Committee (Partial List)

2016	13th International Symposium on Distributed Autonomous Robotic Systems (DARS '16)
2015	The 14th International Conference on Information Processing in Sensor Networks (IPSN 2015).
2014	The 11th European Conference on Wireless Sensor Networks (EWSN 2014).
2014	RoboSense 2014: The International Workshop on Cooperative Robots and Sensor Networks
2014	3rd Workshop on Visual Control of Mobile Robots (part of the IEEE Conference IROS 2014)
2010	10th International Symposium on Distributed Autonomous Robotic Systems (DARS '10)

X Collaborations

- Prof. Fabio Pasqualetti, Department of Mechanical Engineering, Bourns College of Engineering, University of California, Riverside / California – USA. Topics: 1) Controllability Radius of Networked Systems, 2) Optimal Topology Design of Interconnected Systems
- Prof. Carlos Sagues, Departamento de Informática e Ingeniería de sistemas, Universidad de Zaragoza / Spain, Prof. Eduardo Montijano, Centro Universitario de la Defensa, Academia General Militar, Zaragoza / Spain. Topics: 1) Average Consensus on Directed Graph Topologies, 2) Multi Robot Coordination with Uncertainties
- Prof. Frank Lewis, Department of Electrical Engineering, University of Texas at Arlington (UTARI) / Texas – USA. Topics: 1) Discrete Event-Control and Task Scheduling for Multi-Robot Systems
- Prof. Gaurav Sukhatme and Dr. Ryan K. Williams, Department of Computer Science, Viterbi School of Engineering, University of Southern California (USC) / California – USA. Topics: 1) Decentralized Generic

Rigidity Evaluation in Interconnected Systems, 2) Topology Control and Optimization for Multi-Robot Systems, 3) Set-ISS Analysis for Multi-Agent Systems with Disturbances, 4) Nonsmooth Analysis for Multi-Agent Systems with Discontinuous Interactions

- Prof. Bhaskar Krishnamachari, Department of Electrical Engineering, Viterbi School of Engineering, University of Southern California (USC) / California – USA. Topics: 1) Wireless Network Optimization through Mobility
- Prof. Magnus Egerstedt, School of Electrical and Computer Engineering, Georgia Institute of Technology / Georgia – USA. Topics: 1) Heterogeneous multi-robot systems, 2) Trust Dynamics In Collaborative Systems
- Prof. Emanuele Garone, Ecole Polytechnique de Bruxelles, Université Libre de Bruxelles / Belgium. Topics: 1) Distributed Clock Synchronization, 2) Multi-Robot Formation Control, 3) Physical Interaction for Heterogeneous Multi-Robot Systems
- Dr. Mauro Franceschelli and Prof. Alessandro Giua, Department of Electrical and Electronic Engineering, University of Cagliari / Italy. Topics: 1) Distributed Estimation for Multi-Agent Systems
- Dr. Lorenzo Sabattini and Prof. Cristian Secchi, Department of Sciences and Methods of Engineering of the school of Engineering of Reggio Emilia, University of Modena and Reggio Emilia / Italy. Topics: 1) Connectivity Maintenance for Multi-Robot Systems
- Dr. Roberto Naldi, Center for Research on Complex Automated Systems, University of Bologna / Italy. Topics: 1) Physical Interaction for Heterogeneous Multi-Robot Systems

XI Publications

A Theses

- [Th1] Andrea Gasparri. *Implementazione di un sistema Linux Real-Time per lo sviluppo di algoritmi di navigazione sensor-based*. PhD thesis, Roma Tre University, Via della Vasca Navale, 79, Roma, 5 2004. English Title: “Design of a Real-Time Linux Framework for the Development of Sensor-based Navigation Algorithms.
- [Th2] Andrea Gasparri. *The Localization Problem: from Robotics to Sensor Networks*. PhD thesis, Roma Tre University, Via della Vasca Navale, 79, Roma, 4 2008.

B Journals

- [A1] Andrea Gasparri, Stefano Panziera, Federica Pascucci, and Giovanni Ulivi. Monte carlo filter in mobile robotics localization: A clustered evolutionary point of view. *Journal of Intelligent and Robotic Systems*, 47(2):155–174, 2006.
- [A2] Andrea Gasparri and Mattia Prosperi. A bacterial colony growth algorithm for mobile robot localization. *Autonomous Robots*, 24(4):349–364, 2008.
- [A3] Andrea Gasparri, Bhaskar Krishnamachari, and GauravS. Sukhatme. A framework for multi-robot node coverage in sensor networks. *Annals of Mathematics and Artificial Intelligence*, 52(2-4):281–305, 2008.
- [A4] A. Gasparri, S. Panziera, F. Pascucci, and G. Ulivi. An interlaced extended kalman filter for sensor networks localisation. *Int. J. Sen. Netw.*, 5(3):164–172, June 2009.
- [A5] Andrea Gasparri, Stefano Panziera, and Federica Pascucci. A spatially structured genetic algorithm for multi-robot localization. *Intelligent Service Robotics*, 2(1):31–40, 2009.
- [A6] A Gasparri and F. Pascucci. An interlaced extended information filter for self-localization in sensor networks. *IEEE Transactions on Mobile Computing*, 9(10):1491–1504, October 2010.
- [A7] Andrea Gasparri, Stefano Panziera, and Attilio Priolo. A fitness-sharing based genetic algorithm for collaborative multi-robot localization. *Intelligent Service Robotics*, 3(3):137–149, 2010.

- [A8] A Gasparri, F. Fiorini, M. Di Rocco, and Stefano Panzieri. A networked transferable belief model approach for distributed data aggregation. *IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics*, 42(2):391–405, April 2012.
- [A9] P. Brass, F. Cabrera-Mora, A Gasparri, and Jizhong Xiao. Multirobot tree and graph exploration. *IEEE Transactions on Robotics*, 27(4):707–717, August 2011.
- [A10] Mauro Franceschelli, Andrea Gasparri, Alessandro Giua, and Carla Seatzu. Decentralized estimation of laplacian eigenvalues in multi-agent systems. *Automatica*, 49(4):1031 – 1036, 2013.
- [A11] L. Sabattini, C. Secchi, N. Chopra, and A Gasparri. Distributed control of multirobot systems with global connectivity maintenance. *IEEE Transactions on Robotics*, 29(5):1326–1332, October 2013.
- [A12] Attilio Priolo, Andrea Gasparri, Eduardo Montijano, and Carlos Sagues. A distributed algorithm for average consensus on strongly connected weighted digraphs. *Automatica*, 50(3):946 – 951, 2014.
- [A13] F. Lamonaca, A. Gasparri, E. Garone, and D. Grimaldi. Clock synchronization in wireless sensor network with selective convergence rate for event driven measurement applications. *IEEE Transactions on Instrumentation and Measurement*, 63(9):2279–2287, Sept 2014.
- [A14] M. Franceschelli and A Gasparri. Gossip-based centroid and common reference frame estimation in multiagent systems. *IEEE Transactions on Robotics*, 30(2):524–531, April 2014.
- [A15] R.K. Williams, A. Gasparri, A. Priolo, and G.S. Sukhatme. Evaluating network rigidity in realistic systems: Decentralization, asynchronicity, and parallelization. *IEEE Transactions on Robotics*, 30(4):950–965, August 2014.
- [A16] Marco Bibuli, Gabriele Bruzzone, Massimo Caccia, Andrea Gasparri, Attilio Priolo, and Enrica Zereik. Swarm-based path-following for cooperative unmanned surface vehicles. *Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment*, 228(2):192–207, 2014.
- [A17] D. Carboni, R.K. Williams, A. Gasparri, G. Ulivi, and G.S. Sukhatme. Rigidity-preserving team partitions in multiagent networks. *IEEE Transactions on Cybernetics*, 45(12):2640–2653, Dec 2015.
- [A18] Attilio Priolo, Andrea Gasparri, Eduardo Montijano, and Carlos Sagues. Corrigendum to “A distributed algorithm for average consensus on strongly connected weighted digraphs [Automatica 50(3) (2014) 946 – 951]”. *Automatica*, 59:264 –, 2015.
- [A19] Eduardo Montijano, Andrea Gasparri, Attilio Priolo, and Carlos Sagues. Average consensus on strongly connected weighted digraphs: A generalized error bound. *Automatica*, 58(0):1 – 4, 2015.
- [A20] A. Gasparri, R.K. Williams, A. Priolo, and G.S. Sukhatme. Decentralized and parallel constructions for optimally rigid graphs in \mathbb{R}^2 . *IEEE Transactions on Mobile Computing*, 14(11):2216–2228, Nov 2015.
- [A21] Emanuele Garone, Andrea Gasparri, and Francesco Lamonaca. Clock synchronization protocol for wireless sensor networks with bounded communication delays. *Automatica*, 59:60 – 72, 2015.
- [A22] Donato Di Paola, Andrea Gasparri, David Naso, and FrankL. Lewis. Decentralized dynamic task planning for heterogeneous robotic networks. *Autonomous Robots*, 38(1):31–48, 2015.
- [A23] S. Wang, A. Gasparri, and B. Krishnamachari. Robotic message ferrying for wireless networks using coarse-grained backpressure control. *IEEE Transactions on Mobile Computing*, PP(99):1–1, 2016.

C Book Chapters

- [BC1] Andrea Gasparri, Sandro Meloni, and Stefano Panzieri. Growing fully distributed robust topologies in a sensor network. In Alessandro Chiuso, Luigi Fortuna, Mattia Frasca, Alessandro Rizzo, Luca Schenato, and Sandro Zampieri, editors, *Modelling, Estimation and Control of Networked Complex Systems*, Understanding Complex Systems, pages 143–158. Springer Berlin Heidelberg, 2009.

D Refereed Conferences

- [C1] A. Gasparri, S. Panzieri, F. Pascucci, and G. Ulivi. Genetic approach for a localisation problem based upon particle filters. In *Proc. of 8th IFAC Symposium on Robot Control (SYROCO 2006)*, volume 8, pages 272–277, Bologna, Italy, September 2006.
- [C2] A Gasparri, S. Panzieri, F. Pascucci, and G. Ulivi. Pose recovery for a mobile manipulator using a particle filter. In *Control and Automation, 2006. MED '06. 14th Mediterranean Conference on*, pages 1–6, June 2006.
- [C3] A Gasparri, S. Panzieri, F. Pascucci, and G. Ulivi. A spatially structured genetic algorithm over complex networks for mobile robot localisation. In *Robotics and Automation, 2007 IEEE International Conference on*, pages 4277–4282, April 2007.
- [C4] A Gasparri, S. Panzieri, F. Pascucci, and G. Ulivi. A hybrid active global localisation algorithm for mobile robots. In *Robotics and Automation, 2007 IEEE International Conference on*, pages 3148–3153, April 2007.
- [C5] A Gasparri, S. Panzieri, and F. Pascucci. A spatially structured genetic algorithm for multi/robot localization. In *Advanced Robotics , 2007 IEEE International Conference on*, Jeju, Korea, August 2007.
- [C6] A Gasparri, S. Panzieri, F. Pascucci, and G. Ulivi. An integrated framework for simultaneous robot and sensor network localization. In *Proc. of 6th IFAC Symposium on Intelligent Autonomous Vehicles (IAV 2007)*, volume 6, pages 131–136, Toulouse, France, September 2007.
- [C7] A Gasparri and M. Prosperi. A bacterial colony growth framework for collaborative multi-robot localization. In *Robotics and Automation, 2008. ICRA 2008. IEEE International Conference on*, pages 2806–2811, May 2008.
- [C8] A Gasparri, F. Pascucci, and G. Ulivi. A distributed extended information filter for self-localization in sensor networks. In *Personal, Indoor and Mobile Radio Communications, 2008. PIMRC 2008. IEEE 19th International Symposium on*, pages 1–5, Sept 2008.
- [C9] P. Brass, A Gasparri, F. Cabrera-Mora, and Jizhong Xiao. Multi-robot tree and graph exploration. In *Robotics and Automation, 2009. ICRA '09. IEEE International Conference on*, pages 2332–2337, May 2009.
- [C10] M. Franceschelli and A Gasparri. Decentralized centroid estimation for multi-agent systems in absence of any common reference frame. In *American Control Conference, 2009. ACC '09.*, pages 512–517, June 2009.
- [C11] A Gasparri, Gabriele Oliva, and S. Panzieri. Path planning using a lazy spatial network prm. In *Control and Automation, 2009. MED '09. 17th Mediterranean Conference on*, pages 940–945, June 2009.
- [C12] A Gasparri, Gabriele Oliva, and Stefano Panzieri. On the distributed synchronization of on-line IIM interdependency models. In *Industrial Informatics, 2009. INDIN 2009. 7th IEEE International Conference on*, pages 795–800, June 2009.
- [C13] F. Bori, A Gasparri, and S. Panzieri. A fitness-sharing based genetic algorithm for collaborative multi robot localization. In *Intelligent Robots and Systems, 2009. IROS 2009. IEEE/RSJ International Conference on*, pages 3968–3973, October 2009.
- [C14] M. Franceschelli, A Gasparri, A Giua, and C. Seatzu. Decentralized laplacian eigenvalues estimation for networked multi-agent systems. In *Decision and Control, 2009 held jointly with the 2009 28th Chinese Control Conference. CDC/CCC 2009. Proceedings of the 48th IEEE Conference on*, pages 2717–2722, December 2009.
- [C15] A Gasparri, F. Iovino, Gabriele Oliva, and Stefano Panzieri. Online distributed interdependency estimation with partial information sharing. In *Complexity in Engineering, 2010. COMPENG '10.*, pages 82–84, February 2010.
- [C16] M. Franceschelli and A Gasparri. On agreement problems with gossip algorithms in absence of common reference frames. In *Robotics and Automation (ICRA), 2010 IEEE International Conference on*, pages 4481–4486, May 2010.
- [C17] M. Franceschelli, A Gasparri, A Giua, and G. Ulivi. Decentralized stabilization of heterogeneous linear multi-agent systems. In *Robotics and Automation (ICRA), 2010 IEEE International Conference on*, pages 3556–3561, May 2010.

- [C18] C. Filoramo, A. Gasparri, F. Pascucci, A. Priolo, and G. Ulivi. A rssi-based technique for inter-distance computation in multi-robot systems. In *Control Automation (MED), 2010 18th Mediterranean Conference on*, pages 957–962, June 2010.
- [C19] C. Carletti, A. Gasparri, G. Ippoliti, S. Longhi, G. Orlando, and P. Raspa. Roll damping and heading control of a marine vessel by fins-rudder vs. In *Proc. of 8th IFAC Conference on Control Applications in Marine Systems (CAMS 2010)*, pages 34–39, Universitat Rostock, Germany, September 2010.
- [C20] C. Carletti, M. Di Rocco, A. Gasparri, and G. Ulivi. A distributed transferable belief model for collaborative topological map-building in multi-robot systems. In *Intelligent Robots and Systems (IROS), 2010 IEEE/RSJ International Conference on*, pages 554–560, October 2010.
- [C21] F. Fiorini, A. Gasparri, M. Di Rocco, and Stefano Panzieri. A networked transferable belief model approach for distributed data aggregation - dynamic version. In *Decision and Control (CDC), 2010 49th IEEE Conference on*, pages 1237–1242, December 2010.
- [C22] F. Fiorini, A. Gasparri, M. Di Rocco, and Stefano Panzieri. A networked transferable belief model approach for distributed data aggregation - static version. In *Decision and Control (CDC), 2010 49th IEEE Conference on*, pages 1229–1236, December 2010.
- [C23] C. Carletti, A. Gasparri, S. Longhi, and G. Ulivi. Simultaneous roll damping and course keeping via sliding mode control for a marine vessel in seaway. In *Proceedings of the 18th IFAC World Congress, 2011 (IFAC WC 2010)*, volume 18, pages 13648–13653, Università Cattolica del Sacro Cuore, Milano, Italy, August / September 2011.
- [C24] A. Gasparri, D. Di Paola, A. Giua, G. Ulivi, and D. Naso. Consensus-based decentralized supervision of petri nets. In *Decision and Control and European Control Conference (CDC-ECC), 2011 50th IEEE Conference on*, pages 1128–1135, December 2011.
- [C25] A. Milano, A. Priolo, A. Gasparri, M. Di Rocco, and G. Ulivi. An experimental validation of a low-cost indoor relative position localizing system for mobile robotic networks. In *Control Automation (MED), 2011 19th Mediterranean Conference on*, pages 169–174, June 2011.
- [C26] D. Di Paola, A. Gasparri, D. Naso, G. Ulivi, and F.L. Lewis. Decentralized task sequencing and multiple mission control for heterogeneous robotic networks. In *Robotics and Automation (ICRA), 2011 IEEE International Conference on*, pages 4467–4473, May 2011.
- [C27] F. Fiorini, A. Gasparri, M. Di Rocco, and G. Ulivi. Distributed data aggregation via networked transferable belief model over a graph. In *Robotics and Automation (ICRA), 2011 IEEE International Conference on*, pages 5730–5736, May 2011.
- [C28] Chiara Foglietta, Andrea Gasparri, and Stefano Panzieri. A networked evidence theory framework for critical infrastructure modeling. In Jonathan Butts and Sujeeet Sheno, editors, *Critical Infrastructure Protection VI*, volume 390 of *IFIP Advances in Information and Communication Technology*, pages 205–215. Springer Berlin Heidelberg, 2012.
- [C29] A. Gasparri and G. Oliva. Fuzzy opinion dynamics. In *American Control Conference (ACC), 2012*, pages 5640–5645, June 2012.
- [C30] D. Di Paola, R. De Asmundis, A. Gasparri, and A. Rizzo. Decentralized topology control for robotic networks with limited field of view sensors. In *American Control Conference (ACC), 2012*, pages 3167–3172, June 2012.
- [C31] A. Gasparri, A. Priolo, and G. Ulivi. A swarm aggregation algorithm for multi-robot systems based on local interaction. In *Control Applications (CCA), 2012 IEEE International Conference on*, pages 1497–1502, October 2012.
- [C32] R. Naldi, A. Gasparri, and E. Garone. Cooperative pose stabilization of an aerial vehicle through physical interaction with a team of ground robots. In *Control Applications (CCA), 2012 IEEE International Conference on*, pages 415–420, October 2012.
- [C33] L. Sabattini, A. Gasparri, C. Secchi, and N. Chopra. Enhanced connectivity maintenance for multi-robot systems. In *Proc. of 10th IFAC Symposium on Robot Control (SYROCO 2012)*, volume 10, pages 319–324, Dubrovnik, Croatia, September 2012.

- [C34] A Gasparri, G. Oriolo, A Priolo, and G. Ulivi. A swarm aggregation algorithm based on local interaction for multi-robot systems with actuator saturations. In *Intelligent Robots and Systems (IROS), 2012 IEEE/RSJ International Conference on*, pages 539–544, October 2012.
- [C35] M. Bibuli, A. Gasparri, A. Priolo, G. Bruzzone, and M. Caccia. Virtual target based path-following guidance system for cooperative usv swarms. In *Proc. of 9th IFAC Conference on Manoeuvring and Control of Marine Craft, (MCMC 2012)*, volume 9, pages 362–367, Arenzano, Italy, September 2012.
- [C36] M. Franceschelli and A Gasparri. Decentralized centroid estimation for multi-agent systems in absence of a common reference frame: A convergence analysis. In *Decision and Control (CDC), 2012 IEEE 51st Annual Conference on*, pages 2071–2076, December 2012.
- [C37] C.F. Ardito, D. Di Paola, and A Gasparri. Decentralized estimation of the minimum strongly connected subdigraph for robotic networks with limited field of view. In *Decision and Control (CDC), 2012 IEEE 51st Annual Conference on*, pages 5304–5309, December 2012.
- [C38] D. Di Paola, A Gasparri, D. Naso, and F.L. Lewis. Decentralized discrete-event modeling and control of task execution for robotic networks. In *Decision and Control (CDC), 2012 IEEE 51st Annual Conference on*, pages 7346–7351, December 2012.
- [C39] A Gasparri, G. Oliva, M. Franceschelli, and S. Panzieri. Online distributed synchronizability check for networks of interconnected systems. In *Mobile Adhoc and Sensor Systems (MASS), 2012 IEEE 9th International Conference on*, volume Supplement, pages 1–6, October 2012.
- [C40] A Leccese, A Gasparri, A Priolo, G. Oriolo, and G. Ulivi. A swarm aggregation algorithm based on local interaction with actuator saturations and integrated obstacle avoidance. In *Robotics and Automation (ICRA), 2013 IEEE International Conference on*, pages 1865–1870, May 2013.
- [C41] A Priolo, A Gasparri, E. Montijano, and C. Sagues. A decentralized algorithm for balancing a strongly connected weighted digraph. In *American Control Conference (ACC), 2013*, pages 6547–6552, June 2013.
- [C42] E. Garone, A Gasparri, and F. Lamonaca. Clock synchronization for wireless sensor network with communication delay. In *American Control Conference (ACC), 2013*, pages 771–776, June 2013.
- [C43] F. Lamonaca, A. Gasparri, and E. Garone. Wireless sensor networks clock synchronization with selective convergence rate. In *Proc. of 8th IFAC Symposium on Intelligent Autonomous Vehicles, (IAV 2013)*, volume 8, pages 146–151, Sofitel Gold Coast, Gold Coast, Australia, June 2013.
- [C44] D. Carboni, A Gasparri, and G. Ulivi. Improving sensor network localization accuracy via mobility. In *Emerging Technologies Factory Automation (ETFA), 2013 IEEE 18th Conference on*, pages 1–7, Sept 2013.
- [C45] R.K. Williams, A Gasparri, A Priolo, and G.S. Sukhatme. Decentralized generic rigidity evaluation in interconnected systems. In *Intelligent Robots and Systems (IROS), 2013 IEEE/RSJ International Conference on*, pages 5093–5099, November 2013.
- [C46] E. Montijano, A Priolo, A Gasparri, and C. Sagues. Distributed entrapment for multi-robot systems with uncertainties. In *Decision and Control (CDC), 2013 IEEE 52nd Annual Conference on*, pages 5403–5408, December 2013.
- [C47] R.K. Williams, A Gasparri, A Priolo, and G.S. Sukhatme. Distributed combinatorial rigidity control in multi-agent networks. In *Decision and Control (CDC), 2013 IEEE 52nd Annual Conference on*, pages 6061–6066, December 2013.
- [C48] M. Bibuli, G. Bruzzone, M. Caccia, A. Gasparri, A. Priolo, and E. Zereik. Speed constraints handling in usv swarm path-following frameworks. In *Proc. of 9th IFAC Conference on Control Applications in Marine Systems (CAMS 2013)*, volume 9, pages 73–78, Osaka, Japan, September 2013.
- [C49] A. Gasparri, R.K. Williams, A. Leccese, and G. Ulivi. Set input-to-state stability for spatially interacting multi-agent systems. In *Decision and Control (CDC), 2014 IEEE 53rd Annual Conference on*, pages 5381–5386, December 2014.

- [C50] Pradipta Ghosh, Jie Gao, Andrea Gasparri, and Bhaskar Krishnamachari. Distributed hole detection algorithms for wireless sensor networks. In *Mobile Ad Hoc and Sensor Systems (MASS), 2014 IEEE 11th International Conference on*, pages 257–261, October 2014.
- [C51] Andrea Gasparri and Bhaskar Krishnamachari. Throughput-optimal robotic message ferrying for wireless networks using backpressure control. In *Mobile Ad Hoc and Sensor Systems (MASS), 2014 IEEE 11th International Conference on*, pages 488–496, October 2014.
- [C52] Ryan K. Williams, Andrea Gasparri, and Bhaskar Krishnamachari. Route swarm: Wireless network optimization through mobility. In *Intelligent Robots and Systems (IROS 2014), 2014 IEEE/RSJ International Conference on*, pages 3775–3781, Sept 2014.
- [C53] Daniela Carboni, Ryan K. Williams, Andrea Gasparri, Giovanni Ulivi, and Gaurav S. Sukhatme. Identifying rigidity-preserving bipartitions in planar multi-robot networks. In *The 19th World Congress of the International Federation of Automatic Control*, pages 8085–8090, August 2014.
- [C54] Attilio Priolo, Ryan K. Williams, Andrea Gasparri, and Gaurav S. Sukhatme. Decentralized algorithms for optimally rigid network constructions. In *Robotics and Automation (ICRA), 2014 IEEE International Conference on*, pages 5010–5015, May 2014.
- [C55] Andrea Gasparri, Antonio Leccese, Lorenzo Sabattini, and Giovanni Ulivi. Collective control objective and connectivity preservation for multi-robot systems with bounded input. In *American Control Conference (ACC), 2014*, pages 813–818, June 2014.
- [C56] Ryan K. Williams, Andrea Gasparri, Gaurav S. Sukhatme, and Giovanni Ulivi. Global connectivity control for spatially interacting multi-robot systems with unicycle kinematics. In *Robotics and Automation (ICRA), 2015 IEEE International Conference on*, pages 1255–1261, May 2015.
- [C57] Antonio Di Pietro, Stefano Panzieri, and Andrea Gasparri. Situational awareness using distributed data fusion with evidence discounting. In Mason Rice and Sujeet Sheno, editors, *Critical Infrastructure Protection IX*, volume 466 of *IFIP Advances in Information and Communication Technology*, pages 281–296. Springer International Publishing, 2015.
- [C58] Matteo Soffietti Ryan K. Williams, Andrea Gasparri and Gaurav S. Sukhatme. Redundantly rigid topologies in decentralized multi-agent networks. In *Decision and Control (CDC), 2015 IEEE 54th Annual Conference on*, December 2015.
- [C59] Riccardo Santini, Andrea Gasparri, Fabio Pasqualetti, and Stefano Panzieri. Network composition for optimal disturbance rejection. In *American Control Conference (ACC), 2016*, 2016. To Appear.
- [C60] Gianluca Bianchin, Paolo Frasca, Andrea Gasparri, and Fabio Pasqualetti. The observability radius of network systems. In *American Control Conference (ACC), 2016*, 2016. To Appear.
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