

Lucia Pallottino

Research Center “E. Piaggio”,
Dipartimento di Ingegneria dell’Informazione University of Pisa
tel. (+39) 050-2217057 fax. (+39) 050-2217051
lucia.pallottino@unipi.it

Personal Data

Birth: 1974
Citizenship: Italy
Office Address: Centro “E. Piaggio”
Largo L. Lazzarino 1, 56100, Pisa, Italy

Education and Current Position

Associate Professor in Automatic Control and Robotics, Pisa University, since 2015

Ricercatore (Assistant Professor), Pisa University, 2007–2015

Ph.D. in Robotics and Industrial Automation, Pisa University, 2002

“Laurea” Degree in Mathematics, Pisa University, 1998

Researcher Contract (Assegno di Ricerca), at the Department of Electrical Systems and Automation Engineering Faculty of Pisa University in “Optimization techniques applied to the manipulation and the control of hybrid dynamical systems”, *2002-2006*

Visiting Researcher at Mechanical and Aerospace Engineering Department, University of California at Los Angeles, USA, Prof. E. Frazzoli, *11-12/2004.*

Visiting Scholar at the Laboratory for Information and Decision Systems, Massachusetts Institute of Technology, Cambridge USA, Prof. E. Feron, *10/2000-02/2001.*

Institutional Roles

Deputy Director of the Centro di Ricerca “E. Piaggio”, Università di Pisa, since January 2017.

Director of the “Advanced Manufacturing” CrossLab, Dipartimento di Eccellenza, Dipartimento di Ingegneria dell’Informazione da Marzo 2018.

Academic Experiences

Professor of Distributed Robotic Systems for Robotics and Automation Engineering, Pisa University, *2011–2018*

Professor of Systems Theory and Control for Robotics and Automation Engineering, Pisa University, *2016–2018*

Professor of Automatic Control Management Engineering, Pisa University, 2016–2018

Professor of Systems Theory for Mechanical and Energy Engineering, Pisa University, 2015–2016

Professor of Processes Control for Automation Engineering, Pisa University, 2009–2010

Professor of System Theory for Management Engineering, Pisa University, 2008–2010

Professor of Automatic Control for Management Engineering, Pisa University, 2006–2007

Professor of Discrete Event Systems for Business Engineering and Computer Science Engineering, Siena University, 2006–2007

Recent Research Projects

ILIAD: Intra-Logistics with Integrated Automatic Deployment: safe and scalable fleets in shared spaces (ILIAD, H2020-ICT 732737, Start: January 2017, Duration: 48 months). **Principal Investigator** for the University of Pisa.

WALKMAN: Whole-body Adaptive Locomotion and Manipulation (WALKMAN, FP7-ICT 611832, <http://www.walk-man.eu>, Start: September 2013, Duration: 48, Role: **WP Leader** months).

Control of Heterogeneous Automation Systems: Technologies for scalability, reconfigurability and security (CHAT, n. 224428, <http://www.ict-chat.eu/>, Start: September 1st, 2008, Duration: 36 months).

Cooperating Objects NETWORK of excellence (CONET NOE INFSO-ICT-224053, <http://www.cooperating-objects.eu/> Start: June 1st, 2008, Duration: 48 months)

HYCON2- Highly-Complex and Networked Control Systems (HYCON2 NOE ICT-257462, <http://www.hycon2.eu/> Start: September 1st, 2010, Duration: 48 months).

PLATform for the deployment and operation of heterogeneous NETWORKED cooperating objects (PLANET ICT-2009-2130, <http://www.planet-ict.eu/> Start: October 1st, 2010, Duration: 48 months).

Awards

Winner of the “**IEEE RAS Italian Chapter Young Author Best Paper Award 2009**” for the paper: Lucia Pallottino, Vincenzo G. Scordio, Antonio Bicchi, and Emilio Frazzoli, “Decentralized cooperative policy for conflict resolution in multivehicle systems,” on IEEE Transactions on Robotics, 23(6):1170–1183, 2007.

Top 10 Best Research Papers (2000 to 2009) in IEEE Transactions on Intelligent Transportation Systems: L. Pallottino, E. M. Feron, and A. Bicchi, “Conflict resolution problems for air traffic management systems solved with mixed integer programming,” IEEE Transactions on Intelligent Transportation Systems, vol. 3, no. 1, pp. 311, March 2002.

Recent Plenary and invited talks

Invited talk at the Workshop “Hybrid Dynamical Systems: Optimization, Stability and Applica-

tions”, 2017 January 9-11, Trento, Italy.

Keynote Speaker per “IEEE, 8th International Congress on Ultra Modern Telecommunications and Control Systems”, 19 October, 2016, Lisboa, Portugal.

Invited talk at the Università di Padova (March 31st 2016) “The Walk-Man humanoid robot: whole-body loco-manipulation planning and control”.

Roles and membership of Societies

IEEE Senior Member

Member of IEEE Robotics and Automation Society

Member of IEEE Control Systems Society

Member of IEEE Industrial Electronics Society

Chair of the Italian chapter of the IEEE Robotics and Automation Society (I-RAS) 2015–2016 Vice-

chair of the Italian chapter of the IEEE Robotics and Automation Society (I-RAS) 2012–2014

Conferences and Workshop Committees

Co-Organizer

Congress co-chair of Control Systems, Automation and Robotics track, 9th IEEE ICUMT 2017, Munich, Germany.

Program Chair of Workshop “2014 Modelling and simulation for autonomous systems” (MESAS14), Roma, 5-6 Maggio 2014.

Congress co-chair of Control Systems, Automation and Robotics track: 6th IEEE ICUMT 2014, St. Petersburg, Russia.

Co-Chair de CONET2012 Third International Workshop on Networks of Cooperating Objects April 16th, 2012 Beijing, China.

Co-Organizer of “Convegno Annuale dei Docenti e Ricercatori Italiani in Automatica: Automatica.it”, Pisa, 7-9 settembre 2011.

International Conferences Programme Committees:

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2007, 2014);

IEEE Conference on Robotics and Automation (IEEE-ICRA 2011, 2014, 2015, 2017-2018);

2015 Modelling and simulation for autonomous systems workshop (MESAS15);

IEEE Conference on Automation Science and Engineering (IEEE-CASE 2008-2010, 2017);

IEEE International Symposium on Multi-robot and Multi-Agent Systems (MRS 2017);

2010 IEEE Intelligent Vehicles Symposium (IEEE-IVS 2010);

Intelligent Robotics and Multi-Agent Systems (IRMAS 2015, 2016)

International Conference on INnovations in Intelligent SysTems and Applications (INISTA 2014);

International Workshop on Networks of Cooperating Objects CONET (2010, 2011 and 2013);

Autonomous Agents and MultiAgent Systems 2011-2013, ARMS@AAMAS2011, ARMS2012, ARMS2013;

1st International Workshop on Robotics IEEE International Conference on Service Operations and Logistics, and Informatics (IEEE SOLI, 2017) Technology Transfer: Innovation from Academia to Industry (RTT 2015)

1st International Conference on Intelligent Robotics Automation and Manufacturing 2012 (IRAM2012)

CMASA - Cooperative Multi-Agent Systems and Applications track of the ACM Symposium on Applied Computing (SAC 2013, 2015, 2017, 2018)

Robotica – International Conference on Autonomous Robot Systems 2013 and 2014

IEEE Conference on Control Applications (CCA 2014, 2015)
The 8th International Symposium on Distributed Autonomous Robotic Systems 2006 (DARS06);

Reviewer Activities

International Journals' Editorial Board:

- IEEE Robotics and Automation Letters, (2018- on going);
- IEEE Transactions on Robotics(2013-2017)
- International Journal of Advanced Robotic Systems (2013-2015)

International Journals' reviewer:

- Automatica,
- IEEE Transactions on Automatic Control,
- IEEE Transactions on Robotics,
- IEEE Robotics and Automation Magazine,
- Journal of Intelligent and Robotic Systems;
- IEEE Transactions on Automation Science and Engineering
- SIAM Journal On Control and Optimization (SICON),
- Autonomous Robots (Springer),
- Robotics and Autonomous Systems (Elsevier);
- IEEE Transaction on Intelligent Transportation Systems,
- IEEE Transactions on Systems, Man and Cybernetics,
- IFAC Journal on Control Engineering Practice,
- IEEE Transactions on Control System Technology,
- IEEE Transactions on Industrial Informatics;
- International Journal of Robotics Research;
- AIAA Journal of Guidance, Control, and Dynamics;
- Annals of Operations Research;
- European Journal of Operational Research;
- Information Sciences, Elsevier.

Reviewer of Handbook of Robotics.

Reviewer of Ph.D. Thesis of the European Embedded Control Institute Award, 2009.

Research Projects Reviewer:

- External Reviewer for the Portuguese Foundation for Science and Technology (FCT) for research projects in the Computer Sciences and Engineering field, 2010.
- Reviewer for the Natural Sciences and Engineering Research Council of Canada (NSERC) for "Discovery Grant" research projects, 2012.

- Reviewer for the Fund for Scientific Research (F.R.S.-FNRS), 2013, 2015, 2017.

Main Research Interests

- Planning and Control of Humanoid Robots
- Distributed coordination and control of multi vehicle systems
- Distributed collision avoidance in multi-agent systems
- Optimal control of constrained robotic systems
- Controllability and motion planning of robots formations

Publications

Journals or Books' Chapters

1. M. Tognon, C. Gabellieri, L. Pallottino, A. Franchi, "Aerial Co-Manipulation With Cables: The Role of Internal Force for Equilibria, Stability, and Passivity", *IEEE Robotics and Automation Letters*, Vol. 3, n. 3, pp. 2577 - 2583, 2018.
2. N. G. Tsagarakis, F. Negrello, M. Garabini, W. Choi, L. Baccelliere, V. G. Loc, J. Noorden, M. Catalano, M. Ferrati, L. Muratore, P. Kryczka, E. Mingo Hoffman, A. Settini, A. Rocchi, A. Margan, S. Cordasco, D. Kanoulas, A. Cardellino, L. Natale, H. Dallali, J. Malzahn, N. Kashiri, V. Varricchio, L. Pallottino, C. Pavan, J. Lee, A. Ajoudani, D. G. Caldwell, A. Bicchi, "WALK-MAN Humanoid Platform", *The DARPA Robotics Challenge Finals: Humanoid Robots To The Rescue*. Editors Spenko M., Buerger S., Iagnemma K., Springer Tracts in Advanced Robotics, vol 121, pp 495-548, Springer.
3. A. Cristofaro, P. Salaris, L. Pallottino, F. Giannoni and A. Bicchi, "On the Minimum-Time Control Problem for Differential Drive Robots with Bearing Constraints", *Journal of Optimization Theory and Applications*, pp. 1-27, 2017.
4. N. G. Tsagarakis, D. G. Caldwell, F. Negrello, W. Choi, L. Baccelliere, V. G. Loc, J. Noorden, L. Muratore, A. Margan, A. Cardellino, L. Natale, E. Hoffman Mingo, H. Dallali, N. Kashiri, J. Malzahn, J. Lee, P. Kryczka, D. Kanoulas, M. Garabini, M. G. Catalano, M. Ferrati, V. Varricchio, L. Pallottino, C. Pavan, A. Bicchi, A. Settini, A. Rocchi, and A. Ajoudani, "WALK-MAN: A High-Performance Humanoid Platform for Realistic Environments", *Journal of Field Robotics*, vol. 34, no. 4, pp. 1 - 34, 2017.
5. H. Marino, P. Salaris, and L. Pallottino, "Controllability analysis of a pair of 3D Dubins vehicles in formation", *Robotics and Autonomous Systems*, vol. 83, pp. 94-105, 2016.
6. M. Ferrati, A. Settini, L. Muratore, A. Cardellino, A. Rocchi, E. Mingo Hoffman, C. Pavan, D. Kanoulas, N.G. Tsagarakis, L. Natale, and L. Pallottino, "The Walk-Man Robot Software Architecture", *Frontiers in Robotics AI*, 2016.
7. P. Salaris, A. Cristofaro, and L. Pallottino, "Epsilon-Optimal Synthesis for Unicycle-like Vehicles with Limited Field-Of-View Sensors", *IEEE Transactions on Robotics (T-RO)*, vol. 31, no. 6, pp. 1404 - 1418, 2015.
8. P. Salaris, A. Cristofaro, L. Pallottino, and A. Bicchi, "Epsilonoptimal synthesis for vehicles with vertically bounded Field-Of-View", *IEEE Transactions on Automatic Control*, vol. 60, no. 5, pp. 1204 - 1218, 2015.
9. S. Martini, D. Di Baccio, F. Alarcón-Romero, A. Viguria-Jiménez, L. Pallottino, G. Dini, and A. Ollero, "Distributed motion misbehavior detection in teams of heterogeneous aerial robots", *Robotics and Autonomous Systems information*, vol. 74 part A, pp. 30-39, 2015.
10. P. Salaris, L. Pallottino, and A. Bicchi, "Shortest Paths for Finned, Winged, Legged and Wheeled Vehicles with Side-Looking Sensors", *International Journal of Robotics Research*, 31(8):997-1017, 2012.
11. A. Bicchi, A. Fagiolini, and L. Pallottino, "Towards a Society of Robots: Behaviors, Misbehaviors, and Security", *IEEE Robotics and Automation Magazine*, 17(4):26 - 36, December 2010.
12. P. Salaris, D. Fontanelli, L. Pallottino and A. Bicchi, "Shortest Paths for a Robot with Non-holonomic and Field-of-View Constraints", *IEEE Trans. on Robotics*, 26(2):269 - 281, 2010.

13. A. Bicchi, A. Danesi, G. Dini, S. La Porta, L. Pallottino, I. M. Savino, and R. Schiavi, "Heterogeneous Wireless Multirobot System", *Robotics and Automation Magazine, IEEE*, 15(1):62-70, 2008.
14. L. Pallottino, V. G. Scordio, E. Frazzoli, and A. Bicchi, "Decentralized cooperative policy for conflict resolution in multi-vehicle systems". *IEEE Trans. on Robotics*, 23(6):1170-1183, 2007.
15. A. Bicchi, A. Caiti, L. Pallottino, G. Tonietti, "Online Robotic Experiments for Tele-Education at the University of Pisa", *Int. Journal of Robotic Systems*, 22(4):217-230, 2005. Note: Special issue on Internet & Online Robots for Telemanipulation.
16. L. Pallottino, E. Feron, A. Bicchi, "Conflict Resolution Problems for Air Traffic Management Systems Solved with Mixed Integer Programming", *IEEE Transaction on Intelligent Transportation Systems*, vol. 3, no. 1, pp. 3-11, March 2002.
17. S. Pancanti, L. Leonardi, L. Pallottino, A. Bicchi, "Optimal control of quantized input systems", M. Greenstreet and C. Tomlin, editors, *Hybrid Systems: Computation and Control*, LNCS 2289 Lecture Notes in Computer Science. Springer-Verlag, Heidelberg, Germany, pp. 351-363, 2002.
18. A. Bicchi and L. Pallottino, "On Optimal Cooperative Conflict Resolution for Air Traffic Management Systems", *IEEE Transaction on Intelligent Transportation Systems*, vol. 1, no.4, pp.221-231, Dec. 2000.
19. A. Bicchi and L. Pallottino, "Optimal planning for coordinated vehicles with bounded curvature", In B. Donald, K. Lynch, and D. Rus, editors, *Algorithmic and Computational Robotics: New Directions*, volume 1, pages 167-172, 2000.

Conference Proceedings

1. L. Silvestri, L. Pallottino, S. Nardi, "Design of an indoor autonomous robot navigation system for unknown environments", in International Workshop on Modelling and Simulation for Autonomous Systems MESAS 2017, Rome, Italy, 24-26 October 2017, Lecture Notes in Computer Science 10756 (LNCS), pp. 153-169, 2018.
2. A. Mannucci, S. Nardi, L. Pallottino, "Autonomous 3D exploration of large areas: A cooperative frontier-based approach", in International Workshop on Modelling and Simulation for Autonomous Systems MESAS 2017, Rome, Italy, 24-26 October 2017, Lecture Notes in Computer Science 10756 (LNCS), pp. 18-39, 2018.
3. M. Bonilla, L. Pallottino and A. Bicchi, "Noninteracting Constrained Motion Planning and Control for Robot Manipulators", in IEEE International Conference on Robotics and Automation (ICRA 2017), Singapore, 29 May - 3 June, pp. 4038-4043, 2017.
4. T. Fabbri, E. Simetti, G. Casalino, L. Pallottino, and A. Caiti, "Distributed Task-priority Based Control in Area Coverage & Adaptive Sampling", in MTS/IEEE Oceans 2017, Aberdeen, Scotland, June 2017, 2017.
5. A. Settimi, D. Caporale, P. Kryczka, M. Ferrati, L. Pallottino, "Motion Primitive Based Random Planning for LocoManipulation Tasks", in IEEE International Conference on Humanoid Robots (HUMANOIDS 2016), Cancun, Mexico, 15-17 Nov. 2016 , 2016.
6. G. M. Gasparri, F. Fabiani, M. Garabini, L. Pallottino, M.G. Catalano, G. Grioli, R. Persichini, and A. Bicchi, "Robust Optimization of System Compliance for Physical Interaction in Uncertain Scenarios", in IEEE International Conference on Humanoid Robots (HUMANOIDS2016), Cancun, Mexico, 15-17 Nov. 2016 , 2016.

7. M. Ferrati, H. Marino, A. Settini, S. Nardi, and L. Pallottino, "Multiobject handling for robotic manufacturing", in IECON 2016: 42nd Annual Conference of the IEEE Industrial Electronics Society, Florence, Italy, October 24-27.
8. S. Nardi, T. Fabbri, A. Caiti, and L. Pallottino, "A game theoretic approach for antagonistic-task coordination of underwater autonomous robots in asymmetric threats scenarios", in OCEANS 2016, 2016.
9. A. Ferrarelli, D. Caporale, A. Settini, and L. Pallottino. "APRICOT: Aerospace PRototyping COntrol Toolbox. A Modeling and Simulation Environment for Aircraft Control Design", in International Workshop on Modelling and Simulation for Autonomous Systems MESAS 2016, Rome, Italy, June 15-16, 2016, 2016, vol. 9991 of the book series Lecture Notes in Computer Science (LNCS), pp. 139 - 157.
10. T. Fabbri, S. Nardi, L. Isgrò, L. Pallottino, and A. Caiti, "Assessing the Potential of Autonomous Multi-agent Surveillance in Asset Protection from Underwater Threats", in International Workshop on Modelling and Simulation for Autonomous Systems MESAS 2016, Rome, Italy, June 15-16, 2016, 2016, vol. 9991 of the book series Lecture Notes in Computer Science (LNCS), pp. 204 - 213.
11. A. Faralli, N. Giovannini, S. Nardi, and L. Pallottino, "Indoor Real-Time Localisation for Multiple Autonomous Vehicles Fusing Vision, Odometry and IMU Data", in International Workshop on Modelling and Simulation for Autonomous Systems MESAS 2016, Rome, Italy, June 15-16, 2016, 2016, vol. 9991 of the book series Lecture Notes in Computer Science (LNCS), pp. 288 - 297.
12. S. Nardi, and L. Pallottino, "NoStop: An Open Source Framework for Design and Test of Coordination Protocol for Asymmetric Threats Protection in Marine Environment", in International Workshop on Modelling and Simulation for Autonomous Systems MESAS 2016, Rome, Italy, June 15-16, 2016, 2016, vol. 9991 of the book series Lecture Notes in Computer Science (LNCS), pp. 176 - 185.
13. S. Nardi, C. Della Santina, D. Meucci, and L. Pallottino, "Coordination of unmanned marine vehicles for asymmetric threats protection", in MTS/IEEE Oceans 2015, May 18-21, Genoa, Italy, 2015.
14. M. Bonilla, E. Farnioli, L. Pallottino, and A. Bicchi, "Sample-Based Motion Planning for Robot Manipulators with Closed Kinematic Chains", in IEEE International Conference on Robotics and Automation (ICRA2015), Seattle, USA, 25 - 30 May, 2015, pp. 2522 - 2527.
15. G. M. Gasparri, M. Garabini, L. Pallottino, L. Malagia, M. G. Catalano, G. Grioli, and A. Bicchi, "Variable Stiffness Control for Oscillation Damping", in IEEE International Conference of Intelligent Robots and Systems (IROS2015), Hamburg, Germany, September 28 - October 02, 2015, 2015, pp. 6543 - 6550.
16. M. Ferrati, A. Settini, and L. Pallottino, "ASCARI: a component based simulator for distributed mobile robot systems", in Modelling & Simulation for Autonomous Systems - MESAS2014, Rome, 5-6 May 2014, 2014, vol. Lecture Notes in Computer Science, Volume 8906, 2014, pp. 152-163.
17. A. Cristofaro, P. Salaris, L. Pallottino, F. Giannoni, and A. Bicchi, "On Time-Optimal Trajectories for Differential Drive Vehicles with Field-Of-View Constraints", in IEEE Conference on Decision and Control (CDC2014), Los Angeles, USA, December 15-17, 2014, pp. 2191 - 2197.
18. T. Rizano, D. Fontanelli, L. Palopoli, L. Pallottino, and P. Salaris, "Global Path Planning for Competitive Robotic Cars", In IEEE Conference on Decision and Control 2013, Florence, Italy, p. 4510 - 4516.

19. P. Salaris, A. Cristofaro, L. Pallottino, and A. Bicchi, "Shortest paths for wheeled robots with limited Field-Of-View: introducing the vertical constraint", In IEEE Conference on Decision and Control 2013, Florence, Italy, p. 5143 - 5149.
20. A. Settimi and L. Pallottino, "A Subgradient Based Algorithm for Distributed Task Assignment for Heterogeneous Mobile Robots", In IEEE Conference on Decision and Control 2013, Florence, Italy, p. 3665 - 3670.
21. M. Ferrati and L. Pallottino, "A time expanded network based algorithm for safe and efficient distributed multi-agent coordination", In IEEE Conference on Decision and Control 2013, Florence, Italy, p. 2805 - 2810.
22. L. Cancemi, A. Fagiolini, and L. Pallottino, "Distributed Multilevel Motion Planning for Autonomous Vehicles in Large Scale Industrial Environments", In IEEE International Conference on Emerging Technologies & Factory Automation (ETFA), 2013, p. 1-8.
23. H. Marino, M. Bonizzato, R. Bartalucci, P. Salaris, and L. Pallottino, "Motion Planning for Two 3D-Dubins Vehicles with Distance Constraint", In International Conference of Intelligent Robots and Systems - IROS 2012, Vilamoura, Algarve, Portugal, 2012, p. 4702 - 4707.
24. P. Salaris, L. Pallottino, S. Hutchinson, A. Bicchi, "From Optimal Planning to Visual Servoing With Limited FOV", IEEE/RSJ International Conference on Intelligent Robots and Systems, pages 2817 - 2824, 2011.
25. S. Manca, A. Fagiolini, and L. Pallottino, "Decentralized Coordination System for Multiple AGVs in a Structured Environment", In 2011 Congress of the International Federation of Automatic Control, Milano, Italy, pages 6005 - 6010, August 28 - September 2 2011.
26. P. Salaris, L. Pallottino, and A. Bicchi, "Shortest Paths With Side Sensor", In 2011 IEEE International Conference on Robotics and Automation, Shanghai, China, pages 4875 - 4882, May 9 - 13 2011.
27. H. Wang, L. Pallottino, and A. Bicchi, "Controllability Properties for Aircraft Formations", In Proc. IEEE Conference on Decision and Control 2010, pages 2047 - 2054, 2010.
28. H. Wang, L. Pallottino, and A. Bicchi, "Motion planning for Formations of Dubins Vehicles", In Proc. IEEE Conference on Decision and Control 2010, pages 2263 - 2269, 2010.
29. H. Wang, L. Pallottino, and A. Bicchi, "Controllability for Pairs of Vehicles Maintaining Constant Distance", In IEEE International Conference on Robotics and Automation (ICRA2010), Anchorage, Alaska, pages 342 - 349, May 3 - 8 2010.
30. L. Pallottino, P. Salaris, D. Fontanelli, and A. Bicchi, "Shortest Paths for Non-holonomic Vehicles with Limited Field of View Camera", In Proc. IEEE Conference on Decision and Control, Shanghai, China, pages 8434 - 8439, December, 16 - 18 2009.
31. P. Alriksson, J. Nordh, K.-E. Arzén, A. Bicchi, A. Danesi, R. Schiavi and L. Pallottino, "A Component-Based Approach to Localization and Collision Avoidance for Mobile Multi-Agent Systems", Proc. European Control Conference (ECC), pages 4285-4292, July 2007.
32. A. Balestrino and L. Pallottino, "Higher order method for non linear equations resolution: application to mobile robot control", In Proc. European Control Conference, pp. 3628-3634, 2007.
33. A. Fagiolini, G. Valenti, L. Pallottino, G. Dini, and A. Bicchi, "Decentralized Intrusion Detection for Secure Cooperative Multi-Agent Systems", In Proc. IEEE Int. Conf. on Decision and Control, pages 1553-1558, 2007.

34. A. Fagiolini, G. Valenti, L. Pallottino, G. Dini, and A. Bicchi, "Local Monitor Implementation for Decentralized Intrusion Detection in Secure Multi-Agent Systems", In 3rd IEEE Conference on Automation Science and Engineering, pages 454-459, 2007.
35. L. Pallottino and A. Bicchi, "A Dynamic Programming Approach to Optimal Planning for Vehicles with Trailers", In Proc. IEEE Int. Conf. on Robotics and Automation, pages 3098-3103, 2007.
36. L. Pallottino, A. Bicchi, and E. Frazzoli, "Probabilistic verification of decentralized multi-agent control strategies: a case study in conflict avoidance", In American Control Conference (ACC), pages 170-175, 2007.
37. A. Danesi, A. Fagiolini, I. Savino, L. Pallottino, R. Schiavi, G. Dini, and A. Bicchi, "A scalable platform for safe and secure decentralized traffic management of multiagent mobile systems", In ACM Workshop on Real-World Wireless Sensor Networks, 2006.
38. L. Pallottino, V.G. Scordio, E. Frazzoli, and A. Bicchi, "Decentralized and scalable conflict resolution strategy for multi-agents systems", In Int. Symp. on Mathematical Theory of Networks and Systems, Kyoto, Japan, 2006.
39. L. Pallottino, V. G. Scordio, E. Frazzoli, and A. Bicchi, "Probabilistic verification of a decentralized policy for conflict resolution in multi-agent systems", 2006 IEEE International Conference on Robotics and Automation, Orlando, FL, pp 2448-2453, May 2006.
40. A. Balestrino, A. Bicchi, A. Caiti, V. Calabrò, T. Cecchini, A. Coppelli, L. Pallottino, G. Tonietti: "From Tele-Laboratory to E-Learning in Automation Curricula at the University of Pisa", In Proc. IFAC World Congress 2005, Praha, CZ 2005.
41. L. Pallottino, V. G. Scordio, E. Frazzoli, and A. Bicchi: "Decentralized Cooperative Conflict Resolution for Multiple Nonholonomic Vehicles". In Proc. of the AIAA Conf. on Guidance, Navigation, and Control, San Francisco, CA, August 2005.
42. A. Balestrino, A. Bicchi, A. Caiti, T. Cecchini, L. Pallottino, A. Pisani, G. Tonietti: "A Robotic Set-Up with Remote Access for "Pick and Place" Operations Under Uncertainty Conditions". In P. Borza, L. Gomes, and G. Scutaru, editors, E-learning and Virtual and Remote Laboratories, Proc. VIRTUAL-LAB 2004, pages 144-149, 2004.
43. L. Pallottino, V. G. Scordio, A. Bicchi, "Decentralized Cooperative Conflict Resolution Among Multiple Autonomous Mobile Agents", 43th IEEE Int. Conf. on Decision and Control, pages 4758-4763, Bahamas, Dec. 2004.
44. S. Pancanti, L. Pallottino, D. Salvadorini, A. Bicchi: "Motion Planning through Symbols and Lattices", 2004 IEEE International Conference on Robotics and Automation, New Orleans, LA, pp 3914 - 3919, Vol.4, Apr. 2004.
45. L. Pallottino, A. Bicchi "Risoluzione ottima dei conflitti tra agenti autonomi: applicazione al controllo del traffico aereo", atti 1 conferenza Nazionale ed Exhibition su "Sistemi Autonomi Intelligenti e Robotica Avanzata", pp. 193-197, ENEA, Frascati 29-31 Ottobre 2002.
46. L. Pallottino, A. Bicchi, S. Pancanti, "Safety of a decentralized scheme for Free-Flight ATMS using Mixed Integer Linear Programming", Proc. of American Control Conference 2002, Anchorage, Alaska, USA, May 8-10, pp. 742-747 2002.
47. S. Pancanti, L. Pallottino, A. Bicchi: "On optimal steering of quantized input Systems", proceedings of Workshop on Future Direction in Non Linear Control of Mechanical System, Urbana - IL - 5 October 2002.
48. A. Bicchi, L. Pallottino, M. Bray, R. Perdoni: "Randomized Parallel Simulation of Constrained Multibody Systems for VR/Haptic Applications", 2001 IEEE International Conference on Robotics and Automation, Seoul, KR, pp. 2319-2324, May 2001.

49. L. Pallottino, E. Feron, A. Bicchi, “Mixed Integer Programming for Aircraft Conflict Resolution”, In Proc. of the AIAA Conf. on Guidance, Navigation, and Control, August 2001.
50. L. Pallottino and A. Bicchi, “On the Optimal Conflict Resolution for Air Traffic Control”, Proceedings of the 3rd Annual Conference on Intelligent Transportation Systems, Dearborn MI, pp.167-172 October 2000.
51. L. Pallottino, G. Parlangeli and A. Bicchi, “Shortest paths for teams of vehicles”, Proceedings WAC congress, pages 124-129, Maui Hawaii, June 2000.

Miscellaneous

1. L. Pallottino and P. Salaris. “On constrained optimal control problems in robotics”. In *Automatica.it* 2011, Pisa, Italy, September 7 - 9 2011
2. A. Fagiolini, L. Pallottino, and G. Dini. Decentralized Intrusion Detection in Cooperative Multi-Agent Systems. *Hybrid Systems: Communication and Control*, April 2007. Note: Poster Presentation.