Curriculum Vitae

Alessandro Farinelli

Personal Information:

Date of Birth: 18 June, 1976
Place of Birth: Rome, Italy
Address: Via Conca D'Oro 238, 00141 Rome
Nationality: Italian
Military Service: exempted
Civil State: married

Contacts

Cell: +39-335-1710307
Email: alessandro.farinelli@univr.it
Home page: http://profs.sci.univr.it/∼farinelli/

Current Position

Since Dec. 08	Researcher at University of Verona Faculty of Mathematical, Fisical and Natural Science, Department of Informatics.

Awards

2008	Best Industrial Demo" at the International Conference AAMAS" 2008, Estoril, Portogallo, demo title: "Max-Sum Decentralised Coordination for Sensor Systems" W. T. L. Teacy, A. Farinelli, N. J. Grabham, P. Padhy, A. Rogers, N. R. Jennings.
2005	Best paper Nomination for the IEEE International Workshop on Safety, Security and Rescue Robotics (SSRR)
2004	Best paper for the International Workshop on: Theory and Practice of Open Computational System (TAPOCS)

Previous Positions

Jul. 08–Dec. 08	: Research Fellow at ECS (Electronic and Computer Science) of Southampton University, UK. Member of Prof. N.

R. Jennings group in the project "Control and Management of Autonomous Mobile Sensors" founding SEAS DTC, principal investigators Prof. N. R. Jennings and Dr. AlexRogers. This project addresses the challenge of developing effective and computational efficient inference and coordination algorithms in order to allow multiple mobile (and stationary) sensors to form agile teams such that they can efficiently represent, explore and search challenging, uncertain and dynamic environments

April 2007–December 2008 : Research Fellow at ECS (Electronic and Computer Science) Southampton University, UK. Member of Prof. N. R. Jennings group in the project "Market Based Control of Complex Computational Systems" founding Engineering and Physical Sciences Research Council (EPSRC), principal investigator Prof. N. R. Jennings. This project applies market-based paradigms to the design, control and evolution of complex distributed computational systems.

Apr. 05–Apr. 07 : Post-doc for two years, project name An integrated framework for situation assessment and task assignment in real rescue scenarios. Supervisor: Prof. Daniele Nardi

---

Research Projects

Apr. 05–Apr. 07 Principal investigator: An integrated framework for situation assessment and task assignment in real rescue scenarios.
Project description: Design and development of a an integrated strategy for information fusion and task assignment, for a multi-robot system involved in a search and rescue application.
Role: design, development and evaluation of the integrated strategy for information integration and task assignment.
Founded by: AFOSR, 74300 Dollari, 2 years.

2003–2006 Collaborator for the project: RoboCare
Project Description: Interaction among Multi-Robot and Multi-Agent systems for elderly assistance.
Principal Investigator: Amedeo Cesta.
Role: Development of the path planning strategy and robotic platform control.
Founded by: CNR-MIUR, 3 years.

2003–2005 Collaborator for the project: Simulation and robotic systems for operations in emergency scenarios
Project Description: Development of a prototype Multi Robot system for indoor rescue operations.
Principal Investigator: Daniele Nardi.

	Role: Design and development of the coordination strategy. Founded by: MIUR, 2 years.
Nov. 03–Jun. 04	Collaborator for the project: Software for Distributed Robotics (SDR) Project Description: Surveillance in a large area through an heterogeneous robot team. Role: Participation to the development of the sensor allocation strategy. Principal Investigator: Prof. Milind Tambe. Founded by: DARPA. Participation realized during the visit period at Teamcore Research Group; head of the group Prof. Milind Tambe, University of Southern California, Los Angeles, CA, USA.
2001–2002	Collaborator for the project: Real-time planning and monitoring for search and rescue operations in large-scale disasters. Project Description: Coordination of the activity of a Multi-Agent System for large scale urban rescue applications. Principal Investigator: Daniele Nardi. Role: Design and development of the task assignment strategy. Founded by: CNR, 2 years.

Education

Mar. 05	PhD in Ingegneria Informatica (Computer Science) at Dipartimento Informatica e Sistemistica (DIS) Università di Roma La Sapienza. Title of the thesis: Distributed Task Assignment for Real World Environments.
2001–2004	PhD Student at Dipartimento di Informatica e Sistemistica, Università di Roma La Sapienza.
Jul. 01	Laurea in Ingegneria Informatica (5 years) grade 110/110 cum Laude at Università di Roma La Sapienza. Title of the thesis: Tecniche di pianificazione delle traiettorie in ambiente dinamico (Path planning in dynamic environment).
Jul. 95	Maturità Scientifica, at Liceo Scientifico G. B. Morgagni, grade: 60/60

Development of Systems and Prototypes

2008	Development of the demonstrator "Max-Sum Decentralised Coordination for Sensor Systems", people involved: W. T. L.

	Teacy, A. Farinelli, N. J. Grabham, P. Padhy, A. Rogers, N. R. Jennings, demo at AAMAS 2008 for the Industrial Software Demo track. Development of the Max-Sum algorithm on Chipcon CC24310 computational boards, showing the practical applicability of the algorithm on embedded systems with low computation and communication capabilities.
2008	Development of the demonstrator: "Agent-Based Coordination Technologies in Disaster Management", people involved: Sarvapali D. Ramchurn, Alex Rogers, Kathryn Macarthur, Alessandro Farinelli, Perukrishnen Vytelingum, Ioannis Vetsikas, Nicholas. R. Jennings, demo at AAMAS 2008 for the Academic Software Demo track. Development of simulation framework for emergency scenarios based on the RoboCup Rescue simulator. The framework allows to compare different coordination algorithms for Multi-Agent Systems.
Nov. 06	co-organizer for the tutorial: Communication, Coordination, and Sensor Models in USARSim within the Rescue Robotic Camp. Organizers: Stephen Balakirsky, Stefano Carpin, Alessandro Farinelli. Development a coordinated exploration framework for Multi-Robot Systems. The framework allows a real robot to collaborate with a simulated robot in the UsarSim simulation environment.The framework was used by the students to develop the coordination strategy. The developed system has been demonstrated exploring an arena compliant with the NIST (National Institute of Standard and Technology) standards.
Jul. 06	Team Leader of the SPQR team participating to the Rescue Virtual League Bremen, Germany. The team realised a simulated multi-robot system for semi-autonomous and coordinated exploration of disaster areas. Team members: Daniele Calisi, Luigi Fanelli, Stefano LaCesa, Gian Diego Tipaldi, Marco Zaratti.
Nov. 05	co-organiser of the tutorial on Multi-Robot Systems within the Rescue Robotic Camp. Organisers Alessandro Farinelli, Alberto Ingenito. Development of a framework for coordinated exploration based on task assignment for a simulated multi-robot system. The framework allows to coordinate a set of robots that can navigate autonomously. The framework is based on the Player/Stage simulation environment and was used by the students to developed various task assignment strategies. The systems have been demonstrated in the final Camp demo.
2002–2006	Design and Development of the Robot Development tooKit (RDK) people involved: Giorgio Grisetti, Alessandro Farinelli, Luca Iocchi. Programming framework for mobile robots, used in various projects by the SIED lab.

2003	Developer for the Machinetta framework, principal designer: Paul Scerri. Machinetta is a generic coordination framework for intelligent agents. Machinetta was used in several projects and demonstrators.
Sep. 02	Develoment of a robotic simulator to evaluate task assignment in the soccer domain. The simulator was used in the tutorial practical sessions within the summer school on Cooperative Robotics, Lisbon.
Jul. 01	Development of the trajectory planning system for the SPQR Middle size robot team. The system was used in the RoboCup Soccer competition in Seattle Washington. Team Leader: Luca Iocchi.

Talks and Seminars

Tutorials

[T.1] Optimization in Multi Agent Systems OPTMAS tutorial, Internation Joint Conference on Artificial Intelligence, Barcelona, Spain, 2011.

Seminars

[S.1] Agent Coordination Using the Max-Sum Algorithm IIT, Genova, 2011.

[S.2] Decentralised Coordination Using the Max-Sum Algorithm University of Southern California, Los Angeles, CA, U.S., 2009.

[S.3] Decentralised Coordination of Low-Power Embedded Devices Using the Max-Sum Algorithm Southampton University, Science and Engineering of Natural Systems, Southampton, 2008.

[S.4] Distributed Coordination for Robotic Agents University of Birmingham, Artificial Intelligence and Natural Computation Seminar, Birmingham, 2008.

[S.5] Cooperative Behaviors Using Local Interactions Universitá La Sapienza di Roma, Dipartimento di Informatica e Sistemistica, Roma, 2007.

[S.6] Token Passing approach to Task Assignment Southampton University, Intelligence, Agents and Multimedia group, Agent seminars, Southampton, 2007.

[S.7] Design, Development and Evaluation of Coordinated Multi-Robot Systems Universitá Federico II, Dipartimento di Scienze Matematiche Fisiche e Naturali, Napoli, 2007.

[S.8] Tool per il coordinamento di sistemi multi-agente Selex Sistemi Integrati, Roma, 2007.

[S.9] Distributed Task Assignment for Real World Environment Daghstul Seminars, Multi-Robot Systems: Perception, Behaviors, Learning, and Action, Dagstuhl, N. 06251,19.06.-23.06.06, 2006.

Talks to conferences and workshops

[Talk.1] Bounded Approximate Decentralised Coordination using the Max-Sum Algorithm *Distributed Constraint Optimization Workshop co-located with IJCAI 2009* Santorini Pasadena, CA, U.S., 2009.

[Talk.2] Maximising Sensor Network Efficiency Through Agent-Based Coordination of Sense/Sleep Schedules *WEWSN 2008 Workshop on Energy in Wireless Sensor Networks* Santorini Island, Greece, June, 2008.

[Talk.3] Decentralised Coordination of Low-Power Embedded Devices Using the Max-Sum Algorithm. In *In Proc. of AAMAS 08*, Estoril, Portugal, 2008.

[Talk.4] Dealing with Perception Errors in Multi-Robot System Coordination *Joint Int. Conf. on Artificial Intelligence (IJCAI-07)*, Hyderabad, India, 2007.

[Talk.5] Conflict Resolution with Minimal Communication Bandwidth *IEEE Workshop on Distributed Intelligent Systems*, Prague, 2006.

[Talk.6] Autonomous navigation and exploration in a rescue environment. *IEEE International Workshop on Safety, Security and Rescue Robotics (SSRR)*, Kobe, Japan, June 2005.

[Talk.7] Low-overhead cooperative detection of false sensor readings. *AAMAS workshop: Challenges in the Coordination of Large Scale Multi-Agent Systems (LSMAS)*, Utrecht, The Netherlands, July 2005.

[Talk.8] Task assignment with Dynamic Perception and Constrained Tasks in a Multi-Robot System. *IEEE Int. Conf. on Robotics and Automation (ICRA)*, Barcelona, Spain, 2005.

[Talk.9] Token Approach for Role Allocation in Extreme Teams: analysis and experimental evaluation. *IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2004).*, Modena, 2004.

[Talk.10] Dynamic token generation for constrained tasks in a Multi-Robot System. *International Conference on Systems, Man and Cybernetics*, pp. 911–917, The Hague, The Netherlands, 2004.

[Talk.11] An Analysis of Coordination in Multi-Robot Systems. *IEEE Int. Conf. on Systems, Man and Cybernetics*, Washington D. C., (USA), 2003.

[Talk.12] Planning trajectories in dynamic environments using a gradient method. *International RoboCup Symposium*, Padova, Italy, 2003.

[Talk.13] Allocating and reallocating roles in very large scale teams. *First Int. Workshop on Synthetic Simulation and Robotics to Mitigate Earthquake Disaster*, Padua, Italy, July 2003.

[Talk.14] Planning trajectories in domestic dynamic environment. *First RoboCare Workshop*, Rome, Italy, 2003.

[Talk.15] Coordination in dynamic environments with constraint on resources. *IROS Workshop on Cooperative Robotics*, Lausanne, Switzerland, October 2002.

[Talk.16] Planning trajectories in dynamic environments using a gradient method. *AIIA Workshop on Robotics*, Milan, Italy, 2001.

Participation and Organization of Scientific Events

May 09	Co-organiser of the workshop OtpMAS09:Optimisation in Multi-Agent Systems co-located with the International Conference AAMAS2009
May 09	Co-organiser of the workshop ADAPT:Agent Design: Advancing from Theory to Practice co-located with the International Conference AAMAS2009
Feb. 08	Program Committee member for the workshop ATSN-08:Agent Technology for Sensor Networks co-located with the International Conference AAMAS2008
Feb. 08	Program Committee member for the workshop OPTMAS-08:Optimisation in Multi-Agent Systems co-located with the International Conference AAMAS2008
Aug. 07	Program Committee member for the International Conference on Autonomous Agents and Multi Agent Systems (AAMAS) 2008
Jan. 07	Program Committee member for the workshop Software development and integration in robotics: understanding robot software architectures, co-located with the International Conference on Robotics and Automations (ICRA) 2007
Aug. 06–Jul. 07	Member of the technical committee for the organization of the RoboCup Rescue, Virtual Robots competitions.
May 06	Program Committee member for the workshop Agent Technology for Disaster Management co-located with the International Conference AAMAS 2006
Sep. 02	PLANET Summer School on Artificial Intelligence and Planning

---

Reviewer Activity

International Journals Artificial Intelligence Journal; International Journal of Autonomous Agents and Multi-Agent Systems; IEEE transaction on System,

Man and Cybernetics (part A,C); International Journal on Multi-Sensor, Multi-Source Information Fusion; AI Communications; Expert Systems.

International Conferences International Conference on Intelligent Robots and Systems (IROS); International Conference on Robotics and Automation (ICRA); Autonomous Agent and Multi Agent Systems (AAMAS); International Joint Conference on artificial Intelligence
(IJCAI); National Conference on Artificial Intelligence (AAAI); European Conference on Artificial Intelligence (ECAI).

Teaching Activity

University Courses

2006–2007	Teacher for the university course Informatica, 1st year, laurea in Ingegneria della Sicurezza e Protezione, University or Rome "La Sapienza".
2005–2006	Teacher for the university course Informatica, 1st year, laurea in Ingegneria della Sicurezza e Protezione, University or Rome "La Sapienza".
2004–2005	Teacher for the university course Informatica, 1st year, laurea in Ingegneria della Sicurezza e Protezione, University or Rome "La Sapienza".

Master Theses

Co-advisor for several Master Theses in Ingegneria Informatica (Computer Science) on issues such as coordination, object tracking, multi-robot and multi-agent simulation environments:

2004–2005	Tracciamento di oggetti con sensori inaffidabili per piattaforme robotiche mobili by Roberta Pigliacampo.
2004–2005	Simulatore ad agenti per analisi di rischio di scenari incidentali in galleria by Nino Spagnuolo.
2004–2005	Simulazione 3D e applicazioni per robot mobili con UsarSim by Giuliano Polverari
2004–2005	Tecniche di percezione cooperativa in ambiente multi-robot by Alberto Ingenito.
2003–2004	Coordinamento tramite distribuzione dei compiti in un sistema multi-robot by Fabio Cottefoglie.

Other Experiences

2008	Co-author for teaching material in English used in the e-learning platform, EUCIP and EUCIP MAT procject, module C.3 (Communication and Network) e C.4 (Network Applications).
2006–2007	Teacher for EUCIP seminars modulo C (Operate)
2005–2006	Teacher for EUCIP seminars modulo C (Operate)
2004–2005	Co-author for teaching material used in the e-learning platform, EUCIP and EUCIP MAT procject, module C.3 (Communication and Network) e C.4 (Network Applications).
May 2003	Seminars on Multi-Agent system during the university course Rappresentazione della Conoscenza (Knowledge Representation)
Jan. 02–Mar. 02	Tutor for the university course Fondamenti di Informatica I

Publications

International Journal

[R.1] A. Rogers, A. Farinelli, R .Stranders, N. R. Jennings Bounded approximate decentralised coordination via the max-sum algorithm. *Artificial Intelligence*, 175(2):pp. 730-759 2011

[R.2] S. D. Ramchurn, A. Farinelli, K. S. Macarthur, N. R. Jennings Decentralized Coordination in RoboCup Rescue *Computer Journal* 53(9): 1447-1461 (2010)

[R.3] A. Farinelli, H. Fujii, N. Tomoyasu, M. Takahashi, A. D'Angelo, E. Pagello Cooperative control through objective achievement. *Robotics and Autonomous Systems* 58(7): 910-920 (2010)

[R.4] D. Calisi, A. Farinelli, L. Iocchi, D. Nardi. Multi-Objective Exploration and Search for Autonomous Rescue Robots *Journal of Field Robotics, special issue on Quantitative Performance Evaluation of Robotic and Intelligent Systems*, 24(8-9):pp. 763-777 ISSN:1556-4959 August-September 2007.

[R.5] A. Farinelli, L. Iocchi, D. Nardi, and V. A. Ziparo. Assignment of dynamically perceived tasks by token passing in multi-robot systems. *Proceedings of the IEEE, Special issue on Multi-Robot Systems*, 94(7) ISSN:0018-9219 July 2006.

[R.6] A. Farinelli, G. Grisetti, and L. Iocchi. Design and implementation of modular software for programming mobile robots. *Intenational Journal of Advanced Robotic Systems, special issue on Software Development and Integration in Robotics*, 3(1):pp. 37-42, ISSN 1729-8806, March 2006.

[R.7] A. Farinelli, L. Iocchi, D. Nardi, F. Patrizi, A Multi Agent System Approach for Emergency Intervention: Experimental Analisys and Evaluation. *Intelligenza Artificiale*, 2(1):pp. 47-53, 2005

[R.8] A. Farinelli, L. Iocchi, and D. Nardi. Multi robot systems: A classification focused on coordination. *IEEE Transactions on System Man and Cybernetics, part B*, 34(5):pp. 2015–2028, New York, (USA) ISSN:1083-4419 October 2004.

Chapters in books and collections

[L.1] A. Rogers, A. Farinelli, N. R. Jennings Self-organising Sensors for Wide Area Surveillance Using the Max-sum Algorithm. In *n: LNCS 6090 Lecture Notes in Computer Science. Self-Organizing Architectures*, pp. 84-100, Springer, 2010.

[L.2] A. Farinelli, L. Iocchi, D. Nardi. Monitoring Search and Rescue Operations in Large-Scale Disasters. In *Data Fusion for Situation Monitoring Incident Detection Alert and Response Management*. Shahbazian E., Ragova G., Valin P. editors. pp. 659-670. ISBN: 1-58603-536-3. Amsterdam: IOS Press (Netherland), 2005.

[L.3] A. Farinelli, L. Iocchi, D. Nardi, and F. Patrizi. Task assignment with dynamic token generation. In *Monitoring, Security, and Rescue Techniques in Multiagent Systems, 2004*. Dunin-Keplicz B., Jankowski A., Skowron, A., Szczuka M. editors.pp. 467–478. ISBN: 3-540-23245-1. Springer Berlin, Heidelberg, 2005.

PhD Theses

[T.1] A. Farinelli. *Distributed Task Assignment for Real World Environments*. PhD thesis, Università degli Studi di Roma "La Sapienza" Dipartimento di Informatica e Sistemistica "Antonio Ruberti", 2004.

International Conferences (with review and publication)

[C.1] N. Stefanovitch, A. Farinelli, A. Rogers, N. R. Jennings Resource-Aware Junction Trees for Efficient Multi-Agent Coordination. In *In: The Tenth International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2011)*, 2-6 May 2011, Taipei, Taiwan. pp. 363-370.

[C.2] M. Vinyals, J. Cerquides, A. Farinelli, J. A. Rodríguez-Aguilar. Worst-case bounds on the quality of max-product fixed-points. In *In Neural Information Processing Systems (NIPS)*, pp. 2325–2333. 2010 (spotlight presentation), MIT, 2-6 May 2011, Taipei, Taiwan. pp. 363-370.

[C.3] S. D. Ramchurn, M. Polukarov, A. Farinelli, K. S. Macarthur, N. R. Jennings Coalition Formation with Spatial and Temporal Constraints. In *International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2010)*, May 2010. pp. 1181-1188.

[C.4] A. Chapman, A. Farinelli, J. E. Munoz De Cote Flores Luna, A. Rogers and N. R. Jennings. A Distributed Algorithm for Optimising over Pure Strategy Nash Equilibria. In *In: Twenty-Fourth AAAI Conference on Artificial Intelligence*, 11 - 15 July, 2010 , Atlanta, Georgia, USA. pp. 749-755.

[C.5] R. Stranders, A. Farinelli, A. Rogers, N. R. Jennings Decentralised Coordination of Mobile Sensors Using the Max-Sum Algorithm. In *In Proc. 21st Int. Joint Conf on AI (IJCAI)*, Pasadena, USA.

[C.6] R. Stranders,A. Farinelli, A. Rogers, N. R. Jennings Decentralised Control of Continuously Valued Control Parameters using the Max-Sum Algorithm. In *In Proc. 8th International Conference on Autonomous Agents and Multiagent Systems*, 10-15 May, Budapest. pp. 601-608.

[C.7] A. Farinelli, A. Rogers, A. Petcu, N. R. Jennings Decentralised Coordination of Low-Power Embedded Devices Using the Max-Sum Algorithm. In *In Proc. of AAMAS 08*, Estoril, Portugal, pp 639–646, 2008.

[C.8] G. Settembre, P. Scerri, A. Farinelli, K. Sycara, D. Nardi. A Decentralized Approach to Cooperative Situation Assessment in Multi-Robot Systems. In *In Proc. of AAMAS 08*, Estoril, Portugal, pp 31–38, 2008.

[C.9] A. Farinelli, P. Scerri, A. Ingenito, D. Nardi. Dealing with Perception Errors in Multi-Robot System Coordination In *Proc. of the Joint Int. Conf. on Artificial Intelligence (IJCAI-07)*, Hyderabad, India, pp 2091–2096, 2007.

[C.10] A. Farinelli, A. Finzi, T. Lukasiewicz. Team Programming in Golog under Partial Observability In *Proc. of the Joint Int. Conf. on Artificial Intelligence (IJCAI-07)*, Hyderabad, India, pp 2097–2102, 2007.

[C.11] G. D. Tipaldi, A. Farinelli, L. Iocchi, D. Nardi. Heterogeneous Feature State Estimation with Rao-Blackwellized Particle Filters In *Proc. of IEEE International Conference on Robotics and Automation (ICRA)*, pp 3850–3855, Rome, Italy, ISBN 1-4244-0601-3, 2007.

[C.12] S. La Cesa, A. Farinelli, L. Iocchi, D. Nardi, M. Sbarigia, M. Zaratti. Semi-Autonomous Coordinated Exploration in Rescue Scenarios In *Proc. of Int. RoboCup Symposium 2007*, to appear Atlanta,GA 2007.

[C.13] L. Fanelli, A. Farinelli, L. Iocchi, D. Nardi, G. P. Settembre. Ontology-based Coalition Formation in Heterogeneous MRS In Proceedings of International Symposium on Practical Cognitive Agents and Robots, pp 105–116, Perth, Australia, 2007.

[C.14] A. Farinelli, L. Iocchi, D. Nardi. Conflict Resolution with Minimal Communication Bandwidth In *Proc. of IEEE Workshop on Distributed Intelligent Systems*, Prague. pp. 7–12, Los Alamitos California (USA), ISBN: 0-7695-2589-X 2006.

[C.15] A. Farinelli, L. Iocchi, D. Nardi, and V. A. Ziparo. Task assignment with Dynamic Perception and Constrained Tasks in a Multi-Robot System. In *Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA)*, pp. 1535–1540, Barcelona, Spain, ISBN:0-7803-8915-8 2005.

[C.16] P. Scerri, A. Farinelli, S. Okamoto, and M. Tambe. Allocating Tasks in Extreme Teams. In *In Proc. of AAMAS 05*, pp. 727–734, Utrecht, Netherland, ISBN: 1-59593-093-0 2005.

[C.17] D. Calisi, A. Farinelli, L. Iocchi, and D. Nardi. Autonomous Navigation and Exploration in a Rescue Environment. In *Proc. of 2nd European Conference on Mobile Robots*, pp. 110–115, Edizioni Simple s.r.l., Macerata, Italy, ISBN: 88-89177-187 2005.

[C.18] P. Scerri, A. Farinelli, S. Okamoto, and M. Tambe. Token Approach for Role Allocation in Extreme Teams: analysis and experimental evaluation. In *Proc. of 13th IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2004).*, pp. 397–402, Los Alamitos California (USA) ISBN: 0-7695-2183-5 2004.

[C.19] F. Cottefoglie, A. Farinelli, L. Iocchi, and D. Nardi. Dynamic token generation for constrained tasks in a Multi-Robot System. In *International Conference on Systems, Man and Cybernetics*, pp. 911–917, The Hague, The Netherlands, ISBN: 0-7803-8567-5 2004.

[C.20] P. Scerri, A. Farinelli, S. Okamoto, and M. Tambe. Allocating roles in extreme team. In *Proc. of AAMAS 2004*, pp. 1500–1501, New York, USA, 2004.

[C.21] A. Farinelli, G. Grisetti, and L. Iocchi. Spqr-rdk: a modular framework for programming mobile robots. In D. Nardi et al., editors, *Proc. of Int. RoboCup Symposium 2004*, pp. 653–660. ISBN: 3-540-25046-8 Springer Verlag Berlin, Heidelberg 2005.

[C.22] A. Farinelli, G. Grisetti, L. Iocchi, S. Lo Cascio, and D. Nardi. Design and Evaluation of Multi Agent Systems for Rescue Operations. In *Proc. of IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS'03)*, pp. 3138–3143, Las Vegas, Nevada, ISBN:0-7803-7861-X (USA) 2003.

[C.23] A. Farinelli, L. Iocchi, and D. Nardi. An Analysis of Coordination in Multi-Robot Systems. In *Proc. of IEEE Int. Conf. on Systems, Man and Cybernetics*, pp. 1487–1492, Wachington D. C., (USA), ISBN:0-7803-7953-5 2003.

[C.24] A. Farinelli and L. Iocchi. Planning trajectories in dynamic environments using a gradient method. In *Proc. of the International RoboCup Symposium 2003*, pp. 320–331. Springer Verlag Berlin, Heidelberg, 2004.

[C.25] A. Farinelli, G. Grisetti, L. Iocchi, S. Lo Cascio, and D. Nardi. Robocup rescue simulation: Methodologies, tools and evaluation for practical applications. In *Proc. of International RoboCup Symposium 2003*, Padua, Italy, pp. 645–652. Springer Verlag Berlin, Heidelberg, 2004.

[C.26] F. D'Agostino, A. Farinelli, G. Grisetti, L. Iocchi, and D. Nardi. Monitoring and Information Fusion for Search and Rescue Operations in Large-Scale Disasters. In *Proc. of IEEE International Conference Information Fusion*, pp. 672–679, AnnaPolis, Maryland, (USA), ISBN:0-9721844-0-6 July 2002.

International Workshop (with review and publication)

[W.1] K. Macarthur, M. Vinyals, A. Farinelli, S. Ramchurn, and N. R. Jennings. Decentralised Parallel Machine Scheduling for Multi-Agent Task Allocation. In *Fourth International Workshop on Optimisation in Multi-Agent Systems (OPTMAS 11)*, May 3, 2011, Taipei, Taiwan.

[W.2] K. Macarthur, A. Farinelli, S. Ramchurn, N. R. Jennings. Decentralised Optimisation for Dynamic Task Allocation Environments. In *Proc. of International Workshop on: Optimisation in Multi-Agent Systems (OptMas)* at the Ninth Joint Conference on Autonomous and Multi-Agent Systems, 10 May 2010, Toronto, Canada. pp. 25-32.

[W.3] A. Farinelli, A. Rogers, N. R. Jennings Decentralised Coordination of Low-Power Embedded Devices Using the Max-Sum Algorithm. In *In Proc. of IJCAI-09 Workshop on Distributed Constraint Reasoning (DCR)*, 13th July 2009, Pasadena, California, USA.

[W.4] A. Farinelli, A. Rogers, N. R. Jennings. Maximising Sensor Network Efficiency Through Agent-Based Coordination of Sense/Sleep Schedules In *WEWSN 2008 Workshop on Energy in Wireless Sensor Networks* to be held in conjuction with DCOSS 2008, to appear, Santorini Island, Greece, June 2008.

[W.5] V. A. Ziparo, A. Kleiner, L. Marchetti, A. Farinelli, D. Nardi. Cooperative Exploration for USAR Robots with Indirect Communication In *Proc. of 6th IFAC Symposium on Intelligent Autonomous Vehicles*, to appear, Toulouse, France, September 2007.

[W.6] A. Farinelli and P. Scerri. Low-overhead cooperative detection of false sensor readings. In *Proc. of AAMAS workshop: Challenges in the Coordination of Large Scale Multi-Agent Systems (LSMAS)*, pp. 11–16, Utrecht, July 2005.

[W.7] D. Calisi, A. Farinelli, L. Iocchi, and D. Nardi. Autonomous navigation and exploration in a rescue environment. In *Proc. of IEEE International Workshop on Safety, Security and Rescue Robotics (SSRR)*, Kobe, Japan, June 2005.

[W.8] S. Bahadori, D. Calisi, A. Censi, A. Farinelli, G. Grisetti, L. Iocchi, and D. Nardi. Intelligent systems for search and rescue. In *Proc. of IROS Workshop Urban search and rescue: from Robocup to real world applications*, 2004.

[W.9] A. Farinelli, P. Scerri, and M. Tambe. Building large-scale robot systems: Distributed role assignment in dynamic, uncertain domains. In *Representation and approaches for time-critical decentralized resources/role/task allocation (AAMAS WorkShop)*, 2003.

[W.10] A. Farinelli, G. Grisetti, L. Iocchi, and D. Nardi. Coordination in dynamic environments with constraint on resources. In *IROS Workshop on Cooperative Robotics*, Lausanne, Switzerland, October 2002.

[W.11] A. Farinelli, G. Grisetti, L. Iocchi, D. Nardi, and R. Rosati. Generation and execution of partially correct plans in dynamic environments. In *Proc. of 3rd Int. Cognitive Robotics Workshop (COGROB'02)*, Edmonton, Canada, 2002.

Presentations to Workshop (no review and no publication)

[P.1] S. Bahadori, D. Calisi, A. Censi, A. Farinelli, G. Grisetti, L. Iocchi, and D. Nardi. Autonomous search and rescue robots. *SAFE 2005*, 2005.

[P.2] S. Bahadori, A. Censi, A. Farinelli, G. Grisetti, L. Iocchi, D. Nardi, and G. D. Tipaldi. Particle based approaches for mobile robot navigation. *Second RoboCare Workshop*, Rome, Italy, 2005.

[P.3] A. Farinelli, L. Iocchi, D. Nardi and F. Patrizi. A Multi Agent System approach for emergency intervention: experimental analysis and evaluation *Workshop Agenti e Vincoli: Modelli e Tecnologie per Dominare la Complessità*, Perugia, 17 Sett. 2004.

[P.4] A. Farinelli, G. Grisetti, L. Iocchi, S. Lo Cascio, and D. Nardi. Using the robocup-rescue simulator in an italian earthquake scenario. *1st International Workshop on Synthetic Simulation and Robotics to Mitigate Earthquake Disaster*, 2003.

[P.5] A. Farinelli, P. Scerri, and M. Tambe. Allocating and reallocating roles in very large scale teams. *First Int. Workshop on Synthetic Simulation and Robotics to Mitigate Earthquake Disaster*, Padua, Italy, July 2003.

[P.6] A. Farinelli, L. Iocchi, and D. Nardi. Planning trajectories in domestic dynamic environment. *First RoboCare Workshop*, Rome, Italy, 2003.

[P.7] A. Farinelli, L. Iocchi, and D. Nardi. Planning trajectories in dynamic environments using a gradient method. *AIIA Workshop on Robotics*, Milan, Italy, 2001.

References

- Prof. Daniele Nardi, Full Professor at University of Rome La Sapienza", Faculty of Engineering, Department of Informatics and Systems. Contact: Dipartimento di Informatica e Sistemistica, Via Ariosto 25, I-00185 Roma, Italia. e-mail: nardi@dis.uniroma1.it telefono: +39-06-77274113.
- Prof. Milind Tambe, Professor at University of Southern California, Computer Science Department, Contact: Powell Hall of Engineering 208 3737 Watt Way Los Angeles, CA 90089-0781, e-mail: tambe@usc.edu telefono: +01-213-740-6447.
- Prof. Nick Jennings, Professor at Southampton University, School of Electronic and Computer Science, Contact: Building 32, Room 4009, Electronics and Computer Science, University of Southampton, Southampton SO17 1BJ, UK. e-mail: nrj@ecs.soton.ac.uk telefono: +44-023-8059-7681