

Curriculum Vitæ of

PAOLO FIORINI

Dipartimento di Informatica
Università degli Studi di Verona
Strada Le Grazie 15, Ca' Vignal 2
37134 Verona (ITALY)

Off: (+39) 045 802 7963
Cel: (+39) 328 530 4223
E-mail: paolo.fiorini@univr.it
<http://metropolis.scienze.univr.it>

1 Personal Information

Born in Verona (Italy) on February 1 1953, and living in Verona.

1.1 Languages

Fluent in Italian, English and French.

1.2 Education

(1995) Doctor of Philosophy in Mechanical Engineering, University of California, Los Angeles (1994), Dissertation title: *Robot Motion Planning among Moving Obstacles*. Thesis advisor Prof. Zvi Shiller.

(1982) Master of Science in Electrical Engineering, University of California, Irvine (1982), Thesis title: *Study of Manipulator Models and Controls*. Thesis advisor Prof. Allen Stubberud.

(1976) Laurea in Electronic Engineering, Università degli Studi di Padova (1976), Thesis title: *Cross Assembler for the microprocessor Intel 8080*. Thesis advisor Prof. Luigino Benetazzo.

(1971) Diploma of Maturità Scientifica (1971).

1.3 Employment

(2015) Consultant, Italian Institute of Technology (IIT), Genova (Italy).

(2011-present) Full Professor at the Department of Computer Science of the University of Verona.

(2001-2010) Associate Professor at the Department of Computer Science of the University of Verona.

(1985-2000) Member of Technical Staff at NASA Jet Propulsion Laboratory, California Institute of Technology, Pasadena (CA-USA);

(1982-1984) Control System Analyst at Parker-Hannifin Corp., Irvine (CA-USA);

(1981-1982) Software Analyst at Studio di Informatica, Milano (Italy);

(1977-1980) Microprocessor System Designer at Zeltron, Zanussi Research Center, Udine (Italy);

(1976-1977) Military service in mountain artillery, Udine (Italy).

1.4 Free Time Activities

Competitive sports (swimming, triathlon). I enjoy music and theatre performances.

2 Scientific Research

My main research interests are in the area of Robotics and Advanced Teleoperation. These areas include Service Robotics, specifically robots for surgery and search and rescue, networked robots, and haptics. Systems that I designed have found applications in surgery, medical automation, space exploration, logistics and rehabilitation. I have developed algorithms for robot motion planning, studied robotic cognition applied to surgery, and published more than 200 papers in journals and refereed conferences.

2.1 Main Research Projects

- (2016–2020) Italian coordinator of the European Project MURAB *MRI and Ultrasound Robotic Assisted Biopsy* (H2020), 491,875 €.
- (2011–2012) Italian coordinator of the Echord experiment EduFill *Filling the gap in European Robotic Education* (FP7), 162,900 €.
- (2011–2012) Coordinator of the European Coordination Action EuRoSurge *European Robotic Surgery* (FP7), 900,000 €.
- (2011–2014) Coordinator of the European Project ISUR *Intelligent Surgical Robotics* (FP7), 2,980,389 €.
- (2010–2013) Coordinator of the European Project SAFROS *Safety in Robotic Surgery* (FP7), 4,990,389 €.
- (2008–2011) Italian coordinator of the European Project FILOSE *Robotic Fish Locomotion and Sensing* (FP7), 336,480 €.
- (2008–2011) Participant to the European Project C4C *Control for Coordination* (FP7), 356,000 €, (in cooperation with other two teams in the Department).
- (2007) <http://roboticscourseware.org> an Internet repository of open-access robotics lectures, funded by IEEE Robotics and Automation Society, 25.000 US \$
- (2006–2009) Italian coordinator of the European Project ROSTA *The development of Robotic Standards* (FP6), 130.000 €.
- (2006–2009) Italian coordinator of the European Project ACCUROBAS *The Accurate Robotic Assistant* (FP6), 730.000 €.
- (2006–2009) Italian coordinator of the European Project XPERO *Learning by Experimentation* (FP6), 370.000 €.
- (2005) *Robotic surgery*, Foundation Giorgio Zanotto, 33.000 €.
- (2005) *Modelling and visual/haptic rendering of deformable objects*, Research Project of National Interest (PRIN) of the Italian Ministry of University, 40.000 €.
- (2005–2007) AIDA *Haptic control of multiple contacts*, Italian Ministry of University, PRIN Project , 36.000 €.
- (2003–2005) *Hopping robots for planetary exploration*, funded by the European Space Agency, 10.000 €.
- (2002–2004) MATRICS *control of robotic teams* , Italian Ministry of University, PRIN Project , 28.000 €.
- (2002–2005) TIGER *Laboratory experiments for robotic education*, Basic research investment fund (FIRB) of the Italian Ministry of University, 87.370 €.
- (2002–2003) HEAD *Teleoperation of an anthropomorphic head*, Italian Space Agency, 38.000 €.
- (2002) SUPER *Analysis of the Italian Mars Rover*, Italian Space Agency, 32.000 €.
- (2002) *Robotic surgery*, Foundation Giorgio Zanotto, 28.000 €.
- (2002) *Interfaces for Telemanipulation*, National Institute of New Energy (ENEA) at Casaccia, 25.000 €.
- (2001–2004) Italian coordinator of the European Project MEDICATE *The control and delivery of solid medications at home*, (FP5) 325.000 €.
- (2000–2003) *Time delay compensation for space teleoperation*, ENEA at Casaccia, 39.000 €.

2.2 International Collaboration

- (2014) Exchange program between University of Verona and Universidad Nacional de San Juan (San Juan, Argentina).
- (2013) Exchange program between University of Verona and SKK University (Seoul, Korea).
- (2013) Exchange program between University of Verona and Tohoku University (Sendai, Japan).
- (2005-2007) Scientific Collaboration Program Italy-India, Italian Ministry of Foreign Affairs, University of Verona and India Institute of Technology, Kampur.
- (2005-2007) Scientific Collaboration Program Italy-India, Italian Ministry of Foreign Affairs, University of Verona and India Institute of Technology, New Delhi.
- (2004-2005) Scientific Collaboration Program Italy-Argentina, Italian Ministry of Foreign Affairs, University of Verona and Universidad Nacional de San Juan.
- (1999-2000) Collaboration Program Italy-Argentina, Italian Ministry of Foreign Affairs, University of Verona and Universidad Nacional de San Juan.

2.3 Honors and Awards

- (2013) Finalist at the Entrepreneurship Workshop of the European Robotics Forum, Lyon (France).
- (2011) Antonio D'Auria Prize, for robotic application towards disabled and elderly users.
- (2011) 3rd prize euRobotics Technology Transfer Award, Vasteras (Sweden).
- (2009) IEEE Fellow
- (2008) Group Award for Excellence in Physical Sciences and Mathematics, for Springer Handbook in Robotics, by the Association of American Publishers
- (2006) Most Active Chapter. (Italian Chapter). IEEE Robotics and Automation Society
- (2003) Most Active Technical Committee. (Service Robotics). IEEE Robotics and Automation Society
- (2000) Finalist for *Best Conference Paper* at ICRA2000 conference
- (1993) Finalist for *Best Student Paper* at the ICRA1993 conference
- (1991) NASA Group Achievement Award, for *Outstanding achievements in advancing the state-of-art in telerobotic technology*
- (1990-2003) *13 NASA Technical Awards*: Hopping Robot With Wheels (2003), Minimally Actuated Hopping Robot, (2002), Teleoperation of NASA Robonaut (2001), Multi-modal Operator Interface for Personal Robots (1998), A PC Based Controller for Dextrous Arms (1996), Optimal Trajectory Planning in Dynamic Environments (1996), Motion Planning in Dynamic Environments, using the Velocity Obstacle Paradigm (1995), Real Time Classification of Teleoperation Data with a Neural Network (1994), A Procedure for the Frequency Analysis of Telerobotic Task Data (1994), Teleoperated Repair in Space: a System for Baseline Testing (1992), More About Architecture for Intelligent Robotic Control (1992), Architecture for Intelligent Control of Robotic tasks (1991), Telerobotics/EVA Joint Analysis System (1990).

3 Academic Duties

The philosophy that has always inspired my academic activities can be summarized by the following two quotes:

Confucius *Tell me and I'll forget; show me and I may remember; involve me and I'll understand* (551-479 b.C.)

Benjamin Franklin *Tell me and I forget. Teach me and I remember. Involve me and I learn* (1706-1790 a.C.)

This approach well matches the possibilities offered by Robotics as a specific subject and/or as a teaching tool for other subjects. In fact, all the graduate courses I taught included a significant laboratory part, either in the form of a final project or of homework assignments. My undergraduate course is complemented by a laboratory for experimental understanding of the theoretical concepts, i.e. the *physical* implementation of mathematical operations and algorithms, has a profound impact on the students' understanding of the subject, much more than using computer simulation.

3.1 Teaching

Undergraduate Courses :

1. *Systems and Signals*: basic aspects of linear system analysis and signal processing. Offered to the degrees in Bioinformatics and Informatics.

Graduate Courses :

1. *Robotics*: basic concepts of robotics including haptics, man-machine interfaces and service/surgical robotics.
2. *Linear System Theory*: State space modelling and analysis of linear, time-invariant systems

3.2 Administrative Activities

2013-present University Coordinator of Innovation and Technology Transfer activities.

2013-present Department Coordinator of the Doctoral Program in Computer Science.

2007-2010 University Coordinator of Information Technology projects.

2001-2012 Coordinator for International Programs (Erasmus/Socrates) of the Faculty of Mathematical, Physical and Natural Sciences .

2001-2003 Member of the Administrative Board of the Computer Science Department.

3.3 Laboratory Development

2001-present Established the robotics laboratory *ALTAIR - A Laboratory for Teleoperation and Autonomous Intelligent Robots*, to carry out research in non-conventional robotic areas, such as surgery, exploration, service and rehabilitation robotics. The laboratory has been funded by European as well as National research grants and employs between 10 and 30 people, depending on the number of active projects.

3.4 Student Supervision

Master's Thesis :

- 53 students since 1999.

Doctoral Thesis :

University of Verona :

- André Augusto Geraldés, on going.
- Pierre-Jean Alès-Roux, on going.

- Davide Costanzi, on going.
- Fabrizio Boriero, on going.
- Michela de Piccoli, on going.
- Francesco Visentin, on going.
- Bogdan Maris: *Registration of Medical Images in the Operating Room with Applications to Minimally Invasive Procedures*, PhD awarded in May 2014.
- Andrea Calanca: *Compliant Control of Elastic Actuators for Physical Human Robot Interaction*, PhD awarded in May 2014.
- Diego dall'Alba: *Navigation for percutaneous surgical interventions: echographic data processing, feature extraction and 3D organ reconstruction*, PhD Awarded in May 2014.
- Stefano Galvan: *Perception-motivated parallel algorithms for haptics*, May 2010.
- Davide Zerbato: *Frictional Contact in Interactive Deformable Environments*, May 2010.
- Debora Botturi: *Autonomous Execution of Telerobotic Tasks*, April 2005.

University of Karlsruhe (Germany) :

- Jessica Burgner: *Robot Assisted Laser Osteotomy*, January 2010.

Universidad Nacional de San Juan (Argentina) :

- Marcos Toibero: *Control Híbrido de Robots Móviles*, May 2007.
- Emanuel Slawiński: *Teleoperacion de Robots con Retardo de tiempo*, May 2006.
- José Postigo: *Teleoperacion de Manipuladores Roboticos con Referencias de Fuerza y Posicion*, at the Universidad Nacional de San Juan (Argentina), November 1998.

Doctoral Thesis Committees :

- 2015** King's College (London, UK), Jelizaveta Konstantinova: *Tactile probing strategies for soft tissue examination*
- 2013** University Federico II of Naples: Informatics and Control Systems (XXV cycle). King's College (London, UK), Ali Ashgar Ataollahi: *Magnetic Resonance Compatible Cardiac Catheterization Robot*
- 2010** EPFL Lausanne (Switzerland): Evren Samur: *Systematic Evaluation Methodology and Performance Metrics for Haptic Interfaces*. ETH Zurich (Switzerland): Fabien Tâche: *A robot for pipe inspection*.
- 2009** University of Genova - IIT Genova: various branches of engineering related to robotics.
- 2007** Université d'Orléans, Bourges (France): Tahar Slama, *Contribution à la commande prédictive basée sur un modèle pour les systèmes de télé-opération bilatérale*. KTH Stockholm (Sweden): Carl Lundberg, *Assessment and evaluation of robots for dismantled high risk professions in urban settings*.
- 2006** University of Calabria, Cosenza (Italy): Michela Sorbara, *Time Delay Compensation in Teleoperation*.
- 2005** Polytechnic of Torino: David Prieto, *Robust drag free and attitude control for a low Earth orbiter*; Ahmad Zuheir, *Fast model predictive control implemented using set membership function approximation*. EPFL Lausanne (Switzerland): Pierre Lamon, *3D Position Tracking for All-Terrain Robots*.

3.5 Supervision of Post-Doctoral Fellows and Visitors

1989-present : more than 20 visitors and Post-Doctoral Fellows have spent an extended period of time in my laboratory (either at JPL or at the University of Verona) addressing research topics in the areas of service robotics and teleoperation.

3.6 Other Academic Teaching Activities

Distinguished Visiting Professor the Graduate School of Biological Sciences, Beckman Research Institute, City of Hope Hospital (Duarte, CA-USA), September 2014.

Organization of Doctoral Schools : Social Robotics (University of Iasi (Romania), 07/2010), IEEE-RAS/IFR School on Robotics Learning (Lazise (Italy), 09/2007), Surgical Robotics (Verona, (Italy) 07/2014).

Lectures at Doctoral Schools : University of Bologna (Italy) (02/2010), University of Iasi (Romania) (7/2009), University of Verona (9/2008, 2002-2004), Bertinoro (Italy) (2002-2004), University of Montpellier (France) (2013).

Adjunct Professor University of Verona (1998-2000, and University of Padova (1993).

Visiting Professor Universidad Nacional de San Juan in Argentina(1995).

Teaching Assistant University of California, Irvine (1981-1982).

4 Applied Research and Entrepreneurship

4.1 Founded Companies

2009 Surgica Robotica SpA, for the development of a new type of surgical robot. The company was able to raise 3.5 Mil € of Venture Capital, developed and achieved the CE mark of the robot in three years.

2009 AltairMed Srl, a spin-off of the University of Verona for the commercialisation of the technologies developed in my laboratory.

2000 TechTrans Srl, to identify and transfer relevant academic research results to industrial companies.

4.2 Main Contracts

(2010) *Simulation of Spent Fuel Removal System*, Ispra Joint Research Center of the EU, 14,000 €.

(2008–2010) *Rehabilitation and motion analysis* of children with cerebral paralysis, Opera Don Calabria and Foundation CariVerona, 210,000 €.

(2008–2010) *MOSAICO Support to independent living of head trauma patients*, Opera Don Calabria and Foundation CariVerona, 120.000 €.

(2007) *Analysis and design of object-based process control procedures*, Tecnica Elettronica, 20.000 €.

(2006) *Analysis of object-based software for databases*, Tecnica Elettronica, 20.000 €.

(2005) *Analysis of software for batch processes*, Tecnica Elettronica, 20.000 €.

(2004) *Robotic orthosis*, FGP, 10.000 €.

(2003–2004) *Robot for light Logistics*, GlaxoSmithKline, 120.000 €.

(2000) *Internet access to laboratory experiments*, Museo Civico di Rovereto, 6.000 €.

4.3 Administrative Duties

2011-2014 Italian member of the joint working group of ISO-IEC for the standardisation of medical equipment using robots.

2011-2013 Member of the Board of Directors of Surgica Robotica SpA.

2009-2014 President of AltairMed Srl.

5 Service Activities

5.1 Evaluation of Academic Career

2015 Reader at King's College (London, UK)

2014 Research Professor at Carnegie Mellon University (Pittsburgh PA, USA).

2013 Tenured Professor at Worcester Polytechnic Institute (Worcester MA, USA).

2011 Associate Research Scientist in the Institute for Systems Research at the University of Maryland at College Park (USA).

2007 Associate Professorship at Georgia Tech, Lorraine Campus, (France).

2007 Full professorship (step VI) at UC Berkeley (San Francisco, USA).

2005 Full professorship at the Naval Postgraduate School (Monterey, CA).

2004 Full professorship at the Indian Institute of Science, Bangalore (India).

5.2 Evaluation of Canadian, European, Kazakhstan, Czech, and Italian research proposals

2015 Czech Science Foundation.

2014 Università Campus Biomedico Roma (Italy)

2014 National Center of Science and Technology Evaluation of Kazakhstan.

2007-2011 FP7 SPACE 2011.

2010 Call 1 FP7 Project ECHORD.

2007-2009 Progetto MuFly, coordinated by ETH Zurich (Switzerland).

2009 Province of British Columbia, Natural Resources and Applied Sciences (NRAS) Endowment, Research Team Program.

2009 FP7-ICT-2009-4/CP-FP-INFISO.

2005-2009 Evaluated three proposals and two projects for the Italian Ministry of Productive Activities (MAP),.

2005 FP6 IST-5 call 2.5.2 Micro/Nano Based Sub-Systems.

5.3 Editorial Activity

Guest Editor : Journal of Medical Robotics Research, 2016. Journal of Applied Bionics and Biomechanics: Special issue on Surgical Robotics, July 2010. Transaction on Automation Science and Engineering: Special issue on Home Automation, Vol. 5, N. 1, Jan. 2008. Autonomous Robot Journal: Special Issue on Cleaning and Housekeeping Robots - Technologies and Applications, Vol 9, N. 3, Dec. 2000. Autonomous Robot Journal: Special Issue on Unusual Mobility Systems, Volume 18, Number 2, March 2005.

Associate Editor : (2012-present) BJUI Editorial Board Member, (2006-present) Journal of Intelligent Service Robots, (2005-present) Autonomous Robot Journal, (2004-2008) IEEE Transaction of Automation Science and Engineering, (1995-1998) IEEE Robotics and Automation Society Magazine.

5.4 European Robotics Network, EURON

2008-2010 Elected to the Board of Directors of the European Robotics Network (EURON)

5.5 IEEE Robotics and Automation Society (RAS)

2015- Member of the Ethics Committee.

2014- Associate Vice President of Conference Activity Board.

2014- Co-Chair of the Education Committee.

2010-2012 Associate Vice President of Member Activity Board

2004-2010 Chair of the Education Committee.

2000-2003, 2003-2006 Elected for two consecutive terms to the Board of Directors.

2005 Founder and first President of the Italian Chapter of the IEEE Robotics and Automation Society.

2003-2010 Chair of RAS Technical Committee on *Service Robotics*

2005-2007 Chair of RAS Technical Committee on *Search Safety and Rescue Robotics*

5.6 Organization of Scientific Festivals

InfinitaMente : (2009) Organizer and speaker, Verona (Italy).

Discovery on Film (2001 - present) Organizer, scientific consultant and speaker, Science Museum of Rovereto, Rovereto (Italy).

5.7 Organization of Robotics Conferences

European Robotics Forum 2014 (ERF2014) : Local host and organiser.

IEEE International Conference on Robotics and Automation (ICRA) : Program Co-Chair 2013, Karlsruhe (Germany). Associate Editor 2012, 2011. Member of the Organizing Committee and Financial Chair, 2007, Roma (Italia). Poster Chair, 2006 Orlando (FL USA).

IEEE International Conference on Intelligent Robots and Systems (IROS) : Editor 2012 Vilamoura (Portugal).

International Conference on Applied Bionics and Biomechanisms Program Co-Chair, 2010, Venice (Italy).

IREF International Conference on Social Robotics : Program Co-Chair 2009, Seoul, (Korea).

International Conference on Advanced Robotics (ICAR) : Chair of the Steering Committee and Member of the Organizing Committee: 2017 Hong Kong (China), 2015 Istanbul (Turkey) 2013 Montevideo (Uruguay), 2011, Tallinn (Estonia). Program Chair 2009, Munich (Germany), Program Co-Chair, 2005, Seattle (USA). Member of the Organizing Committee 1997, Monterey (USA).

IEEE International Conference on Biology and Robotics (BIOROB) : Financial Chair 2006, Pisa (Italy).

IEEE International conference on Search, Safety and Rescue Robots : Member of the Organizing Committee and Program Chair, 2004, Bonn (Germany).

RoboCup : Member of the Organizing Committee 2003, Padova, (Italy).

5.8 Membership in Program Committees

IEEE International Conference on Robotics and Automation (ICRA) : 2011, Shanghai (China), 2010 Anchorage (USA), 2009 Kobe (Japan), 2008 Pasadena (USA), 2007 Roma (Italia), 2006 Orlando (USA), 2005 Barcelona (Spain), 2004 New Orleans (USA), 2003 Taipei (Taiwan), 2002 Washington DC (USA), 2001 Seoul (Corea), 2000 San Francisco CA (USA).

IEEE International Conference on Intelligent Robots and Systems (IROS) : 2011, San Francisco (USA), 2009 St. Louis (USA), 2008 Nice (France), 2007 San Diego (USA), 2006 Beijing (China), 2005 Edmonton (Canada), 2003 Las Vegas (USA), 2002 Lausanne (Svizzera), 2001 Maui (USA),

IEEE Conference on Automation Science and Engineering (CASE) : 2008 Washington D.C. (USA), 2007 Phoenix. (USA), 2006 Hong Kong (China),

IREF International Conference on Social Robotics : 2009, Seoul (Korea).

International Conference on Advanced Robots (ICAR) : 2003 Coimbra (Portugal), 2001 Budapest (Hungary),

5.9 Pro-Bono Teaching Activities

High School:

1. Robotic classes and laboratories, using the LEGO Mindstorm to teach the basics of kinematics of fixed and mobile robots, within the framework of the *Tandem* program for University and High School cooperation.
2. Robotic science and technology short courses (8 hours) to teachers, to introduce the use of robotic devices in the school curricula.
3. Lectures at training courses for High Schools teachers, on science education and robotics. (High School Rainerum, Bolzano, Italy)
4. Lectures and seminars to students on space and service robotics.

Middle and Elementary Schools

1. Short courses for teachers to introduce the use of LEGO NXT and jointly develop lectures for the students, called *Tandem Jr.*
2. Seminars to pupils on space exploration and robotic systems.

Adult Education

1. Lectures to technical high school teachers to provide basic competence in robotics.
2. Lectures to the students of the Adult Education course in Robotics, within the framework of the Educational District of Robotics in the Verona province.

5.10 Pro-Bono Lectures, Seminars and Interviews

1997-present More than 100 public speaking engagements, newspaper and news interviews on scientific topics, with particular emphasis on space, surgery and service robotics.

6 Publications

6.1 Journal Publications

- [A51] Mathias Hoeckelmann, Imre J. Rudas, Paolo Fiorini, Frank Kirchner and Tamas Haidegger, *Current Capabilities and Development Potential in Surgical Robotics*, Int J Adv Robot Syst, 2015, 12:61 — doi: 10.5772/60133
- [A50] Riccardo Muradore, Paolo Fiorini, Gokhan Akgun, Duygun Erol Barkana, Marcello Bonfe, Fabrizio Boriello, Andrea Caprara, Giacomo De Rossi, Riccardo Dodi, Ole Jakob Elle, Federica Ferraguti, Lorenza Gasperotti, Roger Gassert, Kim Mathiassen, Dilla Handini, Olivier Lambercy, Lin Li, Maarja Kruusmaa, Auralius Oberman Manurung, Giovanni Meruzzi, Ho Quoc Phuong Nguyen, Nicola Preda, Gianluca Riolfo, Asko Ristolainen, Alberto Sanna, Cristian Secchi, Marco Torsello and Asm Evren Yantac, *Development of a Cognitive Robotic System for Simple Surgical Tasks*, Int J Adv Robot Syst, 2015, 12:37, doi: 10.5772/60137
- [A49] Federica Ferraguti, Nicola Preda, Auralius Manurung, Marcello Bonf, Olivier Lambercy, Roger Gassert, Riccardo Muradore, Paolo Fiorini, Cristian Secchi, *An Energy Tank-Based Interactive Control Architecture for Autonomous and Teleoperated Robotic Surgery*, accepted for publication in the IEEE Transaction of Robotics.
- [A48] Kim Mathiassen, Diego DallAlba, Riccardo Muradore, Paolo Fiorini, and Ole Jakob Elle, *Robust Real-Time Needle Tracking in 2D Ultrasound Images*, submitted to the IEEE Transactions on Medical Imaging.
- [A47] Dall'Alba, D. and Fiorini, P., *BIPCO: ultrasound feature points based on phase congruency detector and binary pattern descriptor*, Int J CARS DOI 10.1007/s11548-015-1204-3, published on line May 1st, 2015.
- [A46] Vezzano, L., Zerbato, D. and Fiorini, P., *Interactive Constrained Dynamics for Rigid and Deformable Objects*, Computer Animation and Virtual Worlds, Article first published online: 5 JUN 2015 — DOI: 10.1002/cav.1667
- [A45] L. D. Chambers, O. Akanyeti, R. Venturelli, J. Jerov, J. Brown, M. Kruusmaa, P. Fiorini, W. M. Megill, *A fish perspective: Detecting flow features while moving using an artificial lateral line in steady and unsteady flow*, Journal of the Royal Society Interface, doi: 10.1098/rsif.2014.0467
- [A44] Calanca, A. Capisani, L. and Fiorini, P., *Robust Force Control of Series Elastic Actuators*, Actuators 2014, 3(3), 182-204; doi:10.3390/act3030182, 9 July 2014
- [A43] Maris, B. and Fiorini, P., *Generalized Shapes and Point Sets Correspondence and Registration*, J Math Imaging Vis, Accepted for publication, DOI: 10.1007/s10851-014-0538-8
- [A42] Repele, L., Muradore, R., Quaglia, D., Fiorini, P., *Improving Performance of Networked Control Systems by Using Adaptive Buffering*, IEEE Transactions on Industrial Electronics. Vol. 61, N. 9, September 2014, pp. 4847-4856.
- [A41] Maarja Kruusmaa, Paolo Fiorini, William Megill, Massimo de Vittorio, *FILOSE: a svenning* robot*. IEEE Robotics and Automation Magazine, September 2014, Year: 2014, Volume: 21, Issue: 3 Pages: 51 - 62, DOI: 10.1109/MRA.2014.2322287
- [A40] Andrea Calanca, Riccardo Muradore and Paolo Fiorini. *Adaptive Human-Robot Interaction Control*. Robotica, vol. 2, no. 08, pp. 13011316, 2014.
- [A39] O. Akanyeti, L. D. Chambers, J. Jezov, J. Brown, R. Venturelli, M. Kruusmaa, W. M. Megill, P. Fiorini *Self-motion effects on hydrodynamic pressure sensing. Part I: forward backward motion*, Bioinsp. Biomim. (accepted for publication)
- [A38] Smania, N and Gandolfi, M and Marconi, V and Calanca, Andrea and Geroin, C and Piazza, S and Bonetti, P and Fiorini, Paolo and Cosentino, A and Capelli, C and Conte, D and Bendinelli, M and Munari, D and Ianes, P and Fiaschi, A and Picelli, A *Applicability of a new robotic walking aid in a patient with cerebral palsy*, European Journal of Physical and Rehabilitation Medicine, Vol. 48, N.1, pp. 47-53, 2012.

- [A37] A. Calanca, S. Piazza, P. Fiorini. *A motor learning oriented, compliant and mobile Gait Orthosis*. Journal of Applied Bionics and Biomechanics, IOS Press ISSN 1176-2322 (Print), 1754-2103 (Online), Vol. 9, N. 1, pp. 15-27, 01/18/2012.
- [A36] R. Venturelli, O. Akanyeti, F. Visentin, J. Jesov, L. Chambers, G. Toming, J. Brown, M. Kruusmaa, W. M. Megill and P. Fiorini *Hydrodynamic pressure sensing with an artificial lateral line in steady and unsteady flows*, Bioinspiration and Biomimetics, Vol 7, N. 3, (2012) 036004, doi:10.1088/1748-3182/7/3/036004.
- [A35] Quaglia D., Muradore R., Bragantini R., Fiorini P., *SystemC/Matlab co-simulation tool for networked control systems*, Simulation Modelling Practice and Theory, vol. 23, pp.71-86, 2012.
- [A34] Michele Scandola, Lorenzo Grespan, Marco Vicentini, Paolo Fiorini, *Robot-Assisted Laparoscopic Hysterectomy vs Traditional Laparoscopic Hysterectomy: Five Metaanalyses*, The Journal of Minimally Invasive Gynecology, Volume 18, Issue 6 , Pages 705-715, November 2011
- [A33] Emanuel Slawiński, Vicente A. Mut, Paolo Fiorini, and Lucio R. Salinas, *Quantitative Absolute Transparency for Bilateral Teleoperation of Mobile Robots*, IEEE Transactions on Systems, Man, and CyberneticsPart A: Systems and Humans, to appear.
- [A32] Riccardo Muradore, Davide Bresolin, Luca Geretti, Paolo Fiorini and Tiziano Villa, *Formal Verification of Plans for Robotic Surgery*, IEEE Robotics and Automation Magazine, September 2011
- [A31] Riccardo Muradore and Paolo Fiorini, *A PLS-Based Statistical Approach for Fault Detection and Isolation of Robotic Manipulators*, Industrial Electronics, IEEE Transactions on , vol.59, no.8, pp.3167-3175, Aug. 2012, doi: 10.1109/TIE.2011.2167110
- [A30] O. Akanyeti, R. Venturelli, F. Visentin, L. Chambers, W. M. Megill and P. Fiorini *What information do Kármán streets offer to flow sensing?*, Bioinsp. Biomim. Vol 6, N. 3 (2011) 036001 (12pp), doi: 10.1088/1748-3182/6/3/036001
- [A29] R. Konietschke, D. Zerbato, R. Richa, A. Tobergte, P. Poignet, F. Froehlich, D. Botturi, P. Fiorini, and G. Hirzinger *Integration of New Features for Telerobotic Surgery into the MiroSurge System*. Journal of Applied Bionics and Biomechanics Vol. 8, No. 2, 116, 2011.
- [A28] J.M. Toibero, F. Roberti, R. Carelli, P. Fiorini *Switching control approach for stable navigation of mobile robots in unknown environments*. Journal of Robotics and Computer-Integrated Manufacturing, 27 (2011) 558568.
- [A27] M. Vicentini, S. Galvan, D. Botturi, P. Fiorini. *Evaluation of force and torque magnitude discrimination thresholds on the human hand-arm system*. ACM Transactions on Applied Perception, Vol. 8, N. 1, October 2010.
- [A26] D. Zerbato, Dv. Baschiroto, Dn. Baschiroto, D. Botturi, P. Fiorini. *GPU Based Physical Cut in Interactive Haptic Simulations*. International Journal of Computer Assisted Radiology and Surgery, ISSN 1861-6410, pp 1-8, 2010, url = <http://dx.doi.org/10.1007/s11548-010-0505-9>, June 2010.
- [A25] P. Fiorini, D. Botturi, *Introducing Service Robotics to the Pharmaceutical Industry*. International Journal of Intelligent Service Robotics, ISSN 1861-2776 , Vol. 1 N.4, October 2008, pp. 267-280
- [A24] C.D. Nugent, D.D. Finlay, P. Fiorini, E. Prassler, Y. Tsumaki, *Editorial: Home Automation as a Means of Independent Living*. IEEE Transactions on Automation Science and Engineering, Vol. 5, no. 1, pp. 1-9, ISSN 1545-5955, January 2008.
- [A23] P. Fiorini, A. Castellani *On line perspiration: the laboratory experience via Web*. IEEE Learning Technologies NewsLetter, Vol. 7, N. 3, July 2005, pp. 16-19, ISSN 1438-0625.
- [A22] C.D. Nugent, P. Fiorini, D.D. Finlay, R.J. Davies, M.D. Mulvenna, N.D. Black, *From compliance to context: Advancing assistive technology capabilities for medication management*. International Journal of Human-friendly Welfare Robotic Systems, Vol. 6, no. 4, pp. 21-28, ISSN 1598-3250, 2005.

- [A21] G. Fracastoro, G. Borzellino, A. Castelli, P. Fiorini, *La robotica in chirurgia generale: esperienze personali, analisi critica e prospettive*. Chirurgia Italiana 2005, Vol. 37, N. 6, pp. 687-693.
- [A20] P. Fiorini and C. Cosma and M. Confente *Localization and Sensing for Hopping Robots*. Autonomous Robots 2005. Springer Science+Business Media B.V., The Netherlands. ISSN: 0929-5593 (Paper) 1573-7527 (Online) DOI: 10.1007/s10514-005-0725-y, Issue: Volume 18, Number 2, March 2005, Pages: 185 - 200.
- [A19] P. Fiorini and J. Burdick *The Development of Hopping Capabilities for Small Robots*. Autonomous Robots 2003. Kluwer Academic Publishers, The Netherlands. Volume 14, Number 2 - 3, page: 239 - 254, March 2003.
- [A18] J. Burdick and P. Fiorini *Minimalist Jumping Robots for Celestial Exploration*. The International Journal of Robotics Research, Vol. 22, Number 7-8, pp. 653-674, August 2003. Sage Publishers.
- [A17] P. Fiorini, D. Botturi, J. Luprano, G. Kotrotsios *A new approach to medical compliance at home: The medicate project part I - The home unit*. Technology and Health Care, Vol. 10 N. 6, December 2002, pp. 491-492. ISBN: 0928-7329
- [A16] E. Prassler, J. Scholz and P. Fiorini *MAid: A Robotic Wheelchair in Crowded Public Environments*. IEEE Robotics and Automation Magazine, IEEE Press, 7(1) March 2001.
- [A15] E. Prassler, A. Ritter, C. Shaeffer and P. Fiorini *A Short History of Cleaning Robots*. Autonomous Robots, Vol. 9, N. 3, pp. 211-226, Dec. 2000. Kluwer Academic Publishers, The Netherlands.
- [A14] P. Fiorini and E. Prassler *Cleaning and Household Robots: A Technology Survey*. Autonomous Robots, Vol. 9, N. 3, pp. 227-235, December 2000. Kluwer Academic Publishers, The Netherlands.
- [A13] C. Casadei, S. Martelli and P. Fiorini, *A Workcell for the Development of Robot-Assisted Surgical Procedures*, The Journal of Intelligent and Robotic Systems, Vol. 28, N. 4, pp. 301-324, 2000. Kluwer Academic Publishers, The Netherlands.
- [A12] E. Prassler, J. Scholz and P. Fiorini *Navigating a Robotic Wheelchair in a Railway Station during Rush Hour*, The International Journal of Robotics Research, Vol. 18, No. 7, pp. 711-727, July 1999.
- [A11] P. Fiorini and Z. Shiller, *Motion Planning in Dynamic Environments using Velocity Obstacles*, The International Journal of Robotics Research, Vol. 17, No. 4, pp. 760-772, July 1998.
- [A10] R. Oboe and P. Fiorini *A Design Environment for Internet-Based Telerobotics*, The International Journal of Robotics Research, Vol. 17, No. 5, pp. 101-126, May 1998.
- [A9] P. Fiorini, H. Seraji and M. Long *A PC-Based Configuration Controller for Dexterous Arms* IEEE Robotics and Automation Magazine, pp. 30-38, September 1997.
- [A8] P. Fiorini and Z. Shiller, *Time Optimal Motion Planning in Dynamic Environments*, The International Journal of Applied Mathematics and Computer Science, Vol.7, N. 2, pp. 101-126, June 1997.
- [A7] P. Fiorini, A. Bejczy and P. Schenker, *Integrated Interface for Advanced Teleoperation*, IEEE Control System Magazine, Vol. 13, N. 5, pp. 15-20, October 1993.
- [A6] P. Fiorini, A. Giancaspro, S. Losito and G. Pasquariello, *Neural Networks for the Segmentation of Teleoperation Tasks*, PRESENCE, Teleoperators and Virtual Environments, Vol. 2, N. 1, pp. 1-13, MIT Press, 1993.
- [A5] H. Das and P. Fiorini, *Integrated Tools for Teleoperated Satellite Repair*, Automation in Construction, Vol. 2, N. 1, pp. 81-89, Elsevier Science Publisher, Amsterdam, The Netherlands, 1993.
- [A4] P. Fiorini, *A Versatile Hand for Manipulators*, IEEE Control Systems Magazine, Vol. 8, N. 5, pp. 20-24, October 1988.
- [A3] G. Buja and P. Fiorini, *Microcomputer Control of PWM Inverters*, IEEE Transactions on Industrial Electronics, Vol. IE-29, N. 2, pp. 212-216, August 1982.

- [A2] U. De Monte, P. Fiorini and others, *A Software Structure for Appliance Control*, Euromicro Journal, N. 6, pp. 17-19, 1980.
- [A1] G. Buja and P. Fiorini, *Controllo con microprocessore dei convertitori statici di energia elettrica*, Automazione e Strumentazione, Vol. 27, N. 4, pp. 269-274, April 1979.

6.2 Book Chapters

- [BK7] Davide Quaglia, Riccardo Muradore, Paolo Fiorini, *SystemC/Matlab Co-Simulation Tool for Networked Control Systems*, Coordination Control of Distributed Systems, Jan H. van Schuppen and Tiziano Villa (Editors), Lecture Notes in Control and Information Sciences, Volume 456, Springer, Berlin, 2015. ISBN 978-3-319-10406-5
- [BK6] Riccardo Muradore, Davide Quaglia and Paolo Fiorini, *Model Predictive Controllers over Differentiated Services Packet Networks*, Coordination Control of Distributed Systems, Jan H. van Schuppen and Tiziano Villa (Editors), Lecture Notes in Control and Information Sciences, Volume 456, Springer, Berlin, 2015. ISBN 978-3-319-10406-5
- [BK5] G. Monticello, M. Morselli, P. Fiorini. *The development of the surgical robot Surgenius*. World Robotics 2011, pp. 144-148, IFR Statistical Department ISBN 978-3-8163-0616-0 2011
- [BK4] M. Toibero, F. Roberti, R. Carelli, P. Fiorini, *Hybrid Formation Control for Non-Holonomic Wheeled Mobile Robots*, Lecture Notes in Control and Information Sciences: Recent Progress in Robotics; Viable Robotic Service to Human, Vol. 370, Edited by L. Sukhan; S. I. Hong; K. M. Sang, Springer-Verlag Berlin Heidelberg, pp. 21-34.
- [BK3] R. Murphy, S. Tadokoro, D. Nardi, P. Fiorini. *Field, Service and Intervention Robotics*. B. Siciliano, O. Kathib (eds.), Handbook of Robotics, STAR - Springer Tracts on Advances in Robotics. Springer-Verlag. May 2008.
- [BK2] A. Castellani, S. Galvan, D. Botturi, P. Fiorini *Advanced Teleoperation Architecture*. Software Engineering for Experimental Robotics, D. Brugali Ed., Springer Tracts on Advanced Robotics (STAR), Springer Verlag Publisher 2006.
- [BK1] E. Prassler, J. Scholz, M. Strobel, P. Fiorini. *MAid: A Robotic Wheelchair Operating in Public Environments*. Bolles, R.C. et al. (eds.), Modelling and Planning for Sensor-Based Intelligent Robot Systems, Lecture Notes on AI, Springer-Verlag, 1999.

6.3 Refereed Conferences

- [B142] Davide Zerbato, and Paolo Fiorini, *A Unified Representation to Interact with Simulated Deformable Objects in Virtual Environments*, 2016 IEEE Int. Conf on Robotics and Automation (ICRA2016) May 10-15, 2016. Stockholm, Sweden.
- [B141] Federica Ferraguti, Nicola Preda, Giacomo De Rossi, Marcello Bonfe, Riccardo Muradore, Paolo Fiorini, and Cristian Secchi, *A two-layer approach for shared control in semi-autonomous robotic surgery*, 2015 European Control Conference (ECC) July 15-17, 2015. Linz, Austria, pp 747-752.
- [B140] Riccardo Muradore, Giacomo De Rossi, Marcello Bonfe, Nicola Preda, Cristian Secchi, Federica Ferraguti, and Paolo Fiorini, *Autonomous Execution of Surgical Tasks: the Next Step in Robotic Surgery*, The 2015 Hamlyn Symposium.
- [B139] Marcello Bonfé, Nicola Preda, Cristian Secchi, Federica Ferraguti, Riccardo Muradore, Luisa Repele, Giovanni Lorenzi, and Paolo Fiorini, *Distributed Control Architecture for Automated Surgical Task Execution with Coordinated Robot Arms*, IFAC 2014.
- [B138] Lorenzi, G., Quaglia, D., Muradore, R., Fiorini, P., *Passivity-Based Control over Differentiated-Services Packet Networks*, Euromicro Conference on Digital System Design (DSD), September 4-6, 2013, Santander, Spain.

- [B137] Mathiassen, K., Dall'Alba, D., Muradore, R., Fiorini, P., Elle, O.J., *Real-time biopsy needle tip estimation in 2D ultrasound images*, IEEE International Conference on Robotics and Automation (ICRA), 6-10 May, 2013, Karlsruhe, Germany.
- [B136] Muradore R., Quaglia D. and Fiorini P., *Model Predictive Control over Delay-Based Differentiated Services Control Networks*, Design, Automation and Test in Europe (DATE), 18-22 March, 2013, Grenoble, France.
- [B135] Andrea Calanca, Luca Capisani, Paolo Fiorini, and Antonella Ferrara. *Improving Continuous Approximation of Sliding Mode Control*. In 16th International Conference on Advanced Robotics, Montevideo, 2013.
- [B134] Muradore R., Quaglia D. and Fiorini P., *Predictive Control of Networked Control Systems over Differentiated Services Lossy Networks*, Design, Automation and Test in Europe (DATE), 12-16 March, 2012, Dresden, Germany.
- [B133] M. Ruzzenente, M. Koo, K. Nielsen, L. Grespan, L. and P. Fiorini, *A review of robotics kits for tertiary education*, Proc. Int. Workshop Teaching Robotics Teaching with Robotics: Integrating Robotics in School Curriculum, Riva del Garda, Italy, 2012.
- [B132] D. DallAlba, B. Maris, P. Fiorini, *A compact navigation system for free hand needle placement in percutaneous procedures*, IROS 2012
- [B131] Davide Bresolin, Luigi Di Guglielmo, Luca Geretti, Riccardo Muradore, Paolo Fiorini and Tiziano Villa, *Open Problems in Verification and Refinement of Autonomous Robotic Systems*, 15th Euromicro Conference on Digital System Design, September 5-8, 2012, Cesme, Izmir, Turkey.
- [B130] Bonfé, Marcello; Boriero, Fabrizio; Dodi, Riccardo; Fiorini, Paolo; Morandi, Angelica; Muradore, Riccardo; Pasquale, Liliana; Sanna, Alberto; Secchi, Cristian; , *Towards automated surgical robotics: A requirements engineering approach*, Biomedical Robotics and Biomechatronics (BioRob), 2012 4th IEEE RAS & EMBS International Conference on , vol., no., pp.56-61, 24-27 June 2012 doi: 10.1109/BioRob.2012.6290700
- [B129] Riccardo Muradore, Davide Zerbato, Luca Vezzaro, Lorenza Gasperotti and Paolo Fiorini. *From simulation to abstract modeling of surgical operations*. Jont workshop on new technologies for computer/robot assisted surgery SCATH 2012, July 9-10, 2012, Madrid (Spain).
- [B128] Albert Hernansanz, Davide Zerbato, Lorenza Gasperotti, Michele Scandola, Paolo Fiorini and Alicia Casals. *Improving the development of surgical skills with virtual fixtures in simulation*. IPCAI 2012, pp.157-166.
- [B127] Albert Hernansanz, Davide Zerbato, Lorenza Gasperotti, Michele Scandola, Paolo Fiorini and Alicia Casals. *Assessment of virtual fixtures for the development of basic skills in robotic surgery*. CARS 2012
- [B126] Davide Zerbato, Luca Vezzaro, Lorenza Gasperotti, Paolo Fiorini. *Virtual training for US guided needle insertion*. CARS 2012
- [B125] Angelica Morandi, Lorenza Gasperotti, Monica Verga, Elettra Oleari, Paolo Fiorini. *A methodological framework for the definition of patient safety measures in robotic surgery: The experience of SAFROS project*. IAS 2012
- [B124] Michele Scandola, Lorenza Gasperotti, Marco Vicentini and Paolo Fiorini *The role of visual-haptic discrepancy in virtual reality environments*. In Proceedings of the Haptic Symposium 2012.
- [B123] Michele Scandola, Marco Vicentini, Lorenza Gasperotti and Paolo Fiorini, *Force feedback in psychophysics research: even low performance algorithms may lead to realistic perceptual experience*. In Proceedings of the 27th Annual Meeting of the International Society for Psychophysics. (2011)
- [B122] Jennifer Brown, Lily Chambers, Keri Collins, Otar Akanyeti, Francesco Visentin, Ryan Ladd, Paolo Fiorini, William Megill, *The Interaction Between Vortices and a Biomimetic Flexible Fin*, 12th Conference Towards Autonomous Robotic Systems, 2011 (TAROS 2011).

- [B121] Otar Akanyeti and M. Camilla Fiazza, *Novelty Detection in Laminar and Turbulent Flows*, in Proceedings of the International Workshop on Bio-Inspired Robots, Nantes, France, 6–8 April 2011.
- [B120] O. Akanyeti, M. Kruusmaa, W. M. Megill, P. Fiorini, *Analysing Krmm Vortex Streets from a Situated Perspective*, Congress Flow Sensing in Air and Water, Bonn, Germany, July 17-21, 2011 .
- [B119] Riccardo Muradore, Davide Quaglia and Paolo Fiorini, *Adaptive LQ Control over Differentiated Service Lossy Networks*, World Congress of the International Federation of Automatic Control (IFAC), August 28 - September 2, 2011
- [B118] F. Visentin, M.-C. Fiazza, O. Akanyeti, R. Venturelli and P. Fiorini, *Towards Flow-Sensing Robots: Situated Analysis for PIV Flow Imaging*, ICAR 2011, June 20-23 2011, Tallinn (Estonia).
- [B117] Davide Quaglia, Riccardo Muradore and Paolo Fiorini, *Plant Control over QoS-Enabled Packet Networks*, SIES conf., June 15-17, Vasteras, Sweden, 2011.
- [B116] B. M. Maris, D. Botturi, P. Fiorini. *Trajectory planning with task constraints in densely filled environments*, 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems, Taipei (Taiwan). November 2010
- [B115] S. Piazza, A. Calanca, P. Fiorini. *Force Control System for Pneumatic Actuators of an Active Gait Orthosis*. 2010 IEEE International Conference on Biomedical Robotics and Biomechatronics, Tokyo (Japan). September 2010
- [B114] O. Akanyeti, C. Fiazza, P. Fiorini, *Attentional Mechanisms for Lateral Line Sensing through Spectral Analysis*, Simulation of Adaptive Behaviour: From Animals to Animats, 2010, Paris, France
- [B113] D. Zerbato, D. Dall'Alba, L. Giona, M. Vicentini, D. Botturi, P. Fiorini *Enhancing maxillofacial implantology with virtual fixtures*, CARS 2010, Computer Assisted Radiology and Surgery International Conference, Geneva, Switzerland, June 23-26
- [B112] D. Dall'Alba, L. Giona, D. Zerbato, D. Botturi, P. Fiorini, G. Schirotti, *Image based accuracy analysis in dental implantology applications*. CARS 2010, Computer Assisted Radiology and Surgery International Conference, Geneva, Switzerland, June 23-26
- [B111] D. Zerbato, D. Baschiroto, D. Baschiroto, D. Botturi, P. Fiorini. *GPU based physical cut in interactive haptic simulations*, CARS 2010, Computer Assisted Radiology and Surgery International Conference, Geneva, Switzerland, June 23-26
- [B110] C. Fiazza, T. Salume, M. Listak, G. Kulikovskis, R. Templeton, O. Akanyeti, W. Megill, P. Fiorini, M. Kruusmaa, *Biomimetic Mechanical Design for Soft-Bodied Underwater Vehicles*, IEEE Oceans Conference, 2010, Sydney, Australia. May 2010
- [B109] O. Akanyeti, A. Ernits, C. Fiazza, G. Toming, G. Kulikovskis, M. Listak, R. Raag, T. Salume, P. Fiorini, M. Kruusmaa, *Myometry-Driven Compliant-Body Design for Underwater Propulsion*, ICRA2010, Anchorage, Alaska. May 2010
- [B108] R. Muradore, R. Foroncelli and P. Fiorini, *Statistical Methods for Estimating the Dynamical Parameters of Manipulators*. Joint 48th IEEE Conference on Decision and Control and 28th Chinese Control Conference December 16-18, 2009, Shanghai, P.R. China.
- [B107] Botturi D.; Fiorini P., Muradore R., Quaglia D., *Simulation of networked control systems with applications to telerobotics* , Proceedings of "European Control Conference (ECC)" , Budapest, Hungary , 23-26 Aug., 2009 , 2009 , pp. 1481-1486
- [B106] F. Di Palma, A. Monastero and P. Fiorini, *Reducing complexity in Robotic Learning by Experimentation*. The International Conference on Advanced Robotics (ICAR09), Munich (Germany). July 2009.
- [B105] J.M. Toibero, C. Soria, F. Roberti, R. Carelli and P. Fiorini, *Switching Visual Servoing Approach for Stable Corridor Navigation*. The International Conference on Advanced Robotics (ICAR09), Munich (Germany). July 2009.

- [B104] A. Monastero and P. Fiorini, *Target pose computation for nonholonomic mobile manipulators*. The International Conference on Advanced Robotics (ICAR09), Munich (Germany). July 2009.
- [B103] A. Nilsson, R. Muradore, K. Nilsson and P. Fiorini, *Ontology for Robotics: a Roadmap*. The International Conference on Advanced Robotics (ICAR09), Munich (Germany). July 2009.
- [B102] P. Fiorini, F. Bovo, L. Bertelli, *Solving the landing problem of hopping robots: the elastic cage desing*, 10th ESA Workshop on Advanced Space Technologies for Robotics and Automation (ASTRA'08), ESTEC, Noordwijk, The Netherlands, November 2008.
- [B101] P. Fiorini, D. Botturi, M. Kruusmaa, *Intelligent teleoperation: combining simulation and teleoperation*, 10th ESA Workshop on Advanced Space Technologies for Robotics and Automation (ASTRA'08), ESTEC, Noordwijk, The Netherlands, November 2008.
- [B100] M. Altomonte, P. Fiorini, D. Botturi, D. Zerbato. *Surgical Simulator on GPU*. IEEE/RSJ International Conference on Inteligent Robotic Systems (IROS). Nice (France), September, 2008.
- [B99] M. Vicentini, M.C. De Maggio, D. Botturi, P. Fiorini. *Evaluation of Directional Force Threshold through Psychophysics Experiments*. 4th International Conference on Enactive Interfaces. Grenoble, France, November 2007.
- [B98] D. Zerbato, S. Galvan, P. Fiorini, *Calibration of mass spring models for organ simulations*, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2007), San Diego, USA. October 2007.
- [B97] L. Bertelli, F. Bovo, L. Grespan, S. Galvan, P. Fiorini, *Eddy: an Open Hardware Robot for Education*, 4th International Symposium on Autonomous Minirobots for Research and Edutainment, October 2-5 2007, Buenos Aires, Argentina
- [B96] F. diPalma, M. Reggiani, P. Fiorini, *Design of Experiments for Qualitative Equation Discovery: a Comparison*, 6th EUROSIM Congress on Modelling and Simulation September 9-13, 2007, Ljubljana, Slovenia
- [B95] M. Reggiani, M. Zuppini, P. Fiorini, *A software Framework for Process Control in the Agroindustrial Sector 3rd* IEEE Conference on Automation Science and Engineering 2007(CASE07), Scottsdale, (AZ-USA), September 22-25, 2007.
- [B94] M. Toibero, F. Roberti, R. Carelli, P. Fiorini, *Hybrid Formation Control for Non-Holonomic Wheeled Mobile Robots*. IEEE International Conference on Advanced Robotics, ICAR'07, Jeju, Korea.
- [B93] M. Altomonte, D. Zerbato, S. Galvan, P. Fiorini, *Organ Modeling and Simulation using Graphical Processing*, Poster Session at CARS '07. Berlin, 27-30 June 2007
- [B92] M. Toibero, F. Roberti, M. Sarcinelli-Filho, R. Carelli, P. Fiorini, *Hybrid Formation Control Approach for Non-Holonomic Mobile Robots*. XII Reunin de Trabajo en Procesamiento de la Informacin y Control, RPIC'07, Ro Gallegos, Santa Cruz.
- [B91] P. Fiorini, S. Galvan and D. Botturi, *Space teleoperation for the rest of us: the quest of low cost and high reliability software* 9th ESA Workshop on Advanced Space Technologies for Robotics and Automation (ASTRA'06), ESTEC, Noordwijk, The Netherlands, November 2006.
- [B90] Subir K. Saha, Paolo Fiorini and Suril V. Shah, *Landing Mechanisms for Hopping Robots: Considerations and Prospects* 9th ESA Workshop on Advanced Space Technologies for Robotics and Automation (ASTRA'06), ESTEC, Noordwijk, The Netherlands, November 2006.
- [B89] M. Kruusmaa and P. Fiorini, *Electroactive Polymers in Space: Design Considerations and Possible Applications*, 9th ESA Workshop on Advanced Space Technologies for Robotics and Automation (ASTRA'06), ESTEC, Noordwijk, The Netherlands, November 2006.
- [B88] A. Castellani, S. Galvan, D. Botturi, P. Fiorini, *Advanced Teleoperation Architecture*, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2006), Beijin, China. October 2006.

- [B87] S. Galvan, D. Botturi, P. Fiorini, *FPGA-based Controller for Haptic Devices*, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2006), Beijing, China. October 2006.
- [B86] F. Bertolli, P. Fiorini. *Mobile robot localization with environment mapping*. 8th IFAC Symposium on Robot Control, SYROCO 2006, Bologna, Italy.
- [B85] A. Fedrigo, D. Botturi, P. Fiorini. *Packet loss compensation in Networked Control Systems*. 8th IFAC Symposium on Robot Control, SYROCO 2006, Bologna, Italy.
- [B84] S. Galvan, D. Botturi, P. Fiorini. *Innovative Robotics Teaching Using Lego Sets*. IEEE International Conference on Robotics and Automation (ICRA), Orlando (FL, USA), May 2006.
- [B83] D. Botturi, P. Fiorini. *Optimal Control for Autonomous Task Execution*. The 2005 Joint Conference on Decision and Control (CDC) and European Control Conference (ECC) 2005, Sevilla (Spain), December 2005.
- [B82] L. Benamati, C. Cosma, P. Fiorini. *Path Planning Using Flat Potential Field Approach*. The International Conference on Advanced Robotics (ICAR05), Seattle (WA USA). July 2005.
- [B81] D. Botturi, A. Castellani, P. Fiorini. *Optimal Control Strategy for Hybrid Automata*. The International Conference on Advanced Robotics (ICAR05), Seattle (WA USA). July 2005.
- [B80] L. Orsatti, D. Botturi, P. Fiorini. *Deformable Models of body organs for surgery simulation*. Proceedings of the 19th International Conference on Computer Assisted Radiology and Surgery (CARS2005), Berlin (Germany), June 22-25 2005, p. 1366.
- [B79] A. Sboarina, P. Fiorini, G. Fracastoro. *Formulation of a local model for simulation of hepatic laparoscopic procedures*. Proceedings of the 19th International Conference on Computer Assisted Radiology and Surgery (CARS2005), Berlin (Germany), June 22-25 2005, pp. 762-767.
- [B78] A. Castellani, D. Moschini, D. Botturi, P. Fiorini. *Advanced Teleoperation Architecture*. Workshop at IEEE International Conference on Robotics and Automation (ICRA), Barcellona, April 2005.
- [B77] D. Moschini, A. Castellani, D. Botturi, P. Fiorini. *Advanced Architectures for Haptic Interfaces*. Poster Session at First Joint Eurohaptics Conference and Symposium on Haptic Interfaces for Virtual Environment and Teleoperation Systems, Pisa, March 2005.
- [B76] D. Botturi, P. Fiorini, G. Fracastoro. *Task Level Models for Surgical Environments*. Surgetica 2005, Chambéry, France, January 2005.
- [B75] P. Fiorini, D. Botturi, A. Castellani, D. Moschini, *Comparison of Control Methods in Time-delay Teleoperation* 8th ESA Workshop on Advanced Space Technologies for Robotics and Automation (ASTRA'04), ESTEC, Noordwijk, The Netherlands, December 2004.
- [B74] P. Fiorini and M. Marchesi, *Robustness Concepts for Hopping Robots* 8th ESA Workshop on Advanced Space Technologies for Robotics and Automation (ASTRA'04), ESTEC, Noordwijk, The Netherlands, December 2004.
- [B73] C. Cosma, M. Confente, M. Governo and P. Fiorini. *Robotic Logistics: moving robotis from laboratories to warehouses*. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2004), Sendai, Japan.
- [B72] A. Castellani, D. Moschini, D. Botturi, A. López Pantano, J. Manzano, P. Fiorini, *Safety issues for a teleoperated arm in uncertain communication conditions*, 3rd IARP/IEEE-RAS Joint Workshop on Technical Challenge for Dependable Robots in Human Environments, September 7-9, 2004, Manchester (UK).
- [B71] A. Castellani, D. Moschini, D. Botturi, P. Fiorini. *Performance Evaluation of Teleoperation Tasks with Time Delay*, III Jornadas Argentinas de Robotica, JAR'04, San Juan, Argentina, 3-4 Giugno 2004.
- [B70] M. Confente, C. Cosma, M. Governo, and P. Fiorini, *Vision guided grasping of stacked boxes*, in IMG04: International Conference on Intelligent Manipulation and Grasping, Genova, Italy, 2004.

- [B69] D. Botturi, A. Castellani, D. Moschini, P. Fiorini. *Performance Evaluation of Task Control in Teleoperation*, The International Conference on Robotics and Automation (ICRA04), New Orleans (USA). April 2004.
- [B68] A. Castellani, D. Botturi, M. Bicego, P. Fiorini. *Hybrid HMM/SVM Model for the Analysis and Segmentation of Teleoperation Tasks*, The International Conference on Robotics and Automation (ICRA04), New Orleans (USA). April 2004.
- [B67] D. Moschini, P. Fiorini. *Performance of robotic teleoperation system with flexible slave device*. The International Conference on Robotics and Automation (ICRA04), New Orleans (USA). April 2004.
- [B66] D. Botturi, M. Confente, C. Cosma, P. Fiorini. *Laboratory Tools for Robotics and Automation Education*. The International Conference on Robotics and Automation (ICRA03), Taipei (Taiwan). September 2003.
- [B65] M. Confente, P. Fiorini. *Stereo Omnidirectional Vision for a Hopping Robot*. The International Conference on Robotics and Automation (ICRA03), Taipei (Taiwan). September 2003.
- [B64] D. Botturi, P. Fiorini. *A geometric method for robot workspace computation*. The International Conference on Advanced Robotics (ICAR03), Coimbra (Portugal). July 2003.
- [B63] C. Cosma, P. Fiorini. *A localization algorithm for a hopping robot*. The International Conference on Advanced Robotics (ICAR03), Coimbra (Portugal). July 2003.
- [B62] M. Governo, P. Fiorini, V. Riva and C. Nugent. *Medicate Teleassistance System*. The International Conference on Advanced Robotics (ICAR03), Coimbra (Portugal). July 2003.
- [B61] V. Riva, C. Cosma, P. Fiorini, S. Lonardi, C. Cottini. *Mobile Manipulation for Warehouse Package Transfer*. The First Workshop on Advances in Service Robotics (ASER03) Bardolino, (Italy), March 2003.
- [B60] M. Confente, C. Cosma, P. Fiorini, J. Burdick. *Planetary exploration using hopping robots*. In Proc. of the ESA Workshop on Advanced Space Technologies for Robotics and Automation ASTRA 2002. ESTEC, Noordwijk, The Netherlands, 19-21 Nov. 2002.
- [B59] P. Fiorini and E. Prassler. *Service Robotics from Earth to Space ... and back*. In Proc. of the ESA Workshop on Advanced Space Technologies for Robotics and Automation ASTRA 2002. ESTEC, Noordwijk, The Netherlands, 19-21 Nov. 2002.
- [B58] E. Slawiński, V. Mut, J. Postigo, P. Fiorini, R. Carelli, J. Manzano, A. Castro, *Mobile Robot Teleoperation with Time Delay*. Proceedings of the International Workshop on Human and Robot Interfaces: Technologies and Applications HUROI 2002, pp. 75-81. Frascati, Roma, Italia, November 6-8, 2002.
- [B57] D. Botturi P. Fiorini and C. Nugent. *Medical Home Automation: the Medicate Project: The control, Identification and delivery of prescribed medication*. The International Symposium on Robotics, Stockholm (Sweden), October 2002.
- [B56] D. Botturi, P. Fiorini and S. Lonardi *Functional and Economic Justification for Service Robotics in the Pharmaceutical Industry*. The International Symposium on Robotics, Stockholm (Sweden), October 2002.
- [B55] G. Campion and P. Fiorini. *Robot Calibration using Mobile Camera*. IEEE International Conference on Robotics and Automation 2002 (ICRA 2002), Washington D.C. (USA), May 2002.
- [B54] C. Benedetti, M. Franchini and P. Fiorini. *Stable Tracking in Variable Time-delay Teleoperation*. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2001), October 29 - November 3 2001, Maui, Hawaii, USA.
- [B53] G. Bianco and P. Fiorini. *Computational Principles for the development of Visual Skills in Robotics*. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2001), October 29 - November 3 2001, Maui, Hawaii, USA.
- [B52] C. Benedetti, M. Franchini, P. Fiorini, J. Postigo, C. Garcia and R. Carelli. *Compensation Methods for Time-Delay Teleoperation*. IX Reunión de Trabajo en Procesamiento de la Información y Control, Santa Fé (Argentina). September 2001.

- [B51] M. Guarnieri and P. Fiorini. *Formation Control of Autonomous Robots*. Fourth IFAC Symposium on Intelligent Autonomous Vehicles (IAV2001). September 2001. Sapporo (Japan).
- [B50] J. Burdick and P. Fiorini. *Fine Mobility for Hopping Robots*. IEEE International Conference on Advanced Robotics. August 2001. Budapest (Hungary).
- [B49] M. Franchini and P. Fiorini. *Stability and Perception in Time Delay Teleoperation*. IEEE International Conference on Advanced Robotics. August 2001. Budapest (Hungary).
- [B48] J. Burdick and P. Fiorini. *Hopper on Wheels: Evolving the Hopping Robot Concept*, 2001 International Conference on Field and Service Robots, 10-13 June 2001, Helsinki (Finland).
- [B47] A. Malvisi, M. Marcelli, S. Martelli, G. Campion and P. Fiorini. *A Robotic System for Total Knee Replacement*, 2001 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, 8-11 July 2001, Como (Italy).
- [B46] G. Bianco and P. Fiorini. *Visual avoidance of moving obstacles based on vector field disturbances*. IEEE International Conference on Robotics and Automation 2001 (ICRA 2001), Seoul (Korea), May 2001
- [B45] G. Bianco, P. Fiorini and M. Guarnieri. *Analysis of the time-varying robustness of a dynamic navigation strategy*. International Conference on intelligent Autonomous Systems (IAS-6), Venice, July 25-27, 2000.
- [B44] P. Fiorini. *Ground Mobility Systems for Planetary Exploration*. IEEE International Conference on Robotics and Automation 2000 (ICRA 2000), San Francisco (USA), May 2000.
- [B43] P. Fiorini, G. Calfant and Y. Tsumaki. *A Vision-Based Telepresence Interface for Anthropomorphic Robots*. IEEE International Conference on Robotics and Automation 2000 (ICRA 2000), San Francisco (USA), May 2000.
- [B42] E. Hale, N. Schara, J. Burdick, and P. Fiorini. *A Minimally Actuated Hopping Rover for Exploration of Celestial Bodies*. IEEE International Conference on Robotics and Automation 2000 (ICRA 2000), San Francisco (USA), May 2000.
- [B41] E. Prassler, J. Scholz, M. Strobel, P. Fiorini. *An Intelligent (Semi-)Autonomous Passenger Transportation System*. In Proc. of Int. Conf. on Intelligent Transportation Systems, ITS'99, Tokyo.
- [B40] E. Prassler, J. Scholz, M. Strobel, P. Fiorini. *An Autonomous People Mover for Public Environments*. In Proc. of IASTED Int. Conf. on Robotics and Applications, RA'99, St. Barbara, 1999.
- [B39] E. Prassler, D. Bank, J. Illmann, J. Scholz, M. Strobel, P. Fiorini. *An Autonomous Passenger Transportation System for Public, Crowded Environments*. In Tagungsband Robotik 2000: Leistungsstand - Anwendungen - Visionen - Trends, VDI-Berichte 1552, Berlin, 2000.
- [B38] E. Prassler, J. Scholz, and P. Fiorini, *A Robotic Wheelchair Roaming in a Railway Station*, 1999 IEEE International Conference on Field and Service Robotics, Pittsburgh, USA, 28-30 August 1999.
- [B37] P. Fiorini, S. Hayati, M. Heverly, and J. Gensler, *A Hopping Rover for Planetary Exploration*, IEEE Aerospace Conference, Snowmass, CO, March 6-13 1999.
- [B36] P. Fiorini, J. Manzano and A. Castro *Ground-based Telerobotic Interfaces for Space Telescience 5th* ESA Workshop on Advanced Space Technologies for Robotics and Automation (ASTRA'98), ESTEC, Noordwijk, The Netherlands, December 1-3 1998.
- [B35] G.-C. Caligiani, R. Chatila, A. Elfes, A. Fijany, P. Fiorini, E. Prassler. *Hierarchical Subsurface Imaging for Site Characterization Using Airborne and Vehicle Mounted Ground Penetrating Radars*, IARP Workshop on Robotics for Humanitarian De-Mining, Toulouse, France, September 1998.
- [B34] C. Casadei, P. Fiorini, M. Montanari and A. Morri. *Improving the Performance of PC-Based Controllers for Robot-Assisted Surgery*. IEEE International Conference on Control Applications. September 1998. Trieste (Italy).

- [B33] C. Casadei, P. Fiorini, S. Martelli, M. Montanari and A. Morri. *A PC-based Workstation for Robotic Discectomy*, IEEE International Conference of Robotics and Automation, May 1998. Leuven (Belgium).
- [B32] R. Oboe and P. Fiorini, *Issues on Internet-Based Teleoperation*, 5th IFAC Symposium on Robot Control (Syraco'97), September 1997. Nantes (France).
- [B31] P. Fiorini and R. Oboe, *Internet Based Telerobotics: Problems and Approaches*, 8th International Conference on Advanced Robotics (ICAR'97), July 1997. Monterey (CA, USA)
- [B30] P. Fiorini, K. Ali and H. Seraji *Health Care Robotics: a Progress Report*, IEEE International Conference of Robotics and Automation, April 1997, pp. 1271-1276.
- [B29] P. Fiorini, H. Seraji and M. Long, *A PC-Based Controller for Dexterous Arms*, IEEE International Conference of Robotics and Automation, April 1996, pp. 3689-3694.
- [B28] P. Fiorini and Z. Shiller, *Time Optimal Trajectory Planning in Dynamic Environments*, IEEE International Conference of Robotics and Automation, April 1996, pp. 1553-1558.
- [B27] P. Fiorini and Z. Shiller, *Autonomous Negotiation of Freeway Traffic*, SPIE Symposium, Pittsburg (PA), October 1995.
- [B26] P. Fiorini and Z. Shiller, *Motion Planning in Dynamic Environments*, 7th International Symposium of Robotics Research, Munich (Germany), October 1995, pp. 237-248.
- [B25] W. Kim, P. Fiorini and H. Seraji, *Commercialization of JPL Virtual Reality Calibration and Redundant Manipulator Control Technologies*, 3rd International Symposium on Artificial Intelligence, Robotics, and Automation in Space (i-SAIRAS'94), Pasadena (CA), October 18-20, 1994, pp. 23-26.
- [B24] A.K. Bejczy, P. Fiorini, W. Kim and P. Schenker, *Toward Integrated Operator Interface for Advanced teleoperation under Time-Delay*, IEEE/RSJ/GI International Conference on Intelligent Robots and Systems, Munich (Germany), September 12-16, 1994.
- [B23] P. Fiorini and Z. Shiller, *Motion Planning in Dynamic Environments Using the Relative Velocity Paradigm*, IEEE International Conference on Robotics and Automation, Atlanta GA, May 7-10 1993.
- [B22] P. Fiorini, A. Giancaspro, S. Losito and G. Pasquariello, *Real-Time Classification of Teleoperation Data with a Neural Network*, 31st IEEE Conference on Decision and Control (CDC'92), Tucson, AZ, December 16-18 1992.
- [B21] H. Das and P. Fiorini, *Integrated Tools for Teleoperation*, International Symposium on Robotics and Manufacturing, Santa Fè, NM, November 11-13 1992.
- [B20] P. Fiorini, A. Bejczy and P. Schenker, *Integrated Interface for Advanced Teleoperation*, IEEE International Conference on Systems, Man and Cybernetics (SMC'92), Chicago, IL, October 18-21 1992.
- [B19] P. Fiorini, A. Giancaspro, S. Losito and G. Pasquariello, *Neural Networks for Off-Line Segmentation of Teleoperation Tasks*, International Symposium on Intelligent Control (ISIC-1992), Glasgow, UK, August 11-13 1992.
- [B18] P. Fiorini, H. Das and S. Lee, *Man-Machine Cooperation in Advanced Teleoperation*, 6th Annual Space Operation, Application and Research Symposium (SOAR'92), Houston, TX, August 4-6 1992.
- [B17] P. Fiorini and A. Giancaspro, *A Procedure for the Frequency Analysis of Telerobotics Tasks Data*, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS'92), Raleigh, NC, July 7-10 1992, pp. 873-880.
- [B16] D. McAfee and P. Fiorini, *Hand Controllers Design Requirements and Performance Issues in Telerobotics*, Fifth International Conference on Advanced Robotics (ICAR'91), Pisa (Italy), June 20-22 1991.
- [B15] P. Fiorini, H. Das, H. Zak and A. Bejczy, *Teleoperated Repair in Space: A System for Baseline Testing*, International Advanced Robotics Programme (IARP), The First Workshop on Robotics in Space, Pisa (Italy), June 17-18 1991.

- [B14] P. Fiorini, *Task-Driven Teleoperation Design for Servicing*, Satellite Services System Working Group, Meeting N.25, Pasadena, CA, November 6 1990.
- [B13] P. Fiorini, *Task Dependent Control of Electric Motors*, IEEE Workshop on Microprocessor Control of Electric Motors, Trieste (Italy), July 3 - 4 1989, pp. A6-1,A6-18.
- [B12] P. Fiorini and A. Inselberg, *Configuration Space Representation in Parallel Coordinates*, IEEE International Conference on Robotics and Automation, Scottsdale AZ, May 14 - 19 1989, pp. 1215-1220.
- [B11] P. Fiorini and J. Chang, *Autonomous Organization of Grasping Tasks*, SPIE Symposia on Aerospace Sensing, Artificial Intelligence VII, Orlando, FL, March 27- 31 1989, pp. 591-602.
- [B10] P. Fiorini and J. Chang, *A Procedure Concept for Local Reflex Control of Grasping*, NASA Conference on Space Telerobotics, Pasadena, CA, January 31 - February 2 1989, Vol. 4, pp. 81-90.
- [B9] B. Hannaford and P. Fiorini, *A Detailed Model of Bilateral Teleoperation*, IEEE International Conference on Systems, Man and Cybernetics, Beijing, China, August 1988, Vol. 2, pp. 117-122.
- [B8] P. Fiorini and A. Inselberg, *Parallel Coordinates : a New Representation for Robotics*, Proceedings of the NATO Advanced Research Workshop on Redundant Manipulators, Salò (Italy), June 27 - July 1 1988.
- [B7] P. Fiorini, *Smart Hand for Manipulators*, IEEE Industrial Electronics Conference, Cambridge, MA, November 1987, pp. 572-580.
- [B6] P. Fiorini, B. Hannaford, B. Jau, E. Kan and A. Bejczy, *Hand Trigger System for Bi-lateral Gripping Control in Teleoperation*, IEEE International Conference on Robotics and Automation, Raleigh, NC, March 1987, pp. 586-592.
- [B5] P. Fiorini, *Microprocessor Torque Control of Small Motors*, Abstracts of the International Workshop on Microprocessor Control of Small Motors, University of Padova, Padova Italy, July 1986.
- [B4] P. Fiorini and A. Stubberud, *Models and Controls for Manipulators*, Robotic Intelligence and Productivity Conference, Wayne State University, Detroit MI, November 1983, pp. 164-171.
- [B3] G. Buja, P. Fiorini, and others, *Improving the Performance of Microcomputer Based Controllers for PWM Inverters*, 8th Powercom, Dallas, TX, April 1982, pp. E1-3:1,E1-3:8.
- [B2] G. Buja and P. Fiorini, *A Microcomputer Based Quasi Continuous Output controller for PWM Inverters*, IEEE International Conference on Industrial Electronics, Philadelphia, PA, March 1980, pp.107-111.
- [B1] G. Buja and P. Fiorini, *L'impiego dei microprocessori per il controllo dei sistemi di azionamento elettrico*, BIAS 1978, Milano (Italy), Vol. 1, October 1978.

6.4 Doctoral Thesis

- [PhD] P. Fiorini. *Robotic Motion Planning in Dynamic Environments* PhD Thesis: University of California, Los Angeles 1995.

6.5 Technical Reports

- [C10] P. Fiorini, E. Prassler, *Workshop on Robotic Cleaning*, IEEE International Conference of Robotics and Automation, May 2000. San Francisco (USA).
- [C9] P. Fiorini, R. Chatila, *Workshop on Robotics for Humanitarian Demining*, IEEE International Conference of Robotics and Automation, May 1998. Leuven (Belgium).
- [C8] P. Fiorini, *Introduction to Telerobotics and Advanced Teleoperation*, Class Notes, Instituto de Automatica, Universidad Nacional de San Juan, Argentina, September 1995.

- [C7] P. Fiorini, *Robotic Motion Planning among Moving Obstacles*, JPL Internal Report, May 1995.
- [C6] D. Diner, Z. Szakaly, H. Das and P. Fiorini, *The Eight Degree-of-Freedom Bilateral Force Reflecting JPL Teleoperation System*, JPL Internal Report, JPL D-9853, June 26 1992.
- [C5] H. Das, H. Zak, P. Fiorini, D. Diner, W. Kim and P. Lee, *Solar Maximum Satellite Repair Demonstration with the JPL Advanced Teleoperation System: First Phase Tasks and Experiments*, JPL Internal Report, JPL D-9112, November 5 1991.
- [C4] P. Fiorini and W. Zimmerman, *Code ST Evolution Planning for Advanced Development: Robotic Technology Assessment and Trade-off Methodology*, JPL working paper, 1988.
- [C3] H. Stone and P. Fiorini, *Analisi della Integrazione Sensoristica*, Atti dell’Agenzia Spaziale Italiana, 1989, A.S.I., viale Regina Margherita, 202, Roma, (Italy), pp. 1-58.
- [C2] P. Fiorini, *Sensori Finalizzati al Task*, Atti dell’Agenzia Spaziale Italiana, 1989, A.S.I., viale Regina Margherita, 202, Roma (Italy), pp. 1-19.
- [C1] P. Fiorini, *Sensori Esterni per la manipolazione*, Atti dell’Agenzia Spaziale Italiana, 1989, A.S.I., viale Regina Margherita, 202, Roma (Italy), pp. 1-46.

6.6 NASA Technical Briefs

- [D10] P. Fiorini, H Seraji, K. Ali and K. G. Engelhard. *Multi-modal Operator Interface for Personal Robots*, NASA Technical Briefs, October 1998.
- [D9] P. Fiorini and Z. Shiller, *Optimal Trajectory Planning in Dynamic Environments*, NASA Technical Briefs, October 1996.
- [D8] P. Fiorini, H. Seraji and M. Long, *A PC Based Controller for Dexterous Arms*, NASA Technical Briefs, October 1996.
- [D7] P. Fiorini and Z. Shiller, *Motion Planning using Velocity Obstacles*, NASA Technical Briefs, Vol. 19, N. 4, April 1995.
- [D6] P. Fiorini, A. Giancaspro, S. Losito and G. Pasquariello, *Real Time Classification of Teleoperation Data with a Neural Network*, NASA Technical Briefs, Vol. 18, N. 4, April 1994, pg 78.
- [D5] P. Fiorini and A. Giancaspro, *A Procedure for the Frequency Analysis of Telerobotic Task Data*, NASA Technical Briefs, Vol. 18, N. 3, March 1994, pg. 120.
- [D4] P. Fiorini, H. Das, H. Zak and A.K. Bejczy, *Teleoperated Repair in Space, a System for Baseline Testing*, NASA Technical Briefs, Vol. 17, N. 5, pp. 43-44.
- [D3] M. Drews, P. Fiorini et al. *Telerobotics/EVA Joint Analysis System*. NASA Technical Briefs
- [D2] P. Fiorini and J. Chang, *More About Architecture for Intelligent Robotic Control*, NASA Technical Briefs, Vol. 16, N. 6, June 1992, pp. 40-41.
- [D1] P. Fiorini and J. Chang, *Architecture for Intelligent Control of Robotic tasks*, NASA Technical Briefs Vol. 15, N. 8, April 1991, pp. 28-29.

Date: October 30, 2015

.....
(Signature)