Serena Ivaldi

__Contact information

Current position	Chargé de recherche 2 (researcher)
Affiliation	Inria Nancy Grand-Est
Address	615, rue du Jardin Botanique 54600 Villers-les-Nancy, France
Phone	+33 0354958618
Email	serena.ivaldi@inria.fr
Web site Youtube channels	http://www.loria.fr/~sivaldi www.youtube.com/user/iCubParis http://www.youtube.com/c/SerenaIvaldi_robotics
Citizenship	Italian
Languages	Italian (native language), English (fluent), French (fluent)

__Research experience

11/2014 - now
Inria Nancy Grand-Est, France
Chargé de recherche 2 (researcher)
Research: human-robot interaction, physical and social interaction, robot learning and control, robotics for assistance

05/2014 - 10/2014
Intelligent Autonomous Systems Lab, Technische Universitat Darmstadt (TUD), Germany
Postdoc
Collaboration: Jan Peters
Research: simulators of robot dynamics, robot learning for dynamic tasks with contacts

12/2013 – 01/2014
Robotics, Brain and Cognitive Sciences Dept., Italian Institute of Technology (IIT), Italy
Visiting researcher (2 weeks)
Collaboration: Francesco Nori
Research: simulation of dynamics and contacts for robotics

05/2011 – 04/2014
Institut de Systèmes Intelligents et de Robotique (ISIR, UMR 7222 CNRS & Université Pierre et Marie Curie), Paris, France
Postdoc
Collaborations: UPMC: Olivier Sigaud, Vincent Padois, Mohamed Chetouani, Anis Sahbani; ENSTA-ParisTech': David Filliat, Freek Stulp; INRIA: P.-Y. Oudeyer; CHArt-LUTIN; E. Zibetti, J. Provasi; Univ. Bruxelles: E. Garone
Research: cognitive architecture for developmental robotics; autonomous active learning; human-robot interaction; physical human-robot interaction; control of contacts; whole-body control

01/2007 – 04/2011
Robotics, Brain and Cognitive Sciences Dept., Italian Institute of Technology (IIT), Italy
Research fellow & PhD
Collaborations: Francesco Nori, Giorgio Metta, Bastien Berret, Lorenzo Natale, Giulio Sandini
Research: whole-body dynamics of humanoids, compliance, optimal impedance control, optimal control, neural networks

02/2006 – 12/2006
Neural Optimization Control and Complexity Lab., University of Genoa, Italy
Research internship
Supervisors: Marco Baglietto, Riccardo Zoppoli, Franco Davoli
Research: optimal estimation and control, team theory, sensor networks, neural networks

02/2004 – 09/2004 **Mechatronics and Automatic Control Lab., University of Genoa, Italy**
Research internship
Supervisors: Giorgio Cannata; SIEMENS: Federico Guido
Research: feature extraction, tracking in images sequences

__Education

04/2011 **PhD in Humanoid Technologies** (excellent mention) **at Italian Institute of Technology and University of Genoa, Italy**
Thesis title: From humans to humanoids : a study on optimal motor control for the iCub
Supervisor: Giorgio Metta
Jury: Tamim Asfour (president), Darwin Caldwell, Gabriel Baud-Bovy, Ryad Chellali, Giulio Sandini

11/2006 **MS in Computer Engineering** (highest honors) at University of Genoa, Italy
Thesis title: Optimal control of communication channels through team theory and Extended Ritz method
Supervisor: Marco Baglietto, Riccardo Zoppoli

09/2004 **BS in Computer Engineering** (highest honors) at University of Genoa, Italy
Thesis title: Study and implementation of an algorithm for feature tracking in image sequences
Supervisor: Giorgio Cannata

07/2001 **Lyceum diploma** at Scientific Lyceum Cassini, Genoa, Italy
Thesis title: Lucretius, plague and the demarcation between science and non-science

Other post-graduate courses

01/2007 – 04/2007 Multidisciplinary training on robotics, neuroscience and nanotechnology. Italian Institute of Technology, Genoa, Italy. (3 months)

07/2007 SIDRA doctoral school: "Introduction to the control of nonlinear systems" and "Nonlinear systems identification", Bertinoro, Italy

07/2008 SIDRA doctoral school: "Networked embedded control", Bertinoro, Italy

07/20xx iCub summer school 2010, 2011, 2012, 2013. Sestri Levante, Italy

__Invited talks

11/2014 iCub interacting with humans: software tools and best practices
Invited talk at **IEEE Humanoids 2014 Workshop** - One day with a humanoid robot, by Lorenzo Natale

07/2014 Social learning and engagement in human-humanoid interactions
Invited talk at **IAS13 Workshop on Evaluating social robots**

06/2014 iCub learning from humans via multimodal, physical, social and natural interaction: experiments from MACSi, EDHHI and CODYCO projects.
Invited talk at **IEEE ICRA 2014 Workshop** iCub and friends, by Giorgio Metta

05/2014 Humanoids and dynamics estimation and simulation
Invited talk at **French-German-Japan Workshop on Humanoid and Legged robots**, Heidelberg, by Katja Mombaur

04/2014 Preliminary results of project EDHHI: where do people gaze and touch during HRI?
Invited talk at **Journée LABEX SeNSE** by Catherine Achard

01/2014 Robot learning through interaction with humans
Invited talk at **Telecom-ParisTech** by Catherine Pelachaud

12/2013 Engagement in social tasks with iCub: preliminary results and experiments planned within EDHHI
Invited talk at **Journée LABEX SeNSE**, by Catherine Achard

11/2013 Cues for making a humanoid child more "human-like" during social learning tasks
Invited talk at **IEEE/RAS IROS 2013 Workshop** – "Towards social humanoid robots: what makes interaction human-like?"

09/2013 Humanoid robotics
Invited talk at **Robolution** – Scopitone Festival, by Francky Trichet (Université de Nantes)

04/2013 An architecture for cognitive development of humanoid robots
Invited talk at **Laboratoire Lorrain de Recherche en Informatique et ses Applications (LORIA), Nancy**, by Francois Charpillet

03/2013 Societal impact of robotics
Invited talk at **European Robotics Forum 2013**

01/2013 MACSI architecture: towards developmental learning of objects
Invited talk at **ETIS, Université Cergy-Pontoise**, by Alexandre Pitti

12/2012 From affordance to compliance
Invited talk at **Advanced Telecommunications Research Inst. (ATR), Japan**, by Emre Ugur

11/2012 Optimal control for humans to humanoids transfer
Invited talk at **IEEE Humanoids 2012 Workshop** - Generating Optimal Paths in Humanoid and Industrial Robotics, by Katja Mombaur (University of Heidelberg, Germany)

11/2012 Optimal control for humanoids
Invited talk at 22st **GRA Workshop, Waseda University, Tokyo, Japan**

04/2012 Humanoid Robotics
Invited seminar at **Université Libre de Bruxelles**, by Emanuele Garone

__Research projects

Funded projects

2013-2017 **CoDyCo (Whole-Body Compliant Dynamical Contacts in Cognitive Humanoids)**
Funding: FP7 – ICT9 STREP – 604.922 euro
Web: www.codyco.eu
Role: co-author of the proposal, key investigator and task leader

2013-2014 **EDHHI (Engagement During Human-Humanoid Interaction)**
Funding: ANR LABEX SMART – 27.600 euro
Web: http://chronos.isir.upmc.fr/~ivaldi/edhhi.htm
Role: co-author of the proposal, project co-leader

Participation in other projects

2011-2013 **MACSi** (Motor, affective, cognitive scaffolding for iCub)
Funding: ANR Blan
Web: http://macsi.isir.upmc.fr
Role: postdoc in the leading and coordinating team in UPMC, leader of all experiments

2007-2011 **RobotCub, CHRIS iTalk, Viactors, Roboskin**
Funding: FP6 & FP7 European projects
Web: www.icub.org
Role: PhD researcher and member of the software coordinating/leader team, co-author and main developer of the dynamics software library iDyn for whole-body dynamics estimation

2007-2009 **Adaptive state estimation and adaptive optimal control**
Funding: MIUR (Italian Research Agency).
Role: PhD researcher in UniGe team, author and developer of the software library for the Extended Ritz method

Grants and awards

11/2014 Co-leader of a team selected for the KUKA Award Challenge (Sponsored track) - received a KUKA iiwa

11/2014	Dr. Kanako Miura Award at IEEE Humanoids 2014, Madrid
01/2014	Travel grant for ACM womEncourage
11/2006	Winner of two national grants for PhD scholarships: Science and Information Technology (I University of Genoa and Humanoid Technologies in Italian Institute of Technology
2004	Best student prime at University of Genoa

Laboratory management

2014-now	Contribution to the set-up and maintenance of the Larsen lab in INRIA (robot, machines etc.)
2014	Contribution to the set-up of the iCub in TU Darmstadt (humanoid robot, cluster)
2011-2014	Management of iCub laboratory in ISIR (two humanoid robots, clusters, devices, equipment etc.)
2007-2011	Contribution to the set-up and maintenance of RBCS lab in IIT (cluster, prototype testing, documentation)
2006-2010	Management of NOCC laboratory in University of Genoa, Italy
2005-2006	Founder and president of OpenLab (computer science lab and student association)

Software

- CODYCO: https://github.com/robotology/codyco , https://github.com/serena-ivaldi
- EDDHI & MACSI: http://eris.liralab.it/wiki/UPMC_iCub_project/MACSi_Software
- iDyn: http://eris.liralab.it/wiki/IDyn
- NeuBot: http://www.nocc.dist.unige.it/?page_id=5

__Editorial activity, Conference organization, research community

Editorial activity

- **Special Issue organization**: S. Ivaldi, J. Babic, M. Mistry & R. Murphy Eds., "Whole-body control of contacts and dynamics for humanoid robots" , Special Issue on Autonomous Robots, 2015
- **Editorial board member** of the Journal "Intelligent Service Robotics", Springer, since 2015

Conference organization

- **IROS 2013, IROS 2014, IROS 2015 : Associate Editor**
- **HUMANOIDS 2014: Associate Editor**
- **ICDL 2013: member of the Program Committee**
- **RSS 2015: member of the Program Committee**
- **SIDRA 2007**: member of local organizing committee.

Workshop organization

- **ICRA 2013**: organizer of Workshop "Whole-body compliant dynamical contacts for humanoid robotics". Web: http://www.codyco.eu/index.php/workshop-icra2013
- **IROS 2012**: organizer of Workshop ""Optimality principles and adaptation to humanoid robotics control". Web: http://macsi.isir.upmc.fr/index.php?perma=iros2012workshop

- **ICRA 2015**: organizer of Workshop "Tactile and force sensing for autonomous, compliant and intelligent robots". Web: http://www.ausy.tu-darmstadt.de/Workshops/ICRA2015TactileForce

- **ICRA 2015:** member of the Program Committee of the Workshop "Compliant and Versatile Robot Control in Human Environments: Bridging the Gap between Learning and Control". Web: http://cs.stanford.edu/people/khansari/ICRA2015/index.html

Research community

- Member of **IEEE-RAS Technical Committee on Model-Based optimization for robotics, IEEE-RAS Women in Engineering (WIE), iCub community**

Reviewing activity

- International Journals: International Journal of Robotics Research (IJRR), Autonomous Robots (AURO), IEEE Transactions on Robotics (TRO), IEEE Transactions on Neural Networks (TNN), International Journal of Advanced Robotics Systems (JARS), IEEE Transactions on Systems, Man and Cybernetics – part B (TSMC), International Journal of Humanoid Robotics

- International Conferences: IROS, ICRA, HUMANOIDS, ICDL, ROMAN, World HAPTICS, ACC, CDC, ICVS, RSS

Scientific animation

- Experimental demonstrations for documentaries and scientific communications (for example "Vivre avec les robots")

- Fete de la Science (Science festival) in ISIR, Paris and Genoa, Italy

- Co-management of web and media communication pages of iCub, MACSI, CODYCO

__Teaching activity

- 62 h CM, 255 h TD, 414 h TP
  (CM=plenary lectures, TD=lectures and exercises, TP=laboratories)

- Courses: Operating Systems, C,C++, Humanoid robotics, Optimal control, Operations research

- classes in Italian, English, French

- classes in University of Genoa, Italy; Université Libre de Bruxelles, Belgium; Polytech'Paris-UPMC, France

__Supervising activity

2007: L. Canepa (M2, University of Genoa, Italy): now engineer in Amadeus, France. Optimization of neural networks. Co-Supervisors: Marco Baglietto.
2011: G. Sicard (M2, UPMC): now PhD student in Technion, Israel Institute of Technology. Co-Supervisor: O.Sigaud. Subject: comparison of learning algorithms. Publication of his work: 1 conference paper (HUMANOIDS).
2011: A. Droniou (M2, Ecole Polytechnique): now PhD student in ISIR-UPMC. Co-Supervisor: O. Sigaud. Subject: learning algorithms for robotics. Publication of his work: 3 conference papers (IROS, ROBOTICA, CAP).
2012: M. Guenaien (2eme Ecole Ing., ENSTA): now student in ENSTA-ParisTech. Co-Supervisor: O. Sigaud. Subject: software bridge YARP-ROS.
2013: W. Rousseau (2eme Ecole Ing., ENSTA): now student in ENSTA-ParisTech. Co-Supervisor: O. Sigaud. Subject: software bridge YARP-ROS, human-robot interaction. Publication with his work: 3 workshop papers (IROS, HRI), 1 journal paper.
2013: C. Ballarini (M2, EPITA): still in internship. Subject: software tools for complex human-robot interaction experiments. Co-Supervisor: Mohamed Chetouani.
2013: J. Mutanganwa (M2, Libre Université de Bruxelles, Belgium). Co-Supervisor: Emanuele Garone. Balancing strategies for biped robots.
2014: R. Calandra (PhD, TU Darmstadt, Germany). Subject: learning inverse dynamics. Publication with his work: 1 conference paper (ICRA). Co-supervisor: Jan Peters, Marc Deisenroth.
2014: C. Labar (M1, Université Libre de Bruxelles). Co-supervisor: Emanuele Garone.
2014-5: V. Modugno (PhD, La Sapienza University of Rome, Italy). Subject: learning the prioritisation of tasks in whole-body control. Co-supervisors: Giuseppe Oriolo, Jan Peters, Gerhard Neumann.
2015: F. Clerc (M2, Université de Lorraine). Subject: robotics for assistance of elderly people. Co-supervisors: Francois Charpillet, Emmanuel Vincent.

__Publications

Summary

- **International Journals: 6 (+2 in review)**
- **Book chapters: 3**
- **International Conferences: 16**
- International Workshops: 6
- PhD, MS and BS Thesis
- Technical reports: 4
- National conferences: 5
- Invited talks at international conferences: 8

Google scholar: http://scholar.google.com/citations?user=j8pBZv8AAAAJ&hl=en

Submitted papers under review

- Lyubova, N.; Ivaldi, S.; Filliat, D. From passive to interactive object learning and recognition through self-identification on a humanoid robot. Submitted to Autonomous Robots.
- Anzalone, S.; Boucenna, S.; Ivaldi, S.; Chetouani, M. Evaluating the quality of the interaction with social robots. Submitted to the International Journal of Social Robotics.

International Journals

[J6] Droniou, A.; Ivaldi, S.; Sigaud, O. (2014) Deep unsupervised network for multimodal perception, representation and classification. Robotics and Autonomous Systems.

[J5] Saut, J.-P.; Ivaldi, S.; Sahbani, A.; Bidaud, P. (2014) Grasping objects localized from uncertain point cloud data. Robotics and Autonomous Systems, vol 62, n. 12, pp.1742–1754.

[J4] Ivaldi, S.; Anzalone, S.M.; Rousseau, W.; Sigaud, O.; Chetouani, M. (2014) Robot initiative in team learning task increases the rhythm of interaction but not the perceived engagement. Frontiers in Neurorobotics. Vol 8, No 5, DOI 10.3389/fnbot.2014.00005.

[J3] Ivaldi, S.; Nguyen, S.M.; Lyubova, N.; Droniou, A.; Padois, V.; Filliat, D.; Oudeyer, P.-Y.; Sigaud, O. (2013) Object learning through active exploration. IEEE Transactions on Autonomous Mental Development. Pages 1-18. In press.

[J2] Ivaldi, S.; Sigaud, O.; Berret, B.; Nori, F. (2012). From Humans to Humanoids: the Optimal Control Framework. Paladyn Journal of Behavioral Robotics. Vol 3 No 2 Pages 75-91.

[J1] Fumagalli*, M.; Ivaldi*, S.; Randazzo, M.; Natale, L.; Metta, G.; Sandini, G.; Nori, F. (2012). Force feedback exploiting tactile and proximal force/torque sensing. Theory and implementation on the humanoid robot iCub. Autonomous Robots. Vol 33 No 4 Pages 381-398 (* Fumagalli and Ivaldi equally contributed to this work).

Book Chapters

[B3] Natale, L.; Nori, F.; Metta, G.; Fumagalli, M.; Ivaldi, S.; Pattacini, U.; Randazzo, M.; Schmitz, A.; G. Sandini, G. (2013). The iCub platform: a tool for studying intrinsically motivated learning. Intrinsically motivated learning in natural and artificial systems - Ed. Baldassarre, G.and Mirolli, M., Springer-Verlag, publisher.

[B2] Fumagalli, M.; Gijsberts, A.; Ivaldi, S.; Jamone, L.; Metta, G.; Natale, L.; Nori, F.; Sandini, G. (2010). Learning how to exploit proximal force sensing: a comparison approach. From Motor Learning to Interaction Learning in Robots, Springer-Verlag, publisher. Pages 159-177.

[B1] Ivaldi, S.; Baglietto, M.; Metta, G.; Zoppoli, R. (2009). An application of receding-horizon neural control in humanoid robotics. Assessment; Future Directions of Nonlinear Model Predictive Control, LNCIS 384, Springer-Verlag Berlin Heidelberg. Pages 541-550.

International Conferences

[C18] Calandra, R.; Ivaldi, S.; Deisenroth, M.P.; Rueckert, E.; Peters, J. (2015). Learning Inverse Dynamics Models with Contacts, Proc. IEEE International Conference on Robotics and Automation (ICRA).

[C17] Traversaro, S.; Del Prete, A.; Ivaldi, S.; Nori, F. (2015). Avoiding to rely on Inertial Parameters in Estimating Joint Torques with proximal F/T sensing, Proc. IEEE International Conference on Robotics and Automation (ICRA).

[C16] Ivaldi, S.; Peters, J.; Padois, V.; Nori, F. (2014). Tools for simulating humanoid robot dynamics: a survey based on user feedback, Proceedings of the International Conference on Humanoid Robots (HUMANOIDS).

[C15] Droniou, A.; Ivaldi, S.; Sigaud, O. (2014). Learning a repertoire of actions with Deep Neural Networks, Proceedings of the Int. Conf. on Development and Learning (ICDL).

[C14] Lyubova, N.; Filliat, D.; Ivaldi, S. (2013) Improving object learning through manipulation and self-identification. IEEE International Conference on Robotics and Biomimetics - ROBIO. Pages. 1-6.

[C13] Stulp, F.; Raiola, G.; Hoarau, A.; Ivaldi, S.; Sigaud, O. (2013). Learning Compact Parameterized Skills with a Single Regression. Proc. IEEE-RAS International Conference on Humanoid Robots - HUMANOIDS. Pages 1-7.

[C12] Nguyen, S-M.; Ivaldi, S.; Lyubova, N.; Droniou, A.; Gerardeaux-Viret, D. ; Filliat, D.; Padois, V.; Sigaud, O.; Oudeyer, P-Y. (2013). Learning to recognize objects through curiosity-driven manipulation with the iCub humanoid robot. Proc. IEEE Int. Conf. Development and Learning and on Epigenetic Robotics - ICDL-EPIROB. Pages 1-8.

[C11] Droniou, A.; Ivaldi, S.; Stalph, P.; Butz, M.; Sigaud, O. (2012). Learning Velocity Kinematics: Experimental Comparison of On-line Regression Algorithms. Proceedings Robotica. Pages 15-20.

[C10] Anzalone, S. M.; Ivaldi, S.; Sigaud, O.; Chetouani, M. (2012). Multimodal people engagement with iCub. Annual International Conference on Biologically Inspired Cognitive Architectures - BICA. Pages 1-3.

[C9] Droniou, A.; Ivaldi, S.; Padois, V.; Sigaud, O (2012). Autonomous Online Learning of Velocity Kinematics on the iCub: a Comparative Study. Proc IEEE/RSJ International Conference on Intelligent Robots and Systems - IROS. Pages 5377--5382.

[C8] Ivaldi, S.; Lyubova, N.; Gérardeaux-Viret, D.; Droniou, A.; Anzalone, S. M.; Chetouani, M.; Filliat, D.; Sigaud, O. (2012). Perception and human interaction for developmental learning of objects and affordances. Proc. of the 12th IEEE-RAS International Conference on Humanoid Robots - HUMANOIDS. Pages 1-8.

[C7] Berret, B.; Ivaldi, S.; Nori, F.; Sandini, G. (2011). Stochastic optimal control with variable impedance manipulators in presence of uncertainties and delayed feedback. Proceedings of the 2011 IEEE/RSJ International Conference on Intelligent Robots; Systems - IROS . Pages 4354-4359.

[C6] Ivaldi, S.; Fumagalli, M.; Randazzo, M.; Nori, F.; Metta, G.; Sandini, G. (2011). Computing robot internal/external wrenches by means of inertial, tactile and F/T sensors: theory and implementation on the iCub. Proc. of the 11th IEEE-RAS International Conference on Humanoid Robots - HUMANOIDS . Pages 521-528. Bled, Slovenia.

[C5] Sicard, G.; Salaun, C.; Ivaldi, S.; Padois, V.; Sigaud, O. (2011). Learning the velocity kinematics of iCub for model-based control: XCSF versus LWPR. Proceedings of the 11th IEEE-RAS International Conference on Humanoid Robots - HUMANOIDS. Pages 570 -- 575. Bled, Slovenia.

[C4] Ivaldi, S.; Fumagalli, M.; Nori, F.; Baglietto, M.; Metta, G.; Sandini, G. (2010). Approximate optimal control for reaching and trajectory planning in a humanoid robot. Proc. of the 2010 IEEE/RSJ International Conference on Intelligent Robots; Systems - IROS. Pages 1290-1296. Taipei, Taiwan.

[C3] Ivaldi, S.; Baglietto, M.; Davoli, F.; Zoppoli, R. (2009). Optimal control of communication in energy constrained sensor networks through team theory and Extended RItz Method. Proc. of the 2009 Int. Joint Conference on Neural Networks - IJCNN. Pages 1372-1379. Atlanta, GA, USA.

[C2] Ivaldi, S.; Baglietto, M.; Zoppoli, R. (2008). Finite and Receding Horizon Regulation of a Space Robot. Proc. Int. Conf. on Mathematical Problems in Engineering, Aerospace and Sciences - ICNPAA. Pages 608-616.

[C1] Ivaldi, S.; Baglietto, M.; Metta, G.; Zoppoli, R. (2008). An application of receding-horizon neural control in humanoid robotics. Proc. Int. Workshop on current research and future directions of Nonlinear Model Predictive Control - NMPC. Pages 1-8. Pavia, Italy.

International Workshops

[W7] Ivaldi, S.; Anzalone, S.; Rousseau, W.; Sigaud, O.; Chetouani, M. (2014). Robot initiative increases the rhythm of interaction in a team learning task, Workshop on Timing in human-robot interaction, Int. Conf. on Human-Robot Interaction (HRI).

[W6] Nori, F.; Peters, J.; Padois, V.; Babic, J.; Mistry, M.; Ivaldi, S. (2014) Whole-body Motion in Humans and Humanoids. Workshop New Research Frontiers for Intelligent Autonomous Systems – NRF-IAS-2014. Invited paper.

[W5] Ivaldi, S.; Anzalone, S.M.; Rousseau, W.; Sigaud, O.; Chetouani, M. (2013) Cues for making a humanoid child more "human-like" during social learning tasks. IEEE International Conference on Intelligent Robots and Systems – IROS – Workshop on Towards social humanoid robots: what makes interaction human-like? p. 1-6.

[W4] Rousseau, W.; Anzalone, S.M.; Chetouani, M.; Sigaud, O.; Ivaldi, S. (2013) Learning object names through shared attention. IEEE International Conference on Intelligent Robots and Systems – IROS – Workshop on Developmental Social Robotics, p. 1-6.

[W3] Lyubova, N.; Ivaldi, S.; Filliat, D. (2013). Developmental object learning through manipulation and human demonstration. Interactive Perception Workshop - ICRA 2013.

[W2] Ivaldi, S.; Lyubova, N.; Gérardeaux-Viret, D.; Droniou, A.; Anzalone, S. M.; Chetouani, M.; Filliat, D.; Sigaud, O. (2012). A cognitive architecture for developmental learning of objects and affordances: perception and human interaction aspects. IEEE Ro-man Workshop on Developmental; bio-inspired approaches for social cognitive robotics. Paris, France.

[W1] Ivaldi, S.; Baglietto, M.; Metta, G.; Zoppoli, R.; Sandini, G. (2008). A finite and receding horizon neural controller in humanoid robotics. IEEE/RAS Int. Conference on Intelligent Robots; systems - IROS - Workshop: Robotics challenges for machine learning II. Pages 1. Nice, France.

Phd Thesis

[T3] Ivaldi, S. (2011). From humans to humanoids: a study on optimal motor control for the iCub. PhD Thesis. Italian Institute of Technology & University of Genoa, Italy. (201 pages, in English)

[T2] Ivaldi, S. (2006). Optimal control of communication channels through team theory and Extended Ritz method". Master Thesis. University of Genoa, Italy. (122 pages, in Italian)

[T1] Ivaldi, S. and Spagnolo, P. (2004). Study and implementation of an algorithm for feature tracking in image sequences. BS Thesis. University of Genoa, Italy. (85 pages, in Italian)

National Conferences

[N5] S. Ivaldi, S. Lefort, S. Anzalone, I. Gaudiello, J. Provasi, M. Chetouani, E. Zibetti (2014) Effect of extroversion and negative attitude toward robots on social signals during human-robot interaction. Journées Nationales de la Robotique Interactive, Toulouse.

[N4] - Droniou, A.; Ivaldi, S.; Sigaud, O. (2012). Comparaison expérimentale d'algorithmes de régression pour l'apprentissage de modèles cinématiques du robot humanoïde iCub. Conférence Francophone sur l'Apprentissage Automatique (Cap). Pages 95-110.

[N3] Ivaldi, S.; Baglietto, M.; Davoli, F.; Zoppoli, R. (2009) Extended Ritz Method for optimal control of communication in energy constrained mixed (analog/digital) transmissions. In: Annual Conf. of the Italian Society of Researchers in Automatic Controls (SIDRA).

[N2] Ivaldi, S.; Baglietto, M.; Metta, G.; Zoppoli, R. (2008) An application of receding horizon neural control in humanoid robotics. In: Annual Conference of the Italian Society of Researchers in Automatic Controls (SIDRA).

[N1] Ivaldi, S.; Baglietto, M.; Zoppoli, R. (2007) Extended Ritz Method for optimal control in communication problems. In: Annual Conference of the Italian Society of Researchers in Automatic Controls (SIDRA).

Other Publications & Technical Reports

[O4] Stalph, P.; Ivaldi, S. (2011). Installing the iCub simulator on Ubuntu., Psychologie III Universitat Wurzburg.

[O3] Ivaldi, S. (2010) iDyn: a library for dynamics in humanoid robots. Tech. rep. Italian Institute of Technology.

[O2] Ivaldi, S.; Sciutti, A. (2009). Aquabot. Affordable robots idea context of the 2009 Int. Conf. on Advanced Robotics - ICAR. Third rank in Project Competition. Munich, Germany.

[O1] Ivaldi, S.. (2007) How to install Linux Debian on Blade Servers. Tech. rep. Italian Institute of Technology.

Invited talks at international conferences

[I8] Ivaldi, S. (2014) iCub interacting with humans: software tools and best practices. Invited talk at IEEE Humanoids 2014 Workshop - One day with a humanoid robot.

[I7] Ivaldi, S. (2014) Social learning and engagement in human-humanoid interactions. Invited talk at IAS13 Workshop on Evaluating social robots.

[I6] Ivaldi, S. (2014) Humanoids and dynamics estimation and simulation. Invited talk at French-German-Japan Workshop on Humanoid and Legged robots.

[I5] Ivaldi, S. (2014) iCub learning from humans via multimodal, physical, social and natural interaction: experiments from MACSi, EDHHI and CODYCO projects. Invited talk at IEEE ICRA 2014 Workshop - iCub and friends,

[I4] Ivaldi, S. (2013) Cues for making a humanoid child more "human-like" during social learning tasks. Invited talk at IEEE/RAS IROS 2013 Workshop – "Towards social humanoid robots: what makes interaction human-like?"

[I3] Ivaldi, S. (2013) Societal impact of robotics. Invited talk at European Robotics Forum 2013, Lyon, France.

[I2] Ivaldi, S. (2012) Optimal control for humans to humanoids transfer. Invited talk at IEEE Humanoids 2012 Workshop - Generating Optimal Paths in Humanoid and Industrial Robotics.

[I1] Ivaldi, S. (2012) Optimal control for humanoids. Invited talk at 22st GRA Workshop, Waseda University, Tokyo, Japan