Silvio Traversaro

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Personal Details

Name	Silvio
Surname	Traversaro
Address	Salita Superiore della Rondinella 18/33, 16124, Genoa, Italy
Citizenship	Italian

Education

2014-2017 **Ph.D. in Bioengineering and Robotics**, *from University of Genoa, Italy*, working at Istituto Italiano di Tecnologia, Italy, under the supervision of Francesco Nori.

2011-2013 **Master in Robotics Engineering**, *with a grade of 110/110 cum laude* , from University of Genoa, Genoa.

2007-2011 **Bachelor of Science, Computer Science Engineering**, *with a grade of 110/110 cum laude* , from University of Genoa, Genoa.

Assignments

Since May 2017 **PostDoc**, *Italian Institute of Technology*, Genoa, Italy.
Research and software on dynamics modelling, estimation algorithms and torque-control technology for humanoid robots. *An example of my PostDoc work: goo.gl/Wi41rh*

January 2014 to April 2017 **Ph.D. student**, *Italian Institute of Technology*, Genoa, Italy.
I did my Ph.D. under the supervision of Dr. Francesco Nori, performing research on multibody dynamics based techniques applied to control, identification and estimation for floating-base robots. During my Ph.D. I was also heavily involved in the software integration in the CoDyCo FP7 European Project. *An example of my PhD work: www.youtube.com/watch?v=9XRI4BeXN78*

September 2013 to December 2015 **Guest Ph.D. Student**, *Eindhoven University of Technology*, Eindhoven, Netherlands.
I worked with Prof. Alessandro Saccon on the geometric linearization of mechanical systems evolving on Lie Groups.

September 2013 to December 2013 **Guest Student**, *Tokyo University of Agriculture and Technology*, Tokyo, Japan.
I worked with Prof. Gentiane Venture on inertial parameters identification for humanoid robots.

March to July 2013 **Master Student**, *Graal Lab*, Genoa, Italy.
I worked with Prof. Giuseppe Casalino on embedded software and control of a custom underwater autonomous vehicle.

Technical skills

- Five years of experience in programming using procedural and object-oriented programming languages (C, C++, Python, Lua, Octave).
- Advanced experience in cross-platform build systems for C/C++ projects (CMake).
- Experience in embedded programming (C on Atmel AVR 8-bit Microcontrollers).
- Contributor to several open source robotics software such as the YARP middleware and the Gazebo Simulator.
- Experience in robotic software integration, both in simulation and on real hardware.
- Autonomous abilities in the analysis of robotic and multibody dynamics problems.

Social skills

- Experience in working in a team.
- Experience in working in a multicultural environments (research experiences abroad).

Languages

Italian	Native	
English	Advanced user	*Day-to-day practice.*

External links

ORCID	`http://orcid.org/0000-0002-9283-6133`
IIT	`https://www.iit.it/people/silvio-traversaro`
GitHub	`https://github.com/traversaro`
Bitbucket	`https://bitbucket.org/traversaro`

Selected Pubblications

S. Traversaro, D. Pucci, and F. Nori. "A unified view of the equations of motion used for control design of humanoid robots". In: *Springer Multibody System Dynamics, submitted to*. 2017.

R. Camoriano, **S. Traversaro**, L. Rosasco, G. Metta, and F. Nori. "Incremental semiparametric inverse dynamics learning". In: *2016 IEEE International Conference on Robotics and Automation (ICRA)*. IEEE. 2016, pp. 544–550. DOI: 10.1109/ICRA.2016.7487177.

S. Traversaro, S. Brossette, A. Escande, and F. Nori. "Identification of Fully Physical Consistent Inertial Parameters using Optimization on Manifolds". In: *2016 IEEE International Conference on Intelligent Robotics (IROS)*. IEEE. 2016. DOI: 10.1109/IROS.2016.7759801.

A. Paikan, **S. Traversaro**, F. Nori, and L. Natale. "A Generic Testing Framework for Test Driven Development of Robotic Systems". In: *MESAS 2015 : Modeling and Simulation for Autonomous Systems Workshop*. 2015. DOI: 10.1007/978-3-319-22383-4_17.

F. Nori, **S. Traversaro**, J. Eljaik, F. Romano, A. Del Prete, and D. Pucci. "iCub Whole-body Control through Force Regulation on Rigid Noncoplanar Contacts". In: *Frontiers in Robotics and AI*. 2015. DOI: 10.3389/frobt.2015.00006.