



# Gennaro Raiola

---

## Curriculum Vitae


---

### Education

- 2016- Currently *Ph.D. student in Robotics*  
at CEA-List (French Alternative Energies and Atomic Energy Commission)  
 [www](#).
- 2014-2015 *Ph.D. student in Robotics*  
at Robotics and Computer Vision Lab - ENSTA-ParisTech  [www](#).
- 2010-2012 *Master's Degree (M.Sc) with honor in Automation and Control Engineering*  
given by the University of Naples "Federico II".
- 2006-2010 *Bachelor's Degree (B.Sc) in Computer Engineering*  
given by the University of Naples "Federico II".

---

### Profession

- 2012-2013 *Research Engineer in Motion Control of Humanoid Robots*  
at PAL Robotics S.L. Barcelona  [www](#).

---

### Research

- Ph.D. Thesis "Probabilistic virtual guides for co-manipulation"  
Supervisors: Prof. Freek Stulp (ENSTA-ParisTech), Dr. Xavier Lamy (CEA-List).  
Topics: Cobotics, Industrial applications, Controls, Machine Learning.
- M.Sc. Thesis "Learning Parameterized Skills through Models with Expanded Kernels"  
Supervisors: Prof. Bruno Siciliano (PRISMA lab.) and Prof. Freek Stulp (ENSTA-ParisTech).  
Topics: Motion Primitives, Machine Learning.











---

## Technical Skills and Software projects

### Technical Skills



Programming	C/C++, Python, MATLAB, ROS, Orocos, Qt, Boost, RTAI/Xenomai, Eigen, php (Basics)
Systems/Tools	Linux/Ubuntu, CMake, Latex, QtCreator, Gazebo, Eclipse, git, svn, Virtual-Box, Docker (Basics), EtherCAT (Basics)
Hardware	Arduino



### Software projects

Software	"virtual-fixtures"    Library of virtual guides for co-manipulation.
Software	"mekabot"  Meka robot packages.
Software	"m3ros-control"  C++ bridge to integrate the control layer of the Meka robot into a ROS environment.
Software	"DmpBbo"    C++ framework for motion primitives and black-box optimization.
Software	"Stack-of-Task"   Integration of the stack of tasks inverse kinematics solver on the Reem-H and Reem-C robots at PAL Robotics.

---

## Publications

- 2017 Pauline Chevalier, Gennaro Raiola, Brice Isableu, Jean-Claude Martin, Christophe Bazile and Adriana Tapus.  
"Do Sensory Preferences of Children with Autism Impact an Imitation Task with a Robot?".  
In *Conference on Human-Robot Interaction (HRI)*.
- 2017 Susana Sanchez Restrepo, Gennaro Raiola, Pauline Chevalier, Xavier Lamy, and Daniel Sidobre.  
"Iterative Virtual Guides Programming for Comanipulation Robots".  
Under Review for *The International Conference on Robotics and Automation (ICRA)*.
- 2015 Gennaro Raiola, Xavier Lamy, and Freek Stulp.  
"Co-manipulation with Multiple Probabilistic Virtual Guides".   
In *International Conference on Intelligent Robots and Systems (IROS)*.
- 2015 Gennaro Raiola, Pedro Rodriguez-Ayerbe, Xavier Lamy, Sami Tliba, and Freek Stulp.  
"Parallel Guiding Virtual Fixtures: Control and Stability".   
In *IEEE Multi-Conference on Systems and Control (MSC)*.

- 2014 Freek Stulp, Laura Herlant, Antoine Hoarau, and Gennaro Raiola.  
"Simultaneous On-line Discovery and Improvement of Robotic Skill".   
In *International Conference on Intelligent Robots and Systems (IROS)*.
- 2013 Freek Stulp, Gennaro Raiola, Antoine Hoarau, Serena Ivaldi, and Olivier Sigaud.  
"Learning Compact Parameterized Skills with a Single Regression".   
In *IEEE-RAS International Conference on Humanoid Robots*.

## Service




Reviewer for international conferences:

- The International Conference on Robotics and Automation (ICRA).
- IEEE-RAS International Conference on Humanoid Robots.
- International Conference on Intelligent Robots and Systems (IROS).

## Languages

italian	native proficiency
english	professional working proficiency
french	limited working proficiency
spanish	basic knowledge

## References

- Dr. Freek Stulp Head of Department   
Department of Cognitive Robotics Institute of Robotics and Mechatronics  
DLR - German Aerospace Center (Previously ENSTA-ParisTech)
- Dr. Xavier Lamy Research Engineer   
Laboratory of interactive robotics at CEA-LIST
- Dr. Adolfo Rodriguez Senior Robotics Engineer   
Intermodalics (Previously PAL Robotics)
- Tsouroukdisian