

# Gennaro Raiola

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## Curriculum Vitae

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### Education

- 2013-current *Ph.D. student in Robotics*  
at ENSTA-ParisTech.
- 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".

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### Profession

#### Employer

- 2012-2013 *Research Engineer in Motion Control of Humanoid Robots*  
at PAL Robotics S.L. Barcelona 🌐 [www](http://www.pal-robotics.com)

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### Research & Projects

- Ph.D. Thesis "Probabilistic virtual guides for co-manipulation"  
Supervisors: Prof. Freek Stulp (ENSTA-ParisTech), Dr. Xavier Lamy (CEA-List).  
Topics: Virtual Fixtures, Industrial Applications, Control, 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, Control, Machine Learning.
- Software "m3ros-control" 🌐 [github](https://github.com/gennarols/m3ros-control)  
C++ bridge to integrate the control layer of the Meka robot into a ROS environment.
- Software "DmpBbo" 🌐 [github](https://github.com/gennarols/dmpbbo)  
C++ framework for motion primitives and black-box optimization.
- Software "Stack-of-Task" 🌐 [github](https://github.com/gennarols/stack-of-task)  
Integration of the stack of tasks inverse kinematics solver on the Reem-H and Reem-C robots at PAL Robotics.

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## Publications

- 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 Options".  
In *International Conference on Intelligent Robots and Systems (IROS)*.
- 2013 Freek Stulp, Gennaro Raiola, Antoine Hoarau, Serena Ivaldi, and Olivier Sigaud.  
"Compact Parameterized Skills with a Single Regression".  
In *IEEE-RAS International Conference on Humanoid Robots*.

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## Languages

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