

Matteo Taiana

CONTACT INFORMATION

VisLab - Computer and Robot Vision Lab
Instituto de Sistemas e Robotica (ISR)
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EDUCATION

Politecnico di Milano, Italy

M.S., Computer Engineering, October, 2007

- Master thesis topic: “3D model-based tracking with one omnidirectional camera and particle filters”.
- Advisors at Instituto Superior Técnico: Alexandre Bernardino, Pedro Lima.
- Advisors at Politecnico di Milano: Matteo Matteucci, Andrea Bonarini.

ACADEMIC EXPERIENCE

VisLab (ISR/IST), Lisbon, Portugal

PhD

January, 2008 - ongoing

PhD thesis topic: “Video-based human activity analysis for service robotics”, under the supervision of prof. Alexandre Bernardino.

Summer school

September, 2010

CITEC Summer School '10, “The structure of cognitive motion: from analysis to synthesis”.

Summer school

July, 2009

Veni Vidi Vici '09, the RobotCub Summer School.

Summer school

July, 2008

Veni Vidi Vici '08, the RobotCub Summer School.

Master thesis

May, 2006 - September, 2007

MSc thesis topic: “3D model-based tracking with one omnidirectional camera and particle filters”.

PROFESSIONAL EXPERIENCE

Istituto di Ricerche Farmacologiche Mario Negri, Milan, Italy

Part-time job

January, 2004 - December, 2005

Designing and developing AI-based software for disabled people, analysing biometric data with data mining techniques, as a part of a multidisciplinary team.

PUBLICATIONS

JOURNALS

M. Taiana, J. Santos, J. Gaspar, J. Nascimento, A. Bernardino, P. Lima. Tracking objects with generic calibrated sensors: an algorithm based on color and 3D shape features. *Robotics and Autonomous Systems*, special issue on Omnidirectional Robot Vision, June 2010.

PEER REVIEWED CONFERENCES

E. Falotico, M. Taiana, D. Zambrano, A. Bernardino, J. Santos-Victor, C. Laschi, P. Dario. Predictive Tracking across Occlusions on the iCub robot. *Proc. of Humanoids 2009 - 9th IEEE-RAS International Conference on Humanoid Robots*, Paris, France, 2009.

M. Taiana, J. Nascimento, J. Gaspar, A. Bernardino. Sample-Based 3D Tracking of Colored Objects: A Flexible Architecture. *Proc. of BMVC 2008 - The British Machine Vision Conference*, University of Leeds, Leeds, UK, 2008.

M. Taiana, J. Santos, J. Gaspar, J. Nascimento, A. Bernardino, P. Lima. Color 3D Model-Based Tracking with Arbitrary Projection Models. *Proc. of SIMPAR 2008 - International Conference on Simulation, Modeling and Programming for Autonomous Robots*, Workshop on Omnidirectional Robot Vision, Venice, Italy, 2008.

M. Taiana, J. Gaspar, J. Nascimento, A. Bernardino, P. Lima. On the Use of Perspective Catadioptric Sensors for 3D Model-Based Tracking with Particle Filters. *Proc. of IROS 2007 - IEEE International Conference on Intelligent Robots and Systems*, San Diego, CA, USA, 2007.

M. Taiana, J. Gaspar, J. Nascimento, A. Bernardino, P. Lima. 3D tracking by Catadioptric Vision Based on Particle Filters. *Proc. of Robocup2007 - Robocup International Symposium*, Atlanta, USA, 2007.

COMPUTER SKILLS

- Software tools/Programming: Matlab, C/C++, OpenCV, IPP, YARP, CMake.
- Operating Systems: Unix/Linux, Windows.
- Robotic Systems: development and maintainance of multi-module applications for the iCub humanoid robot.