# Séverin Lemaignan

Post-doctoral Researcher, Cognition for Human-Robot Interaction ☎ +41(0)21 69 32611

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31 years old



# Scientific Interests

Scientific Focus Robot cognition and decision making, which includes human-robot multi-modal interaction; theory of mind for robots; formal knowledge representation.

PhD Title Grounding the Interaction: Knowledge Representation for Interactive Robots

Keywords Robotic Cognition, Human-Robot Interaction, Grounding, Ontologies

# Education and Research Activities

2013– Post-doctoral fellow, CHILI, EPFL, Lausanne, Switzerland. Interaction with Robots in Educational Environments – Supervision of the robotic group.

2012–2013 **Post-doctoral fellow**, *LAAS-CNRS*, *Toulouse*, *France*. Spatial and Temporal Reasoning for Cognitive Robotic Architectures.

2008–2012 **German-French PhD in Cognitive Robotics**, *LAAS-CNRS*, *Toulouse*, *France / IAS-TUM*, *Munich*, *Germany*.

with High Distinction "Summa Cum Laude" – awarded CNRS' Best PhD in Robotics 2012 Supervisors: Pr. Rachid Alami, CNRS Senior Researcher, Pr. Michael Beetz, TUM Senior Researcher.

2006–2007 Research Engineer, INRIA, Paris, France.

Development of semantic-aware control architectures for autonomous vehicles.

2002–2006 **German-French MSc of Engineering**, Karlsruhe Institute of Technology / ENSAM Paris Tech.

Final project: Ontologies and distributed systems for industrial processes.

2004–2005 **MSc Artificial Intelligence for Learning Technologies**, *University Paris V, College of Mathematics and Computer Sciences*, With Honours.

## Awards and Honors

o Excellence Bonus, EPFL 2014

- o Best Late Breaking Report Award, HRI'2014
- o Best PhD in Robotics, Groupe de Recherche Robotique, CNRS 2012
- o PhD with High Disctinction ("Summa Cum Laude"), TU Munich 2012
- o Best Paper Award, ROMAN'2010
- o Gold Medal (top ten students), ENSAM ParisTech 2006

## Selected Publications

See my website for the complete list of publications, workshops and seminars.

International peer-reviewed journals

• Lemaignan, S. and Warnier, M. and Sisbot, E. A. Alami, R., **Human-Robot Interaction: Tackling the AI Challenges**, *Artificial Intelligence*, 2014.

 Lemaignan, S. and Ros, R. and Sisbot, E. A. Alami, R. and Beetz M., Grounding the Interaction: Anchoring Situated Discourse in Everyday Human-Robot Interaction, International Journal of Social Robotics, 2011.

International peer-reviewed conference articles (6-8 pages)

- o Lemaignan, S. and Ros, R. and Alami, R. and Beetz, M., What are you talking about? Grounding dialogue in a perspective-aware robotic architecture, ROMAN, 2011.
- o Lemaignan, S. and Ros, R. and Mösenlechner, L. and Alami, R. and Beetz, M., ORO, a knowledge management module for cognitive architectures in robotics, IROS
- o Ros, R. and Lemaignan, S. and Sisbot, E. A. and Alami, R. and Steinwender, J. and Hamann, K. and Warneken, F., Which One? Grounding the Referent Based on Efficient Human-Robot Interaction, ROMAN. 2010. Best paper award.

# Supervision & Teaching Experience

#### 2010- Students supervision.

- o A. Jacq (PhD, 2014-): Mutual modeling and repair strategies in HRI
- o A. Özgür (PhD, 2014-): Cellulo: paper robots for large-scale robotic deployments in schools
- o D. Hood (Master, 2014): CoWriter project: Getting Nao to write on a tactile tablet
- o S. Chandra (PhD, 2013-2014): CoWriter project: learning by teaching handwriting to a robot
- o J. Fink (PhD, 2013-2014): Long-term acceptance of robots in daily life, Anthropomorphism

Programming • Python, C++, Haskell, Prolog,

SmallTalk

github.com/severin-lemaignan

o GitHub:

- o P. Tsemengue, M. Chouayakh (Master, 2010): The Dialogs natural language processor
- Support lectures in robotics, EPFL, LAAS-CNRS, Université de Toulouse. 2008-2013 ROS, robotic simulation, ontologies, Python, software development.
- 2008–2011 **Teaching assistant**, *INSA Toulouse*. Prolog, Ontology Modeling, Java, ADA, SQL.
- 2006-2007 Teaching assistant, École des Mines de Paris.

Mechatronics.

# Technical Skills and Spoken Languages

- Robotics o Expert in cognitive robotics and human-robot interaction
  - Expert in symbolic knowledge representation
  - o Expert PR2, Nao developer
  - Contributor to ROS, OpenCV
  - Lead dev. MORSE simulator

#### Languages

French Native

English **Expert** TOEIC score 925/990

German Advanced **DSH** 

# Dissemination Activities

# Workshops

- 2013 Steering Committee, Intl. Workshop on MORSE for Human-Robot Interaction,
- 2013 Program Committee, Workshop on Developmental Social Robotics, IROS 2013, http://devsor2013.sciencesconf.org.
- 2012 Steering Committee, Intl. Workshop on MORSE and its Applications.
- 2008-2009 Steering Committee, Cognitive Sciences' Young Researchers Conference 2009, http://fresco.risc.cnrs.fr/cjcsc2009/.

## Outreach

- 2008–2012 Robotics Science Day Coordinator, LAAS-CNRS.
- ${\bf 2008-2011} \quad {\bf Vice\ President\ of\ Toulouse's\ Cognitive\ Science\ Student\ Association}\ .$
- 2008–2009 Science Communicator at South African SciFest festival.
  - 1997- Involvement at Planète Sciences, Head of the Robotics Department in 2006-2007 Executive Committee member since 2008 Science Camps leader (with BAFA certification) Coordinator on the EUROBOT Robotic Competition .

    http://www.planete-sciences.org/