

Séverin Lemaignan

*Post-doctoral Researcher,
Cognition for Human-Robot Interaction*

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30 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 ParisTech, Gold Medal** (top ten students).
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.**

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)

- 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.
- 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* 2010.

- 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.**
- A. Jacq (PhD, 2014-): *Mutual modeling and repair strategies in HRI*
 - A. Özgür (PhD, 2014-): *Cellulo: paper robots for large-scale robotic deployments in schools*
 - D. Hood (Master, 2014): *CoWriter project: Getting Nao to write on a tactile tablet*
 - S. Chandra (PhD, 2013-2014): *CoWriter project: learning by teaching handwriting to a robot*
 - J. Fink (PhD, 2013-2014): *Long-term acceptance of robots in daily life, Anthropomorphism*
 - P. Tsemengue, M. Chouayakh (Master, 2010): *The Dialogs natural language processor*
- 2008–2013 **Support lectures in robotics**, EPFL, LAAS-CNRS, Université de Toulouse.
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

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|----------|---|-------------|---|
| Robotics | <ul style="list-style-type: none"> ○ Expert in cognitive robotics and human-robot interaction ○ Expert in symbolic knowledge representation ○ Expert PR2, Nao developer ○ Contributor to ROS, OpenCV ○ Lead dev. MORSE simulator | Programming | <ul style="list-style-type: none"> ○ Python, C++, Haskell, Prolog, SmallTalk ○ GitHub:
github.com/severin-lemaignan |
|----------|---|-------------|---|

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, HRI 2014.**
- 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.
- 2008–2011 **Vice President of Toulouse's Cognitive Science Student Association** .
www.incognu.fr
- 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/>