# Séverin Lemaignan

Post-doctoral Fellow, Cognition for Human-Robot Interaction ★ +41(0)21 69 32611
⋈ severin.lemaignan@epfl.ch
http://academia.skadge.org
30 years old



## Scientific Interests

Scientific Focus Knowledge representation systems and their importance for robots' cognition; human-robot

multi-modal interaction; robot cognition and decision making.

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

2012–2013 Post-doctoral fellow, LAAS-CNRS, Toulouse, France.

Spatial and Temporal Reasoning for Cognitive Robotic Architectures.

 $2008-2012 \quad \textbf{German-French PhD in Cognitive Robotics}, \ \textit{LAAS-CNRS}, \ \textit{Toulouse}, \ \textit{France} \ / \ \textit{IAS-CNRS}, \ \textit{Toulouse}, \ \textit{Cognitive Robotics}, \ \textit{LAAS-CNRS}, \ \textit{Toulouse}, \ \textit{Cognitive Robotics}, \ \textit{C$ 

TUM, Munich, Germany, with High Distinction (Cum Suma Laude).

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 Engineering degree, Karlsruhe TH, Fakultät für Maschinenbau / École

Nationale Supérieur des Arts et Métiers, Gold Medal (top ten students).

Final project: Ontologies and distributed systems for industrial processes.

2004–2005 M.S. degree *IT Environments for Education* ("Environnements Informatiques pour l'Apprentissage Humain"), 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 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.

#### Book chapters

Lemaignan, S. and Alami, R. and Pandey, A. K. and Warnier, M. and Guitton, J., Towards Grounding Human-Robot Interaction in Bridges between the Methodological and Practical Work of the Robotics and Cognitive Systems Communities - From Sensors to Concepts Editors: Amirat, T. and Chibani, A. and Zarri, G. P.. Springer Publishing. 2012.

## 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.

# Teaching Experience

2008–2013 Support lectures in robotics, EPFL, LAAS-CNRS, Université de Toulouse.

Tutorials on ROS, robotic simulation, ontologies, Python, software development...

2008–2011 **Teaching assistant**, INSA Toulouse.

Tutorials in Prolog, Ontology Modeling, Java, ADA, SQL.

2006–2007 **Teaching assistant**, École des Mines de Paris.

Tutorials in mechatronics.

2006- Educative Robotics Trainings.

As head of the Educational Robotics department at the non-for-profit Planète Sciences organization, I've tutored numerous classes on Educational Robotics with teachers and science communicators.

# Technical Skills and Spoken Languages

Robotics Experienced PR2, Nao dev. Programming

Contributor to ROS, OpenCV Lead dev. MORSE simulator

Programming Python, C++, Languages Prolog, SmallTalk

GitHub github.com/severin-lemaignan

Languages

French Native

English **Expert**German **Advanced** 

TOEIC score 925/990

DSH

Dissemination Activities

Workshops

- 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/