Séverin Lemaignan

Senior Researcher Cognition for Social Robotics ☎ +44 7907986893

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35 years old



Scientific Focus **Robot cognition and decision making for social interaction**: human-robot multi-modal interaction; theory of mind for robots; symbolic and sub-symbolic knowledge representation.

Keywords Robotic Cognition, Human-Robot Interaction, Cognitive Architectures

Education and Research Activities

Apr. 2018–	Senior Research Fellow in Robotics and Artificial Intelligence, Bristol Robotics Lab, United Kingdom.
2017-2018	Lecturer in Robotics, Plymouth University, Plymouth, United Kingdom.
2015-2017	EU Marie Skłodowska-Curie Post-doctoral fellow, Centre for Neural Systems and

Robotics, Plymouth University, Plymouth, United Kingdom.

Development and Implementation of a Theory of Mind for robots.

2013–2015 **Post-doctoral fellow**, *CHILI, EPFL, Lausanne, Switzerland*.

Interaction with Robots in Learning 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 **Joint 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.

 $2006-2007 \quad \textbf{Research Engineer}, \textit{INRIA, Paris, France}.$

Development of semantic-aware control architectures for autonomous vehicles.

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

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

Awards and Honours

- Best Paper Award 'Design', HRI'2017
- Best Paper Award 'Methods and Theory', HRI'2016
- Best Video Award in Artificial Intelligence, AAAI'2015
- Best Late Breaking Report Award, HRI'2014
- Best PhD in Robotics, CNRS 2012
- o PhD with High Disctinction ("Summa Cum Laude"), TU Munich 2012
- Best Paper Award, ROMAN'2010
- o Gold Medal (top ten students), ENSAM ParisTech 2006

Fellowships & Grants

2015–2017 **EU H2020 Marie Skłodowska-Curie Individual Fellowship**,

Principal Investigator, € 195 000.

Selected Publications

As of Apr 2018, 1200+ citations, h-index = 18 (Google Scholar). See my website for the complete list of publications, workshops and seminars.

International peer-reviewed journals

- o Lemaignan S., Warnier M., Sisbot E. A., Clodic A., Alami R., **Artificial Cognition for Social Human-Robot Interaction: An Implementation**, *Artificial Intelligence*, 2016.
- Lemaignan S., Jacq A. and Hood D., Garcia F., Dillenbourg P., Learning by Teaching a Robot: The Case of Handwriting, IEEE Robotics and Automation Magazine, 2016.
- Lemaignan S., Ros R., Sisbot E. A., Alami R., Beetz M., Grounding the Interaction: Anchoring Situated Discourse in Everyday Human-Robot Interaction, International Journal of Social Robotics, 2011.

International peer-reviewed conference articles

- Lemaignan S., Garcia F., Jacq A., Dillenbourg P., From Real-time Attention Assessment to "With-me-ness" in Human-Robot Interaction, HRI, 2016. Best Paper Award
- Lemaignan S., Ros R., Alami R., Beetz M., What are you talking about? Grounding dialogue in a perspective-aware robotic architecture, ROMAN, 2011.
- Lemaignan S., Ros R., Mösenlechner L., Alami R., Beetz M., ORO, a knowledge management module for cognitive architectures in robotics, IROS 2010.

Supervision & Teaching Experience

Students supervision, (click here for full list).

- o C. Wallbridge (PhD, 2016-): Spatial reasoning for Child-Robot Interaction
- o E. Senft (PhD, 2015-): Machine learning approaches to social human-robot shared control
- A. Jacq (PhD, 2014-2015): Mutual modeling and repair strategies in HRI
- o A. Özgür (PhD, 2014-2015): Cellulo: haptic robotics for learning
- o D. Hood (MSc, 2014): CoWriter project: Getting Nao to write on a tactile tablet
- 2016–2018 Lecturer, *Plymouth University*.

 $teaching \ at \ BSc \ \& \ MSc \ level \ robotics, including \ HRI, ROS, Kalman \ filtering, localisation \ and \ planning, control \ architectures$

- 2013–2016 Guest lectures, Plymouth University, EPFL.
 - RGB-D cameras for HRI, Introduction to computer graphics & 3D modelling.
- 2008–2016 **Support lectures in robotics**, *Plymouth University, EPFL, LAAS-CNRS, Université de Toulouse*.

ROS, robotic simulation, ontologies, Python, software engineering.

2008–2011 **Teaching assistant**, *INSA Toulouse*, Écoles des Mines de Paris.

Prolog, Ontology Modeling, Java, ADA, SQL, Mechatronics.

Scientific Engagement & Dissemination Activities

2018 Programme Committee, IJCAI 2018. 2016- Associate Editor, IROS 2016, 2017, 2018. 2016- Programme Committee, HRI 2016, 2017, 2018. 2017 alt.HRI chair, HRI 2017. 2016 Programme Chair, Workshop on Cognitive Architectures for Social HRI, HRI 2016. 2013 Steering Committee, Intl. Workshop on MORSE for HRI, HRI 2014. 2013 Programme Committee, Workshop on Developmental Social Robotics, IROS 2013. 2012 Steering Committee, Intl. Workshop on MORSE and its Applications. Recent keynotes and invited talks 2018 From Children Free-play to Robot AI, keynote @ AAAI Fall Symposium' 18. 2017 **Of Cognition and Social Robots**, *University of Edinburgh*. Selected outreach activities 2011 'Roboscopie' Human-Robot public theater performance, Science Day'11. http://bit.ly/1LQpNWA 2008–2012 Robotics Science Day Coordinator, LAAS-CNRS. 2008–2011 Toulouse's Cognitive Sciences Students Association, Co-chair. 2008–2009 **South African SciFest festival**, *Science facilitator*. 1997-2012 Executive Committee & Head of Educational Robotics, Planète Sciences, including coordination of the EUROBOT Robotic Competition. Technical Skills and Spoken Languages Robotics • Expert in cognitive robotics and Programming • Python, modern C++, Prolog, human-robot interaction SmallTalk Expert in symbolic knowledge Open-source enthusiast representation GitHub: Expert PR2, Pepper, Nao develgithub.com/severin-lemaignan Contributor to ROS, OpenCV Lead dev. MORSE simulator

Languages

French Native English Fluent German Advanced

TOEIC score 925/990 DSH