William Schueller

Curriculum vitae

90, rue Robespierre
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33400 Talence, France
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william.schueller@gmail.com
Born 23/12/1988 in Mulhouse, France

Research experience

2015– **Computational and statistical models of active learning mechanisms in the dynamics of language formation in groups of individuals**, *with Pierre-Yves Oudeyer*, Flowers Project-team, INRIA Bordeaux Sud-Ouest.
PhD work: Solving complexity growth issues in multi-agent models of language emergence by introducing active learning strategies

2017 **Active control of complexity: trust in the Naming Game**, *with Vittorio Loreto*, Social Dynamics Lab, Sapienza University of Rome.
Study of a 2nd type of active control in language emergence, definition of a principled algorithm

2014–2015 **Active Learning in language emergence models**, *with PY Oudeyer*, Flowers Project-team, INRIA Bordeaux Sud-Ouest.
pre-PhD work: study of a few heuristics for controlling complexity growth in language emergence

2012 **Energy distribution dynamics in an anthill**, *with JL Deneubourg*, Unité d'Ecologie Sociale
Université Libre de Bruxelles.
Modelling food exchange and storage by ants, comparison with experimental data

2011 **Theoretical Models of Language**, *with Ramon Ferrer i Cancho*, Departament de Llenguatges i Sistemes Informàtics
Universitat Politècnica de Catalunya, Barcelona.
Using approaches inherited from information theory and statistical mechanics

2010 **Large scale experiment for the understanding of ultrasonic scattering by red blood cells aggregates**, *with Emilie Franceschini*, Laboratoire de Mécanique et d'Acoustique, Marseille.
Experimental protocol setting, data acquisition and comparison with theoretical values

Education

2011–2012 **M2 (2^{nd} year of Master)**, *Complex Systems Modelling*.
ENS de Lyon and IXXI (Institut des Systèmes Complexes Rhône-Alpin)

2010–2011 **M1 (1^{st} year of Master)**, *Matter Sciences (Physics)*, Semester *Genetics and Molecular Biology*.
Ecole Normale Supérieure de Lyon

2009–2010 **Licence (Equivalent to BSc)**, *Matter Sciences (Physics)*.
Ecole Normale Supérieure de Lyon

Teaching

2017-2018 **Databases**, IUT de Bordeaux, Computer Science.
DB conception, SQL syntax. Course, practical work and projects

2017-2018 **System**, IUT de Bordeaux, Computer Science.
Practical work: Linux usage, shell commands, SSH, FTP, ...

2012-2014 **Maths and Physics Lecturer**, Galatasaray University, Istanbul.
Maths and Physics oral examinations, Physics experiments, French for Mathematics

Computer skills

Python	+++	Git	++
LaTeX	+++	Matlab	++
SQL	+++	HTML/CSS	++
GNU/Linux	+++	JavaScript	++
Cluster (Torque,Slurm)	+++	C/C++	+

Software

NamingGamesAL Python library for simulating Language Games
Source: https://github.com/flowersteam/naminggamesal

Experiment Manager Python library for managing computer simulations
Source: https://github.com/wschuell/experiment_manager

Naming Game User Experiment Django project for a research experiment
Source: https://github.com/wschuell/ng_userxp
Game: http://naming-game.bordeaux.inria.fr

Explanatory Notebooks Reproducing scientific results of the latest publication
Source: https://github.com/wschuell/notebooks_cogsci2018

Languages

Fluent: French, English, Spanish, German, Italian, Turkish, Catalan

Invited Talks

April 2018 **Emergence of language: Active negotiation of new linguistic conventions**, *Jagellonian University in Kraków, Institute of Pyschology*.

July 2015 **Active learning and active control of growth complexity in naming games**, *Complexity & Quantitative Linguistics Lab, Univ. Politècnica de Catalunya*, Barcelona.

Publications

2018 W. Schueller, V. Loreto, and P.-Y. Oudeyer. **Complexity Reduction in the Negotiation of New Lexical Conventions**. *arXiv preprint arXiv:1805.05631, accepted at CogSci 2018 Conference*, 2018.

2016 W. Schueller and P.-Y. Oudeyer. **Active Control Of Complexity Growth In Naming Games: Hearer's Choice**. In *The Evolution of Language: Proceedings of the 11th International Conference (EVOLANGX11)*, 2016.

2015 W. Schueller and P.-Y. Oudeyer. **Active Learning Strategies and Active Control of Complexity Growth in Naming Games**. In *the 5th International Conference on Development and Learning and on Epigenetic Robotics*, Providence, RI, United States, 2015.