

DR. JULIEN SIEBERT

Postdoc researcher

CONTACT

Address: Lauerstr. 12. 67697 Otterberg,
Germany

Phone: +49 179 64 54 971

Email: julien.siebert@gmail.com

Nationality: French

Date of birth: December 26, 1984

1 child (born June 2016)

EXPERIENCE

09/2017 – now. Scientist, Algorithm Accountability Lab. TU Kaiserslautern, Germany.

- + Research: Human-Algorithm interfaces and didactics of social network analysis.
- + Research: Efficient generation of random graphs.

12/2015 – 07/2017. Research Engineer / Data Scientist, Zalando SE. Berlin, Germany.

Sizing recommendation system (11-2016 - 07-2017).

- + Data gathering, data analysis and development of the Zalando sizing recommendation services (*Python, PostgreSQL, Cassandra, AWS, Clojure*).

Search engine, query understanding and intent (07-2016, 11-2016).

- + Natural Language Processing (*Python NLTK, Java Stanford Parser*), Document indexing (*Lucene, Solr*), Microservices architecture (*Scala, REST API, AWS*).

Datascience backend and tooling for the Zalando fashion influencer marketing application: Zalando Collabary (12-2015. 07-2016)

- + Web scraping and social network analysis, ETL, backend, frontend, API development and cloud deployment (*Python scrapy, PostgreSQL, MongoDB, Python flask, Javascript angularJS, Python connexion, AWS*).
- + Research project on opinion spreading dynamics for fashion in collaboration with the Technische Universität Berlin.

01/2015 – 08/2015. Research Engineer, Robert Koch Institut. Berlin, Germany.

- + Research: Evolutionary biology of symbiosis.
- + Cluster administration. Programming of equation solvers (*C, Python, Netlogo (Scala)*), Mathematical analysis of stochastic differential equations, Data analysis and visualization (*Gnuplot, Python, R, Javascript angularJS, D3JS*).

01/2013 – 12/2014. Scientist, SFB910, Institut für Theoretische Physik, TU BERLIN. Berlin, Germany.

- + Research: Emergence, evolution and stability of spatio-temporal patterns (non-linear differential equations).
- + Research: Synchrony and chimera states in networks of coupled oscillators (non-linear delay differential equations).
- + Equation solvers programming (*C, Python*). Mathematical analysis of non-linear differential equations. Time series, data analysis and visualization (*Gnuplot, Python, R*).
- + Supervision of master students.

09/2011 – 09/2012. Research and Teaching assistant, École Nationale des Ingénieurs de Brest (ENIB), European center for Virtual Reality (CERV). Brest, France.

- + Research: Simulation of smart-buildings.
- + Research: Development of the [MECSYCO](#) simulation platform.
- + Research: Distributed human-machine interface experiments (C++ SFML)
- + Teaching: Algorithmic and Python programming. Introduction to C programming.
- + Supervision of master students.

09/2007 – 09/2011 Teaching and Research assistant, Université de Lorraine (UDL), National Research Institute in Computer Sciences (INRIA), Lorraine Research Laboratory in Computer Science and its Applications (LORIA). Nancy, France

- + Research: Coupling simulation softwares and models from Sociology and Computer networks to understand the dynamics of ambient computing (peer-to-peer, ad-hoc and mesh networks).
- + PhD: "A multi-agent approach for multi-modelling and simulation coupling. Study of ambient networks and their users' behaviours."
- + Development of the [MECSYCO](#) simulation platform (Java, Scala, Web Services).
- + Teaching: Databases (SQL). Distributed programming (Corba, RMI, Java beans). Web programming (Servlet, JSF, JSP). Algorithmic, Computer sciences and Internet certificate (C2I)
- + Supervision of master students.

EDUCATION AND LANGUAGES

2007-2011	PhD Computer Sciences. MECSYCO platform: Simulation of Complex Systems – Distributed Artificial Intelligence (Multi-agent systems). Université de Lorraine (UDL), National Research Institute in Computer Sciences (INRIA), Lorraine Research Laboratory in Computer Science and its Applications (LORIA). Nancy, France
2006-2007	Master of Science, Artificial Intelligence Université de Lorraine (UDL). Nancy, France
2002-2007	Master of Engineering, Generic Engineering / Network and Systems École Supérieure des Sciences et Technologies de l'Ingénieur de Nancy (ESSTIN). Vandoeuvre-lès-Nancy, France
French	mother tongue, (read, spoken, written).
English	fluent, (read, spoken, written).
German	level B2, (read, spoken, written).

SKILLS

Programming (most familiar)	Python, Java, Scala – Javascript angularJS, Bootstrap, HTML, XSLT, Json – PostgreSQL, mySQL – Linux command line tools (sed, grep...)
Dev ops	Test driven development methods, Scrum, Radical focus, Git
CI-CD	AWS, Zalando Stups, Docker, Jenkins
Datascience	Python pandas, scikit-learn, nltk, matplotlib, D3JS
Research	Distributed simulations, multi-agent systems, complex networks, non-linear dynamics, numerical simulations

REFEREES

Dr. Olena Bachynska	Delivery lead, Recommendation Systems, Zalando SE, Berlin. olena.bachynska@zalando.de
Prof Dr. Eckehard Schöll	Head of the research group "Nonlinear dynamics and control", Physics Department, TU Berlin. schoell@physik.tu-berlin.de
Prof. Dr. Vincent Chevrier	Professor at Ecole nationale supérieure d'électricité et de mécanique de Nancy (ENSEM). Vincent.chevrier@loria.fr

PUBLICATIONS

Book Chapters

Anna Zakharova, Sarah A. M. Loos, **Julien Siebert**, Aleksandar Gjurchinovski, Jens Christian Clausen, and Eckehard Schöll. *Controlling Chimera Patterns in Networks: Interplay of Structure, Noise, and Delay*, pages 3--23. Springer International Publishing, Cham, 2016. [[DOI](#)][[http](#)]

Jakob Löber, Rhoslyn Coles, **Julien Siebert**, Harald Engel, and Eckehard Schöll. *Control of Chemical Wave Propagation*, chapter 11, pages 185--207. World Scientific, 2014. [[DOI](#)][[arXiv](#)][[http](#)]

Journals

Iryna Omelchenko, Anna Zakharova, Philipp Hövel, Julien Siebert, and Eckehard Schöll. Nonlinearity of local dynamics promotes multi-chimeras. *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 25(8):083104, August 2015. [[DOI](#)][[http](#)]

Julien Siebert and Eckehard Schöll. Front and Turing patterns induced by Mexican-hat-like nonlocal feedback. *EPL (Europhysics Letters)*, 109(4):40014, 2015. [[http](#)]

Julien Siebert, Sergio Alonso, Markus Bär, and Eckehard Schöll. Dynamics of reaction-diffusion patterns controlled by asymmetric nonlocal coupling as a limiting case of differential advection. *Phys. Rev. E*, 89:052909, May 2014. [[DOI](#)][[http](#)]

Tomas Navarrete Gutierrez, **Julien Siebert**, Laurent Ciarletta, and Vincent Chevrier. Impact des dimensions spatiale et temporelle dans la modélisation d'un phénomène collectif de type free-riding. *Revue d'Intelligence Artificielle*, 2011.

Julien Siebert, Laurent Ciarletta, and Vincent Chevrier. De l'intérêt du couplage de modèles pour appréhender les interactions utilisateurs-réseaux dynamiques. *Revue d'Intelligence Artificielle*, 2009. [[http](#)]

Conferences proceedings

Anna Zakharova, Sarah Loos, Julien Siebert, Aleksandar Gjurchinovski, and Eckehard Schöll. Chimera patterns: influence of time delay and noise. In *IFAC Chaos 2015 Tokyo*, 2015.

Benjamin Camus, **Julien Siebert**, Christine Bourjot, Vincent Chevrier. Modélisation multi-niveaux

dans AA4MM. In *20èmes Journées Francophones des Systèmes Multi-Agents - JFSMA 2012*, pages 43–52, Honfleur France. [[http](#)]

Julien Siebert, Laurent Ciarletta, and Vincent Chevrier. Agents & artefacts for multiple models coordination. Objective and decentralized coordination of simulators. In *25th Symposium On Applied Computing*, 2010.

Julien Siebert, Laurent Ciarletta, and Vincent Chevrier. Agents and artefacts for multiple models co-evolution. Building complex system simulation as a set of interacting models. In *9th Int. Conf. on Autonomous Agents and Multiagent Systems - AAMAS 2010 Autonomous Agents and Multiagent Systems - AAMAS 2010*, pages 80--102, Toronto Canada, 05 2010. [[pdf](#)]

Tom Leclerc, **Julien Siebert**, Vincent Chevrier, Laurent Ciarletta, and Olivier Festor. Multi-Modeling and Co-Simulation-based Mobile Ubiquitous Protocols and Services Development and Assessment. In *7th International ICST Conference on Mobile and Ubiquitous Systems (MobiQuitous 2010)*, December 2010.

Tomas Navarrete Gutierrez, **Julien Siebert**, Laurent Ciarletta, and Vincent Chevrier. Impact des dimensions spatiale et temporelle dans la modélisation d'un phénomène collectif de type free-riding. In *18èmes Journées Francophones des Systèmes Multi-Agents - JFSMA'10*, Mahdia, Tunisia. [[http](#)]

Julien Siebert, Laurent Ciarletta, and Vincent Chevrier. Impact du comportement des utilisateurs dans les réseaux pair-à-pair (P2P) : modélisation et simulation multi-agents. In *16es Journées Francophones des Systèmes Multi-Agents 16es Journées Francophones des Systèmes Multi-Agents - JFSMA'08*, pages 129--138, Brest France. [[http](#)]

Workshops

Julien Siebert, Vincent Chevrier, and Laurent Ciarletta. Entwined influences of users' behaviour and QoS: a multi-model approach. In *Autonomous Infrastructure, Management and Security*, 1 July 2008.

Julien Siebert, Vincent Chevrier, and Laurent Ciarletta. Modélisation multimodèle des réseaux dynamiques : cas des réseaux pair-à-pair. In *JDIR'08 - 9èmes Journées Doctorales en Informatique et Réseaux*, Villeneuve d'Ascq, France, 2008.

Scientific reports

Julien Siebert, Joris Rehm, Vincent Chevrier, Laurent Ciarletta, and Dominique Mery. AA4MM coordination model: event-b specification, RR-7081. Technical report, INRIA, 2009.