Solenne Gaucher

PhD Candidate

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Professional Experience

Sept. 2018 to (Sept. 2022) — **Laboratoire de Mathématiques d'Orsay**, *PhD Candidate*, Orsay, France.
PhD in Statistics on link prediction with bandit feedback, under the supervision of Christophe Giraud.

April to July 2018 — **Centre de Recherche en Économie et Statistiques, ENSAE**, *Research intern*, Palaiseau, France.
Studied maximum likelihood estimation for sparse network in the stochastic block model, under the supervision of Olga Klopp.

April to July 2017 — **Dept. of Statistics, Oxford University**, *Research intern*, Oxford, Royaume-Uni.
Developed a multi-scale, Bayesian, non-parametric approach for testing for dependance, based on Pòlya Tree and Bernstein polynomials, under the supervision of Chris Holmes and Sarah Filippi.

June to Aug. 2016 — **Médiactif**, *Software development trainee*, Bagneux, France.
Analysed trajectories of pedestrians obtained from geolocalisation data; modeled and simulated crowd motion

Teaching

2019 – 2020 — **Teaching Assistant**, *ENSAE*, Palaiseau, France.
Introduction to Machine Learning (Master level).

2018 – 2020 — **Teaching Assistant**, *ENSAE*, Palaiseau, France.
Statistics 1 (Master level).

2018 – 2019 — **Teaching Assistant**, *ENSAE*, Palaiseau, France.
Refresher on Mathematical Statistics (Master level).

Education

2014 – 2018 — **École polytechnique**, Palaiseau, France.
Master of Science in Applied Mathematics.

2017 – 2018 — **Université Paris-Sud**, Orsay, France.
MS in Probability and Statistics.

2012 – 2014 — **Lycée Hoche**, Versailles, France.
An intensive two-year preparatory programme leading to competitive entrance examinations to the French Grandes Écoles engineering schools. Maths and Physics track courses.

2009 – 2012 — **Lycée Franco-Allemand**, Buc, France.
French-German Baccalauréat in Science (equivalent to A levels).

Articles

2019 — **Link Prediction in the Stochastic Block Model with Outliers,**, S. Gaucher, O. Klopp and G. Robin, *Arxiv preprints*.

2019 — **Maximum Likelihood Estimation of Sparse Networks with Missing Observations**, S. Gaucher and O. Klopp, *Arxiv preprints*.

Oral Presentations

Oct. 2019   **Robust Link Prediction in the Stochastic Block Model**, *Network Days III*, Orsay, France.

Apr. 2019   **Maximum Likelihood Estimation of Sparse Networks with Missing Observations**, *Huitièmes rencontres des jeunes statisticiens*, Hyères, France.

Oct. 2018   **Estimation of Sparse Networks**, *Network Days II*, Orsay, France.

Software

R package   **gsbm**, *Estimation of probabilities of connection in the Generalized Stochastic Block Model*, S. Gaucher and G. Robin.

Skills

Computer Science   Programming skills in **R, Python, Matlab, C++**.

Languages   French (native), English (fluent, IELTS 8), German (intermediate).