

Geneviève Robin

Curriculum Vitae

Current position

Oct. 2019 - **Post-doctoral position**, *École des Ponts ParisTech, INRIA*, Marne la Vallée, France.
Molecular dynamics and learning, with **Tony Lelièvre** (ENPC) and **Gabriel Stoltz** (ENPC).

Keywords.

Markov Chain Monte-Carlo, molecular simulation, high-dimensional statistics.

Awards and fellowships

2019 **Prix Jeunes Talents France L'Oréal-UNESCO Pour les Femmes et la Science**,
Fondation L'Oréal.

2018 **Student Award**, *Advances in Neural Information Processing Systems 31*.

2018 **Best Student Paper Award**, *Jerusalem Joint Statistical Event (EMR-IBS)*, Frontier
Science Foundation Hellas.

2017 **Student Travel Award**, *Algorithmic Challenges in Protecting Privacy for Biomedical
Data*, IPAM, UCLA.

2017-2018 **Visiting Student Researcher Fellowship**, *France-Stanford Center for Interdisciplinary
Studies*, personal fellowship for four-month research visit.

Educational background

2016 - 2019 **PhD Thesis**, *École Polytechnique*, Palaiseau, France.
Low-rank methods for multi-source, heterogeneous and incomplete data. Supervised by **Julie
Josse** (École Polytechnique) and **Éric Moulines** (École Polytechnique).

2015 - 2016 **MSc. Mathematics, Vision, Learning (highest honors)**, *ENS de Cachan*, France.

2012 - 2015 **Diplôme d'Ingénieur**, *École Polytechnique*, Palaiseau, France.

Internships

2018 **Visiting Student Researcher**, *Stanford University*, Stanford, CA, États-Unis.

2016 **Research intern**, *AgroParisTech*, Paris, France.

2015 **Research intern**, *University of California*, Berkeley, CA, États-Unis.

2012 - 2013 **Civil service**, *Fondation Apprentis d'Auteuil*, Chartres, France.

Publications

2019 - S. Gaucher, O. Klopp, **G. Robin**. Link prediction in the Stochastic Block Model with
outliers. *Submitted*

- F. Husson, J. Josse, B. Narasimhan, **G. Robin**. Imputation of mixed data with multilevel
SVD. *Journal of Computational and Graphical Statistics*

- **G. Robin**, O. Klopp, J. Josse, É. Moulines, R. Tibshirani. Main effects and interactions
in mixed and incomplete data frames. *Journal of the American Statistical Association*

- **G. Robin**, J. Josse, É. Moulines, S. Sardy. Low-rank model with covariates for count
data analysis *Journal of Multivariate Analysis*

- 2018 - **G. Robin**, H.-T. Wai, J. Josse, O. Klopp, É. Moulines. Low-rank interaction and sparse additive effects model for large data frames. *Advances in Neural Information Processing Systems 31*
- G. Robin**, C. Ambroise, S. Robin. Incomplete graphical model inference via latent tree aggregation *Statistical Modelling*

Teaching

- 2020 - **Teaching**, *ESSEC Business School*, Cergy, France.
Statistical Modeling, Lectures, TD and TP, 1A ESSEC [First semester 2020]
- 2016 - 2019 **Teaching Assistant**, *Université Paris-Saclay*.
Introduction to Machine learning, TD and TP, Master X-HEC [First semester 2019]
Statistics, TD and TP, Master X-HEC [Second semester 2018]
Introduction to R, TP, Master X-HEC [First semester 2018]
Statistics with R, TD, 3A Polytechnique [Second semester 2016, 2017]
Introduction to Machine learning, TP, Master Data-Science [Second semester 2016]

Software development

- R package `lori`: Imputation of count data using side information
- R package `mimi`: Estimation of main effects and interactions in mixed and incomplete data
- R package `gsbm`: Link prediction and outliers detection in the Stochastic Block Model

Talks and posters in conferences

- Jun 2019 **51èmes Journées de Statistique**, *Université de Lorraine*, Nancy, France, *contributed talk*.
- Dec 2018 **Jerusalem Joint Statistical Event (EMR-IBS)**, Jerusalem, Israël, *contributed talk*.
- Dec 2018 **Advances in Neural Information Processing Systems 31**, Montréal, Canada, *spotlight talk*.
- May 2018 **50èmes Journées de Statistique**, *EDF Lab Paris Saclay*, Palaiseau, France, *contributed talk*.
- Dec 2017 **Algorithmic Challenges in Protecting Privacy for Biomedical Data**, *UCLA*, Los Angeles, USA, *poster*.
- Jul 2017 **European Meeting of Statisticians**, *University of Helsinki*, Helsinki, Finland, *contributed talk*.
- Jul 2017 **New Challenges in Applied Mathematics**, *Sharif University*, Tehran, Iran, *talk*.
- Jan 2017 **Statistical Methods for Post-Genomic Data**, *Imperial College London*, London, GB, *contributed talk*.

Talks in seminars

- 03/04/2020 **Séminaire de Statistiques**, *MAP5, Université de Paris*, Paris, France.
- 19/03/2020 **Séminaire de l'équipe Signal, Statistiques et Apprentissage**, *Laboratoire Traitement et Communication de l'Information, Telecom Paris*, Palaiseau, France.
- 10/02/2020 **Séminaire de Statistiques**, *Laboratoire de l'Informatique et du Parallélisme, ENS Lyon*, Lyon, France.
- 23/01/2020 **Séminaire de Probabilités et Statistiques**, *Département de Mathématiques d'Orsay*, Orsay, France.
- 16/01/2020 **AMA team seminar**, *Laboratoire d'Informatique de Grenoble*, Grenoble, France.
- 06/01/2020 **Statistics seminar**, *Institut de Mathématiques de Toulouse*, Toulouse, France.

- 23/11/2019 **Complex systems seminar**, *Centre d'Analyse et de Mathématiques Sociales, EHESS*, Paris, France.
- 14/10/2019 **IACM seminar**, *Foundation for Research and Technology-Hellas*, Heraklion, Greece.
- 28/02/2019 **Rencontres Modélisation Mathématique et Biodiversité**, *École Polytechnique*, Palaiseau, France.
- 21/02/2019 **Séminaire de Biostatistiques**, *ISPED, Université de Bordeaux*, Bordeaux, France.
- 16/10/2018 **Séminaire de Statistiques**, *MIA, AgroParisTech*, Paris, France.
- 15/10/2018 **Journée de rentrée du CMAP**, *CMAP, École Polytechnique*, Palaiseau, France.
- 10/05/2018 **Prof. Tibshirani group meeting**, *Stanford University*, Stanford, USA.
- 3/05/2018 **Séminaire**, *Tour du Valat*, Le Sambuc, France.
- 14/04/2018 **Séminaire des doctorants**, *CMAP, École Polytechnique*, Palaiseau, France.
- 15/07/2017 **Séminaire équipe XPOP**, *École Polytechnique*, Palaiseau, France.
- 21/01/2017 **Prof. Hastie group meeting**, *Stanford University*, Stanford, USA.

Scientific commitment

- 2019 - **Organization of the Labex Bézout working group in Optimization and learning**, *École des Ponts ParisTech*.
- 2019 - **President of the "Young Statisticians" group**, *Société Française de Statistique*.
- 2018 - **Organization of the Young Statisticians and Probabilists Seminar**, *Société Française de Statistique*.
- 2019 - **Conference refereeing**, *Thirty-third Conference on Neural Information Processing Systems (NeurIPS), Asian Conference on Machine Learning (ACML), International Joint Conference on Artificial Intelligence (IJCAI), International Conference on Machine Learning (ICML)*.
- 2018 - **Journal refereeing**, *Electronic Journal of Statistics, Statistics and Computing, Biometrika, Journal de la Société Française de Statistique*.

Skills

- Languages French (native), English (fluent), Arabic (intermediate), German (intermediate)
- Programming R, Python, Julia, Matlab, C++

Associative commitment

- 2018-2019 **French lessons for refugees**, *Solidarités Saint Bernard*, Paris, France.
- 2017-2018 **Scientific tutoring for young people newly arrived in France**, *Proximité*, Paris, France.
- 2015-2016 **Animations for young people in centers for asylum seekers**, *Afev*, Paris, France.