Saint-Clair Chabert-Liddell

Eligible for *jeune docteur* contract

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www.chabert-liddell.com • Chabert-Liddell
14 November 1978 • Married • French citizen

Research Themes

Methods: Networks, Latent variable models, Clustering, Random graphs, Variational inference

Applications: Social sciences, Life sciences

Experience

INRAE, UMR Marbec/UMR MIA Paris-Saclay
Postdoctoral researcher *09-2022 – . . .*
Statistical and deep learning methods to infer collaboration networks from fishing boats trajectories.

Agroparistech Innovation
Research & development engineer *05–08 2022*
Studied and compared bayesian inference algorithms for hierarchical models.

Agroparistech
Lecturer *2018 – 2022*
Teached tutorial and practical work in statistics and data science for MSc and BSc in engineering

Professional poker player *2006 – 2015*
Played mostly on-line while traveling in over 20 different countries.
Focus on poker theory and modeling with advanced usage of dedicated analytical tools.

Education

PhD in Applied Mathematics

2018 – 2022: Paris-Saclay University / INRAE

Title: *Statistical learning of collections of networks with applications in ecology and sociology*

Supervisors: Sophie Donnet, Pierre Barbillon UMR MIA-Paris

Methods: Networks, Latent variable models, Clustering, Random graphs, Variational inference

Applications: Social sciences, Ecology

UPMC – Sorbonne University **Paris**
Master in applied mathematics – specialization in statistics, highest honors *2016 – 2018*

Skills

Computer skills

R: Package development

Python: pytorch

other: LaTeX, Linux, C++, git

Languages

French: Native language

English: Scientifc level

Japanese: Conversational level *JLPT N2*

Publications

Saint-Clair Chabert-Liddell, Pierre Barbillon, Sophie Donnet, and Emmanuel Lazega. A stochastic block model approach for the analysis of multilevel networks: An application to the sociology of organizations. *Computational Statistics & Data Analysis*, 158:107179, 2021.

Saint-Clair Chabert-Liddell, Pierre Barbillon, and Sophie Donnet. Impact of the mesoscale structure of a bipartite ecological interaction network on its robustness through a probabilistic modeling. *Environmetrics*, 33(2):e2709, 2022.

Chabert-Liddell, Saint-Clair, Pierre Barbillon, and Sophie Donnet. Learning common structures in a collection of networks. an application to food webs. *arXiv preprint arXiv:2206.00560*, 2022.

Software

MLVSBM: `R` package for the simulation, inference and clustering of multilevel networks
`http://Chabert-Liddell.github.io/MLVSBM`, available on `cran`

robber: `R` package for computing the robustness of bipartite ecological interaction networks
`http://Chabert-Liddell.github.io/robber`, available on `cran`

colSBM: `R` package for analyzing the common structures in collection of networks
`http://Chabert-Liddell.github.io/colSBM`

hbm4ecology: Companion `R` package for the book *Introduction to hierarchical bayesian modeling for ecological data*, (Parent & Rivot, 2012)
`http://www.hbm-for-ecology/rpackage`

Talks

Conference

18th Conference of Applied Statistics **Ljubljana**
Learning common structures in a collection of networks *2022*
Invited session

EUSN 2021 - 5th European Conference on Social Networks **Online**
A Stochastic Block Model for collection of networks: Do the networks share a common structure? *2021*

JDS 2021 : 52ème Journées de Statistique de la SFDS **Online**
A stochastic block model for multilevel networks *2021*

Sunbelt **Online**
Stochastic block model for multilevel networks unravels structural interdependence between the social and economic networks in a TV program trade fair *2020*

Teaching

Agroparistech **16h30**
Practical work in Data Science: Statistical Learning, MSc in engineering 1st year *2020 – 2022*

Agroparistech **33h**
Tutorial in Statistics, BSc in engineering 3rd year *2018 – 2021*

Agroparistech **13h30**
Practical work in Linear Model, MSc in engineering 1st year *2018 – 2020*

Agroparistech **3h**
Advanced Course in Mathematics: Introduction to Measure Theory, MSc in engineering 1st year *2018*

Miscellaneous

Interests

Travel: World tour while playing poker

Sports: Hiking, swimming, cycling, bouldering

Culture: Art-house cinema