Julien GIBAUD Teaching fellow

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https://github.com/julien-gibaud

🏶 https://julien-gibaud.github.io/



Professional experience

2022 – 2023 **Teaching fellow,** Paul Valéry University, Montpellier, France

2019 – 2022 PhD student without teaching activity, University of Montpellier, Institut Montpelliérain Alexander Grothendieck (IMAG), France

Education

2019 – 2022 PhD in Statistics, University of Montpellier, IMAG, France

Title: Supervised component-based generalized linear regression for the joint modeling of responses
The jury was composed by: • Jean-Noël BACRO, Professor, University of Montpellier, President of the jury • Xavier BRY, Associate professor, University of Montpellier, Co-supervisor
• Marie CHAVENT, Professor, University of Bordeaux, Examiner • Fabien LAROCHE, Permanent researcher, INRAE Toulouse, Examiner • Jérome SARACCO, Professor, Polytechnic Institute of Bordeaux, Referee • Catherine TROTTIER, Associate professor, Paul Valéry University - Montpellier 3, Supervisor • David I. WARTON, Professor, University of New South

Wales - Sydney, Referee

2017 – 2019 Master in Applied Mathematics, University of Toulouse, France

Specialization: Applied mathematics for engineering, industry and innovation

2013 – 2016 **Bachelor in Mathematics,** University of Albi, France

Specialization: General mathematics

Scientific outputs

Summary of my research activities

- 1 Article in international refereed journal
- 1 Submitted article
- 2 Talks in international conferences
- 4 Talks in national conferences
- 4 Seminars
- 1 Software

Articles in international refereed journals

Gibaud J., Bry X., Trottier C., Mortier F. and Réjou-Méchain M. (2022). Response mixture models based on supervised components: Clustering floristic taxa. *Statistical Modelling*

Submitted articles

Heuclin B., **Gibaud J.**, Mortier F., Trottier C., Tisné S. and Denis M. Bayesian sparse group selection with indexed regressors within groups: the group fused horseshoe prior. *Submitted to Journal of Agricultural, Biological and Environmental Statistics*

Talks in international conferences

- Gibaud J., Bry X. and Trottier C., "Supervised Component-based Generalized Linear Regression with conditionally covarying responses", 24th International Conference on COMPutational STATistics, Bologna, Italy (2022)
- Gibaud J., Bry X. and Trottier C., "Response clustering in component-based GLM", 19th Conference of the Applied Stochastic Models and Data Analysis international society (virtual event), Athens, Greece (2021)

Talks in national conferences

- Gibaud J., Bry X. and Trottier C., "Modèles linéaires généralisés multivariés à composantes supervisées et facteurs latents, avec partitionnement thématique des variables explicatives", 53èmes Journées de Statistique de la Société Française de Statistique, Lyon, France (2022)
- Gibaud J., "Régression linéaire généralisée multi-tableaux sur composantes supervisées pour les modèles à facteurs latents", *gème Rencontre des Jeunes Statisticien·nes*, Porquerolles, France (2022)
- Gibaud J., Bry X. and Trottier C., "Régression linéaire généralisée sur composantes supervisées pour les modèles à facteurs latents", 52èmes Journées de Statistique de la Société Française de Statistique (événement en ligne), Nice, France (2021)
- Gibaud J., Bry X. and Trottier C., "Supervised Component-based Generalized Linear Regression with finite mixture models of responses", 41st Conference on Applied Statistics in Ireland (virtual event), Maynooth, Ireland (2021)

Seminars

- Gibaud J., Bry X. and Trottier C., "Modèles linéaires généralisés multivariés à composantes supervisées et facteurs latents, avec partitionnement thématique des variables explicatives", ANR GAMBAS meeting, Montpellier, France (2022)
- Gibaud J., Bry X. and Trottier C., "Modèles linéaires généralisés multivariés à composantes supervisées et facteurs latents, avec partitionnement thématique des variables explicatives", Seminar for PhD students, Montpellier, France (2022)
- Gibaud J., Bry X. and Trottier C., "Régression linéaire sur composantes supervisées pour les modèles à facteurs latents", Structural dependency modeling working group, Montpellier, France (2021)
- Gibaud J., Bry X. and Trottier C., "Régression linéaire généralisée sur composantes supervisées pour la modélisation jointe des réponses", Seminar for PhD students, Montpellier, France (2020)

Software

Development of the R package **rmSCGLR**. This package is available at https://github.com/julien-gibaud/rmSCGLR.

Research projects

2019 - 2023

Member of the GAMBAS project, "Generating Advances in Modeling Biodiversity And ecosystem Services: statistical improvements and ecological relevance of joint species distribution models". This project is funded by the French Agence Nationale de la Recherche (ANR-18-CE02-0025). Coordinator: Frédéric MORTIER.

Teaching activities

Paul Valery University - Montpellier 3, France

2022 - 2023

Descriptive statistics in social sciences (First year, 67 hours); Exploratory analysis of the data (First year, 18 hours); Bivariate probabilities and statistics (Second year, 20 hours); Statistics tools I (Second year, 30 hours); Statistics tools II (Second year, 36 hours); Multivariate statistics (Fourth year, 21 hours)

2020 - 2021

- Descriptive statistics in social sciences (First year, 36 hours)
- 2019 2020
- Descriptive statistics in social sciences (First year, 36 hours)

Involvement in the scientific life

2021 - 2022

Co-organizer of the seminar for PhD students of the IMAG with Nathan LOMBARD and Raphaël PAEGELOW.