# 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 3, France

PhD student without teaching activity, University of Montpellier, Institut Montpelliérain Alexander Grothendieck (IMAG), France, supervised by Catherine TROTTIER and Xavier BRY

## **Education**

PhD in Statistics, University of Montpellier, IMAG, France
Title: Supervised component-based generalized linear regression for the jointly modelisation of the responses

2017 – 2019 Master in Applied Mathematics, University of Toulouse, France Specialization: *Applied mathematics for engineering, industry and innovation* 

**Bachelor in Mathematics,** University of Albi, France Specialization: *General mathematics* 

# **Scientific productions**

# 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 COM-Putational 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); Stat Miashs (L1, TD, 18h); Bivariate probabilities and statistics (Second year, 20 hours); Stat prépro S3 (L2, TD, 30h); Stat prépro S4 (L2, TD, 36h); 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 at the IMAG with Nathan LOM-BARD and Raphaël PAEGELOW.