

Lidia André

POSTDOCTORAL RESEARCH FELLOW

Université de Namur, 5000 Namur, Belgium

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Education

Lancaster University

United Kingdom

PHD STATISTICS

2021 - 2024

- Thesis: "Modelling and inference for the body and tail regions of multivariate data"
- Supervisors: Dr. Jennifer Wadsworth

Lancaster University

United Kingdom

MRES STATISTICS AND OPERATIONAL RESEARCH, GRADE: DISTINCTION

2020 - 2021

- Project: "Dependence Models for Actuarial Data"
- Supervisors: Dr. Jennifer Wadsworth, Dr. Adrian O'Hagan (UCD, Ireland)

Faculty of Sciences, University of Lisbon

Portugal

MSC STATISTICS AND OPERATIONAL RESEARCH, GRADE: 18/20

2017 - 2019

- Dissertation: "Copula Models for Dependence: Comparing Classical and Bayesian Approaches"
- Supervisors: Dr. Patrícia de Zea Bermudez

University of Bologna

Italy

MSC STATISTICAL SCIENCES - ERASMUS PROGRAMME

2017 - 2018

- Analysis of Categorical Data: 24/30
- Survey Sampling: 24/30
- Systems and Algorithms for Data Science: 30/30

Lisbon School of Economics & Management, University of Lisbon

Portugal

BSC MATHEMATICS APPLIED TO ECONOMICS AND MANAGEMENT, GRADE: 15/20

2014 - 2017

Professional Experience

2025— **Postdoctoral Research Fellow: X-vine models for multivariate extremes**, Université de Namur

2024 **Research Associate: Computational Skills Project**, Lancaster University

2021 - 2023 **Graduate Teaching Assistant**, Department of Mathematics and Statistics, Lancaster University

Research Fellow: Investigation of the spatial distribution of a fish species where the focus was on assessing if

2019 - 2020 using Preferential Sampling would improve the estimation of such distribution, Portuguese Institute for Sea and Atmosphere

2012 - 2017 **Monitor at Summer Camp (for children aged 3-10)**, Junta de Freguesia de Carnide, Lisboa, Portugal

Research Interests

Main interests: Statistics of Extremes (with particular interest in multivariate extremes), Computational Statistics and Copula Theory

Other interests: High Dimension Statistics, Spatial Statistics, Bayesian Inference and Machine Learning/AI

Publications

PUBLISHED

André, L. M., Campbell, R., D'Arcy, E., Farrell, A., Healy, D., Kakampakou, L., Murphy, C., Murphy-Bartrop, C.J.R., Speers, M. (2024). Extreme value methods for estimating rare events in Utopia. *Extremes*.

André, L. M., Wadsworth, J. L., O'Hagan, A. (2024). Joint modelling of the body and tail of bivariate data. *Computational Statistics & Data Analysis*.

André, L. M., Figueiredo, I., Carvalho, M. L., Simões, P., Natário, I. (2020). Spatial Modelling of Black Scabbardfish Fishery Off the Portuguese Coast. *ICCSA 2020*.

André, L. M., de Zea Bermudez, P. (2020). Modelling dependence between observed and simulated wind speed data using copulas. *Stochastic Environmental Research Risk Assessment*.

Awards

- 2023 **23rd European Young Statisticians Meeting**, European Regional Committee of the Bernoulli Society
2019 **XXIV Congresso da Sociedade Portuguesa de Estatística (Scholarship)**, Sociedade Portuguesa de Estatística

Conferences

POSTER PRESENTATIONS

- February 2024. *ML-based inference for complex dependence models*. Causality in Extremes Workshop, Geneva, Switzerland.
January 2024. *Jointly Modelling the Body and Tail of Multivariate Data*. STOR-i Annual Conference, Lancaster, UK.
May 2022. *Jointly Modelling the Body and Tail of Multivariate Data*. 5th International Conference on Advances in Extreme Value Analysis and Application to Natural Hazards, Orlando, Florida, USA.
April 2022. *Jointly Modelling the Body and Tail of Multivariate Data*. Data on the Lake Conference, Windermere, UK.

CONTRIBUTED PRESENTATIONS

- September 2023. *Joint modelling of the body and tail of bivariate data*. STOR-i Extremes Workshop, Lancaster, UK.
September 2023. *Joint modelling of the body and tail of bivariate data*. 23rd European Young Statisticians Meeting, Ljubljana, Slovenia.
June 2023. *Joint modelling of the body and tail of bivariate data*. Extreme Value Analysis Conference, Milan, Italy.
March 2022. *Introduction to Extremes with R*. University of Lisbon Extremes Webinar (Joint workshop), Lisbon, Portugal.
July 2020. *Spatial Modelling of Black Scabbardfish Fishery off the Portuguese Coast*. 20th International Conference on Computational Science and Its Applications, Cagliari, Italy.
November 2019. *Bivariate Copula Models for Dependence: Application to Wind Speed Data*. XXIV Congresso da Sociedade Portuguesa de Estatística, Amarante, Portugal.

Teaching Experience

MATH101:	Calculus (Autumn 2021)	MATH403:	Statistical Foundations I (Autumn 2023)
MATH102:	Further Calculus (Autumn 2021)	MATH502:	Statistical Fundamentals II (Autumn 2021, 2022)
MATH235:	Statistics II (Spring 2022, 2023)	STOR605:	Inference (Autumn 2021)
MATH331:	Bayesian Statistics (Autumn 2021, 2022)		

Activities

COMMITTEES (O - Organiser; CO - Co-Organiser; OC - Organising Committee; CM - Committee Member)

2023 - 2024	Lancaster Extremes research group , O	2022 - 2023	STOR-i Extremes Workshop , OC
2022 - 2023	STOR-i computing research group , CO	2022 - 2023	STOR-i Womens+ Network , CM

SUPERVISION

July 2022 **Rui Zhang**, STOR-i Intern

Lancaster University

COMPUTING SKILLS

Primary:	R (and R packaging) and Julia
Frequent use:	LaTeX, HPC, SLURM, GitHub
Brief knowledge:	Python, MATLAB, C++, SPSS, SQL, JAGS, WinBUGS, OpenBUGS, GiveWin, TSP

LANGUAGES

Native:	Portuguese , Proficiency
C2:	English , IELTS Academic: Band score 7.5
A2:	Italian , Alma Mater Studiorum Unibo
A1:	Spanish , COMPETIR - Formação e Serviços, SA