Cyber Security Center

ubs:

Université Bretagne Sud

LMBA
Laboratoire de Mathématiques
de Bretagne Atlantique
UMR6205 – CNRS/UBO/UBS

Brittany Atlantic Mathematics
Laboratory

Gilles DURRIEU

Full Professor
Applied Mathematics and Statistics

" *From observation to prediction* "

BIO

Gilles Durrieu obtained his Applied Mathematics PhD in 1997 at University of Bordeaux, then did a post-doctorate under a European contract. He was Associate Professor for eleven years at University of Bordeaux before joining University Bretagne Sud as Full Professor in 2010. Multidisciplinarity and international collaborations characterize his research in the fields of multidimensional statistics and the modeling of complex systems. His work focuses on questions related to ecology (global warming, biodiversity), but also to the medical field with studies on the human genome and the location of genes responsible for complex pathologies. His research also involves the development of models associated with data sciences and artificial intelligence for the prediction and management of cyber- attacks.

Link to full biography

Core data

PhD students: 8

Post-doctoral fellows: 3

Publications: 50 – Journal of Applied Statistics, Open Journal of Statistics, Statistical Inference for Stochastic Processes, Extremes, Journal of American Statistical Association, Environmetrics, etc.

Conferences: 105 (including 45 as invited guest) - SERA Brisbane (Australia), Statistics Days (Montpellier, Lille, Rennes, Brussels, Toulouse), French Mathematical Society (Vietnam), 20th International Conference on Computational Statistics (Cyprus), University of Toronto, 23rd International Biometric Conference, Genetic Analysis Workshop GAW15 (USA), etc.

Book(s): Handbook of Quantile Regression (Chapman & Hall /CRC Handbooks of Modern Statistical Methods 2017).

Award(s): Scientific excellence allowances and doctoral and research supervision grants - since 2006.

International collaborations: University of Toronto (Canada), University of New Caledonia, University of Pittsburgh, University of Rochester, Rockefeller and Columbia Universities - New York (USA), Santiago University (Chile), etc.

Area(s) of research

Applied mathematics

Fields of expertise

Statistical learning, nonparametric estimation, stochastic process, functional regression, extreme value theory, predictive models.

Applicative examples

Monitoring water quality based on animal behavior.
Development of mathematical indicators for ecological restoration of nickel mining sites (New Caledonia).
Modeling of defense strategies after a cyber-attack.

Responsabilities

- Director of LMBA-UBS (2015-2016)
- Director of the Mathematics, Computer Science and Statistics Department (2012-2016)
- Director of the Mathematics and Statistics division (2015-2017 and 2020 - *)
- Head of the Dynamic Systems, Probability and Statistics team at LMBA (2012-2015)
- In charge of training courses (Bachelor, Master and Engineering Master's Degree Curriculum) since 2010
- Head of LMBA's Data Science research axis (2019 - *)
- Elected member of the UBS and the University of New Caledonia (2017-2019) board of directors
- Elected member of the UBS Research Committee (2012-2016) / Education and University Life (since 2020)
- Ambition EcoDep project - Paris Seine initiative of Excellence (2020-2024)
- Responsible for the modeling part of the RecoSynth project (CNRT project 2015-2017)

Domain

Statistics

Keywords

Data science
Data analysis
Modelization
Extreme values
Prediction

Contact

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