Nathan Huet

Born the 10/11/1997 in Sens, 89100.

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Education

Oct. 2021 – Nov. 2024 **PhD in Statistics**, *Institut Polytechnique de Paris, Télécom Paris*.
Statistical Learning for Multivariate and Functional Extremes, under the supervision of Anne Sabourin & Stephan Clémençon.

2020 – 2021 **M2 Mathematics of Randomness : Probability & Statistics**, *Université Paris-Saclay, Faculté des Sciences d'Orsay*.

2019 – 2020 **M1 Fundamental Mathematics**, *Université Paris-Saclay, Faculté des Sciences d'Orsay*.

2018 – 2019 **L3 Applied & Fundamental Mathematics**, *Université Paris-Saclay, Faculté des Sciences d'Orsay*.

2016 – 2018 **Preparatory School MPSI - MP**, *Lycée Chrestien de Troyes*.

Professional Experience

Dec. 2024 – present **Postdoctoral Researcher**, *Università Ca' Foscari Venezia*.
Statistical Methods for Data-centric Environmental Studies, under the supervision of Ilaria Prosdocimi.

Apr. 2021 – Sep. 2021 **Research Intern**, *Institut Polytechnique de Paris, Telecom Paris*.
Extreme Value Analysis of Functional Data and Applications to the Detection of Functional Anomalies, under the supervision of Anne Sabourin

Mar. 2020 – May 2021 **Research Intern**, *Université Paris-Saclay, Faculté des Sciences d'Orsay*.
Exploration-Exploitation Dilemma, under the supervision of Christophe Giraud

Research Interests

- Multivariate Extreme Value Theory, Functional Extreme Value Theory, Extreme Sea Levels.
- Statistical Learning, Nonparametric Statistics, Dimension Reduction, Regression.
- Functional Data Analysis, Operator Theory.

Publications/Preprints

2025 **Multi-site modelling and reconstruction of past extreme skew surges along the French Atlantic coast**, *N. H., P. Naveau, Anne Sabourin*, arXiv:2505.00835.

2024 **Regular Variation in Hilbert Spaces and Principal Component Analysis for Functional Extremes**, *S. Clémençon, N. H., A. Sabourin*, Stochastic Processes and their Applications 174, 2024, 104375.

2023 **On Regression in Extreme Regions**, *N. H., S. Clémençon, A. Sabourin*, arXiv:2303.03084.

Talks and Events

2025 **Graspa Conference**, *University Roma Tre*, Rome.
15min oral presentation on *Robust and efficient estimation for the Generalized Extreme-Value distribution*.

2025 **RISE workshop**, *Ca' Foscari University*, Venice.
30min oral presentation on *Robust and efficient estimation for the Generalized Extreme-Value distribution*.

2025 **MIA seminar**, *AgroParisTech*, Palaiseau.
45min oral presentation on *Statistical learning for extremes : an application to the prediction of sea levels*.

2024 **Valpred 5**, *Centre Paul-Langevin*, Aussois.
25 minutes oral presentation on *Joint Modeling Extremal Sea-Levels Dependency across different French Atlantic Coast Stations*.

2024 **EXSTA Workshop**, *Université Paris-Cité*, Paris.
40 minutes oral presentation on *Joint Modeling Extremal Sea-Levels Dependency across different French Atlantic Coast Stations*.

2024 **International Sea Level Workshop**, *PNBI*, Brest.
20 minutes oral presentation on *Joint Modeling Extremal Sea-Levels Dependency across different French Atlantic Coast Stations*.

2023 **EVA Conference**, *Bocconi University*, Milan.
25 minutes oral presentation on *On Regression in Extreme Regions*.

2023 **Valpred 4**, *Centre Paul-Langevin*, Aussois.
25 minutes oral presentation on *Extremes of functional data: low dimensional representation via Karhunen-Loève expansion*.

2023 **Journée Partenaire Entreprise**, *Télécom Paris*, Palaiseau.
Poster on *Regression in Extreme Regions*.

2022 **MLSS$^{\mathbf{N}}$**, *Jagiellonian University*, Kraków.
Summer-school on Machine Learning, Computer Vision and Computational Neuroscience.

2022 **Journée de la Chaire DSAIDS**, *Télécom Paris*, Palaiseau.
20 minutes oral presentation on *Functional Extremes and Karhunen-Loève Expansion for Extreme Data*.

2022 **Journée Partenaire Entreprise**, *Télécom Paris*, Palaiseau.
Poster on *Functional Extremes*.

Reviewing Experience

Journal of American Statistical Association,Environmetrics, Statistical Methods and Applications, AISTATS, ICML.

Teaching Experience

2023 – 2024 **Teaching Assistant**, *Télécom Paris*.
MS Big Data: Statistics; Master SD: Statistics: linear models.

2022 – 2023 **Teaching Assistant**, *Télécom Paris*.
MS Big Data: Statistics; Master SD: Statistics: linear models; Master MACS: Monte-Carlo methods.

2021 – 2022 **Teaching Assistant**, *Télécom Paris*.
MS Big Data: Statistics.

2019 – 2020 **Teaching Assistant**, *Faculté des Sciences d'Orsay*.
Mathematics remediation courses.

Miscellaneous

Languages: French (native), English (fluent), Italian (learning in progress), Spanish (elementary).

Programming: Python, R.

Sports: Tennis, Hiking, Football.

Hobbies: Cinema, Literature, Board Games.