# CURRICULUM VITÆ


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| Name | DAOUIA |
| First name | Abdelaati |
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| Phone | 33 (0)5 61 63 57 69 |
| E-mail | abdelaati.daouia@tse-fr.eu |
| Date of Birth | October 22, 1976 |
| Citizenship | Moroccan, France permanent resident |
| Marital status | Married, three children (born in 2009, 2011 and 2017) |


## Current position, research activities and administration

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| 2025- | Professor of Mathematics, TSE, University of Toulouse Capitole. |
| 2024- | Member of the Scientific Committee, Department of Mathematics and Statistics, TSE. |
| 2024- | Member of the Education Committee, Department of Mathematics and Statistics, TSE. |
| 2021- | Director, Master's program (M2 level) in Data Science for Social Sciences, TSE. |
| 2020- | Research fellow, TSE-P. |
| 2020- | Manager, Statistical Consulting, Master's program in Statistics and Econometrics, TSE. |
| 2019- | Associate Editor, Journal of Statistical Planning and Inference. |
| 2015- | Associate Editor, Journal of Nonparametric Statistics. |

## Past professional appointments

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|---|---|
| 2013-2024 | Associate Professor of Mathematics, TSE, University of Toulouse Capitole. |
| 2020-2021 | Co-director, Master's program (M2 level) in Statistics and Econometrics, TSE. |
| 2011-2013 | Marie Curie Fellow in Mathematics, Catholic University of Louvain, Belgium. |
| 2005-2011 | Maître de conférences, GREMAQ, University of Toulouse 1. |
| 2004-2005 | Teaching assistant, ENAC and ENSICA (Engineering). |
| 2002-2004 | Temporary teaching and research position (ATER), University of Toulouse 1. |

## Education

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| April 2019 | *Habilitation à Diriger des Recherches*, Doctoral School of Mathematics, Toulouse.<br>Title of the HDR: "Contributions to extremal regression, frontier modeling and shape constrained estimation".<br>Committee : John H.J. Einmahl (referee), Paul Embrechts (referee), Jean-Pierre Florens (mentor), Irène Gijbels, Enno Mammen (referee), Léopold Simar, Andrew J. Patton (referee), Christine Thomas-Agnan. |
| 2001-2003 | Doctorate in Mathematics (Spec. in Statistics), from 1 October 2001 until 5 December 2003, University of Toulouse (advisors: Yves Aragon and Christine Thomas-Agnan). Referees : Alain Berlinet, Xuming He, Léopold Simar. |
| 2000-2001 | Post graduate Diploma (DEA) in Applied Mathematics, Université d'Aix-Marseille. |
| 1999-2000 | Post graduate Diploma (DEA) in Probabilities & Statistics, Université Paul Sabatier. |
| 1998-1999 | Master's degree in Mathematics, University Mohammed-V-Agdal Rabat, Morocco. |

## Research Interests

*General* : Asymptotic statistics, Nonparametric inference, Statistics in social-economic studies

*Major Current Research Topics* :

- Extreme value theory, Tail risk handling
- Frontier models, Production econometrics
- Shape constrained estimation, Dynamic graph clustering, Optimal location problem

## Honors and grants

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| 2023-2024 | TSEconomist award for best teacher in Master 2 "Econometrics and Empirical Economics". |
| 2023-2024 | Research Grant 'FERFH-MF', financed by the APEX call of the MSHS-T on *"Robust efficiency frontiers and heterogeneity factors in microfinance"*, co-investigator. |
| 2022-2025 | ACPR Chair *"Regulation and systemic risks"* (Banque de France), co-investigator. |
| 2020-2022 | AXA Research Fund Award on *"Tail risk management and mitigation using innovative extreme value techniques"*, co-investigator. |
| 2019-2024 | Research Grant of the French National Research Agency (ANR) in Mathematics, *"ExtremReg"* project, PI. |
| 2018-2019 | Délégation CNRS (sabbatical semester). |
| 2011-2013 | Research Grant of the Seventh Framework Programme of the European Union (Intra-European Fellowship), *"EMBAF"* project in Mathematics, PI. |
| 2009-2012 | Research Grant of the ANR, *"EPI"* project in Economics, Participant. |
| 2006-2011 | Grants from INRA, Analysis of production performance. |
| Sept.-2003 | ATUPS Grant from the University Paul Sabatier. |

## Scientific and administrative duties

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|---|---|
| Jan. 2025 | External assessment for the Natural Sciences and Engineering Research Council of Canada (NSERC Discovery Grants in Mathematics and Statistics). |
| 2017-2024 | Elected member, Mathematics Department Office, University of Toulouse Capitole. |
| Sep. 2024 | Local member of the follow up committee for the PhD thesis of Jinghua Duan supervised by Eric Gautier and Stephane Villeneuve. |
| Sep. 2024 | Local member of the follow up committee for the PhD thesis of Ryan Boustany supervised by Jérôme Bolte and Edouard Pauwels. |
| May 2024 | Reviewer for a PhD Thesis competing for publication in a book series published by the Sapienza University Press. |
| Mar. 2024 | Reviewer for the Chapman & Hall/CRC Handbook on Statistics of Extremes. |
| Jan. 2024 | External assessment for the Natural Sciences and Engineering Research Council of Canada. |
| Sep. 2023 | Member of the follow up committee for the PhD thesis of Jinghua Duan supervised by Eric Gautier and Stephane Villeneuve. |
| Jan. 2023 | External assessment for the Natural Sciences and Engineering Research Council of Canada. |
| July 2022 | Examiner for the PhD thesis of Bao Hoang Nguyen, The University of Queensland, Australia. |
| May 2022 | External member of the hiring committee in mathematics and actuarial science, ISFA, Université Lyon 1. |
| April 2021 | External assessment for associate professorship, University of Bonn. |
| May 2013 | External member of the hiring committee in economics and mathematics, University of Cergy-Pontoise. |
| 2011-2013 | Coordinator of the European EMBAF project *"Estimating monotone boundaries and frontiers"*, IEF contract agreement number 273584. |
| 2009-2012 | Work-package Leader of *"Development of methods to measure technical efficiencies"*, ANR-08-BLAN-0106-01 contract. |
| 2009-2011 | Co-organizer of the working group *"Efficiency and Productivity of an Industry"*, GREMAQ/INRA, UT Capitole. |
| 2007-2011 | Elected member of the hiring committee in mathematics and of the mathematics department office, UT Capitole. |

## Seminar and workshop organization

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| 2021-2025 | Organizer of the Doctoral Workshop on Decision Mathematics and Statistics, TSE. |
| April 2024 | Co-organizer of the workshop *"Robust Efficiency Frontiers and Heterogeneity Factors: Applications in MicroFinance"*, Toulouse Business School. |
| 2019-2021 | Co-organizer of the MAD-Stat Seminar, TSE. |
| April 2019 | Organizer of the workshop *"Advances in Contemporary Statistics"*, TSE. |
| 2016-2017 | Co-organizer of the MAD-Stat Seminar, TSE. |
| 2010-2011 | Co-organizer of the Statistics Seminar, TSE. |
| 2004-2005 | Organizer of the PhD seminar, LSP, Université Paul Sabatier. |

## Conference organizing committee

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|---|---|
| May 2025 | Member of the scientific program committee, JEF Conference, Rabat. |
| Dec. 2024 | Member of the scientific program committee, CFE-CMStatistics Conference, King's College London. |
| May 2023 | Member of the local organizing committee, ICORS Conference, TSE. |
| June 2022 | Member of the scientific program committee, EcoSta Conference, Ryukoku University. |
| July 2019 | Member of the program committee, Africa Meeting of the Econometric Society, Rabat. |
| July 2017 | Member of the program committee, Africa Meeting of the Econometric Society, Algiers. |
| Dec. 2016 | Member of the program committee, $27^{th}$ $(\mathrm{EC})^2$ Conference on Big Data, TSE. |
| June 2011 | Member of the scientific committee of the workshop *"Efficiency Measurement: New methods and Application to the Food sector"*, TSE. |
| June 2002 | Member of the organizing committee of the "Spatial Econometrics and Statistics Workshop", GREMAQ, UT Capitole. |

## Organized sessions at conferences

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|---|---|
| Dec. 2024 | *"Machine learning methods in extremes'*, CMStatistics, London. |
| June 2024 | *"Extrapolation methods for extreme values"*, ISNPS, Braga. |
| April 2024 | *"Emerging topics in extreme risk modeling"*, MAF, Le Havre. |
| Dec. 2023 | *"Cyber risk modeling and assessment"*, CMStatistics, Berlin. |
| June 2022 | *"Modeling Tail Events"*, EcoSta, Kyoto. |
| Dec. 2021 | *"Emerging developments in the analysis of quantiles, expectiles and extremiles"*, CMStatistics, London. |
| June 2021 | *"Advances in extremal M-quantile regression"*, EcoSta, Hong Kong. |
| Dec. 2016 | *"Estimation of Tail Risk"*, CMStatistics, Sevilla. |
| June 2014 | *"Nonparametric boundary regression"*, IWAP, Antalya. |
| June 2014 | *"Robust and regression methods in extreme value statistics"*, IWAP, Antalya. |
| June 2010 | *"Frontier and Efficiency Analysis via Statistics of Extremes"*, NAPW, Houston. |
| July 2008 | *"Recent developments in nonparametric frontier estimation"*, IFORS, Johannesburg. |

## Moderated sessions at conferences

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|---|---|
| Dec. 2024 | *"Extreme values"*, *"Risk Analysis"*, *"Machine learning in applications"*, CFE – CMStatistics, London |
| July 2023 | *"Smoothness"*, JdS, Brussels |
| May 2023 | *"Non and semi parametrics"*, ICORS, Toulouse |
| June 2022 | *'Contributions in computational statistics and applications"*, EcoSta, Kyoto |
| Feb. 2010 | *"Econometric Theory"*, ENTER Jamboree, Toulouse |
| June 2007 | *"Regression Quantiles"*, SFdS, Angers |

## Publications

[1] Daouia, A. and Stupfler, G. (2024). Discussion on 'Extreme-value modelling of migratory bird arrival dates: Insights from citizen-science data' by Jonathan Koh and Thomas Opitz, to appear in Journal of the Royal Statistical Society: Series A.

[2] Daouia, A. and Stupfler, G. (2024). Risk measures beyond quantiles, to appear in Chapman & Hall/CRC Handbook on Statistics of Extremes.

[3] Daouia, A., Stupfler, G. and Usseglio-Carleve, A. (2024). Bias-reduced and variance-corrected asymptotic Gaussian inference about extreme expectiles, *Statistics and Computing* **34**:130, 73 pages.

[4] Daouia, A., Padoan, S.A., Stupfler, G. (2024). Extreme expectile estimation for short-tailed data, *Journal of Econometrics*, **241** (2), 105770.

[5] Abbas, Y. and Daouia, A. (2024). Understanding world economy dynamics based on indicators and events, *Journal of Data Science, Statistics, and Visualisation*, **4** (5), 29 pages.

[6] Daouia, A. and Stupfler, G. (2024). Extremile Regression, *Wiley StatsRef: Statistics Reference Online* **24**-1546.

[7] Daouia, A., Stupfler, G. and Usseglio-Carleve, A. (2024). An expectile computation cookbook, *Statistics and Computing* **34**:103, 37 pages.

[8] Daouia, A., Padoan, S.A. and Stupfler, G. (2024). Optimal pooling and distributed inference for the tail index and extreme quantiles, *Bernoulli*, **30** (2), 1287–1312.

[9] Daouia, A., Stupfler, G. and Usseglio-Carleve, A. (2023). Inference for extremal regression with dependent heavy-tailed data, *Annals of Statistics*, **51** (5), 2040–2066.

[10] Daouia, A., Stupfler, G. and Usseglio-Carleve, A. (2023). Extreme value modelling of SARS-CoV-2 community transmission using discrete Generalized Pareto distributions, *Royal Society Open Science* **10** (3): 220977.

[11] Daouia, A., Gijbels, I. and Stupfler, G. (2022). Extremile Regression, *Journal of American Statistical Association (Theory and Methods)*, **117:539**, 1579–1586.

[12] Daouia, A., Girard, S. and Stupfler, G. (2021). ExpectHill estimation, extreme risk and heavy tails, *Journal of Econometrics*, **221** (1), 97–117.

[13] Daouia, A., Florens, J-P. and Simar, L. (2021). Robustified expected maximum production frontiers, *Econometric Theory*, **37** (2), 346–387.

[14] Daouia, A., Girard, S. and Stupfler, G. (2020). Tail expectile process and risk assessment, *Bernoulli*, **26** (1), 531–556.

[15] Daouia, A., Florens, J-P. and Simar, L. (2020). Nonparametric robust stochastic frontier analysis: a Tikhonov regularization approach, *Econometrics and Statistics*, **14**, 1–23.

[16] Daouia, A., Girard, S. and Stupfler, G. (2019). Extreme M-quantiles as risk measures: From $L^1$ to $L^p$ optimization, *Bernoulli*, **25** (1), 264–309.

[17] Daouia, A., Gijbels, I. and Stupfler, G. (2019). Extremiles: A new perspective on asymmetric least squares, *Journal of American Statistical Association (Theory and Methods)*, **114:527**, 1366–1381.

[18] Daouia, A., Girard, S. and Stupfler, G. (2018). Estimation of tail risk based on extreme expectiles, *Journal of the Royal Statistical Society: Series B*, **80**, 263–292.

[19] Daouia, A., Laurent, T. and Noh, H. (2017). **npbr**: A Package for Nonparametric Boundary Regression in R, *Journal of Statistical Software*, **79** (9), 1–43.

[20] Daouia, A., Simar, L. and Wilson, P. (2017). Measuring firm performance by using nonparametric quantile-type distances, *Econometric Reviews*, **36**, 156–181.

[21] Daouia, A., Noh, H. and Park, B.U. (2016). Data envelope fitting with constrained polynomial splines, *Journal of the Royal Statistical Society: Series B*, **78**, Part 1, 3–30.

[22] Daouia, A., Girard, S. and Guillou, A. (2014). A Γ-moment approach to monotonic boundary estimation, *Journal of Econometrics*, **78**, 727–740.

[23] Daouia, A. and Park, B.U. (2013). On Projection-Type Estimators of Multivariate Isotonic Functions, *Scandinavian Journal of Statistics*, **40**, 363–386.

[24] Daouia, A., Gardes, L. and Girard, S. (2013). On kernel smoothing for extremal quantile regression, *Bernoulli*, **19**, 2557–2589.

[25] Daouia, A., Florens, J-P. and Simar, L. (2012). Regularization of nonparametric frontier estimators, *Journal of Econometrics*, **168**, 285–299.

[26] Daouia, A., Gardes, L., Girard, S. and Lekina, A. (2011). Kernel estimators of extreme level curves, *Test*, **20**, 311–333.

[27] Daouia, A. and Gijbels, I. (2011). Estimating frontier cost models using extremiles. In : *Exploring research frontiers in contemporary statistics and econometrics - Festschrift in honor of L. Simar*, ed. by P.W. Wilson and I. Van Keilegom, pp. 65–81, Springer.

[28] Daouia, A., Gardes, L. and Girard, S. (2011). Nadaraya's estimates for large quantiles and free disposal support curves. In : *Exploring research frontiers in contemporary statistics and econometrics - Festschrift in honor of L. Simar*, ed. by P.W. Wilson and I. Van Keilegom, pp. 1–22, Springer.

[29] Daouia, A. and Gijbels, I. (2011). Robustness and inference in nonparametric partial frontier modeling, *Journal of Econometrics*, **161**, 147–165.

[30] Bonneu, F. and Daouia, A. (2010). Mass transportation and the consistency of the empirical optimal conditional locations, *Annals of Operations Research*, **181** (1), 159–170.

[31] Daouia, A., Florens, J.P. and Simar, L. (2010). Frontier estimation and extreme value theory, *Bernoulli*, **16** (4), 1039–1063.

[32] Daouia, A. and Joutard, C. (2009). Large deviation properties for empirical quantile-type production functions, *Statistics*, **43** (3), 267–277.

[33] Daouia, A., Florens, J.P. and Simar, L. (2008). Functional convergence of quantile-type frontiers with application to parametric approximations, *Journal of Statistical Planning and Inference*, **138**, 708–725.

[34] Daouia, A. and Simar, L. (2007). Nonparametric efficiency analysis: a multivariate conditional quantile approach, *Journal of Econometrics*, **140** (2), 375–400.

[35] Aragon, Y., Daouia, A. and Thomas-Agnan, C. (2006). Efficiency measurement: a nonparametric approach, *Annals of Economics and Statistics*, **82**, 217–242.

[36] Daouia, A. and Ruiz-Gazen, A. (2006). Robust nonparametric frontier estimators: qualitative robustness and influence function, *Statistica Sinica*, **16** (4), 1233–1253.

[37] Daouia, A. and Simar, L. (2005). Robust nonparametric estimators of monotone boundaries, *Journal of Multivariate Analysis*, **96**, 311–331.

[38] Daouia, A. (2005). Asymptotic Representation Theory for Nonstandard Conditional Quantiles, *Journal of Nonparametric Statistics*, **17** (2), 253–268.

[39] Aragon, Y., Daouia, A. and Thomas-Agnan, C. (2005). Nonparametric frontier estimation: a conditional quantile-based approach, *Econometric Theory*, **21**, 358–389.

## Book

[40] Daouia, A. and Ruiz-Gazen, A. (2021). Advances in Contemporary Statistics and Econometrics - Festschrift in Honor of Christine Thomas-Agnan. Springer, New York.

## Submitted papers

[41] Abbas, Y., Daouia, A., Nemouchi, B. and Stupfler, G. (2024). Tail expectile estimation in the semiparametric Generalized Pareto model.

[42] Daouia, A., Stupfler, G. and Usseglio-Carleve, A. (2024). Corrected inference about the extreme Expected Shortfall in the general max-domain of attraction.

[43] Daouia, A. and Paindaveine, D. (2023). Multivariate Expectiles and Expectile Depth.

[44] Daouia, A., Laurent, T. and Van Keilegom, I. (2021). A random locational M-estimation problem based on the Wasserstein distance.

## Working papers

- Abbas, Y., Daouia, A. and Stupfler, G. (2024). A general theory for extremal regression in heavy-tailed models.
- Daouia, A., Hachem, J. and Stupfler, G. (2024). Extreme value inference for heterogeneous heavy-tailed data: A derandomization theory.
- Daouia, A., Fissler, T. and Stupfler, G. (2024). Probability-weighted elicitability.
- Daouia, A., Laurent, T. and Stupfler, G. (2021). Heavy-tailed extremile regression in risky seismic areas.
- Daouia, A. and Paindaveine, D. (2020). From Tukey and Expectile depths to Halfspace M-depth and Multivariate M-quantiles.
- Daouia, A., Goegebeur, Y. and Wilson, P. (2019). Hyperbolic graph efficiency assessment and statistics of extremes.

## Software development

- R package **npbr** in collaboration with Thibault Laurent and Hohsuk Noh
  `https://cran.r-project.org/web/packages/npbr/index.html`
- R package **frontiles** in collaboration with Thibault Laurent
  `https://cran.rstudio.com/web/packages/frontiles/index.html`

## Refereeing

- Grant proposals : Research Grants Council (RGC) of Hong Kong, Natural Sciences and Engineering Research Council (NSERC) of Canada.
- Journals : *Annals of Economics and Statistics*, *Annals of Operations Research*, *Annals of Statistics*, *Bernoulli*, *Biometrika*, *Computational Statistics & Data Analysis*, *Econometric Reviews*, *Econometric Theory*, *Econometrics and Statistics*, *Electronic Journal of Statistics*, *Empirical Economics*, *European Journal of Operational Research*, *Extremes*, *IMA Journal of Management Mathematics*, *Journal of Applied Econometrics*, *Journal of American Statistical Association*, *Journal of Business and Economic Statistics*, *Journal of Econometrics*, *Journal of Multivariate Analysis*, *Journal of Nonparametric Statistics*, *Journal of Productivity Analysis*, *Journal of Statistical Planning and Inference*, *Journal of the Korean Statistical Society*, *Journal of the Operational Research Society*, *OMEGA*, *Statistics & Probability Letters*, *TEST*.
- Book chapters : Chapman & Hall/CRC Handbook on Statistics of Extremes, Springer Book on Exploring research frontiers in contemporary statistics and econometrics.

## PhD supervision

- Claire Lebrun (joint supervisor: Abderrahim Taamouti): *"Big data analytics and causality in media outputs"*, Liverpool University Management School, from 10/2023.
- Joseph Hachem (joint supervisor: Gilles Stupfler): *"Simultaneous analysis of extreme values for big data"*, Doctoral School of Mathematics, Toulouse, from 09/2022.
- Thibault Laurent (joint supervisor: Christine Thomas): *"Contributions to statistics and spatial econometrics with applications in social sciences"*, University of Toulouse Capitole, from 01/2021.
  - Joint working papers: "Heavy-tailed extremile regression in risky seismic areas" and "A random locational M-estimation problem based on the Wasserstein distance"
- Yasser Abbas (joint supervisor: Anne Ruiz-Gazen): *"Contributions to heavy tail risk analysis: extreme expectiles and graph theory applications"*, University of Toulouse Capitole, from 01/2020 to 12/2024.
  - Joint articles: "A general theory for extremal regression in heavy-tailed models" and "Understanding world economy dynamics based on indicators and events".
  - Current Position: Co-Founder of Gearlay – Maestro, Research and Development.
- Florent Bonneu (joint supervisor: Christine Thomas): *"Spatial point processes for optimal positioning and spatial concentration"*, University of Toulouse Capitole, from 09/2005 to 06/2009.
  - Joint article: "Mass transportation and the consistency of the empirical optimal conditional locations".
  - Current Position: Maître de conférences (since September 2010) of applied mathematics at Université d'Avignon, France.

## Postdoctoral supervision

- Antoine Usseglio-Carleve (joint supervisor: Gilles Stupfler). One-year contract funded by the ANR project (October 2020-September 2021): *"Extremal Regression with Applications to Econometrics, Environment and Finance"*.
  Current Position: Assistant professor of statistics at University of Avignon, France.
- Boutheina Nemouchi (joint supervisor: Gilles Stupfler). Two-years contract funded by the AXA project (January 2021-January 2023): *"Tail risk management and mitigation using innovative extreme value techniques"*.

## Informal PhD supervision

- Dana Pancurova (with Stefan Lyocsa): *"Robust nonparametric efficiency: application to rating adequacy"*, University of Economics in Bratislava, from 9/2012 (with one year spent at TSE from 9/2013). Dana is working as Test Analyst/Data Analyst at FPT Slovakia.
- Chapter 5 of the PhD thesis of Alexander Lekina (Université Joseph Fourier - Grenoble) presented in 2010. This led to the published article: "Kernel estimators of extreme level curves", *Test*, 20 (2), 311-333, 2011 (with Laurent Gardes and Stéphane Girard). Alexander is working as 'Responsable d'études' at Bpi-France.

## Graduate internship supervision

- Master 1 in Econometrics and Statistics :
  1. Van Ban Truong (April-June 2017); 2. Thao Huynh (April-June 2018); 3. Adamou Issa Abdallah (April-July 2021); 4. Amin Chrifi Alaoui (April-June 2022); 5. Mian Zhao (May-July 2023); 6. Francisco Gonzalez Garcia (April-June 2025).
- Master 2 in Statistics & Econometrics :
  1. Yousef Atatrah (April-August 2016); 2. Yasser Abbas (April-August 2019).
- Master 2 in Econometrics & Empirical Economics :
  1. Paula Suero Guillermo (April-August 2025); 2. Florian Fruhhaber (April-August 2025).

## Graduate apprenticeship supervision

- Master 2 in Statistics & Econometrics :
  1. Wissal Iraqui-Houssaini (Institut Europlace de Finance, 2017); 2. Mehdi Zouitine (IRT Saint Exupéry, 2021); 3. Pierre Dupré (QuantCube Technology, 2022); 4. Vitorino Lea (CGI, 2024).
- Master 2 in Data Science for Social Sciences :
  1. Charlotte Bredy-Maux (Predict Services, 2022); 2. Khadija Hafsia (Adamantia, 2022); 3. Cannard Bastien (Airbus Helicopters, 2023); 4. Sebastian Bucelea (Via Sante, 2023); 5. Nicholas Setijabudiharsa (Storefont, 2023); 6. Hoai Nam (Air France, 2024); 7. Abdallah Abdelsameia (BVA, 2025); 8. Laoura Shishikhanova (ATR, 2025).

## Statistical Consulting

Removall Carbon, 2024-2025; EarthDaily Agro – Geosys, 2023-2024; Airbus Helicopters, 2022-2023; Adamantia, 2020-2022; Airbus Market & Data Analytics, 2019-2020; Airbus Opérations SAS, 2018-2019; BVA Group, 2017-2018; Airbus Market Forecasts, 2016-2017; BIwhere Consulting, 2015-2016; TelCap, 2014-2015.

## Invited short courses

- OFPR course (8 hours), PhD program, ENSAI, France, March 2020: *From frontier modeling in production econometrics to extreme value theory in risk management.*
- Short course (8 hours), PhD program, Université libre de Bruxelles, Belgium, April 2019: *From frontier models in production econometrics to extreme value theory in risk handling.*

## Invited conference talks

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| 2025 | Workshop “Recent advances in statistical robustness”, Rabat; Financial Econometrics Conference, Hammamet. |
| 2024 | 6th International Symposium on Nonparametric Statistics (ISNPS), Braga; 11th International Conference “Mathematical and Statistical Methods for Actuarial Sciences and Finance” (MAF), Le Havre; Workshop “Causality in extremes”, Geneva. |
| 2023 | 16th International Conference CMStatistics, Berlin; 7th African International Conference (AIC) on Statistics, Marrakesh; Financial Econometrics Conference, Toulouse; 12th Workshop on High Dimensional Data Analysis (HDDA-XII), Rabat; Mini-symposium on “Production frontier and efficiency measure”, Toulouse. |
| 2022 | 15th International Conference CMStatistics, London; 5th International Conference on Econometrics and Statistics, Kyoto. |
| 2021 | 4th International Conference on Econometrics and Statistics, Hong Kong; Insurance Data Science Conference, London. |
| 2020 | 13th International Conference CMStatistics, London. |
| 2019 | Annual Statistics and Data Science Workshop at KAUST, Thuwal; 62nd ISI World Statistics Congress, Kuala Lumpur; 11th Conference on Extreme Value Analysis, Zagreb; Financial Econometrics Conference, Toulouse; Workshop on “Methods for estimating the efficiency frontier: robustness and application in microfinance”, Toulouse. |
| 2018 | 11th International Conference CMStatistics, Pisa; 5th Days of Econometrics for Finance Conference, Rabat. |
| 2017 | Financial Econometrics Conference, Toulouse. |
| 2016 | 9th International Conference CMStatistics, Seville. |
| 2015 | 8th International Conference CMStatistics, London; Workshop on “New Developments in Econometrics and Time Series”, Bochum; Financial Econometrics Conference, Toulouse. |
| 2014 | 7th International Conference CMStatistics, Pisa. |
| 2011 | Conference on “Efficiency Measurement: New methods and Application to the Food sector”, Toulouse; European Workshop on Efficiency and Productivity Analysis, Verona. |
| 2010 | North American Productivity Workshop, Houston. |
| 2009 | Conference on “Exploring Research Frontiers in Contemporary Statistics and Econometrics”, Louvain-La-Neuve. |
| 2008 | 18th Triennial Conference of the International Federation of Operational Research Societies, Johannesburg. |

## Contributed talks

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| 2024 | Africa Meeting of the Econometric Society, Abidjan. |
| 2023 | 54th annual conference organized by the SFdS (Société Française de Statistique), Brussels; 13th Conference on Extreme Value Analysis, Milan. |
| 2022 | Africa Meeting of the Econometric Society, Addis Ababa; International Conference on Robust Statistics, Waterloo. |
| 2019 | Africa Meeting of the Econometric Society, Rabat. |
| 2017 | Africa Meeting of the Econometric Society, Algiers. |
| 2013 | 8th Conference on Extreme Value Analysis, Shanghai; 13th European Workshop on Efficiency and Productivity Analysis, Helsinki. |
| 2012 | 5th International Conference CMStatistics, Oviedo; 20th Meeting of the Belgian Statistical Society, Liège; IMS-Bernoulli 8th World Congress in Probability and Statistics, Istanbul; Conference of the International Society for NonParametric Statistics, Chalkidiki; North American Productivity Workshop, Houston. |
| 2011 | 7th Conference on Extreme Value Analysis, Lyon. |
| 2010 | International Conference on Robust Statistics, Prague. |
| 2008 | Joint Meeting of the Statistical Society of Canada and the SFdS, Ottawa. |
| 2007 | A Bernoulli Society satellite meeting of ISI’2007 on “Probability and Statistics in Science and Technology”, Porto; 39th annual conference organized by SFdS, Angers. |
| 2004 | 36th annual conference organized by SFdS, Montpellier; 6th workshop “Jeunes Probabilistes et Statisticiens”, Aussois. |
| 2002 | 34th annual conference organized by SFdS, Brussels. |

## Invited research seminars

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| 16/10/2024 | EVTA Seminar Series – Tilburg University |
| 06/12/2023 | Statistics Seminar Series – Bocconi University |
| 09/03/2023 | Econometrics and Statistics Seminar – Université libre de Bruxelles |
| 23/06/2022 | Statistics Seminar – Sherbrooke University |
| 28/01/2021 | Financial Econometrics Seminar – CREST |
| 03/12/2019 | Statistics and Econometrics Seminar – KU Leuven |
| 03/05/2018 | Decision Mathematics & Statistics Seminar – TSE |
| 26/04/2018 | Statistics and Econometrics Seminar – Durham Business School |
| 03/04/2018 | Statistics Seminar – Université Paul Sabatier |
| 17/05/2017 | Econometrics Seminar – University of Bristol |
| 09/02/2017 | Econometrics and Statistics Seminar – Université libre de Bruxelles |
| 22/12/2016 | Statistics Seminar – FSJES Souissi in Rabat |
| 13/12/2016 | Econometrics Seminar – Laboratoire d'Economie d'Orléans |
| 04/03/2016 | CORE Seminar – Université catholique de Louvain |
| 09/06/2015 | Statistics Seminar – TSE |
| 09/05/2014 | Statistics and Econometrics Seminar – Katholieke Universiteit Leuven |
| 15/04/2014 | Statistics Seminar – TSE |
| 23/04/2013 | Statistics (GDT) Seminar – University of Cergy-Pontoise |
| 19/03/2013 | Statistics Seminar – University of Southern Denmark |
| 08/03/2013 | Joint UCL/ULB Statistics Seminar – Université libre de Bruxelles |
| 27/02/2012 | Joint CORE/ISBA Econometrics and Statistics Seminar – UCLouvain |
| 24/02/2012 | Statistics Seminar – Université libre de Bruxelles |
| 15/12/2011 | Statistics Seminar series – Katholieke Universiteit Leuven |
| 17/03/2011 | Decision Mathematics Seminar – University of Toulouse 1 |
| 23/03/2010 | Statistics seminar – University of Strasbourg |
| 14/02/2008 | Statistics Seminar series – Katholieke Universiteit Leuven |
| 13/03/2006 | Econometrics seminar – University of Toulouse 1 |
| 01/02/2005 | Applied Mathematics Seminar– University of Bourgogne |
| 23/02/2004 | STAPH seminar – Université Paul Sabatier |
| 27/10/2003 | Statistics seminar – University of Montpellier 2 |
| 17/01/2003 | Statistics seminar – University of Toulouse 1 |

## Research visits abroad

Research visits limited to the period starting from 2013:

- Tilburg University, collaboration with John Einmahl, October 2024
- UCLouvain, collaboration with Léopold Simar, November 2023
- University of Angers, collaboration with Gilles Stupfler, June 2023
- Université libre de Bruxelles, collaboration with Davy Paindaveine, Mars 2023
- UCLouvain, collaboration with Léopold Simar, November 2022
- ENSAI, collaboration with Gilles Stupfler, February-March 2020
- KU Leuven, collaboration with Irène Gijbels, December 2019
- KAUST, invited by Raphael G. Huser, November 2019
- Université libre de Bruxelles, collaboration with Davy Paindaveine, April 2019
- University of Nottingham, collaboration with Gilles Stupfler, July 2018
- University of Durham, invited by Abderrahim Taamouti, April 2018
- University of Bristol, invited by Sami Stouli, May 2017
- Université libre de Bruxelles, collaboration with Davy Paindaveine, February 2017
- Technische Universität Braunschweig, invited by Moritz Jirak, May 2016
- Katholieke Universiteit Leuven, collaboration with Irène Gijbels, May 2014
- University of Southern Denmark, collaboration with Yuri Goegebeur, March 2013

## Fields of Teaching

### Master 2 level

- Master 2 in Economics of Global Risks — UT1 TSE (since 1/2024):
  - Course on "Extreme Risk Analysis" (with R), 9 hours
- Master 2 in Econometrics and Empirical Economics — UT1 TSE (since 9/2019):
  - Course on "Nonparametric Econometric Methods" (with R), 21 hours
- Master 2 in Statistics & Econometrics (since 9/2013) and Master 2 in Data science for social sciences (since 9/2021) — UT1 TSE:
  - Course on "Nonparametric Models" (with Matlab and R), 18 hours
  - Statistical consulting: students advisor for consulting projects (group of 4 students), 15 hours
  - khôlles/oral exam (4.5 hours)
  - Member of internship defense jury (6 upto 14 defenses per year)
- Master 2 in Finance and Actuarial studies — UT1 IAE (2009-2011, before leaving for Belgium):
  - Course and tutorials on "Statistics of Extreme Values" (with R), 33 hours
- Master 2 in Statistics and Econometrics — UT1 TSE (2005-2011):
  - Course and tutorials (E-learning) on "Semi-parametric Models" with R, 49 hours (2005-2011)
  - Tutorials on "Nonparametric Statistics" with Matlab, 15 hours (2005-2011)
  - Course and tutorials on "Time Series" with SAS, 54 hours (2007-2011)
  - Statistical consulting, 15 hours (2009-2011)

### Master 1 level

- Master 1 in Mathematics and Economic Decision, Master 1 in Econometrics and Statistics, Master 1 in Data Science for Social Sciences — UT1 TSE:
  - Course on "Foundations of Machine Learning", 15 hours (since 1/2024)
- Master 1 in Economics and Statistics — UT1 TSE:
  - Course on "Mathematical Statistics 1", 15 hours (2020-2023)
  - Course and tutorials on "Mathematical Statistics 2", 37.5 hours (2013-2023)
- Master 1 in Econometrics — UT1 TSE (2006-2011):
  - Course and tutorials on "Applied Statistics" (with SAS), 35 hours

### Undergraduate levels

- L2 Economie & Mathématiques — UT1 TSE (2013-2023):
  - Course (18 hours) and tutorials (3x12 hours) on "Probabilités 1"
- L1 AES — UT1 (2014-2016):
  - Tutorials (12 upto 24 hours) on "Méthodes d'analyse mathématique et statistique"
- L1 Economie & Traitement de l'Information — UT1 (2005-2008):
  - Course (16.5 hours) and tutorials with R (16.5 hours) on "Probabilités Empiriques"
- L1 Economie & Gestion — UT1 (2005-2007):
  - Course and tutorials with SPSS and Excel (54.5 upto 100 hours) on "Statistique Déscriptive"

### Magistère Economiste-Statisticien

- For several years, I have been correcting internship reports for the first and second year students.
- The internship also gives rise to a defense for 2nd year students.