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Christophe Gaillac

Personal information

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Citizenship French.

Education

2015 - 03/2021 **PhD in Economics, Econometrics**, *Toulouse School of Economics (TSE)*, Advisor: Eric Gautier (TSE).
Thesis: Some Problems Related to Random Coefficients Models and Data Combination in Economics

2014 - 2015 **European Diploma of Advanced Quantitative Economics (DEEQA)**, *TSE*, Doctoral courses.

2013 - 2014 **M.A in Economics and Statistics. Banking, Business cycle analysis, and Finance option**, *ENSAE*.
Thesis: Application of Mathematical Tools from Quantum Physics to Market Risk Analysis.

2013 - 2014 **Maîtrise in Political Science, Sociology of Political Organizations**, *Université Paris 1 Panthéon-Sorbonne*.
Thesis : Federalist Militantism and the Institutionalisation of European Political Science: Dusan Sidjanski's Case

2012 - 2013 **B.A in Law and Politics. Political Science option**, *Université Paris 1 Panthéon-Sorbonne*.

2010 - 2013 **B.A in Mathematics and Physics, Mathematical Finance option, École Polytechnique**.

Appointments

09/2021-2024 **Postdoctoral fellow**, *Nuffield College, University of Oxford*.

2017-2019 **Coordinator of statistical and mathematical teachings**, *ENSAE*.
Civil servant, Administrateur INSEE (National Institute of Statistics and Economic Studies)

2015-2017 **Junior researcher in Economics**, *Center for Research in Economics and Statistics (CREST), under the supervision of Xavier D'Haultfoeuille (CREST)*, **Civil servant**, Administrateur INSEE.

2010, 8 mths **French Marine Corps**, *Leadership training and Section leader (35p.)*.

Research Fields

Primary **Econometrics, Statistics**.
Secondary **Machine learning, Labor Economics, Political Science**.

Publications and forthcoming papers

2018 **Rationalizing Rational Expectations? Characterization and Tests**, *with Xavier d'Haultfoeuille (CREST) et Arnaud Maurel (Duke university)*, **R** Package **RationalExp** vignette.
Forthcoming in *Quantitative Economics*

2019 **Adaptive estimation in the linear random coefficients model when regressors have limited variation**, *with Eric Gautier (TSE)*, **R** Package **RandomCoefficients** vignette, Forthcoming in *Bernoulli*.

Working papers

2019 **Estimates for the SVD of the truncated Fourier transform on $L^2(\cosh(b\times))$ and stable analytic continuation**, *with Eric Gautier (TSE)*.

2021 **Non Parametric Classes for Identification in Random Coefficients Models when Regressors have Limited Variation**, *with Eric Gautier (TSE)*.

2021 **Designing labor market recommender systems: the importance of job seeker preferences and competition**, *with Victor Alfonso Naya (LRI), Guillaume Bied (LRI), Philippe Caillou (LRI), Bruno Crépon (CREST), Elia Perennes (CREST), and Michele Sebag (LRI)*.

Work in progress

Robust Ecological Inference with an Application to Electoral Studies, **R** Package **RobustEI** soon available.

Re-employment expectations and using ML algorithm to predict unemployment duration in France, *with Bruno Crépon (CREST), Sendhil Mullainathan (Chicago Booth), and Jens Ludwig (University of Chicago)*.

Other Softwares

2021 **R Package MarginalFElogit and vignette**, *with Laurent Davezies (CREST), Xavier D'Haultfoeuille (CREST), and Louise Laage (Georgetown University)*, Associated to Davezies, D'Haultfoeuille, and Laage (2021) .

References

Professor Eric Gautier, *Toulouse School of Economics*.
Contact email: eric.gautier[@]tse-fr.eu
Contact phone: +33 (0)5 61 12 88 74
Website: www.tse-fr.eu/fr/people/eric-gautier

Professor Xavier D'Haultfoeuille, *CREST*.
Contact email: xavier.d'haultfoeuille[@]ensae.fr
Contact phone: +33 (0)1 70 26 67 95
Website: faculty.crest.fr/xdhaultfoeuille/

Professor Karine Van Der Straeten, *Toulouse School of Economics-IAST*.
Contact email: karine.van-der-straeten[@]tse-fr.eu
Contact phone: +33 (0)5 61 12 86 03
Website: www.tse-fr.eu/fr/people/karine-van-der-straeten

Teaching, Lecturer

2020 **Machine learning for econometrics**, *with Bruno Crépon (CREST) and Jérémy L'Hour (CREST)*, ENSAE and Paris-Saclay university, Master in Economics.
Course notes with Jeremy l'Hour (CREST) are available **here**.

2018, 2019 **Machine learning for econometrics**, *with Jérémy L'Hour (CREST)*, ENSAE and Paris-Saclay university, Master in Economics.

2018 **Mathematics for Economists**, *(Analysis and Optimisation)*, Ecole Polytechnique, Master in Economics, Phd track.

2017, 2018 **Mathematics for Economists**, Sciences-Po Paris, Phd track.

2018 **Mathematics for Economists**, ENSAE, Specialized Master.

2018 **Algebra and Python**, HEC-ENSAE, Undergraduate.

Teaching, TA

2017, 2018 **Statistics 1**, *ENSAE*, Prof. Nicolas Chopin.

2018 **Simulations and Monte-Carlo**, *ENSAE*, Prof. Nicolas Chopin.

2018 **Econometrics 2**, *ENSAE*, Prof. Xavier D'Haultfoeuille.

2016-2018 **Numerical Analysis**, *ENSAE*, Prof. Cristina Butucea.

2015-2017 **Time Series analysis**, *ENSAE*, Prof. Christian Franck.

Grants

2020 **TSE Job Market fellowship**.

2019-2021 **DataIA research grant for VADORE project, 150kE**.
Building a recommendation system for job seekers and firms, with Guillaume Bied, Philippe Caillou, Bruno Crépon, Marco Cuturi, Gwendoline De Bie, Elia Perennes, and Michèle Sebag.

2017-2019 **Full research grant**, Civil servant at National Institute of Statistics and Economic Studies (INSEE).

2014-2016 **Graduate Fellowship**, National Institute of Statistics and Economic Studies (INSEE).

2010-2013 **Undergraduate Fellowship**, Ecole Polytechnique.

Referee

Annals of Economics and Statistics, Electronic Journal of Statistics.

Presentations and seminars

Nuffield College, University of Oxford (2020), Duke University microeconometrics seminar (2020), Queen Mary University (2020), Econometric Society World Congress (Bocconi University Virtual, 2020), Statistical Seminar CREST (2020), Journal Club of the Econophysics Chair (CFM, 2020), International Association for Applied Econometrics (Montréal, 2018), Toulouse School of Economics (internal seminar 2015, 2016, 2019, 2020), French Statistics Days (Montpellier, 2016), CREST (internal seminar, 2016, 2017).

Others

Programming	Fluent in R and Python
Programming	Good in Matlab, SQL, C++, FORTRAN, Stata, SAS, Linux, Java, VBA, PHP, Htlm5 /CSS
Languages	French (native), English (fluent)
Sports	(Mountain) running (ultra distance), swimrun, ski touring, raid, (kite-)surf