

# MARTIN MUGNIER

Ph.D. Candidate in Economics at CREST, ENSAE Paris, Institut Polytechnique de Paris  
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**Personal Information:** 07/19/1995, French

## ACADEMIC APPOINTMENTS

2024 –	<b>Paris School of Economics</b> , France Assistant Professor of Economics
2023 – 2024	<b>University of Oxford</b> , United Kingdom Postdoctoral Research Fellow

## EDUCATION

### GRADUATE STUDIES

2019 – 2023	<b>CREST, ENSAE Paris, Institut Polytechnique de Paris</b> , France PhD in Economics <ul style="list-style-type: none"><li>• Dissertation title: <i>“Nonlinear Panel Data Models and High-Dimensional Statistics”</i></li><li>• Expected Completion Date: June 2023</li></ul>
2018 – 2019	<b>Université Paris-Saclay</b> , France M.Sc. in Applied Mathematics ( <i>with honors</i> ) <ul style="list-style-type: none"><li>• Major in Mathematical Statistics and Machine Learning Theory</li></ul>
2017 – 2019	<b>ENSAE Paris</b> , France Ingénieur Économiste-Statisticien, Graduate Program <ul style="list-style-type: none"><li>• Major in Data Science and Statistical Learning</li></ul>
2016 – 2017	<b>École Polytechnique, HEC Paris, ENSAE Paris, ENS Paris-Saclay</b> , France Master in Economics (1 <sup>st</sup> year) ( <i>with highest honors</i> )
2015 – 2019	<b>École Normale Supérieure Paris-Saclay</b> , France M.Sc. in Economics and Management <ul style="list-style-type: none"><li>• Civil servant student (<i>“normalien”</i>)</li></ul>

### UNDERGRADUATE STUDIES

2015 – 2016	<b>Université Paris 1 Panthéon-Sorbonne &amp; ENS Paris-Saclay</b> , France B.Sc. in Economics ( <i>with honors</i> )
2013 – 2015	<b>Toulouse School of Economics &amp; Lycée Ozenne</b> , France Licences 1 & 2 in Economics and Management ( <i>ranked 7<sup>th</sup> out of 722 &amp; 1<sup>st</sup> out of 274</i> )

## PUBLICATIONS

### Fixed Effects Binary Choice Models with Three or More Periods

*With Xavier D'Haultfœuille and Laurent Davezie, forthcoming in Quantitative Economics*

## WORKING PAPERS

### Unobserved Clusters of Time-Varying Heterogeneity in Nonlinear Panel Data Models

*Job Market Paper*

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## A Simple and Computationally Trivial Estimator for Grouped Fixed Effects Models

*Submitted*

## Identification and (Fast) Estimation of Large Nonlinear Panel Models with Two-Way Fixed Effects

*With Ao Wang, Submitted*

## WORK IN PROGRESS

### Asymptotic Properties of Empirical Quantile-Based Estimators

*With Xavier D'Haultfœuille and Jérémy L'Hour*

## GRANTS & AWARDS

2022 – 2023	French ANR 4th year of PhD grant: “Investissements d’Avenir/LabEx Ecodec”
2021 – 2022	EUR Data Science for Economics, Finance and Management International Mobility grant
2019 – 2022	French Ministry of Higher Education, Research and Innovation, Full Scholarship
2015 – 2019	École Normale Supérieure Paris-Saclay, Full Scholarship
2017	Hackaton Ernst & Young-Genius ENSAE, 2nd Prize – Deep Learning Challenge

## TEACHING EXPERIENCE

### Undergraduate Courses (Principal Instructor)

Fall '19	Linear Algebra and Python (24 hrs), HEC Paris & ENSAE Paris
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### Undergraduate TA sessions at ENSAE Paris

Fall '20, '21	Mathematical Foundations of Probability Theory (21 hrs), prof. Cristina Butucea
Spring '21	Differentiable Optimization (21 hrs), prof. Guillaume Lecué

### Graduate TA sessions at ENSAE Paris

Spring '20, '21	Econometrics II (18 hrs), prof. Mickael Visser
Fall '20, '21, '22	Mathematical Statistics I (18 hrs), prof. Arnak Dalalyan
Spring '20, '21	Mathematical Statistics II (11 hrs), prof. Matthieu Lerasle

## PROFESSIONAL EXPERIENCE

April – Sep. 2019	<b>CREST, Microeconometrics Lab</b> , Palaiseau, France (4 months) Research assistant to Pr. Xavier D'Haultfœuille. <ul style="list-style-type: none"><li>• Theoretical econometrics</li><li>• Conducted research on statistical identification in discrete choice models with high-dimensional fixed effects.</li></ul>
June – Sep. 2018	<b>Banque de France, DGSEI, SEPS</b> , Paris, France (4 months) Research intern, supervised by Matthieu Lequien and Loriane Py. <ul style="list-style-type: none"><li>• Designed a machine learning based algorithm to fuzzy-match patent data from the PAT-STAT Global database to SIRENE, the national register of French firms held by Insee.</li></ul>
2017 – 2018	<b>Société Générale, Inspection Générale</b> , Paris, France (8 months) ENSAE Team Project in Applied Statistics (part-time internship), supervised by Clément Sentis and Walid Amrane. <ul style="list-style-type: none"><li>• Designed predictive algorithms to forecast and anticipate credit risk and defaults in a portfolio of medium-sized firms for a subsidiary in Africa.</li></ul>
April – July	<b>Toulouse School of Economics, IAST</b> , Toulouse, France (4 months)

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2017	Research assistant to Senior Scholar Daniel-Li Chen (IAST/NBER). <ul style="list-style-type: none"> <li>Collected, cleaned and explored very large datasets. Designed and implemented econometric specifications to capture psychocognitive bias in decision-making in U.S. Courts such as cognitive caseload, time-effects, sequential-contrast effects, date of birth effects</li> <li>Research assistance on the project “The Impact of Financial Payments from Pharmaceutical Industries on Prescribing Behaviors and Patient Outcomes”.</li> </ul>
May – July 2016	<b>French Treasury, French Embassy in Colombia, Regional Economic Service,</b> Bogotá, Colombia (2 months) Economist intern, supervised by Laurent Charpin. <ul style="list-style-type: none"> <li>Performed a statistical analysis aiming to highlight promising sectors for French exports</li> <li>Produced a report from personal research and many interviews conducted in Spanish.</li> </ul>
2016 – 2017	<b>C’efficace</b> , Paris, France (2 years) Individual teacher. <ul style="list-style-type: none"> <li>Taught courses in Economics, Marketing and Mathematics to high-school and undergraduate students.</li> </ul>

## PROGRAMMING SKILLS & LANGUAGES

Prog. skills	Python <sup>***</sup> , R <sup>**</sup> , Stata <sup>**</sup> , SAS <sup>**</sup> , L <sup>A</sup> T <sub>E</sub> X <sup>***</sup> , Microsoft Office <sup>**</sup> , HTML/CSS <sup>*</sup>
Languages	English (fluent, TOEIC : 915/990), Spanish (intermediate), French (native)

## CONFERENCES, SEMINARS & ACADEMIC VISITS

Seminars	University of California Santa Barbara* (02/2023), University of Notre Dame* (02/2023), University of Georgia Terry College* (01/2023), University of Warwick* (01/2023), University of Bristol* (01/2023), Toulouse School of Economics* (01/2023), University of Manchester* (01/2023), University of Gothenburg* (01/2023), Vrije Universiteit* (01/2023), University of Surrey* (01/2023), ULB* (01/2023), PSE* (01/2023), CREST-PSE Econometrics Seminar (11/2022), University of Chicago (Econometrics Student Group, 05/2022; I.O. lunch, 04/2022; Econometrics Workshop, 04/2022), CREST PhD Seminar (12/2022, 06/2022, 10/2021, 12/2020, 07/2020), CREST Microeconomics Seminar (03/2022, 09/2021), Hadamard Doctoral School PhD Seminar (02/2021), EPFL Workshop on Computational Methods in Social Science (07/2019)
Conferences	North American Summer Meeting of the Econometric Society (06/2022), European Winter Meeting of the Econometric Society (12/2021), Bristol Econometric Study Group (07/2022, 09/2021), EEA Congress (08/2022, 08/2021), China Meeting of the Econometric Society (06/2022, 07/2021), Asian Meeting of the Econometric Society (06/2021), African Meeting of the Econometrics Society (06/2021), IAAE Annual Conference (06/2021, 2020 cancelled), 50èmes Journées de la Statistique (2020 cancelled)
Co-organizer of	CREST PhD Seminar (2019-2021), CREST Statistics·Econometrics·Machine-Learning Seminar (2019-2022), CREST Econometric Reading Group (2020)
Academic Visits	Department of Economics of the University of Chicago (2022 Winter and Spring Quarters), sponsor: Prof. Stéphane Bonhomme.

\*: job market.

## OTHER DUTIES

2020 – 2021	PhD students representative on the Board of Directors of Groupe des Écoles Nationales d’Économie et Statistique (Genes)
Referee	<i>Quantitative Economics, Review of Economics and Statistics</i>