Martin Mugnier

Ph.D. Candidate in Economics at CREST, ENSAE, Institut Polytechnique de Paris
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Personal Information: 07/19/1995, French.
Ph.D. Supervisor: Xavier D'Haultfœuille xavier.dhaultfoeuille@ensae.fr

Primary Fields of Research: Theoretical Econometrics, Analysis of Longitudinal (Panel) Data.
Secondary Fields of Research: Mathematical Statistics, High-Dimensional Statistics.

Education

Postgraduate Studies

Sep. 2019 – **CREST, ENSAE, Institut Polytechnique de Paris**, France
Ph.D. Candidate in Economics
• Dissertation title: "Nonlinear panel data models and high-dimensional statistics"

2018 – 2019 **Université Paris-Saclay**, France
M.Sc. in Applied Mathematics (*with honors*)
• Major in Mathematical Statistics and Machine Learning Theory

2017 – 2019 **ENSAE, Institut Polytechnique de Paris**, France
Ingénieur ENSAE Économiste-Statisticien, Graduate Program
• Major in Data Science and Statistical Learning Theory

2016 – 2017 **École Polytechnique, HEC Paris, ENSAE IP Paris, ENS Paris-Saclay**, France
Master in Economics (1st year) (*with highest honors*)

2015 – 2019 **École Normale Supérieure Paris-Saclay**, France
M.Sc. in Economics and Management
• Civil servant student (*"normalien"*)

Graduate Studies

2015 – 2016 **Université Paris 1 Panthéon-Sorbonne & ENS Paris-Saclay**, France
B.Sc. in Economics (*with honors*)

2013 – 2015 **Toulouse School of Economics & Lycée Ozenne**, France
Licences 1 & 2 in Economics and Management (*ranked resp. 7/722 and 1/274*)
• Preparatory classes for the national competitive examination for admission to the ENS Paris-Saclay (option D2): two-year undergraduate intensive course in mathematics, economics, and management

Working Papers

2019 "Fixed Effects Binary Choice Models with Three or More Periods" (*with Xavier D'Haultfœuille and Laurent Davezies*)

Work in Progress

2020	Unobserved Clusters of Heterogeneity in Nonlinear Panel Data Models
2020	Identification and (Fast) Estimation of Nonlinear Panel Models with Additively Separable Two-Way Fixed Effects (*with Ao Wang*)
2020	The Asymptotics of Changes-in-Changes Estimators (*with Xavier D'Haultfœuille and Jérémy L'Hour*)
2019	Linking Patents to Firms: Insights with French Firms (*with Matthieu Lequien, Loriane Py and Paul Trichelair*)

Grants & Awards

2021 – 2022	EUR Data Science for Economics, Finance and Management International Mobility Grant (8,000 EUR)
2019 – 2022	French Ministry of Higher Education, Research and Innovation, Full Doctoral Scholarship (60,000 EUR)
2015 – 2019	École Normale Supérieure Paris-Saclay, Full Scholarship (63,000 EUR)
2017	Hackaton Ernst & Young-Genius ENSAE, 2nd Prize of the Deep Learning Challenge (500 EUR)

Teaching Experience

Undergraduate Courses

Fall '19	Linear Algebra and Python (*24 hrs*), HEC & ENSAE IP Paris

Undergraduate TA sessions at ENSAE IP Paris

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

Graduate TA sessions at ENSAE IP Paris

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

Professional Experience

April – Sept 2019	**CREST – Microeconometrics Lab**, Palaiseau, France (*4 months*) Research assistant, supervised by Prof. Xavier D'Haultfœuille • Theoretical econometrics • Conducted research on identification issues and high-dimensional statistics in nonlinear models with panel data
June – Sept 2018	**Banque de France – DGSEI/SEPS**, Paris, France (*4 months*) Research intern, supervised by Matthieu Lequien and Loriane Py • Designed a machine-learning based agorithm to fuzzy-match patent data from the PATSTAT Global dataset with SIRENE, the register of French firms held by Insee
2017 – 2018	**Société Générale – Inspection Générale**, Paris, France (*8 months*) ENSAE Team Project in Applied Statistics (part-time internship), supervised by Clément Sentis and Walid Amrane • Designed predictive algorithms to forecast and anticipate credit risk and defaults in a portfolio of medium-sized firms for a subsidiary in Africa
April – July	**Toulouse School of Economics – IAST**, Toulouse, France (*4 months*)

2017	Research assistant to Senior Scholar Daniel-Li Chen (IAST/NBER) • 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 • Research assistance on the project "The Impact of Financial Payments from Pharmaceutical Industries on Prescribing Behaviors and Patient Outcomes"
May – July 2016	**French Treasury – French Embassy in Colombia, Regional Economic Service**, Bogotá, Colombia (*2 months*) Economist intern, supervised by Laurent Charpin • Performed a statistical analysis aiming to highlight promising sectors for French exports • Produced a report from personal research and many interviews conducted in Spanish
2016 – 2017	**C'efficace**, Paris, France (*2 years*) Private teacher • Taught courses in Economics, Marketing and Mathematics to five high-school and undergraduate students

Programming Skills & Languages

Prog. skills	Python***, R**, Stata**, SAS**, LaTeX***, Microsoft Office**, HTML/CSS*
Languages	English (fluent, TOEIC : 915/990), Spanish (intermediate), French (native)

Conferences & Seminars

Seminars	CREST Microeonometrics Seminar (09/2021), Hadamard Doctoral School Ph.D. Seminar (02/2021, Orsay), CREST Ph.D. Seminar (12/2020, 07/2020), EPFL Workshop on Computational Methods in Social Science (07/2019)
Conferences	Bristol Econometric Study Group (09/2021), EEA Congress (08/2021), China Meeting of the Econometric Society (07/2021), Asian Meeting of the Econometric Society (06/2021), African Meeting of the Econometric Society (06/2021), IAAE Annual Conference (06/2021, 2020 reported), 50èmes Journées de la Statistique (2020 reported)
Co-organizer of	CREST Ph.D. Seminar (2019-2021), CREST Statistics·Econometrics·Machine-Learning Seminar (2019-), CREST Econometric Reading Group (2020)

Other Duties

2020 – 2021	Ph.D.s' representative on the Board of Directors of Groupe des Écoles Nationales d'Économie et Statistique (Genes)

References

Xavier D'Haultfœuille
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Daniel-Li Chen
Professor of Economics & CNRS Research Director
Toulouse School of Economics, 1 Esplanade de l'Université,
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