# Martin Mugnier\*

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#### Personnal informations

Current Position: Ph.D. Candidate in Econometrics at CREST/ENSAE IP Paris

Nationality: French

Date of Birth: July 19th, 1995

Research interests: nonlinear panel data models, identification, high-dim. statistics, asymptotic statistics.

#### Education

Sept 2019 –	Ph.D. Candidate in Econometrics, Center for Research in Economics and Statistics (CREST) & ENSAE IP Paris, France  • Supervisor: Prof. Xavier D'Haultfoeuille (CREST/ENSAE) • Dissertation topic: "Nonlinear panel data models and high dimensional statistics"
2018 - 2019	M.Sc. in Applied Mathematics (with honours), Paris-Saclay University, France  • Mathematics of Randomness track • major in Statistics ℰ Machine Learning
2017 – 2019	Engineering Degree in Economics & Statistics, ENSAE IP Paris, France  • major in Data Science & Statistical Learning theory
2016 - 2017	First year of the Master in Economics (with highest honours), Joint program with École Polytechnique, HEC Paris, ENSAE IP Paris, ENS Paris-Saclay, France
2015 - 2016	B.Sc. in Economics (with honours), Panthéon-Sorbonne University, France
2015 - 2019	Economics and Management Degree, ENS Paris-Saclay, France • Civil servant student ("normalien")
2013 – 2015	Preparatory classes for the competitive exam of ENS Paris-Saclay (option D2), Lycée Ozenne & Toulouse School of Economics, France  • Licences 1 & 2 in Economics and Management (ranked resp. 7/722 and 1/274).

## Work in Progress

2019	Point Identification of Panel Binary Models Without Logit Errors (with X. D'Haultfœuille & L.
	Davezies)
2020	Change in Change Asymptotics (with X. D'Haultfœuille & J. L'Hour)
2019	Linking patents to firms: insights with French firms (with M. Lequien, L. Py & P. Trichelair)

### Grants & Awards

2019 - 2022	Full State Doctoral Scholarship (French Ministry of Higher Education, Research and Innovation)
2015 - 2019	Full State Scholarship (ENS)
2017	2nd Prize – Challenge Deep-Learning (Hackaton EY-Genius ENSAE)

#### **Teaching**

Courses

• Linear Algebra and Python (24 hrs), HEC Paris & ENSAE IP Paris (Undergrad. 3rd year, Fall 2019)

TA sessions

- Econometrics 2 (18 hrs), ENSAE IP Paris, prof. Mickael Visser (Graduate 1st year, Spring 2019,2020)
- Statistics 2 (11 hrs), ENSAE Paris, prof. Matthieu Lerasle (Grad. 1st year, Spring 2019,2020)
- Mathematical Fundations of Probability Theory (18h), ENSAE IP Paris, prof. Cristina Butucea (Undergrad. 3rd year, Fall 2020)

Linear Algebra (20 hrs), ENSAE IP Paris, prof. Matthieu Lerasle (Undergrad. 3rd year, Fall 2020)

#### Conferences & Seminars

Talks | CREST Ph.D. Seminar (9th July 2020, Paris, FR), EPFL Workshop on computational methods

in social science (1st July 2019, Lausanne, CH)

Conferences | IAEE Conference (London 2020, CANCELLED), 50èmes Journées de la Statistique (Nice 2020,

CANCELLED).

Others | Co-organizer of: Firms and Markets Seminar (Ph.D. internal seminar of CREST, 2019-20), Stats-

Machine Learning-Econometrics Seminar (2019-20).

## Programming Skills & Languages

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

### Other Working Experience

Apr. – Sept | CREST (Microeconometrics Lab), Palaiseau, France (4 months)

• Research assistant • Supervisor: Xavier D'HAULTFŒUILLE • Theoretical econometrics.

Conducted research on identification issues and high-dimensional statistics in non-linear models

Conducted research on identification issues and high-dimensional statistics in non-linear models with panel data.

June – Sept | Banque de France (DGSEI/SEPS), Paris, France (4 months)

• Research intern • Supervisors: Matthieu LEQUIEN & Loriane PY • Designed a machine-learning based agorithm to fuzzy-match PATSTAT patents to the SIRENE French firms register.

2017 – 2018 | Société Générale (Inspection Générale), Paris, France (8 months)

• ENSAE Team Project in Applied Statistics (part-time internship) • Supervisors: Clément SENTIS & 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, Toulouse, France (4 months)

• Research assistant to Senior Scholar Daniel-Li CHEN (IAST/NBER) • Applied econometrics: collected, cleaned and explored data from 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, etc. • Research assistance on the project: The Impact of Financial Payments from Pharmaceutical Industries on Prescribing Behaviors and Patient Outcomes.

May – July 2016 | French Embassy in Colombia (Regional Economic Service), Bogotá, Colombia (2 months)

• Economist intern • Supervisor: 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)

• Individual teacher • Taught courses in Economics, Marketing and Mathematics to high-school and undergraduate students (5 students)