Gabriel Rodriguez-Rondon

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Education

Ph.D. Economics, McGill University 2019 - **Expected 2025**
Comprehensive exams completed:
Macroeconomics, Microeconomics, Econometrics, Monetary Economics

M.A. Economics, McGill University 2018 - 2019

B.A. Economics (Honours), Carleton University 2012 - 2016

Experience

PhD Intern, Bank of Canada
Canadian Economic Analysis Department since September 2023
International Economic Analysis Department June 2023 - September 2023

Research Assistant, McGill University June 2023 - December 2023
for Prof. Francesca Carrieri

Visiting Student, Boston University January 2023 - May 2023
Economics Department

Research Data Scientist, Financial Network Analytics August 2019 - January 2023
R&D Team

Research Assistant, McGill University May 2019 - August 2019
for Prof. Jean-Marie Dufour

Research Assistant, Bank of Canada April 2016 - August 2018
Funds Management & Banking Department - Research Team

Working Papers:

1. "Monte Carlo Likelihood Ratio Tests for Markov Switching Models" with Jean-Marie Dufour, 2023

2. "Estimation and Inference for Higher-order Stochastic Volatility Models with Leverage" with Jean-Marie Dufour & Md. Nazmul Ahsan, 2024

3. "Underlying Core Inflation with Multiple Regimes", 2023

4. "Testing for the Synchronization of International Business Cycles" with Jean-Marie Dufour, 2023
5. "Volatility Forecasting with Higher-order Stochastic Volatility Models" with Jean-Marie Dufour & Md. Nazmul Ahsan, 2024
6. "Joint Determination of Counterparty and Liquidity Risk in Payment Systems" with Jorge Cruz Lopez & Charles M. Kahn, 2021 (Awarded **Best Paper on Risk Management** at the NFA 2019 Conference)
7. "MSTest: An R-package for Testing Markov-Switching Models" with Jean-Marie Dufour, 2023
8. "mbreaks: R Package for Estimating and Testing Multiple Structural Changes in Linear Regression Models" with Linh Nguyen, Pierre Perron, and Yohei Yamamoto, 2023

Conference Proceedings, Policy Notes, & Technical Notes:

9. "Simulation-Based Inference for the Synchronization of Business Cycles" with Jean-Marie Dufour, In JSM Proceedings, Business and Economic Statistics Section. Toronto, ON: American Statistical Association, 2023. DOI: https://doi.org/10.5281/zenodo.10002201
10. "Simulation-Based Inference for Markov Switching Models" with Jean-Marie Dufour, In JSM Proceedings, Business and Economic Statistics Section. Washington, D.C.: American Statistical Association, 2022.
11. "The Government of Canada Debt Securities Dataset", with Jeffrey Gao & Francisco Rivadeneyra, Bank of Canada Technical Report, 2017. DOI: https://doi.org/10.34989/tr-112

Work In Progress

12. "Identification Through Heteroskedasticity Using Multiple Structural Change Tests" with Pierre Perron
13. "MNbreaks: An R Package for Estimating and Testing Multiple Structural Changes in Multivariate Linear Regression Model" with Zhongjun Qu
14. "Simulation and Stress Testing of Large Value Payment Systems" with Jorge Cruz Lopez
15. "Network Model Simulation and Stress Testing of PvP Systems" with Jorge Cruz Lopez, Carlos Leon, Giuseppe Matera, & Jordan Cambe

Software:

- **MSTest** - R package

- **bootBtest** - R package

- **mbreaks** (v2) - R package

Academic Conference & Seminar Presentations

2024

European meeting of the Econometric Society *
International Association for Applied Econometrics (IAAE) Annual Conference *
North American Summer Meeting of the Econometric Society *
58th Annual Meetings of the Canadian Economics Association *
63e Congrès de la Société Canadienne de Science Économique
CIREQ Econometrics Conference in Honor of Eric Ghysels
New York Camp Econometrics XVIII

2023

Carleton University Brown Bag Seminar
NBER-NSF Time Series Conference
CEMLA - II Conference on Payments and FMIs
Joint Statistical Meetings
Bank of Canada Brown Bag Seminar
International Association for Applied Econometrics (IAAE) Annual Conference
57th Annual Meetings of the Canadian Economics Association
Boston University Econometrics Seminar

2022

16th International Conference on Computational and Financial Econometrics
Latin American Meetings of The Econometric Society
Joint Statistical Meetings
17th CIREQ Ph.D. Students' Conference
56th Annual Meetings of the Canadian Economics Association

2017

Payments Canada & Bank of Canada Research Symposium
51st Annual Meetings of the Canadian Economics Association

* Scheduled

Professional Services

Referee Services

International Statistical Review, Journal of Financial Market Infrastructures

Discussant

CEMLA - II Conference on Payments and FMIs (2023), 58th Annual Meetings of the Canadian Economics Association (2024)

Honours, Grants, & Awards

Fonds de Recherche du Québec - Société et Culture (FRQSC)	2021 - 2024
Graduate Excellence Award	2021 - 2024
International Association for Applied Econometrics Travel Grant	2023
McGill Graduate Mobility Award	2022 - 2023
McGill Graduate Research Enhancement and Travel Awards	2022 - 2023
Canadian Economics Association Travel Grant	2022
Dufour Graduate Award	2020 - 2022
Carleton Academic Scholarship	2012, 2013

Teaching Experience

Instructor, McGill University:

- ECON 663: Econometrics II (Graduate) — Winter 2024
  Taught with Prof. Saraswata Chaudhuri

Teaching Assistant, McGill University:

- ECON 663: Econometrics II (Graduate) — Winter 2024
- ECON 610: Microeconomic Theory (Graduate) — Fall 2022, Fall 2023
- ECON 620: Macroeconomic Theory (Graduate) — Fall 2022, Fall 2023
- ECON 257: Economic Statistics (Honours) — Fall 2020, Winter 2021
- ECON 447: Economics of Information and Uncertainty — Winter 2020
- ECON 319: Economic Crises — Fall 2019
- ECON 219: Current Economic Problems — Winter 2019
- ECON 208: Microeconomic Analysis and Applications — Fall 2018

Teaching Assistant, HEC Montreal

- ECON 80802A: Empirical methods in monetary economics & finance (Graduate) — Winter 2024

Member of

American Economic Association, American Finance Association, American Statistical Association, Canadian Economics Association, Econometric Society

Programming & Software Proficiency

R, Python, MATLAB, C++, Linux, STATA

Languages

English, French, & Spanish.