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

3. "Testing for the Synchronization of International Business Cycles" (with Jean-Marie Dufour), 2023

4. "Estimation and inference for higher-order stochastic volatility models with leverage" (with Jean-Marie Dufour & Md. Nazmul Ahsan), 2023

5. "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)

6. "MSTest: An R-package for Testing Markov-Switching Models" (with Jean-Marie Dufour), 2023

7. " 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:**

8. "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

9. "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.

10. "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**

11. "Identification Through Heteroskedasticity Using Multiple Structural Change Tests" (with Pierre Perron), 2023

12. "Simulation and Stress Testing of Large Value Payment Systems" (with Jorge Cruz Lopez), 2022

13. "Network Model Simulation and Stress Testing of PvP Systems" (with Jorge Cruz Lopez, Carlos Leon, Giuseppe Matera, & Jordan Cambe), 2022

**Software:**

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

## Academic Conference & Seminar Presentations

| | |
|---|---|
| CIREQ Econometrics Conference in Honor of Eric Ghysels (Scheduled) | 2024 |
| New York Camp Econometrics XVIII (Scheduled) | 2024 |
| Carleton University Brown Bag Seminar | 2023 |
| NBER-NSF Time Series Conference | 2023 |
| CEMLA - II Conference on Payments and FMIs | 2023 |
| Joint Statistical Meetings | 2023 |
| Bank of Canada Brown Bag Seminar | 2023 |
| International Association for Applied Econometrics (IAAE) Annual Conference | 2023 |
| 57th Annual Meetings of the Canadian Economics Association | 2023 |
| Boston University Econometrics Seminar | 2023 |
| 16th International Conference on Computational and Financial Econometrics | 2022 |
| Latin American Meetings of The Econometric Society | 2022 |
| Joint Statistical Meetings | 2022 |
| 17th CIREQ Ph.D. Students' Conference | 2022 |
| 56th Annual Meetings of the Canadian Economics Association | 2022 |
| Payments Canada & Bank of Canada Research Symposium | 2017 |
| 51st Annual Meetings of the Canadian Economics Association | 2017 |

## Referee Services

International Statistical Review, Journal of Financial Market Infrastructures

## Honours, Grants, & Awards

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|---|---|
| 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.