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Research Interests

Network analysis, time series, econometrics, statistics, forecasting, machine learning

Academic Positions and Affiliations

Associate Professor — 2022–
Department of Economics and Business Economics, Aarhus University

Assistant Professor — 2018–2022
Department of Economics and Business Economics, Aarhus University

Education

Ph.D. in Economics (*cum laude*) — 2014–2018
Thesis Title: Essays in Network Modelling
Supervisors: Christian Brownlees and Gabor Lugosi
Department of Economics and Business, Universitat Pompeu Fabra

M.Sc. in Macroeconomic Policy and Financial Markets — 2012–2013
Barcelona Graduate School of Economics

M.Sc. in Economics — 2010–2011
London School of Economics

B.Sc. in Economics — 2007–2010
University of Iceland

Publications

1. Brownlees, C. & **Guðmundsson, G. S.** (2023). Performance of Empirical Risk Minimization for Linear Regression with Dependent Data. *Econometric Theory*, forthcoming.

2. Brownlees, C., **Guðmundsson, G. S.** & Lugosi, G. (2022). Community Detection in Partial Correlation Network Models. *Journal of Business and Economics Statistics*, 40:1, 216–226. DOI: 10.1080/07350015.2020.1798241

3. **Guðmundsson, G. S.** & Brownlees, C. (2021). Detecting Groups in Large Vector Autoregressions. *Journal of Econometrics*, 225:1, 2–26. DOI: 10.1016/j.jeconom.2021.03.012

4. **Guðmundsson, G. S.** & Zoega, G. (2016). A Double-Edged Sword: High Interest Rates in Capital Control Regimes. *Economics*, 10, 1–38.

5. **Guðmundsson, G. S.** & Zoega, G. (2014). Age Structure and the Current Account. *Economics Letters*, 123, 183–186.

Working Papers

- Detecting Giver and Receiver Spillover Groups in Large Vector Autoregressions
- Performance of Empirical Risk Minimization for Principal Component Regression
  with Christian Brownlees and Yaping Wang
- Community Detection in High-Dimensional Non-Stationary Time Series
  with Majid M. Al-Sadoon
- Concentration of the Adjacency and Laplacian Matrices in Random Graphs with Dependent Edges
  with Christian Brownlees

Seminar and Conference Presentations

- Presentation at the 14th Workshop in Time Series Econometrics, University of Zaragoza, 11-12th April, 2024.
- Presentation at the 17th International Conference on Computational and Financial Econometrics, HTW Berlin, University of Applied Sciences, 16-18th December, 2023.
- Presentation at the 2nd Academic Workshop for Icelandic Economists Abroad, University of Iceland, 5th May, 2023.
- Seminar at the Department of Data Science and Analytics at BI Norwegian Business School, 18th April, 2023.
- Presentation at the 3rd High Voltage Econometrics conference, 7-8th October, 2022.
- Invited talk at the Statistical Methods on Networks Workshop, University of Leipzig, 26–28th September, 2022.
- Presentation at the 12th Workshop in Time Series Econometrics, University of Zaragoza, 31st March–1st April, 2022.
- Seminar at the Department of Economics at Lund University, 27th September, 2019.
- Poster at the 2019 NBER-NSF Time Series Conference, Chinese University of Hong Kong, 14–15th August, 2019.
- Presentation at the 12th Annual Meeting of the Society for Financial Econometrics (SoFiE), Fudan University, 12–14th June, 2019.
- Presentation at the Academic Workshop for Icelandic Economists Abroad, University of Iceland, 27th May, 2019.
- Presentation at the 9th Workshop in Time Series Econometrics, University of Zaragoza, 4–5th April, 2019.
- Presentation at the 12th International Conference on Computational and Financial Econometrics, University of Pisa, 14–16th December, 2018.
- Presentation at the 8th Workshop in Time Series Econometrics, University of Zaragoza, 12–13th April, 2018.
- Presentation at the 11th International Conference on Computational and Financial Econometrics, University of London, 16–18th December, 2017.
- Presentation at the 3rd Vienna Workshop on High-Dimensional Time Series in Macroeconomics and Finance, Institute for Advanced Studies Vienna, 8–9th June, 2017.

Refereeing

Biometrika, *International Journal of Forecasting*, *Journal of Econometric Methods*, *Journal of Econometrics*, *Statistical Papers.*

Teaching

Graduate

4616: Time Series Econometrics	University of Aarhus	2023–
4645: Machine Learning Methods in Empirical Economics	University of Aarhus	2022–
Applied Data Science (Network Analysis)	University of Aarhus	2020–2022
4616: Time Series Econometrics	University of Aarhus	2018–2019

Undergraduate

Introduction to Machine Learning	University of Aarhus	2020–
3620: Econometrics I	University of Aarhus	2018–2021

Awards and Scholarships

- Nominated for Den Gyldne Pegepind (teacher of the year) at the Department of Economics, Aarhus University, 2020.
- Nominated for Den Gyldne Pegepind (teacher of the year) at the Department of Economics, Aarhus University, 2019.
- Marcelo Reyes Prize for best paper by junior researcher at the 8th Workshop in Time Series Econometrics, the University of Zaragoza, April 2018.
- FPU Scholarship, the Spanish Ministry of Education, Culture and Sports, 2015-2018.

Other

- Reviewer for Spring Meeting of Young Economists, 2018.
- Initial Training in University Teaching, Universitat Pompeu Fabra, 2017.
- Research Assistant for Professor Luigi Pascali, Universitat Pompeu Fabra, 2017.
- Research Assistant for Professor Albrecht Glitz, Universitat Pompeu Fabra, 2016–2017.