Daniel Eduardo Rigobon

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EDUCATION

Princeton University, Princeton, NJ

Candidate for Ph.D. in ORFE, 2018-Present

- Relevant Coursework: Probability in High Dimensions, Stochastic Calculus, PDE Methods for Financial Mathematics.
- Research Interests: Network Identification, Dynamical Networked Systems, Network Control and Optimization, Systemic Risk.
- Cumulative GPA: 3.97

Massachusetts Institute of Technology, Cambridge, MA

B.S. Mechanical Engineering, June 2018

- Minors in Economics, Statistics
- Thesis: Models of Entrainment of Human Walking
- Cumulative GPA: 4.8

Weston High School, Weston, MA

EDUCATION EXPERIENCE

Princeton University

Assistant in Instruction for ORF536 (Probability Theory)
Assistant in Instruction for ORF387 (Networks)
Assistant in Instruction for ORF455 (Energy and Commodity Mar-

Feb. 2020 - May 2020 Sep. 2020 - Present

Sep. 2019 - Jan. 2020

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RESEARCH EXPERIENCE

Princeton University

Ph.D. Student

2018 - Present

- Studying the optimization of network structures to drive consensus-forming.
- Studying models of systemic risk propagation in financial networks.
- Proposing a novel Network Identification project to estimate networked systems.
- Explored criticality of mean-field interacting particle system.

State Street Associates

Portfolio Risk and Research Intern

Summer 2020

- Established a relationship between centrality of global financial institutions and volatility.
- Communicated findings to clients through monthly newsletters and short research summaries.
- Contributed to new group mentorship and sponsorship programs in State Street's Global Markets Division.

MIT Media Lab

Research Assistant in 'Human Dynamics'

2017 - 2018

- Analyzed network game data in Python to study effects of social influence.
- Participated in the 'Fragile Families Challenge' of predicting out-of-sample outcomes from social science data using machine learning and data science methods.

• Trained Convolutional Neural Nets on Satellite Imagery to improve targeting of conditional cash transfer programs in Mexico City.

Newman Biomechanics Laboratory

Undergraduate Research Assistant

2016 - 2018

- Developed an energy-based controller to replicate experimental entrainment behavior in human walking.
- Submitted findings for publication and presentation at ASME DSCC 2017.

Honors and Awards

President's Fellowship, Princeton University; 2018

John C. and Elizabeth J. Chato Award, MIT; 2018

Member of Pi Tau Sigma, MIT; 2017-2018

AMP Inc. Award, MIT; 2016

Publications

B. Jiang, D. Rigobon, R. Rigobon; From "Just in Time" to "Just in Case": Simple Models of Global Supply Chains and Aggregate Shocks; Working Paper.

M. Salganik et al.; Measuring the Predictability of Life Outcomes with a Scientific Mass Collaboration; Proceedings of the National Academy of Sciences; 2020.

D. Rigobon, E. Jahani, Y. Suhara, K. AlGhoneim, A. Alghunaim, A. Pentland, A. Almaatouq; Winning Models for GPA, Grit, and Layoff in the Fragile Families Challenge; Socius: Sociological Research for a Dynamic World; 2019.

D.Rigobon; Models of Entrainment of Human Walking; MIT Thesis; 2018.

D. Rigobon, J. Lee, N. Hogan; Effect of Stochastic Parameter Variation on Entrainment Behavior of a Stable Ankle-Actuated Walking Model; MIT Undergraduate Research Journals; 2017.

D. Rigobon, J. Ochoa, N. Hogan; Entrainment of Ankle-Actuated Walking Model to Periodic Perturbations via Leading Leg Angle Control; ASME Dynamics Systems and Controls Conference; 2017.

Presentations

Entrainment of Ankle-Actuated Mechanical Walker, ASME DSCC. (October 2017)

Programming Languages

Fluent in: Python, R, IATEX, MATLAB, HTML, CSS Familiar with: Java, JavaScript, C++

References

Prof. Racz, Assistant Professor, ORFE, Princeton University, mracz@princeton.edu

Prof. Sircar, Full Professor and Department Chair, ORFE, Princeton University, sircar@princeton.edu

 $\textbf{Prof. Shkolnikov}, Associate Professor, ORFE, Princeton University, \verb|mykhaylo@princeton.edu| \\$

Prof. Pentland, Toshiba Professor of Media Arts and Sciences, MIT, sandy@media.mit.edu

Languages and Hobbies Fluent in Spanish and English; Proficient in French. Interested in Ceramics, Music, Cooking, and Reading.