

# R. María del Río-Chanona | Curriculum Vitae

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## Employment and affiliations

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- **Complexity Science Hub** **Vienna**  
James S. McDonnell Foundation Postdoctoral Fellow. June 2021 – (June 2024)
- **Growth Lab, Harvard University** **Boston**  
Associate (Non-stipendiary) December 2021 – (October 2022)

## Education

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- **Mathematical Institute, University of Oxford** **Oxford**  
DPhil in Mathematics October 2016 – May 2021
  - ▷ Member of the Institute for New Economic Thinking at the Oxford Martin School
  - ▷ Graduated with no corrections
- **Facultad de Ciencias, Universidad Nacional Autónoma de México** **Mexico City**  
BSc Physics August 2011 – December 2015
  - ▷ GPA: 9.55/10.0 (Summa Cum Laude)

## Publications, Technical Reports, and Preprints

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### ..... Journal publications and Technical Reports.....

- R. M. del Río-Chanona, P. Mealy, M. Beguerisse-Díaz, F. Lafond, and J.D. Farmer. (2021) Occupational Mobility and Automation: a data-driven network model, *Journal of the Royal Society Interface*, 18: 20200898..
- R. M. del Río-Chanona, P. Mealy, A. Pichler, F. Lafond, and J.D. Farmer. (2020) Supply and demand shocks in the COVID-19 pandemic: An industry and occupation perspective, *Oxford Review of Economic Policy*, 36 (1), S94–S137
- R. M. del Río-Chanona, Y. Korniyenko, M. Patnam, and M. A. Porter. (2020) The Multiplex Nature of Global Financial Contagions. *Applied Network Science*, 5 (1), 1-23
- Y. Korniyenko, M. Patnam, R. M. del Río-Chanona, and M. A. Porter. (2018) Evolution of the Global Financial Network and Contagion: a New Approach. *IMF Working Paper*, WP/18/113.
- A. Bonato, R. M. del Río-Chanona, C. MacRury, J. Nicolaidis, X. Pérez-Giménez, P. Pralat and K. Ternovsky. (2018) The robot rawler graph process, *Discrete Applied Mathematics*. 247, 23-36.
- R. M. del Río-Chanona, J. Grujic, H. J. Jensen. (2017) Trends of the World Input-Output Network of Global Trade. *PloS one* 12.1 (2017): e0170817.

### ..... Preprints.....

- A. Pichler, M. Pangallo, R. M. del Río-Chanona, F. Lafond, and J.D. Farmer, *Production networks and epidemic spreading: How to restart the UK economy?* (May, 2020). Available at: <https://arxiv.org/abs/2005.10585>.

- P. Mealy, R. M. del Rio-Chanona and J. D. Farmer, *What You Do at Work Matters: New Lenses on Labour* (March, 2018). Available at SSRN: <http://dx.doi.org/10.2139/ssrn.3143064>.

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### Science Communication

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- R. M. del Rio-Chanona, et al. "Predicting the supply and demand shocks of the COVID-19 pandemic: An industry and occupation perspective." VoxEu.org, 16 May 2020
- R. M. del Rio-Chanona, *Simetría en nuestra mente*, Ciencias, Vol. 113-114, February 2015. pp. 25-31 (article on isometric transformations in art).

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## Professional Experience and Research Internships

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- **International Labor Organization.** Consultant, October 2020 – March 2021.  
Working with Dr. Ekkehard Ernst, Dr. Daniel Saaman, and Eightfold.AI
- **International Monetary Fund.** Washington D.C. Intern, July 2019 – October 2019.  
Supervised by Dr. Yevgeniya Korniyenko and Dr. Manasa Patnam.
- **Ryerson University.** Canada, Research intern, May 2015 – August 2015.  
Supervised by Prof. Anthony Bonato.
- **Imperial College London.** United Kingdom, Research intern, June 2014 – July 2014.  
Supervised by Prof. Henrik J. Jensen and Dr. Jelena Grujic.
- **Pondera Lab and Inno-Ba.** Mexico, Data Analyst, January 2016 – June 2016 and June 2012 – July 2012.

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## Selected Conferences and Meetings

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- **Invited speaker.** NetSci 2021 Satellite Complex Networks in Economics and Innovation. Occupational mobility networks and the future of work, June 2021.
- **Invited speaker.** NetSci 2020 Satellite MixNext. The multilayer nature of the economy and global financial contagions, December 2020.
- **Invited speaker.** Oxford Martin School, University of Oxford. Supply and demand shocks in the COVID-19 pandemic: an industry and occupation perspective (joint talk with Prof. Doyne Farmer), September 2020. <https://www.youtube.com/watch?v=5wtNm6ETuLQ&t=3162s>
- **Invited panelist.** New Complexity Economics, ACTioN meeting hosted by Santa Fe Institute, Santa Fe New Mexico, November 2019.
- **Invited speaker.** Data Science Meets the Economics of Science, Technology and Innovation, Workshop organized by CAGE-NESTA, October 2019.
- **Invited participant.** Complexity Science for National Security. SFI ACTioN, Santa Fe, July 2018.
- **Invited speaker.** AI, Computational Social Science, and the Future of Work Topical Meeting. ACTioN meeting hosted by Santa Fe Institute and Willis Towers Watson, London 2017.
- **Invited speaker.** Shifting Paradigms – Economics in the 21st Century. Aberdeen Political and Economic Group, Aberdeen 2017.

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## Funding

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- **SICSS grant.** Research grant, July 2021 - present (\$1,800). Joint award with SICSS team members.
- **James S. McDonnell fellowship.** Postdoctoral fellowship, June 2021 - present (\$200,000).
- **Baillie Gifford.** Doctoral scholarship.

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## Awards

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- **Best paper award (3rd place) on “Complexity in Macroeconomics”.** Award given by Rebuilding Macroeconomics to the paper “In and out of lockdown: Propagation of supply and demand shocks in a dynamic input-output model”, (Pichler et al. 2021)
- **The Best Talk Award.** MSCx 2018.
- **Three-Minute-Thesis competition (1st place).** Mathematical Institute, University of Oxford. 2018
- **Complex Systems Society scholarship.** MSCx 2018 fees.

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## Podcasts

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- **The Knowledge Archives.** "R. Maria del-Rio Chanona on Economic Modelling During COVID-19", hosted by Madhav Malhotra June 2021, <https://www.youtube.com/watch?v=xZFA0RAuavw>.
- **Complexity.** "R. Maria del-Rio Chanona on Modeling Labor Markets & Tech Unemployment", Santa Fe Institute, January 2020, <https://complexity.simplecast.com/episodes/15>.
- **La arana patona.** "Capital Humano"[Spanish], Insituto Morelense de Radio y Television, August 2019, <http://imryt.org/radio/la-arana-patona/capital-humano>.

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## Teaching and Student Supervision

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- **Supervision of Doctoral students**
  - Anna Berryman, Doctoral student, Mathematical Institute University of Oxford. (Co-supervisor).
- **Teacher Assistant and Tutor**
  - Networks, Mathematical Institute, University of Oxford, Tutor HT 2019 and HT 2020, Teacher Assistant 2018.
  - Electromagnetism, Mathematical Institute, University of Oxford, Teacher Assistant 2017.
  - Graph Theory, Facultad de Ciencias, UNAM, Teacher Assistant 2015.
  - Graph and Game Theory, Facultad de Ciencias, UNAM, Teacher Assistant 2014.
- **Supervision of Ogden Trust undergraduate interns.** Summer 2017 and 2018.
- **Tutor at the Oxford Summer School on Economic Networks.** Summer 2017.

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## Organizational skills

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- **Women in AI.** Organizer of the RIIA panel 2021.
- **Complexity Economics Seminar Series.** Organizer 2017-2019, Seminars hosted by the Institute for New Economic Thinking at the Oxford Martin School.
- **Oxford Summer School in Economic Networks** Part of the organizing team 2018. January 2021.