

# R. María del Río-Chanona | Curriculum Vitae

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## Studies

- **Mathematical Institute, University of Oxford** **Oxford**  
○ *DPhil in Mathematics* *October 2016 – Present*  
▷ Institute for New Economic Thinking at the Oxford Martin School
- **Facultad de Ciencias, Universidad Nacional Autónoma de México** **Mexico City**  
○ *BSc Physics, GPA: 9.55/10.0, First Class* *August 2011 – December 2015*

## Publications, Technical Reports, and Preprints

- ..... **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*, forthcoming.
  - 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 Río-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>.
- ..... **Science Communication.** .....
- R. M. del Río-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 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**. 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 speaker**. AI, Computational Social Science, and the Future of Work Topical Meeting. ACTioN meeting hosted by Santa Fe Institute and Willis Towers Watson, London 2018.
- **Invited speaker**. Shifting Paradigms – Economics in the 21st Century. Aberdeen Political and Economic Group, Aberdeen 2017.
- **Invited participant**. Complexity Science for National Security. SFI ACTioN, July 2018.
- **Oral presentation**. CompleNet, Tarragona, March 2019.
- **Oral presentation**. International Conference on Innovative Applied Energy, Oxford, March 2019.
- **Oral presentation**. Conference on Complex Systems, Thessaloniki, September 2018.
- **Oral presentation**. CompleNet, Dubrovnik, March 2017.

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## Awards and Funding

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- **James S. McDonnell fellowship**. Postdoctoral fellowship, *forthcoming*.
- **Baillie Gifford**. Doctoral scholarship 2019-2020
- **First place**. Mathematical Institute, University of Oxford. Three-Minute-Thesis competition.
- **The Best Talk Award**. MSCx 2018.
- **Complex Systems Society scholarship**. MSCx 2018 fees.
- **CONACyT-SENER**. Doctoral scholarship 2016-2019.

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## Podcasts

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- **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], Instituto Morelense de Radio y Television, August 2019, <http://imryt.org/radio/la-arana-patona/capital-humano>.

## Summer and Winter Schools

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- Mediterrenean Summer School on Complex Networks (MSCx 2018).
- Complex Systems Summer School at the Santa Fe Institute (CSSS 2018).
- Complex Systems Winter School at the Complexity Science Hub (CSH Vienna Winter School 2019).

## Teaching and Student Supervision

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- **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.

## Organizational skills

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- **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.