Julián García

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Faculty of Information Technology, Monash University – Australia

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Professional appointments

Faculty of Information Technology, Monash University   **Melbourne, Australia**
Senior Lecturer   *2018 –*

Faculty of Information Technology, Monash University   **Melbourne, Australia**
Lecturer   *2014 – 2017*
Tenured since 2016

Faculty of Engineering, National University of Colombia   **Bogotá, Colombia**
Profesor Adjunto   *2015 – Present*

Max Planck Institute for Evolutionary Biology   **Plön, Germany**
Postdoctoral fellow   *2010 – 2013*

Education

Vrije Universiteit, Amsterdam
Doctor (PhD)   *2011*
Computational and mathematical models in evolutionary game theory.
Supervisor: Prof. Matthijs van Veelen

National University of Colombia
Computer and Systems Engineering – with Honours, Bogotá   *2004*
"Tesis meritoria" – Distinguished dissertation – 5 year degree.

Selected Publications

Full list (and metrics) available via **google scholar** at: `http://bit.ly/garcia_scholar`.

- Chen R, Meyer B and **García J**. A computational model of task allocation in social insects: ecology and interactions alone can drive specialisation. (2020). Swarm Intelligence, 14, 143–170
- **García J** and Traulsen A. Evolution of coordinated punishment to enforce cooperation from an unbiased strategy space. (2019). Proceedings of the Royal Society Interface, 16: 20190127.
- Xu J, **García J**, and Toby Handfield. Cooperation with Bottom-up Reputation Dynamics. In Proceedings of the 18th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2019), Montreal, Canada, May 13–17, 2019, IFAAMAS.
- **García J** and van Veelen M. No strategy can win in the repeated prisoner's dilemma: linking game theory and computer simulations. (2018). Frontiers in Robotics and AI, 5:102.
- **García J** and van Veelen M. In and out of equilibrium: evolution of strategies in repeated games with discounting (2016). Journal of Economic Theory 161, 161–189.
- **García J**., van Veelen, M, and Traulsen, A. Evil Green Beards: Tag recognition can be used to withhold cooperation in structured populations (2014). Journal of Theoretical Biology 360 181–186.
- Wu B, **García J**., Hauert, C, and Traulsen, A. Extrapolating weak selection in evolutionary games (2013). PLoS Computational Biology 9(12): e1003381.
- van Veelen M., **García J**.,[1] Rand D.G., and Nowak M.A. Direct reciprocity in structured populations (2012). PNAS 109 9929-9934.
  - Featured in *Science* (Sherrat and Roberts, 2012).
- **García J** and Traulsen A. Leaving the loners alone: evolution of cooperation in the presence of antisocial punishment (2012) Journal of Theoretical Biology 307 168–173.
- **García J** and Traulsen A. The structure of mutations and the evolution of cooperation (2012) PLoS ONE 7(4): e35287.

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[1]Joint first authorship.

- Traulsen A and **García J**. Chromodynamics of accents? The Evolution of Tag-Based Cooperation in Humans: The Case for Accent. (2012). Current Anthropology, 53(5), 608-609
- **García J** and van den Bergh, J. Evolution of parochialism by multi-level selection (2011). Evolution and Human Behavior 32 (4) 277-87.
- van Veelen M. **García J**. Egas M and Sabellis M. Call for a return to rigour in models (2010). Letter to the Editors. Nature 467, 661.

Recent Grants and Awards

- Australian Research Council – DP190100041. **Governing the knowledge commons**.
  302,059 AUD. 2019–2022.
- Australian Research Council – DP180100154. **Modelling collective behaviour to protect social insect ecosystem services**.
  336,245 AUD. 2018–2021.
- German Academic Exchange Service. **Efficient computation of evolutionary games in finite populations**.
  17,000 AUD. 2015–2016.

Recent Invited Talks

- Cooperation with Bottom-up Reputation Dynamics. University College London, UK. July, 2019.
- Cooperation with Bottom-up Reputation Dynamics. Freiburg University, Switzerland. July, 2019.
- Evolutionary dynamics of indirect reciprocity with endogenous norms. IAST, Toulouse, France. May, 2019.
- Evolutionary dynamics of reciprocity. Mathematical and Computational Biology Seminar, University of Melbourne. April, 2019.
- Antisocial Pool Punishment, Computational Social Science Workshop. University of Melbourne. Dec, 2017.
- How to choose the strategy space? City University London. July, 2017.
- Visitor at the Program for Evolutionary Dynamics, Harvard Univeristy. July, 2015.

Teaching

- **Computational Modelling and Simulation** . Faculty of Information Technology, Monash University
  2015, 2018, 2019, 2020.
- **Introduction to Computer Science**. Information Technology, Monash University
  2015, 2016, 2017, 2018
- **Algorithmic Problem Solving**. Information Technology, Monash University
  2014, 2015.

Service

- Director *BSc Computer Science*, (2019 –); *BSc Computer Science Honours*, (2019 –); *BSc Computer Science Advanced Honours*, (2018 –). Faculty of Information Technology – Monash University .
- BMC Evolutionary Biology – Associate Editor (2017–).
- PLoS Computational Biology – Invited Guest Editor (2015–)

References

- **Prof. Arne Traulsen**
  Research Group for Evolutionary Theory.
  Max Planck Institute for Evolutionary Biology, Plön, DE
  Email: traulsen@evolbio.mpg.de