

ALASTAIR FRASER

School of Economics
University of Sydney
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Academic Positions

2018-Present Lecturer (Assistant Professor), The University of Sydney

Education

Ph.D. Economics, November 2018, University of British Columbia

M.A. Economics, August 2012, Queen's University

M.Sc. Physics, February 2010, University of Alberta

B.Sc. Physics (Honours), May 2007, University of Victoria

Research Interests

Environmental Economics, Energy Economics, Climate Finance & Transition Risks, International Trade

Publications

1. Refereed Journals - Economics

- [1] Fraser, A., Fiedler, T. (2023). Net-zero targets for investment portfolios: An analysis of financed emissions metrics. *Energy Economics*, 126, 106917.
- [2] Fraser, A., Kuok, J., Leslie, G. (2023). Climate reform and transitional industry assistance: Wind-fall profits for polluters? *Energy Economics*, 121.
- [3] Fraser, A. (2023). Success, Failure, and Information: How Households Respond to Energy Conservation Goals. *Journal of the Association of Environmental and Resource Economists*, 10(1), 95-120.

Refereed Journals - Physics

- [4] J.A.J. Burgess, A.E. Fraser, F. Fani Sani, D. Vick, B.D. Hauer, J.P. Davis, M.R. Freeman "Quantitative Magneto-Mechanical Detection and Control of the Barkhausen Effect" *Science* 339, 2013
- [5] J.P. Davis, D. Vick, P. Li, S.K.N. Portillo, A.E. Fraser, J.A.J. Burgess, D.C. Fortin, W.K. Hiebert and M.R. Freeman. "Nanomechanical Torsional Resonator Torque Magnetometry" *Journal of Applied Physics* 109, 07D309, 2011
- [6] D. Vick, V. Sauer, A.E. Fraser, M.R. Freeman, & W.K. Hiebert. "Bulk Focused Ion Beam Fabrication With 3-Dimensional Shape Control of Nanoelectromechanical Systems" *Journal of Micromechanics and Microengineering* 20, 105005, 2010
- [7] N. Liu, F. Giesen, M. Belov, J. Losby, J. Moroz, A.E. Fraser, G. McKinnon, T.J. Clement, V. Sauer, W.K. Hiebert & M.R. Freeman. "Time-Domain Control of Ultrahigh-Frequency Nanomechanical Systems" *Nature Nanotechnology* 3, 715 - 719, 2008

2. Non-Refereed Articles

- [1] Are Investment Carbon Footprints Good for Investors and the Climate? *Policy Options — Institute for Research On Public Policy*, 2017

Working papers and works in progress

- [1] Jacob Fry, Keiichiro Kanemoto, Alastair Fraser, & Keisuke Nansai "Global freight transport emissions responsibility" *R&R at Environmental Science and Technology*
- [2] "Drivers of peak demand: how electrifying transportation affects peak electricity demand" with Kelly Neill and Chia-jung Yeh
- [3] "Power Outages, Subsidies, and the Adoption of Household Batteries in California" with Andrea La Nauze
- [4] "Complements or Substitutes? The Importance of Mode Choice In International Trade" with Scott Orr
- [5] "Are all emissions created equal? The Economics of Transition Risks" with Carol McAusland

Grants & Fellowships

2022 Sydney Environment Institute Collaborative Research Fellowship (\$25,000)

2020 Faculty Research Support Scheme (\$7,976)

Academic Seminars & Conference Presentations

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| 2023 | Department Seminar, UC Davis, Davis |
| 2022 | Department Seminar, Central European University, Vienna |
| 2022 | Workshop on Sustainable Markets, University of Southern Denmark |
| 2022 | EnergyEcoLab seminar at Universidad Carlos III de Madrid |
| 2021 | Monash Environmental Economics Conference, Melbourne |
| 2021 | Department seminar, Monash University, Melbourne |
| 2020 | Australasian Agricultural and Resource Economics Society Annual Conference, Perth |
| 2019 | Australasian Agricultural and Resource Economics Society Annual Conference, Melbourne |
| 2019 | LEEPin2019 conference, University of Exeter |
| 2019 | Annual Conference of the European Association of Environmental and Resource Economists, Manchester |
| 2019 | Association of Environmental and Resource Economists Annual Conference, Nevada |
| 2019 | Department seminar, University of Adelaide |
| 2019 | Seminar, Australian Energy Regular, Sydney |
| 2019 | Seminar, Australian Energy Market Commission, Sydney |
| 2018 | Canadian Economic Association, Montreal |
| 2017 | Canadian Resource and Environmental Economics Study Group, Workshop on Electricity Markets, Western University, London Ontario |

- 2017 Canadian Economics Association Annual Conference, St. Francis Xavier University, Antigonish, Nova Scotia
- 2016 Canadian Resource and Environmental Economics Study Group, Annual Conference, Banff, Alberta
- 2016 Workshop on Economics of Global Interactions, UBC, British Columbia
- 2016 Economics and Environmental Policy Research Network Symposium, Ottawa, Ontario

Academic Service

Reviewer for: *Nature Energy, Journal of International Economics, American Economic Review, Journal of Public Economics, Australian Journal of Agricultural and Resource Economics, Journal of Environmental Economics and Management, Canadian Journal of Economics, Journal of the Association of Environmental and Resource Economists, Energy Economics,*

Teaching

Economics 1001: Introductory Microeconomics; Firms, Markets and Business Management in the Masters of Accounting; Economics of Program Evaluation; Benefit-Cost Analysis; Concepts in Enviro and Agricultural Economics

Selection of non-academic experiences

- 2019-2023 Chair, Sustainability Strategy's Responsible Investments Working Group; member of the University Senate-commissioned committee on responsible investing
- Lead a working group advising the University of Sydney Executive and Senate on updating the Responsible Investing Policy
 - Provided subject matter expertise and briefed members of the Executive and Senate on net-zero alignment and responsible investing policies for the University endowment
 - Shepherded the policy through the University Executive and Senate to final approval and adoption
- 2019-2021 Member, Energy & Emissions working group, University of Sydney Sustainability Strategy
- 2014-2018 Subject matter expert on low-carbon investment methodologies and net-zero alignment
- Worked with the Board of Governors of the University of British Columbia to incorporate climate-change principles into the Endowment investing strategy
- 2013-2017 Settlement mentor (volunteer), Immigrant Settlement Services of British Columbia
- Assisted refugees upon their landing in Canada until six months after their arrival. Provided mentoring & guidance in navigating Canadian society and culture, from setting up bank accounts to finding employment.
- 2014-2017 Consultant, various
- Analysed energy conservation programs for Canadian electrical utility companies, including time-of-use pricing, behavioural responses to financial rewards, and the effectiveness of home energy reports mailed to customers.
- 2010 Manager (volunteer), water filter factory in Kenya
- Project manager overseeing the successful start-up of a ceramic water filter factory.