

## ALASTAIR FRASER

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### Academic Positions

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

### Education

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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

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

### Publications

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#### 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

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- [1] "Complements or Substitutes? The Importance of Mode Choice In International Trade" with Scott Orr
- [2] "Freight transport emissions embodied in the global commodity trade" with Jacob Fry, Keiichiro Kanemoto, Manfred Lenzen, & Keisuke Nansai

## Works in progress

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- [1] "Drivers of peak demand: how electrifying transportation may affect peak demand"
- [2] "Are all emissions created equal? The Economics of Transition Risks" with Carol McAusland
- [3] "Do companies respond strategically to ESG scores"

## Grants & Fellowships

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2022 Sydney Environment Institute Collaborative Research Fellowship (\$25,000)  
2020 Faculty Research Support Scheme (\$7,976)

## 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 LEEP in 2019 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 Regulator, 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**

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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**

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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**

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- 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.