

MICHELLE LEE

Ph.D. Candidate
Centre for Brain, Mind and Markets
University of Melbourne
📍 Melbourne, Australia

✉ michelle.lee2@unimelb.edu.au
@ m30134@hotmail.com
🌐 [michellemslee.github.io](https://github.com/michellemslee)
ORCID: 0000-0003-0440-7716

RESEARCH INTERESTS

Consumer finance, complexity, behavioural and experimental economics, decision sciences.

EDUCATION

- 2022 – 2026 **Ph.D. in Decision, Risk and Financial Sciences**
(expected) University of Melbourne | Centre for Brain, Mind and Markets
Thesis: *Complexity of Financial Decision-making*
Supervisory Committee: Carsten Murawski, Nitin Yadav, Peter Bossaerts
- 2020 – 2022 **M.Com. in Decision, Risk and Financial Sciences**
University of Melbourne | Centre for Brain, Mind and Markets
- 2015 – 2018 **B.Com. (Honours in Finance)**
University of Melbourne | Exchange semester: Waseda University
Thesis: *The Impact of Security Design on Information Aggregation: An Experimental Study*
Supervisor: Felix Fattinger

PUBLICATIONS

- **“Resource Allocation, Computational Complexity, and Market Design”**, with Peter Bossaerts, Elizabeth Bowman, Felix Fattinger, Harvey Huang, Carsten Murawski, Anirudh Suthakar, Shireen Tang, and Nitin Yadav. *Journal of Behavioral and Experimental Finance*, June 2024. <https://doi.org/10.1016/j.jbef.2024.100906>

Abstract: With three experiments, we study the design of financial markets to help spread knowledge about solutions to the 0-1 Knapsack Problem (KP), a combinatorial resource allocation problem. To solve the KP, substantial cognitive effort is required; random sampling is ineffective and humans rarely resort to it. The theory of computational complexity motivates our experiment designs. Complete markets generate noisy prices and knowledge spreads poorly. Instead, one carefully chosen security per problem instance causes accurate pricing and effective knowledge dissemination. This contrasts with information aggregation experiments. There, values depend on solutions to probabilistic problems, which can be solved by random drawing.

WORKING PAPERS

- **“How complex are financial decisions? Evidence from credit card choice”**, with Carsten Murawski and Nitin Yadav. Preprint available on SSRN: <https://ssrn.com/abstract=6092406>

Abstract: Complexity is increasingly recognized as a barrier to sound financial decision-making, yet no theoretical framework currently characterizes it. We propose a framework that quantifies the complexity of financial decisions based on their computational demands and apply it to binary credit card choices. Using a combined behavioral and eye-tracking experiment, we show that complexity, rather than inattention or limited financial literacy, drives mistakes, and that it disproportionately burdens cardholders who carry a balance, for whom the stakes are highest. Our findings suggest that complexity is a fundamental barrier to optimal financial decision-making, even in seemingly simple choices.

WORK IN PROGRESS

- “*Improving life insurance decision-making – The role of calculators*”, with Carsten Murawski and in collaboration with AIA Australia Ltd. [[Poster](#)]
- “*Complexity undermines resource allocation*”, with Carsten Murawski, Nitin Yadav, and Michele Garagnani. [[Pre-registered on OSF](#)]
- “*Cognitive offloading in complex tasks*”, with Juan Pablo Franco, Thomas Gao, Ian Wang, and Peter Wu. [[Pre-registered on OSF](#)]

CONFERENCES AND TALKS

2026: Economic Science Association (ESA) – AP, Society for Experimental Finance (SEF) – AP, Decision-Making@Melbourne Workshop, International Association for Research in Economic Psychology.

2025: Society for Judgment and Decision Making (SJDM), Accounting & Finance Association of Australia and New Zealand (AFAANZ), FBE PhD Interdisciplinary Brown Bag, ESA – AP, BEST Conference on Human Behaviour and Decision Making (BEST)

2024: Computational Complexity of DM Workshop, Society for Neuroeconomics (SNE), Summer School in Experimental and Behavioural Economics, Cognitive Foundations of DM Summer School

AWARDS AND GRANTS

2025: Honorable mention for the Best Student Poster Award (SJDM), Doctoral Symposium Grant (AFAANZ), Caleb Lo Best Student Paper Award (BEST), FBE Graduate Research Enhancement Grant (UniMelb)

2024: FBE Graduate Research Abroad Travelling Scholarship (UniMelb), M. A. Bartlett Research Scholarship (UniMelb), FBE Graduate Research Enhancement Grant (UniMelb)

TEACHING

2019 – 2026 **Tutor** | University of Melbourne
CMCE10002 Foundations of Business Analytics (2026), FNCE10002 Principles of Finance (2019 – 2026), FNCE20003 Introductory Personal Finance (2021, 2022, 2022 Guest Lecture: Credit and Borrowing), FNCE30012 Foundations of FinTech (2020, 2021, 2023)

WORK EXPERIENCE

2020 *Research Assistant* | Brain, Mind and Markets Lab in collaboration with the Australian Securities and Investments Commission

2019 *Research Analyst in Risk Management* | Acorn Capital Limited

SKILLS AND SELECTED VOLUNTEERING EXPERIENCES

Programming Python, R, C#, Unity, Tobii (eye-tracking), HTML, MATLAB, SQL

Languages English (native), Mandarin Chinese (native), Japanese (JLPT N3)

Volunteering Vice President (2024), President (2023) | FBE Ph.D. Student Society (Funding: A\$10,750)

REFERENCES: Available upon request.