# Michael Nielsen

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## Academic Appointments

Senior Lecturer in Mathematical Philosophy, The University of Sydney, Department of Philosophy, January 2023-

Lecturer in Mathematical Philosophy, The University of Sydney, Department of Philosophy, July 2020-January 2023

Research Fellow, Australian National University, School of Philosophy, July 2019-July 2020

### Research

AREAS OF SPECIALIZATIONEpistemology, philosophy of science, probabilityAREAS OF COMPETENCEDecision theory, logic, philosophy of mind and artificial intelligence

### Education

Ph.D. Philosophy, Columbia University, 2019

M.A. Philosophy, Georgia State University, 2014

B.A. Comparative literature, UC Santa Barbara, 2008

B.A. Slavic languages and literature, UC Santa Barbara, 2008

### Publications

JOURNAL ARTICLES

- 20. Accuracy and probabilism in infinite domains. Mind, accepted for publication and in press.
- 19. A harder dilemma for partial subjunctive supposition. *Analysis,* accepted for publication and in press.
- 18. Distention for sets of probabilities (with Rush Stewart). *Philosophy of Science*, accepted for publication and in press.
- 17. On the best accuracy arguments for probabilism. *Philosophy of Science*, accepted for publication and in press.
- 16. Regular conditional probabilities and strictly proper loss functions. *Statistics and Probability Letters* 185, 2022.
- 15. Conglomerability, disintegrability, and the comparative principle (with Rush Stewart). *Analysis* 81(3), 2021.
- 14. Accuracy-dominance and conditionalization. *Philosophical Studies* 178(10), 2021.
- 13. The strength of de Finetti's coherence theorem. Synthese 198(12), 2021.
- 12. A new argument for Kolmogorov conditionalization. *Review of Symbolic Logic* 14(4), 2021.
- 11. Convergence to the truth without countable additivity. *Journal of Philosophical Logic* 50(2), 2021.
- 10. Counterexamples to some characterizations of dilation (with Rush Stewart). Erkenntnis 86(5), 2021.

- 9. Persistent disagreement and polarization in a Bayesian setting (with Rush Stewart). *The British Journal for the Philosophy of Science* 72(1), 2021.
- 8. Deterministic convergence and strong regularity. *The British Journal for the Philosophy of Science* 71(4), 2020. (Honourable mention for 2020 Popper Prize)
- 7. On the possibility of testimonial justice (with Rush Stewart). *Australasian Journal of Philosophy* 98(4), 2020.
- 6. Generalized learning and conditional expectation (with Simon Huttegger). *Philosophy of Science* 87(5), 2020.
- 5. Speed-optimal induction and dynamic coherence (with Eric Wofsey). *The British Journal for the Philosophy of Science* doi.org/10.1093/bjps/axz030, 2019.
- 4. On linear aggregation of infinitely many finitely additive probability measures. *Theory and Decision* 86(3), 2019.
- 3. Obligation, permission, and Bayesian orgulity (with Rush Stewart). Ergo 6(3), 2019.
- 2. Another approach to consensus and maximally informed opinions with increasing evidence (with Rush Stewart). *Philosophy of Science* 86(2), 2019.
- 1. Voodoo dolls and angry lions: How emotions explain arational actions (with Andrea Scarantino). *Philosophical Studies* 172(11), 2015.

#### Other

- 2. A new justification of induction (book note on *Hume's Problem Solved: The Optimality of Meta-Induction* by Gerhard Schurz). *Metascience* 29, 2020.
- 1. What's hot in mathematical philosophy (with Rush Stewart). The Reasoner 12(10), 2018.

### Teaching

LECTURER (\* indicates primary instructor/unit coordinator)

Inductive Logic, The University of Sydney, 2023\*

Philosophy of Science, The University of Sydney, 2022\*

FASS1000: Studying Arts and Social Sciences, The University of Sydney, 2022

Philosophy of Artificial Intelligence, The University of Sydney, 2022\*

Society, Knowledge, and Self, The University of Sydney, 2021\*

Introductory Logic, The University of Sydney, 2021, 2022

Introduction to Formal Philosophy, The University of Sydney, 2021\*

Symbolic Logic, Columbia University, 2018\*

#### TUTORIAL INSTRUCTOR

Introductory Logic, The University of Sydney, 2020, 2022

TEACHING ASSISTANT

Contemporary Moral Problems, Columbia University, 2018

Symbolic Logic, Columbia University, 2015, 2016, 2017

Philosophy of Science, Columbia University, 2017

Metaphysics, Columbia University, 2016

#### PhD Supervision

Joshua Thong (ANU), external supervisor

Christian Alafaci (Sydney), secondary supervisor Jordan Lee-Tory (Sydney), secondary supervisor Magdalen Elmitt (Sydney), secondary supervisor Rachel Cao (Sydney), secondary supervisor

UNDERGRADUATE HONOURS SUPERVISION

Rebel Bailey (Sydney) Zesi Feng (Sydney)

### Service

#### Administration

Academic Advisor, The University of Sydney (2021-)

Department of Philosophy seminar organizer, The University of Sydney (2020-2022)

Convener for the ANU School of Philosophy weekly seminar (2020)

Rapporteur for the Columbia University Seminar on Logic, Probability, and Games (2018-2019)

#### Organizer

Columbia Workshop on Probability and Learning (2017)

Columbia Workshop on Group Agency and Social Epistemology (2016)

#### Referee

Analysis, Annals of Pure and Applied Logic, Australasian Journal of Philosophy, The British Journal for the Philosophy of Science, Cambridge University Press, Ergo, Economic Theory, Erkenntnis, European Journal for Philosophy of Science, Information Sciences, Journal of Philosophical Logic, Mind, Philosophers' Imprint, Philosophical Studies, Philosophy of Science, Review of Symbolic Logic, Symmetry, Synthese

#### Other

Fellowship in Academic Administration, Office of Postdoctoral Affairs, Columbia University (2016)

### Presentations

FROM REFLECTION TO MERE FINITE ADDITIVITY

Munich Center for Mathematical Philosophy, Colloquium (2019)

A GENERAL MERGING OF OPINIONS RESULT FOR DYNAMICALLY COHERENT LEARNING

The International Conference for Philosophy of Science and Formal Methods in Philosophy of the Polish Association for Logic and Philosophy of Science (2019)

On the Possibility of Testimonial Justice

Formal Epistemology Workshop (2019), presented by coauthor

Speed-optimal induction and dynamic coherence

Columbia University Seminar on Logic, Probability, and Games (2018)

UC Irvine Seminar on Social Dynamics (2018)

Munich Center for Mathematical Philosophy, Workshop on Induction and Probability (2018)

Obligation, Permission, and Bayesian Orgulity

26<sup>th</sup> Biennial Meeting of the Philosophy of Science Association (2018)

### Comments

Comments on "Kolmogorov complexity and Occam's razor assumptions in inductive causal inference" by David Kinney

The International Conference for Philosophy of Science and Formal Methods in Philosophy of the Polish Association for Logic and Philosophy of Science (2019)

Comments on "Ramsefying probabilistic comparativism" by Edward Elliot

APA Eastern Division Meeting (2019)

### Awards and Honors

BJPS Popper Prize Honourable Mention (for "Deterministic convergence and strong regularity"), 2020 Columbia Teaching Scholar for the course Philosophy, Science, and Politics of Learning, 2019 (declined) Visiting Scholar, UC Irvine, Department of Logic and Philosophy of Science, October 2018 Participant, International Rationality Summer Institute, 2018 Visiting Fellow, Munich Center for Mathematical Philosophy, LMU Munich, August-September 2018 Lina Kahn Prize (best graduate student paper in metaphysics), Columbia University, 2018-2019 David H. Siff Philosophy of Science Award, Columbia University, 2017-2018, 2018-2019 Conference organization funding, Columbia University Department of Philosophy, 2017 (\$2,800) Conference organization funding, Columbia University Department of Philosophy, 2016 (\$2,200) Sidney Morgenbesser Fellowship, Columbia University, 2016-2017 Dean's Fellowship, Columbia University, 2014-2019 Outstanding Graduate Student Research Award, GSU Department of Philosophy, 2014 Brains and Behavior Fellowship, GSU, 2012-2014 Randell Magee Memorial Award (given to an outstanding senior in Slavic Studies), UCSB, 2008 Dean's Honors, UCSB, 2006-2008 Full scholarship for Intensive Elementary Russian, UCLA, Summer 2006

### Miscellaneous

#### Research

Research assistant, *Agent-Centered Restrictions in Causal Decision Theory*, PI: Melissa Fusco (2017-2018) Research assistant, Max Planck Institute for Evolutionary Anthropology in Jakarta (2010-2011)

#### Programming

LAT<sub>E</sub>X, Python