

Adam Bjorndahl

Curriculum Vitae

Baker Hall 145K
Department of Philosophy
Carnegie Mellon University
Pittsburgh, PA, USA
☎ 412-877-4353
✉ abjorn@cmu.edu
🌐 adambjorndahl.com

Academic Positions

- 2022–present **Associate Professor of Philosophy (with tenure)**, *Carnegie Mellon University*.
2019–2022 **Associate Professor of Philosophy (without tenure)**, *Carnegie Mellon University*.
2014–2019 **Assistant Professor of Philosophy**, *Carnegie Mellon University*.

Education

- 2014 **Ph.D. Mathematics**, *Cornell University*.
2014 **M.S. Computer Science**, *Cornell University*.
2008 **M.S. Mathematics**, *University of Toronto*.
2007 **B.S. Mathematics and Philosophy**, *University of Toronto*.

Books

- 2024 **An Introduction to Classical and Modal Logics: The Outlines of Knowledge**, *Cambridge University Press*.

Research Papers

- 2023 **Sequential Language-based Decisions**, *Proceedings of the 19th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, 131–141.
(with J. Y. Halpern)
- 2022 **The Epistemology of Nondeterminism**, *Journal of Logic, Language and Information*, 31(4), 619–644.
◦ Subsumes and extends a previous version published in 2018 in the *Proceedings of the 25th Workshop on Logic, Language, Information and Computation (WoLLIC)*, pages 145–162.
- 2021 **Language-based Decisions**, *Proceedings of the 18th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, 55–68.
(with J. Y. Halpern)
- 2021 **Endogenizing Epistemic Actions**, *Studia Logica*, 109, 1049–1091.
(with W. Nalls)
◦ Subsumes and extends a previous version published in 2017 in the *Proceedings of the 16th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, pages 426–440.

- 2020 **Knowledge Second**, *Res Philosophica*, 97(4), 471–487.
 ◦ Awarded the 2020 Res Philosophica Essay Prize for best unsolicited paper in the special issue on modal epistemology.
- 2020 **Bayesian Games with Intentions**, *Games and Economic Behavior*, 123, 54–67.
 (with J. Y. Halpern and R. Pass)
 ◦ Subsumes and extends a previous version published in 2015 in the *Proceedings of the 15th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, pages 75–82.
- 2019 **Logic and Topology for Knowledge, Knowability, and Belief**, *The Review of Symbolic Logic*, 13(4), 748–775.
 (with A. Özgün)
 ◦ Subsumes and extends a previous version published in 2017 in the *Proceedings of the 16th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, pages 98–101.
- 2019 **Uncertainty about Evidence**, *Proceedings of the 17th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, 68–81.
 (with A. Özgün)
- 2018 **Topological Subset Space Models for Public Announcements**, *Outstanding Contributions to Logic: Jaakko Hintikka on Knowledge and Game Theoretical Semantics*, vol. 12, 165–186.
- 2017 **Kantian Decision Making Under Uncertainty**, *Philosophers' Imprint*, 17(7), 1–22.
 (with A. J. London and K. Zollman)
- 2017 **Reasoning about Rationality**, *Games and Economic Behavior*, 104(3), 146–164.
 (with J. Y. Halpern and R. Pass)
 ◦ Subsumes and extends a previous version entitled “Axiomatizing Rationality”, published in 2014 in the *Proceedings of the 14th International Conference on Principles of Knowledge Representation and Reasoning (KR)*, pages 178–187.
- 2017 **From Type Spaces to Probability Frames and Back, via Language**, *Proceedings of the 16th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, 75–87.
 (with J. Y. Halpern)
- 2015 **Informative Counterfactuals**, *Proceedings of the 25th Semantics and Linguistic Theory Conference (SALT)*, 1–17.
 (with T. Snider)
- 2013 **Language-based Games**, *Proceedings of the 14th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, 39–48.
 (with J. Y. Halpern and R. Pass)
 ◦ A shorter version was published in 2013 by invitation in the *Proceedings of the 23rd International Joint Conference on Artificial Intelligence (IJCAI)*, pages 2967–2971, as part of the “Best Papers from Sister Conferences” series.
- 2011 **Reasoning about Justified Belief**, *Proceedings of the 13th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, 221–227.
 (with J. Y. Halpern and R. Pass)

Presentations

Invited Talks

- 2023 **Robustness and Equilibria**, *HalpernFest, Cornell University*.
- 2021 **The Epistemology of Nondeterminism**, *The Berkeley Logic Colloquium*.
- 2021 **Almost-logic**, *Association for Symbolic Logic – North American Annual Meeting*.
- 2020 **The Epistemology of Nondeterminism**, *The Melbourne Logic Seminar*.
- 2019 **The Epistemology of Nondeterminism**, *The Thirteenth International Tbilisi Symposium on Language, Logic and Computation*.
- 2019 **The Epistemology of Nondeterminism**, *Seminar in Logic, Probability, and Games, Columbia University*.
- 2019 **The Epistemology of Nondeterminism**, *20th Annual Pitt/CMU Graduate Philosophy Conference: Uncertainty and the Limits of Knowledge, Carnegie Mellon University*.
- 2018 **Endogenizing Epistemic Actions**, *Academy Colloquium: Reasoning in Social Context, University of Amsterdam*.
- 2018 **Logic and Topology for Knowledge, Knowability, and Belief**, *46th Annual Meeting of the Society for Exact Philosophy*.
- 2018 **Logic and Topology for Knowledge, Knowability, and Belief**, *Winter Meeting of the Association for Symbolic Logic / American Philosophical Association Eastern Division Meeting*.
- 2016 **Formal Epistemology & Topological Subset Space Models for Public Announcements**, *Epistemic Utility Theory Group at the University of Bristol*.
- 2016 **Language-based Games**, *Epistemic Utility Theory Group at the University of Bristol*.
- 2014 **Language-based Games**, *3rd Workshop on Logic, Rationality & Intelligent Interaction at the Center for the Study of Language and Information (CSLI), Stanford University*.
- 2014 **Language-based Games**, *Pure and Applied Logic Colloquium at Carnegie Mellon University*.

Peer-reviewed Conferences

- 2022 **Knowledge Second**, *17th Formal Epistemology Workshop (FEW)*.
- 2021 **Language-based Decisions**, *18th Conference on Theoretic Aspects of Rationality and Knowledge (TARK)*.
- 2019 **Uncertainty about Evidence**, *17th Conference on Theoretic Aspects of Rationality and Knowledge (TARK)*.
(presented by A. Özgün)
- 2018 **The Epistemology of Nondeterminism**, *25th Workshop on Logic, Language, Information and Computation (WoLLIC)*.
- 2017 **From Type Spaces to Probability Frames and Back, via Language**, *16th Conference on Theoretic Aspects of Rationality and Knowledge (TARK)*.

- 2017 **Logic and Topology for Knowledge, Knowability, and Belief**, *16th Conference on Theoretic Aspects of Rationality and Knowledge (TARK)*.
(presented by A. Özgün)
- 2017 **Endogenizing Epistemic Actions**, *16th Conference on Theoretic Aspects of Rationality and Knowledge (TARK)*.
(presented by W. Nalls)
- 2017 **Logic and Topology for Knowledge, Knowability, and Belief**, *14th Formal Epistemology Workshop (FEW)*.
- 2015 **Language-based Games**, *8th Workshop in Decisions, Games, and Logic (DGL)*.
- 2015 **Bayesian Games with Intentions**, *15th Conference on Theoretic Aspects of Rationality and Knowledge (TARK)*.
- 2013 **Subset Space Public Announcement Logic Revisited**, *4th New York Graduate Student Logic Conference*.
- 2013 **Language-based Games**, *14th Conference on Theoretic Aspects of Rationality and Knowledge (TARK)*.
- 2011 **Reasoning about Justified Belief**, *13th Conference on Theoretic Aspects of Rationality and Knowledge (TARK)*.
- 2010 **Extending S4 Completeness to Superspaces**, *3rd New York Graduate Student Logic Conference*.

Workshops/Seminars

- 2024 **An Introduction to Knowledge Representation and Reasoning**, *Carnegie Mellon Math Club Colloquium*.
- 2024 **Belief and Causation**, *Logic and Interactive Rationality (LIRa) Seminar at the Institute for Logic, Language, and Computation in Amsterdam*.
- 2023 **Knowing and Measuring**, *Peking University Logic Seminar*.
- 2023 **Knowledge Second**, *Pittsburgh Formal Epistemology Workshop*.
- 2022 **Knowing and Measuring**, *Connections between Epistemic Logic and Topology*.
- 2022 **Knowledge Second**, *Logic and Interactive Rationality (LIRa) Seminar at the Institute for Logic, Language, and Computation in Amsterdam*.
- 2022 **Knowing and Measuring**, *Quantum Epistemology Beyond Quantum Measurement*.
- 2022 **Knowledge Second**, *Tsinghua Logic Salon*.
- 2022 **Knowledge Second**, *Logic4Peace*.
- 2021 **An Introduction to Knowledge Representation and Reasoning**, *Carnegie Mellon Math Club Colloquium*.
- 2021 **Kantian Decision Making Under Uncertainty: Dignity, Price, and Consistency**, *Kantian Rationality Lab at the Immanuel Kant Baltic Federal University in Kaliningrad*.
(presented by A. J. London)
- 2021 **Generic Logic**, *Pittsburgh Formal Epistemology Workshop*.
- 2021 **Generic Logic**, *Foundational Studies Bristol Seminar*.

- 2020 **Almost-logic**, *Logic and Interactive Rationality (LIRa) Seminar at the Institute for Logic, Language, and Computation in Amsterdam.*
- 2019 **Topological Subset Space Semantics for Public Announcements**, *Topology and Modal Logic Workshop at the Thirteenth International Tbilisi Symposium on Language, Logic and Computation.*
- 2019 **Measurement and Action**, *Logic and Interactive Rationality (LIRa) Seminar at the Institute for Logic, Language, and Computation in Amsterdam.*
- 2018 **The Epistemology of Nondeterminism**, *Workshop on Logic, Information, and Topology at Carnegie Mellon.*
- 2017 **The Epistemology of Nondeterminism**, *Logic and Interactive Rationality (LIRa) Seminar at the Institute for Logic, Language, and Computation in Amsterdam.*
- 2017 **Logic and Topology for Knowledge, Knowability, and Belief**, *Modality and Method Workshop at Carnegie Mellon.*
- 2015 **Language-based Games**, *Seminar in Logic and Games at CUNY.*
- 2015 **Topological Subset Space Models for Public Announcements**, *New York Logic and Metaphysics Workshop at CUNY.*
- 2014 **Types and Intention**, *Workshop on Epistemology, Logic, and Games at Carnegie Mellon.*

Grants/Fellowships/Awards

- 2020 **The Res Philosophica Essay Prize.**
A prize of \$3,000 for the best paper submitted to the special issue on modal epistemology.
- 2018–2019 **The Course Hero-WW Fellowship.**
Awarded for excellence in teaching; provides \$39,250 to support research and travel and for the engagement of a student assistant.
- 2017–2019 **The Falk Fellowship.**
Provides \$3,875 for travel and research expenses.
- 2016–2017 **The Wimmer Faculty Fellowship.**
Proposal title: “Game Theory Through Games”. Provides \$3,000 to enhance teaching through designing or re-designing a course, innovating new materials, or exploring a new pedagogical approach.
- 2016–2017 **The Berkman Faculty Development Fund.**
Proposal title: “Topological Methods in Knowledge Representation and Reasoning”. Provides \$5,000 to support a series of visiting scholars working in the proposal area.
- 2014–2016 **The Falk Fellowship.**
Provides \$3,900 for travel and research expenses.
- 2011 **The Hutchinson Fellowship.**
Provides one semester of relief from teaching.
- 2008 **The Cornell Graduate School Recruiting Fellowship.**
Provides full graduate student support for one year.

2008 **The Natural Sciences and Engineering Researching Council of Canada (NSERC) PGS M Award.**

Provides one year's graduate student stipend.

2007 **The Ontario Graduate Scholarship.**

Provides one year's graduate student stipend.

Teaching

S15 17 20 23 Game Theory (80-405/80-705)

F19 20 22 Formal Logic (80-310/80-610)

F18 19 21 22 Formal Methods: Tools & Techniques in Math & Logic (80-603)

F14 16 S18 20 22 Modal Logic (80-315/80-615)

F15 17 18 20 21 Decision Theory (80-305/80-605)

S16 18 21 Seminar on Formal Epistemology (80-521/80-821)

S16 21 Formal Methods: Epistemic Logic and Topology (80-619)

F18 S19 Formal Epistemology Working Group (FEWG)

F15 16 17 18 Formal Methods: Decisions and Games (80-616)

S17 Philosophy of Logic and Language (80-387/80-687)

S16 Games and Decisions Reading Group

F=Fall, S=Spring

Advising

Ph.D. Dissertation

2016–2021 **Will Nalls**, *“Endogenizing Epistemic Actions in Dynamic Epistemic Logic”*.
Committee Chair

2018–2021 **Ana Smaranda Sandu**, *“Knowledge of Counterfactuals”*.
External Committee Member (Cornell University)

2020–2021 **Farzaneh Derakhshan**, *“Session-Typed Recursive Processes and Circular Proofs”*.
Committee Member

2015–2016 **Liping Tang**, *“Less is More: Information, Signals and Communication”*.
Committee Member

Master's Thesis

2022–2023 **Philip Sink**, *“Modal Logic Without Possible Worlds: A New Semantics Using Simplicial Complexes”*.
Committee Chair

2019–2021 **Paula Neeley**, *“A Formalization of Dynamic Epistemic Logic”*.
Committee Member

2019–2020 **Jacob Neumann**, *“Semantics of Nondeterministic Construction”*.
Committee Chair

2016–2017 **Masayuki Tashiro**, *“Decision Paradox and Rationality”*.
Committee Co-chair

Undergraduate Senior Thesis

- 2022–2023 **Samuel Thompson**, *“Argumentation Frameworks and Voting Theory”*.
Advisor
- 2020–2021 **Liangze “Josh” Li**, *“Fuzzy Logic and Paradoxes”*.
Advisor
- 2018–2019 **Jacob Neumann**, *“Hidden Variable Semantics for Nondeterministic Program Construction”*.
Advisor
- 2018–2019 **Garrison McMullen**, *“Vagueness using Topological Semantics”*.
Advisor
- 2017–2018 **Kenneth Wells**, *“Resolving Ethical Dilemmas using a Kantian Decision Making Framework”*.
Advisor
- 2015–2016 **Ariel Rao**, *“A Finite Memory Automaton for Two-Armed Bernoulli Bandit Problems”*.
Advisor

Professional Service

- 2018, 2025 Program committee chair for NASSLLI
- 2023–2024 Chair of the National Steering Committee for NASSLLI
- 2023–2024 Director of Graduate Studies (Department of Philosophy)
- 2021–2024 Director of the CMU Summer School in Logic and Formal Epistemology
- 2022–2024 Co-organizer of the Pittsburgh Formal Epistemology Workshop (PFEW)
- 2024 Fulbright Committee Member
- 2024 Program committee member for LOFT
- 2024 Member of “Lowering the Barriers to Early Course Feedback” working group
- 2019–2023 Organizer of the CMU Philosophy Department Colloquium Series
- 2023 Chair of the Graduate Curriculum Committee
- 2021–2023 Member of the departmental Diversity, Equity, & Inclusion Committee
- 2023 Created the “Rationality, Uncertainty, and Choice: Formal Methods” minor
- 2017, '19, '21, '23 Program committee member for TARK
- 2015, 2017–2019, 2021–2023 Instructor for the Carnegie Mellon University Summer School in Logic and Formal Epistemology
- 2022 Co-organizer of CELT (“Connections between Epistemic Logic and Topology”)
- 2016, 2018, 2022 Instructor for NASSLLI
- 2021 Member of the Dietrich Space Committee
- 2016, 2020 CMU Philosophy Graduate Admissions Committee
- 2019 Program committee member for NASSLLI
- 2019 Organizer of the “Topology and Modal Logic” workshop at TbiLLC
- 2018 Co-organizer of the “Logic, Information, and Topology” workshop at CMU

- 2017 Co-organizer of the “Modality and Method” workshop at CMU
- 2015 Co-organizer of the “Differentiating Contents” workshop at CMU
- 2014 Co-organizer of the “Epistemology, Logic, and Games” workshop at CMU
- 2010–2013 TA trainer for Cornell math and statistics graduate students

Journal/Book Reviewing

Cambridge University Press (2024); *Synthese* (2024, 2021); *International Journal of Game Theory* (2024); *Advances in Modal Logic* (2024, 2018); *Journal of Logic and Computation* (2023); *Journal of Philosophical Logic* (2023, 2022, 2021, 2021); *Journal of Symbolic Logic* (2022); *Analysis* (2022, 2022, 2019, 2017, 2016); *Economics and Philosophy* (2021); *Mind* (2021); *Australasian Journal of Logic* (2021); *Review of Symbolic Logic* (2021, 2020); *Ergo* (2021); *Foundations of Software Science and Computation Structures* (2021); *Society for Philosophy and Psychology* (2021); *Information and Computation* (2020); *Philosophy of Science* (2020, 2017, 2016); *Information Sciences* (2019); *Logic and Logical Philosophy* (2019); *Workshop on Logic, Language, Information and Computation* (2019); *Tbilisi Symposium on Language, Logic and Computation* (2019); *Journal of Logical and Algebraic Methods in Programming* (2018); *Journal of Economic Behavior & Organization* (2018); *Philosophers' Imprint* (2017); *Journal of Applied Non-Classical Logics* (2017); *Studia Logica* (2017, 2016); *Games and Economic Behavior* (2017, 2016); *Erkenntnis* (2017, 2016); *Reports on Mathematical Logic* (2016); *Philosophical Studies* (2015); *Journal of Logic, Language and Information* (2015, 2013).