

Jamee Elder | Curriculum Vitae

Black Hole Initiative, Harvard University
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Citizenship: Canada, New Zealand

Areas of Specialization: Philosophy of Science, Philosophy of Physics & Astrophysics

Areas of Competence: Ethics of Emerging Technologies, Epistemology, Science and Values

Appointments

- Fall 2020–: **Post-doctoral Fellow**, Black Hole Initiative, Harvard University
2020-2023: **Collaborator and Recurring Visitor**, DFG Project “The Role of Inference to the Best Explanation in the Discovery of Gravitational Waves”, PI: Dennis Lehmkuhl, University of Bonn
2019-2020: **Heinrich Hertz Fellow**, Lichtenberg Group for History and Philosophy of Physics, University of Bonn

Education

- 2021: **PhD** History and Philosophy of Science (philosophy track), University of Notre Dame
Advisor: Don Howard
Dissertation: *The Epistemology of Gravitational Wave Astrophysics* (Defended 7 August 2020)
Abstract: This dissertation explores the nature of our empirical access to previously invisible events (binary black hole mergers) through the new field of gravitational wave astrophysics. This comprises three main chapters. The first assesses the epistemic significance of direct (vs. indirect) detections in the context of gravitational wave experiments. The second argues that the LIGO-Virgo observations of binary black hole mergers are problematically circular due to the model-dependence of these observations. Finally, the third chapter considers the implications of multi-messenger (here, electromagnetic and gravitational) observations for overcoming the epistemic challenges of astrophysics.
- 2018: **MA** History and Philosophy of Science, University of Notre Dame
2014: **MPhil** Philosophy, Wolfson College, University of Cambridge
2012: **BA(Hons)** Philosophy, University of Canterbury
2011: **Visiting Student**, Philosophy, Exeter College, University of Oxford (Trinity Term)
2010: **BSc** Philosophy, University of Canterbury

Publications

- 2019: “Defending stance voluntarism.” *Philosophical Studies* 176, no. 11: 3019–3039.

Articles in Preparation and Under Review

- “‘Direct’ Detection and Observation with LIGO/Virgo”
“Black Hole Coalescence: Models and Measurement”
“Independent Evidence in Multi-messenger Astrophysics”
“Drama on the Horizon: Black Hole Complementarity and Perspectivalism”

Selected Talks (* = invited)

- *2020: “The Epistemology of the LIGO-Virgo Detections”, Seminar of Philosophy of Science, APC Laboratory, University Paris-Diderot, 22 October, 2020
- *2020: “The Epistemology of Gravitational-wave Astrophysics (Part I and II)”, BHI Foundations Seminar, Black Hole Initiative, Harvard University, 28 September and 25 October, 2020
- *2019: “The Epistemology of LIGO”, Philosophy of Physics Seminar, University of Oxford, 7 November, 2019
- *2019: “Black hole coalescence: models and measurement”, History and Philosophy of Physics Research Seminar, University of Bonn, 5 November, 2019
- 2019: “Black Hole Coalescence: Models and Measurement”, European Philosophy of Science Association Biennial Meeting, University of Geneva, 11-14 September, 2019
- 2018: “LIGO: Models and Measurement”, Rotman Summer Institute in Philosophy of Cosmology, Goderich, Ontario
- 2018: “LIGO and Models as Mediators”, MS8: 8th Models and Simulations Conference, University of South Carolina
- 2017: “Modelling Black Hole Coalescence: Numerical Relativity and LIGO”, Super-PAC Early Career Workshop: Philosophy of Astrophysics and Cosmology, University of Pittsburgh
- 2017: “Drama on the Horizon: Black Hole Complementarity and the Information Loss Paradox”, British Society for Philosophy of Science Annual Meeting, University of Edinburgh, 13-14 July, 2017
- 2015: “Émilie Du Châtelet on Newtonian Attraction”, European Philosophy of Science Association Biennial Meeting, Heinrich Heine University, 24 September, 2015

Awards and Scholarships

- 2019: Sloan Prize, HPS Program, University of Notre Dame
- 2014-2015: Fulbright Science and Innovation Graduate Award
- 2013-2014: Cambridge Trusts Scholarship, University of Cambridge
- 2013-2014: Wolfson Cambridge Scholarship, University of Cambridge
- 2013-2014: Timothy Joyce Masters Studentship, University of Cambridge
- 2008: UC Emerging Leaders Scholarship, University of Canterbury
- 2008: Macmillian Brown Essay Prize, University of Canterbury

Professional Development

- 2020: Group Leader, (Virtual) Midwest Summer School in Philosophy of Physics, July 2020
- 2019: Visitor, Black Hole Initiative, Harvard University, 13-22 May, 2019.
- 2018: “First Biennial Midwest Summer School in Philosophy of Physics”, Chicago, IL, 22-27 July 2018.
- 2018: “2018 Rotman Summer Institute in Philosophy of Cosmology”, Goderich, Ontario, 11-20 June 2018
- 2018: Visitor, Black Hole Initiative, Harvard University, 1-11 May 2018.
- 2017: “5th International Summer School in Philosophy of Physics” 17-22 July 2017, Saig, Black Forest, Germany.
- 2017: “The 21st Seven Pines Symposium: Black Holes in the Spotlight” (Junior Discussant)
- 2016-2017: Leadership Fellow, Ethical Leaders in STEM Program, University of Notre Dame, USA
- 2017: Participant, Philosophy of Cosmology Workshop. Organizer: Elise Crull, CUNY Graduate Center, New York City, NY, USA
- 2016: “International Summer Institute in Philosophy of Physics on the Philosophy of Quantum Gravity”, hosted by the University of Geneva and the University of Illinois at Chicago Space and Time After Quantum Gravity project.

Teaching

- Summer 2018: Instructor of Record, *Robot Ethics*, Department of Philosophy, University of Notre Dame. Online course through the Office of Digital Learning (co-taught with Jude Galbraith).
- April 2018: “Outstanding Graduate Student Teacher Award”, awarded by the Graduate School and the Kaneb Center for Teaching and Learning, University of Notre Dame
- Fall 2017: Instructor of Record, *Digital Technology, Society, and Ethics*, Department of Philosophy, University of Notre Dame
- Spring 2017: Teaching Assistant, *Introduction to Philosophy* (teaching duties). Instructor: Jeff Speaks. Department of Philosophy, University of Notre Dame
- Summer 2016: Teaching Assistant, *Science, Ethics, and Responsibility*, Notre Dame Pre-College Leadership Seminar, Instructors: Don Howard and Jessica Baron

Service

- 2018–2019: Climate Committee Member, Department of Philosophy, University of Notre Dame
- 2018–2019: Coordinator, HPS Writing Accountability Group
- 2017–2018: Coordinator, HPS Dissertation Writing Group
- 2016–present: Mentor, Graduate Student Mentorship Program, Department of Philosophy, University of Notre Dame
- 2016–2018: MAP Mentor. Minorities and Philosophy, University of Notre Dame Chapter
- Fall 2016: Graduate Student Assistant at History of Science Society, Executive Office, University of Notre Dame
- 2015-2016: HPS Research Assistant, University of Notre Dame

Graduate Courses (* = audit)

- **Evolutionary Game Theory*, Spring 2019. Instructor: Hannah Rubin
- **Topics in Contemporary Philosophy of Physics*, Spring 2017. Instructor: Nicholas Teh
- **Models and Representation*, Spring 2017. Instructor: James Nguyen
- Social Studies of Pharmaceuticals*, Fall 2016. Instructor: Phillip Mirowski
- Celestial Influence*, Fall 2016. Instructor: Scott Trigg
- Space, Time, and Matter*, Spring 2016. Instructors: Katherine Brading and Nicholas Teh
- Ethics and Policy in Technology Management*, Spring 2016. Instructor: Don Howard
- HOPOS from the Scientific Revolution to 1900*, Spring 2016. Instructor: Don Howard
- Philosophical Issues Regarding Time*, Fall 2015. Instructor: Norman Sieroka
- Intermediate Logic*, Fall 2015. Instructor: Patricia Blanchette
- Ancients, Medievals, and Moderns*, Fall 2015. Instructors: Lynn Joy and Robert Goulding
- Mechanisms*, Spring 2015. Instructor: Lane DesAutels
- Science and Metaphysics*, Spring 2015. Instructor: Anjan Chakravartty
- History of Science, Technology, and Medicine 1750-present*, Spring 2015. Instructor: Christopher Hamlin
- Philosophy of Science*, Fall 2014. Instructor: Lane DesAutels
- **Philosophy of Biology*, Fall 2014. Instructor: Grant Ramsey
- Philosophy Pro-Seminar*, Fall 2014. Instructor: Christopher Shields
- Du Châtelet’s Foundations of Physics*, Fall 2014. Instructor: Katherine Brading