

# Isaac Wilhelm

106 Somerset St., 5th floor  
New Brunswick, NJ 08901

isaac.wilhelm@rutgers.edu

## EDUCATION

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### Rutgers University

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|------------------|---------------|
| Ph.D. Philosophy | Expected 2020 |
| M.S. Mathematics | 2016-18       |

### Tufts University

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| M.A. Philosophy | 2013-15 |
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### University of Chicago

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| B.A./B.A. Mathematics, Cinema and Media Studies (both honors) | 2007-11 |
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## INTERESTS

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Areas of specialization: metaphysics, philosophy of physics, philosophy of science.

Areas of competence: epistemology (formal and traditional), feminist philosophy, logic, philosophy of biology, philosophy of mathematics.

## PUBLICATIONS

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| Forthcoming | <b>The Logic of Typicality</b><br>In Valia Allori (ed.), <i>Statistical Mechanics and Scientific Explanation: Determinism, Indeterminism and Laws of Nature</i> , World Scientific (with Harry Crane). |
| 2019        | <b>Celestial Chaos: The New Logics of Theory-Testing in Orbital Dynamics</b><br><i>Studies in History and Philosophy of Modern Physics</i> , 65, 97-102.   |
| 2018        | <b>A Statistical Analysis of Luck</b><br><i>Synthese</i> .   |
| 2018        | <b>The Representation of Belief</b><br><i>Journal of Philosophical Logic</i> , 47, 715-732.  |
| 2018        | <b>New Data on the Representation of Women in Philosophy Journals: 2004-2015</b><br><i>Philosophical Studies</i> , 175, 1441-1464 (with Sherri Conklin and Nicole Hassoun).                            |

## PRESENTATIONS (SELECTED)

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### “Typical”

- Eastern APA (symposium), New York NY, January 2019.
- Munich Center for Mathematical Philosophy, June 2018 (invited).

### “Climate Surveying” (with Savannah Kincaid)

- Eastern APA, Skill Building and Improving the Profession MAP session, New York NY, January 2019.

### “Explanatory Priority Monism”

- Central APA (colloquium), Denver CO, February 2019.
- FraMEPhys Workshop on Explanatory Pluralism, University of Birmingham, June 2018 (invited).

### “Comparative Structure”

- Canadian Society for the History and Philosophy of Science, University of Regina, May 2018.
- Society for Exact Philosophy, University of Connecticut, May 2018.
- Eastern APA (colloquium), Savannah GA, January 2018.
- British Society for the Philosophy of Science, Edinburgh, July 2017.

### “The Ontology of Mechanisms”

- Composition Workshop, Rutgers-Newark, May 2018 (invited).
- Rutgers-Bochum Workshop, April 2018 (invited).

### “Intrinsicality and Quantum Entanglement”

- Fifth International Summer School in the Philosophy of Physics, Saig, July 2017.
- Canadian Philosophical Association, Toronto, May 2017.

### “Lawhood and Computational Tractability”

- Pacific APA (colloquium), Seattle WA, April 2017.
- Western Canadian Philosophical Association, University of Alberta, October 2016.

### “Sufficient and Necessary Conditions for Representability”

- NASSLLI, Rutgers University, July 2016.

### “Chaos Regained: On the Possibility of a New Era of Orbital Dynamics”

- Society for the Philosophy of Science in Practice, Rowan University, June 2016.
- History of Philosophy of Science Conference, University of Minnesota, June 2016.
- Tufts University, July 2015.

### “Quantity, Property, and Fundamental Law”

- The Metaphysics and Epistemology of Grounding and Fundamentality, CUNY, December 2015.

## COMMENTS

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“Constraining Inductive Metaphysical Inferences by Help of Internal Unification”, Kian Salimkhani, Society for the Metaphysics of Science, New York, October 2017.

“Grounding, Dependence and Mathematical Explanation”, Bill D’Alessandro, APA Eastern, Baltimore, January 2017.

## GRANTS AND AWARDS

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|  |         |
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| Cross-Training Fellowship (\$30,000)       | 2017-18 |
| Rutgers Excellence Fellowship              | 2015-17 |
| Special Studies Award (x2)                 | 2016-17 |
| Rutgers Conference Travel Award (x4)       | 2016-18 |
| Katemquin Labs Review                      | 2013    |
| Fire Escape Films: Travel Grant            | 2012    |
| Chicago Filmmakers Sponsorship Grant       | 2012    |
| Seidel Scholars PRISM Grant (co-recipient) | 2011    |

## TEACHING

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### Rutgers University

- Bioethics: Online Course (Instructor) Summer 2019
- Introduction to Philosophy of Science (Instructor) Spring 2019
- Intermediate Logic I, Ted Sider (RA) Spring 2019
- Introduction to Philosophy, Ted Sider (TA) Fall 2018
- Introduction to Philosophy (Instructor) Summer 2018
  - Part of the New Jersey Educational Opportunity Fund (EOF).
  - EOF supports students from disadvantaged backgrounds.
- Applied Symbolic Logic, Ted Sider (RA) Fall 2017
- Intermediate Logic, Anthony Gillies (RA) Spring 2016

### Tufts University

- Graduate Logic, George Smith (TA) Fall 2014
- Undergraduate Logic, Susan Russinoff (TA) Spring 2014

### University of Chicago

- Calculus (TA) 2008-10
- Young Scholar’s Program (Instructor) 2008-10
- SESAME: Adult Education (TA) Summer 2010

### Dark Foan Education

2011-13

Founded a tutoring business that offered one-on-one instruction to grade school students at the University of Chicago Laboratory School. Worked personally with 22 students, 18 of whom were with me for at least a full academic year.

**Northwestern University** (select courses)

- Saturday Enrichment Program for Gifted Youth (Instructor)
  - Set Theory Spring 2013
  - Paradigm Shifts in Science Fall 2012
  - Game Theory and Probability Fall 2012
  - Statistics Spring 2012; Fall 2011
- Summer Program for Gifted Youth (Instructor)
  - Documentary Filmmaking 2014
  - Prove It! Mathematics and Art 2013

**SERVICE**

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- Rutgers-Columbia Workshop: Quantum Field Theories 2018
  - Co-organized a two-day international workshop on the philosophy of QFT.
- Crash Courses in Mathematics for Philosophers 2017-19
  - Russell-Myhill paradox, spring 2019: for professors and grad students.
  - Measure theory intro, fall 2018: for professors and grad students.
  - Category theory intro, summer 2017: for professors and grad students.
- Metro Area Philosophy of Science (MAPS) 2017-19
  - Organize three to five talks for the MAPS group each semester.
- MAPS Pre-Workshop Workshop 2018
  - Organized an international workshop on structure in physics.
- Referee 2017-19
  - Analysis, Erkenntnis, Theoria, Statistical Science.
- Climate Committee, Rutgers Philosophy Department 2015-19
  - Organized two departmental climate surveys.
  - Organized the Rutgers Undergraduate Philosophers Mentorship program.
- Philosophy of Science, Reading Group 2016-18
  - Organized the Rutgers philosophy of science reading group.
- Filming and Editing 2016-18
  - Foundations of Probability Seminar.
  - Metaphysics of Fine Tuning Conference.
  - Center for Philosophy of Religion, Marc Sanders Lectures.
- Data Collection on Representation of Women in Philosophy 2016

- Project to determine proportion of journal publications by women.

## FILM PRODUCTION

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Sanders Lectures: 2017, 2018, 2019

- 2017. 2 hours; credited as editor. Published online.
- 2018 (Spring). 2 hours; credited as editor. Published online.
- 2018 (Fall). 2 hours; credited as editor. Published online.

Luke Barnes on Fine Tuning, Rutgers Philosophy of Religion 2017

2 hours; 2017; credited as editor: audio and video recording of Luke Barnes' 2017 lecture on fine tuning, sponsored by the Rutgers Center for the Philosophy of Religion. Published online.

Newton's Principia

75 hours; 2015; credited as editor: audio and video recording of a two-semester course on the science and philosophy of Newton's *Principia*. To be published online.

American Diner

105 minutes; 2013; credited as director, DP, editor: a documentary about three small-town diners. Screenings: Kartemquin, Chicago; Doc Films, Chicago.

The Point

15 minutes; 2011; credited as director, sound producer, DP, editor: a documentary about Promontory Point. Screenings: Film Studies Center, University of Chicago.

## GRADUATE COURSEWORK

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### Rutgers University

- Dissertation Seminar (Alex Guerrero)
- The Nomological (Jonathan Schaffer, Ted Sider, John Hawthorne; audit)
- Advanced Topics in the Philosophy of Quantum Mechanics (David Albert; audit)
- Structuralism in the Metaphysics of Science (Ted Sider; audit)
- Seminar on the Foundations of Probability II (Harry Crane; audit)
- Third Year Seminar (Ruth Chang)
- Seminar on the Foundations of Probability I (Harry Crane)
- Theory of Functions of a Real Variable I (Daniel Ocone)
- Philosophy of Quantum Mechanics (David Albert)
- Explanation (Jonathan Schaffer)
- Typicality in Physics (Shelly Goldstein)
- Foundations of Probability II (Harry Crane)
- Philosophy of Quantum Mechanics (Jill North, Ted Sider)
- Statistical Mechanics I: Equilibria (Joel Lebowitz)

- Abstract Algebra I (Vladimir Retakh)
- Algebraic Topology (Feng Luo)
- Foundations of Probability I (Harry Crane)
- Advanced Topics in Philosophy of Physics: Time (David Albert)
- Advanced Topics in Metaphysics (Barry Loewer, Jonathan Schaffer)
- Statistical Mechanics II: Non-Equilibria (Joel Lebowitz)
- Independent Study: Representation and Fragmentation (Andy Egan, Adam Elga, Agustín Rayo)
- Advanced Topics in Philosophy of Physics: Space and Time (Jill North)
- Advanced Topics in Philosophy of Language (Jeff King)
- Proseminar (Frances Egan, Brandon Fitelson)

### **Princeton University**

- Chance and Causation (Adam Elga, Boris Kment; audit)

### **New York University**

- Explanation Across Disciplines (Laura Franklin-Hall, Michael Strevens; audit)
- Spacetime (Tim Maudlin; audit)

### **Tufts University**

- Newton's *Principia* (George Smith)
- Modal Logic (Dilip Ninan)
- Aristotle's Metaphysics (Christiana Olfert, George Smith)
- Science Before Newton's *Principia* (George Smith)
- Computation Theory (George Smith)
- Objects (Jody Azzouni)
- Evolution of Mind and Morals (Patrick Forber)
- Logic (George Smith)
- Truth (Jody Azzouni)
- The Philosophy of David Lewis (David Denby)

### **Harvard University**

- Independent Study: Advanced Topics in Philosophy of Mathematics (Hugh Woodin, Peter Koellner)

### **University of Chicago**

- Kant's Theoretical Philosophy (Thomas Land)