

# MIKE D. SCHNEIDER

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Department of Logic and Philosophy of Science  
University of California, Irvine

## Areas of Specialty

Philosophy of Physics (especially Cosmology), Philosophy of Science, Social Structure of Science

## Areas of Competence

Values in Science, Evolutionary Game Theory, Epistemology (Traditional and Social)

## Education

**Ph.D.** in Philosophy (LPS) with Physics Emphasis, *University of California, Irvine*, expected Spring 2020

Dissertation: “Tea leaves and telescopes: considering the role of cosmology in frontier physics research,” Advisor: James Owen Weatherall

**M.A.** in Philosophy (LPS), *University of California, Irvine*, Spring 2018

**B.S.** in Physics and Philosophy, *cum laude*, *Tufts University*, February 2015

Honors thesis (Awarded High Thesis Honors): “Speculating About the Universe,” Advisor: George E. Smith (Tufts Department of Philosophy); Second Reader: Ken D. Olum (Tufts Institute of Cosmology)

## Publications (Peer Reviewed)

1. “Betting on future physics”, *British Journal for the Philosophy of Science* (forthcoming)
2. “What’s the problem with the cosmological constant?”, *Philosophy of Science* (forthcoming)
3. “Promoting Diverse Collaborations” (with co-authors Hannah Rubin and Cailin O’Connor; first author), in *The Dynamics of Science: Computational Frontiers in History and Philosophy of Science*, edited by Grant Ramsey and Andreas De Block, Pittsburgh: University of Pittsburgh Press (volume under contract, expected 2019)
4. “Would two dimensions be world enough for spacetime?” (with co-authors Samuel C. Fletcher, J.B. Manchak, and James Owen Weatherall), *Studies in History and Philosophy of Modern Physics* (2017)

## Selected Works in Progress

1. Priority and privilege in scientific discovery (with co-author Hannah Rubin, under review, draft available upon request)

2. The (global) structure of ‘empty space’
3. Stabs in the dark (sector)
4. Homophily in science: where's the epistemic harm? (draft available upon request)

## Talks (\*=invited)

- \* “Betting against vacuum energy”. HPS Work-in-progress Colloquium at University of Notre Dame. February 2019.
- \* “Priority and privilege in scientific discovery”. Department of Philosophy at University of Michigan. November 2018 (with Hannah Rubin).
- “What’s the problem with the cosmological constant?”. Philosophy of Science Association (PSA) Biennial Conference. November 2018.
- “Interpretation and crisis in the vacuum”. Foundations of Physics. July 2018.
- “Interpretation and crisis in the vacuum”. British Society for the Philosophy of Science (BSPS) Annual Conference. July 2018.
- “Priority and privilege in scientific discovery”. Computational Modeling in Philosophy. June 2018 (with Hannah Rubin).
- \* “Priority and privilege in scientific discovery”. Formal Social Epistemology Workshop. May 2018.
- \* “The non-epistemic origins of research strongholds”. Department of Theoretical Philosophy at University of Groningen. October 2017.
- “What’s the problem with the cosmological constant?”. University of Western Ontario Philosophy of Logic, Mathematics, and Physics Graduate Conference. June 2017.
- “The non-epistemic origins of research strongholds”. Penn-Rutgers-Princeton Social Epistemology Workshop. April 2017.
- \* “The cosmological constant problem is not meant to be solved”. Southern California Philosophy of Physics Reading Group. December 2016.

## Teaching Experience

### Instructor of Record

- Philosophical Issues in Physics: Spacetime, Matter, and the History of the Universe (cross-listed course intended for upper level majors in the departments of Philosophy and Physics at University of Notre Dame), Spring semester 2019
- Robots, Space, and Civilizations of the Future (co-taught, “Freshman Explorations” course in the Experimental College at Tufts University), Fall semester 2013

### Teaching Assistant

- The Good Life (department of Logic and Philosophy of Science at University of California, Irvine), Spring quarter 2016, Spring quarter 2017
- Symbolic Logic (department of Logic and Philosophy of Science at University of California, Irvine), Winter quarter 2016
- Space Exploration and Astrobiology (Harvard Summer School), Summer 2015
- Cosmology for the Curious (department of Physics and Astronomy at Tufts University), Spring semester 2015

- Primitive Navigation (Program in General Education, Science of the Physical Universe at Harvard University), Spring semester 2015
- Advanced Topics in Physics: Special Relativity (Johns Hopkins Center for Talented Youth Summer Program), First session 2013

### **Other Teaching**

- Guest Lecturer on “Networks” in Evolutionary Game Theory (course intended for PhD students in the department of Philosophy at University of Notre Dame), February 2019
- Philosophy Teacher in THINK (outreach program through University of California, Irvine to introduce 5<sup>th</sup> grade students to philosophical inquiry), Fall quarter 2016, Spring quarter 2017, Spring 2018
- TOPS fellow (student teacher program focused on curricula development for middle-school and high-school level courses on energy and thermal physics, sponsored by the Center for Ultracold Atoms at Massachusetts Institute of Technology), Summer 2014
- Early Childhood Interpretation Intern at the Discovery Center in the Boston Museum of Science (for museum-goers ages 2-8 and their guardians), January – May 2014
- Teaching Assistant for High School Summer Physics (remedial – pre-AP level) at King Summer Institute in Stamford, Connecticut, Summer 2011

### **Service to the Profession**

- Discussion moderator at the Philosophy of Dark Energy Workshop (March 2019)
- Cushing Memorial Prize committee administrator (2018-2019 academic year)
- Organizational support for Methodology and Epistemology in Cosmology Conference (February 2017)
- Referee for *Philosophy of Science* and *Studies in History and Philosophy of Modern Physics*, as well as for the Irvine-Munich-PoliMi-Salzburg Conference in Philosophy and Foundations of Physics (2018) and the Irvine-Princeton-Pittsburgh Conference on the Mathematical and Conceptual Foundations of Physics (2016)

### **Service to the Department**

- Graduate student reading group organizer, “Foundations of General Relativity” (*University of Notre Dame*, Fall 2018)
- Graduate student reading group organizer, “Locally Covariant Quantum Field Theory” (*University of California, Irvine*, Spring 2018)
- Graduate student reading group organizer, “Quantum Field Theory on Curved Spacetime” (*University of California, Irvine*, Winter 2018)
- Philosophy of physics research group/reading group organizer (*University of California, Irvine*, 2017-2018 academic year)

### **Awards and Grants**

- Robert K. Clifton Memorial Book Prize, for “What’s the problem with the cosmological constant?” University of Western Ontario. (2017)

- Newkirk Center for Science and Society 2017-2018 Graduate Fellow, for “Impacts of homophily on the dispersion of new scientific developments from sub-populations to the community at large”. Amount awarded: \$10,000 (2017)