

# Chris Mitsch

✉ [chris.mitsch@pitt.edu](mailto:chris.mitsch@pitt.edu)

🌐 [chrismitsch.com](http://chrismitsch.com)

Pronouns: he/him

## Areas of Specialty

- Philosophy of Science
- Philosophy of Mathematics
- History of Science, esp.:
  - +20<sup>th</sup> c. Physics & Mathematics
  - +Scientific Revolution

## Areas of Competence

- History of Philosophy of Science
- Philosophy of Sexual Violence
- Logic
- Philosophy of Psychology, esp.:
  - +False Memory
  - +Mathematical Cognition

## Education

2020 **Ph.D., Philosophy (LPS)**

UC, Irvine

2017 **M.A., Philosophy (LPS)**

UC, Irvine

2013 **B.A., Logic**

Ohio State University

2012 **A.A., Fine Arts**

Edison State Community  
College

## Languages

English native speaker

French reading comprehension

German reading comprehension

## Appointments

2022 – **Postdoctoral Associate, University of Pittsburgh**

Supervisor: David Wallace

2021 – 2022 **Instructor, Nebraska Wesleyan University**

Appointments in: History; Mathematics; Philosophy

2021 **Instructor, Irvine Valley College**

Appointment in: Philosophy

## Publications

Mitsch, C. (2022) “Hilbert-Style Axiomatization: On von Neumann and Hidden Variables in Quantum Mechanics” *Studies in History and Philosophy of Science*.

doi: [10.1016/j.shpsa.2022.06.016](https://doi.org/10.1016/j.shpsa.2022.06.016)

Mitsch, C. (2019) “An Examination of Some Aspects of Howard Stein’s Work.” *Studies in History and Philosophy of Modern Physics*. doi: [10.1016/j.shpsb.2019.04.001](https://doi.org/10.1016/j.shpsb.2019.04.001)

## Papers Under Review

“How Haag-Tied is QFT, Really?” [joint first author with D. Freeborn and M.J.R. Gilton]

“Why Should Identity Be Harmonious?”

## Dissertation

**Title:** Methods in Historically-Informed Philosophy of Science.

**Committee:** James Weatherall (Chair), Penelope Maddy, Jeffrey Barrett.

## Selected Working Papers

### Drafts Available

“The How-To Implications of No-Go Theorems” [joint first author with D. Freeborn and M.J.R. Gilton]

“Unconceived Alternatives, Scientific Instrumentalism, and the Methodology of Normative Philosophy of Science”

“On Hilbert’s So-Called Instrumentalism”

### In Preparation

“Hilbert’s Scientific Epistemology”

“False Memories: The Newest Bait-and-Switch Technique for Justifying Rape Myths”

“The Thermodynamic Context of Early Quantum Mechanical Interpretation”

“Belief-Centered and Outcome-Centered Debates about Scientific Realism”

## Presentations

### Peer-Reviewed

**Jul. 2023 Misinformation and the Reporting of External Validity**, 17th International Congress on Logic, Methodology and Philosophy of Science and Technology. Buenos Aires, Argentina.

**Jun. 2023 Using Axiomatization to Connect and Co-Interpret Theories**, 21st European Conference on Foundations of Physics. Symposium: “What, if anything, is axiomatization good for?” Bristol, UK.

**May 2023 On Hilbert’s So-Called Instrumentalism**, Annual Meeting of the Canadian Society for History and Philosophy of Mathematics. York, Ontario, Canada.

**Nov. 2022 Haag As a How-To Theorem**, Philosophy of Science Association Biennial Meeting 2022. Symposium: “What Good Is a No-Go Theorem?” Pittsburgh, PA [presentation of joint work with D. Freeborn and M.J.R. Gilton].

### Invited

**Nov. 2023 Should Scientists Be More Instrumentalist? Toward a Psychological Grounding of the Realism Debate**, Conceptual and Mathematical Foundations of Science. UC, Irvine.

**Nov. 2020 Von Neumann’s Axiomatic Completion of Quantum Mechanics**, Harvard Foundations of Physics Series, Mini-Workshop on *Lessons from the History of Quantum Foundations*.

**Jun. 2020 Von Neumann on Hidden Variables**, Quantum Theory Workshop. UCI–Stanford–UM. (online due to COVID-19)

**Mar. 2016 Harmony: The (Slight) Return of Identity**, C-ALPHA Logic Research Seminar. UC, Irvine.

## Translations

(\* indicates in progress)

D. Hilbert, J. von Neumann, L. Nordheim. “Über die Grundlagen der Quantenmechanik”, *Mathematische Annalen*, 98 (1). 1928, pp. 1–30. German to English.

\*J. von Neumann. “Letters to H. Weyl”, in Weyl archives, ETH Zürich. German to English.

\*D. Hilbert. “Natur und mathematische Erkennen,” lectures delivered 1919-1920 at University of Göttingen. German to English.

## Teaching Experience

### Instructor of Record

#### Nebraska Wesleyan University

Introduction to Philosophy (Synchronous Online)

Philosophy of Science (Upper-Division, Writing-Instructive)

Science and Religion in the Western Tradition (Writing-Instructive, Hybrid)

Global History of Mathematics

College Algebra

Mathematics for the Liberal Arts

#### Irvine Valley College

Introduction to Logic (Asynchronous Online)

#### University of California, Irvine

Introduction to Symbolic Logic

Critical Reasoning (Asynchronous Online)

## Teaching Assistant

### Honors Curriculum

The Good Life

Naturalized Epistemology

### Philosophy

Critical Reasoning

Introduction to Symbolic Logic

### Other

Introduction to Psychology

Writing About Memory

Psychology of Music

American Culture

## Guest Lectures

- Nov. 2021 **Historical Evidence in Philosophy of Science**. Presentation to K. Zhao's "Contemporary Philosophy of Science" undergraduate course. Department of Philosophy, UCLA.
- Nov. 2020 **Von Neumann on Mathematical Rigor**. Presentation to M. Gilton's "History of Old Quantum Theory" graduate seminar. Department of History and Philosophy of Science, University of Pittsburgh.
- Oct. 2019 **Intelligence**. Presentation to N. Winter's "Psychobiology" undergraduate course. Orange Coast College.

## Service and Professional Development

### Organizing

- 2023– **Co-Organizer** (with B. High), DEI-focused information workshop for students considering graduate training in philosophy of physics, Fall 2023
- Co-Chair of Organizing Committee** (with M.J.R. Gilton and J. Oddan), Axiomatization in Science Workshop, University of Pittsburgh, Fall 2024
- 2022– **Chair** Philosophy of Physics Affinity Group, Philosophy of Science Association: Diversity, Equity, Inclusion Caucus
- 2022– **Co-Chair of Organizing Committee** (with J. Wu), Feminist Philosophy of Physics Workshop, Location TBD, Spring 2024
- Co-Organizer** (with J. Oddan), "What, if anything, is axiomatization good for?," 21st European Conference on Foundations of Physics
- 2022 **Co-Organizer** (with D. Freeborn and M.J.R. Gilton), "What Good Is a No-Go Theorem?," Philosophy of Science Association Biennial Meeting
- 2020 **Election Administrator**, LPS Climate Committee
- Organizer**, undergraduate reading group on critical thinking and data literacy
- Co-Organizer and Researcher**, graduate reading course on anti-Black racism
- 2019 **Co-Founder** (with Kino Zhao), [Asymptotic Philosophy](#)
- 2018 **Organizer and Grant Writer**, Effective Interdisciplinarity Reading Group
- 2016 **Organizer**, LPS Writing-in-Progress Group
- 2015 **Organizer**, History of Axiomatics in Science Seminar
- Co-Organizer**, Formal Structure of Scientific Theories Seminar

## Formal Service

2022 **Judge**, Nebraska National History Day State Contest

**Panelist**, Job Market Q&A for first-generation students (Wonder Philosophy Workshop)

2020 **Setup Assistant**, Q&A for prospective students (Minorities and Philosophy)

2019 **Panelist**, Q&A for first-generation students (Wonder Philosophy Workshop)

**Panelist**, Q&A for new teaching assistants (UCI Social Science TA Training)

2014 **Setup Assistant**, Perspectives on Gender (UCI Hypatia Society)

## Training

2020 Mentoring Excellence Program Certificate Program

Diversity Education Certificate Program

2019 ZotAbility Ally Training

Activate to Captivate Certificate Program

American Association of Philosophy Teachers Pedagogy Workshop

Breaking the Bias Habit Workshop

UCI Interdisciplinary Research Showcase and Workshop

2017 Effective Responses to Student Writing Workshop

UCI LGBT Resource Center Safe Zone Ally Training Certificate Program

2016 IRB Ethics Training for “An Experimental Investigation of Choice Blindness” (HS# 2016-2578)

## Refereeing

*Philosophy of Science; Studies in History and Philosophy of Modern Physics; Studies in History and Philosophy of Science; Philosophy of Physics*

## Professional Societies

**Philosophy** Philosophy of Physics Society, Philosophy of Science Association, American Association of Philosophy Teachers, American Philosophical Association

**History** International Society for the History of Philosophy of Science, History of Science Society, British Society for the History of Mathematics, Canadian Society for the History of Mathematics

## Awards, Grants, and Honors

2023 National Science Foundation Travel Grant

2020 Graduate Student Researcher, John Templeton Foundation Grant #61048

2018–20 Social Science Associate Dean's Fellowship, 3 quarters

2014–20 Social Science Merit Fellowship

# Graduate Courses

(\* indicates a course taken S/U)

## History of Philosophy

- Primary and Secondary Qualities (P. Maddy)
- \*Early Modern Philosophy of Mathematics (J. Heis)
- \*Later Wittgenstein (P. Maddy)
- Kant's *Metaphysical Foundations of Natural Science* (J. Heis)
- \*Carnap and Quine (P. Maddy)
- History of Formal Philosophy of Science (J. Weatherall)
- \*Robert Pasnau's *After Certainty* (P. Maddy)
- \*History of Axiomatics (J. Weatherall)
- \*Howard Stein's Philosophy (J. Weatherall)
- \*Vision Theory (P. Maddy)
- \*Von Neumann's *Mathematical Foundations of Quantum Mechanics* (J. Weatherall)

## Philosophy of Science

- Philosophy of Probability (B. Skyrms, S. Huttegger)
- Quantum Mechanics (J. Barrett)
- Evolution and Morality (P.K. Stanford)
- \*Mark Wilson's *Wandering Significance* (P. Maddy)
- \*Quantum Field Theory (J. Weatherall)

## Logic and Philosophy of Mathematics

- Philosophy of Mathematics (P. Maddy)
- \*Philosophy of Set Theory (P. Maddy)
- \*Logic Research Seminar 2015 (S. Walsh, K. Wehmeier, J. Heis)
- Logic Research Seminar 2016 (S. Walsh, K. Wehmeier, J. Heis)
- Logic I: Set Theory (S. Walsh)
- Logic II: Metalogic (K. Wehmeier)
- Logic III: Incompleteness and Computability (K. Johnson)

## Other

- Cognitive Science of Mathematics (R. Núñez, UCSD Cognitive Science Department)
- \*Global History of Science? (R. Raphael, UCI History Department)