

# MAHMOUD T. JALLOH

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## ACADEMIC APPOINTMENTS

**California Institute of Technology, Einstein Papers Project**

Postdoctoral Scholar in History and Philosophy of Science

Pasadena, CA

September 2025 – Present

**St. John's College**

Teaching Fellow

Santa Fe, NM

July 2023 – June 2025

## EDUCATION

**University of Southern California**

PhD in Philosophy, 2023

- **Dissertation:** *Dimensional Analysis: Essays on the Metaphysics and Epistemology of Quantities*

**Northeastern University**

B.S. in Physics and Philosophy, 2017

**Munich Center for Mathematical Philosophy, LMU**

Visiting Student, Fall 2016

## BOOK PROJECT

*Richard Chace Tolman: The First American Relativist*

In Progress

## JOURNAL ARTICLES

(AND EQUIVALENTS)

**Philosophy of Physics**

“Tatiana Ehrenfest-Afanassjewa’s Critical Contributions to Dimensional Analysis”

Forthcoming

**Oxford Studies in Metaphysics**

Volume 14

“The II-Theorem as a Guide to Quantity Symmetries and the Arg. Against Absolutism”

2025

- Runner-up for the Marc Sanders Prize in Metaphysics

**European Journal for Philosophy of Science**

Vol. 14, No. 40

“Calibrating the Theory of Model Mediated Measurement”

2024

**HOPOS: Journal of the International Society for the History of Philosophy of Science** Vol. 14, No. 2

“Metaphysics and Convention in Dimensional Analysis, 1914-1917”

2024

- With Supplement: “The Bridgman-Tolman-Warbuton Correspondence on Dimensional Analysis, 1934”

- Winner of a 2025 Routledge, Taylor & Francis Prize from the American Philosophical Association

**Synthese**

Vol. 203, No. 141

“Bridgman and the Normative Independence of Science”

2024

- Part of a Special Issue on: *The Legacy of the Value-Free Ideal of Science*

**Theoria. An International Journal for Theory, History, and Foundations of Science**

Vol. 38, No. 2

“The Nature of the Physical and the Meaning of Physicalism”

2023

## CONFERENCE PROCEEDINGS

**Minnesota Studies in Philosophy of Science**

“Towards a Methodological Conception of the Metaphysics of Science”

Forthcoming

**Contributions to the 41st International Wittgenstein Symposium**

“Reversing the Consequence Argument”

2018

## BOOK REVIEWS

**The British Journal for the History of Science**

“Steven French, *A Phenomenological Approach to Quantum Mechanics*”

2024

**Phenomenological Reviews**

“*Phenomenological Approaches to Physics*, H. Wilsche and P. Berghofer (eds.)”

2021

## ORAL HISTORY INTERVIEWS

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### American Institute of Physics

David Malament

February 11 & 12, 2025

## PUBLIC WRITING

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(\* INDICATES A BLOG.)

### Philosophers' Cocoon\*

One Paper, One Reviewer: An Easy Amelioration of the Referee Crisis

January 2024

### Griffith Observer

"Hubble and Huxley: Patriot and Pacifist, Hollywood Stars, Seers of Nebulae"

September 2023

- Joan and Arnold Seidel Science Writing Contest: Honorable Mention

## AWARDS AND GRANTS

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### American Philosophical Association

Routledge, Taylor & Francis Prize (\$1000)

2025

- "The prize is awarded for the two best published articles in philosophy written by adjunct professors."

### American Institute of Physics, Center for History of Physics

Project: Oral Interviews with Philosophers of Physics (\$2500, with Fons Dewulf)

2025

Project: Modeling and Metaphysics with Dimensional Analysis (\$2500)

2022

### National Science Foundation

Graduate Research Fellowship: Honorable Mention

2018

## SELECTED TEACHING EXPERIENCE

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(\* INDICATES CO-TAUGHT.)

### St. John's College

2023 - 2025

- The Metaphysics of Space and Time (Aristotle, Descartes, Newton, Leibniz-Clarke, Du Châtelet, Kant)
- Junior Seminar\* (Cervantes, Descartes, Pascal, Milton, Hobbes, Spinoza, Leibniz, Hume, Kant, Smith)
- Junior Laboratory (Galileo, Huygens, Newton, Young, Faraday, Maxwell)
- Sophomore Mathematics (Ptolemy, Copernicus, Kepler, Apollonius, Descartes, Pascal)
- Freshman Mathematics (Euclid)
- Freshman Laboratory (Aristotle, Goethe, Harvey, Driesch, Pascal, Lavoisier, Dalton)
- Freshman Seminar\* (Homer, Plato, Aristotle, Sophocles, Aristophanes, Thucydides, Herodotus)
- Summer Academy (Aristotle, Austen, Plutarch, Aeschylus, Heidegger, Shelley) [Short Courses for High School Students]
- Science Institute:\* Beyond Numbers: Set-Theory; Du Châtelet's *Foundations of Physics* [Short Seminar and Experimental Courses for Non-Degree Students]
- Summer Classics:\* An Introduction to C. S. Peirce [Short Seminar for Non-Degree Students]

## SELECTED PRESENTATIONS

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(\* INDICATES AN INVITED PRESENTATION.)

### HSS-ESHS Joint Meeting

Edinburgh, UK

"Similitude and Scalar Gravity: Tolman's Principle and Nordström's Theory"

July 2026

### History and Philosophy of Cosmology Conference

Athens, GR

"Can the Constants Vary? Some Metaphysical and Cosmological Considerations"

July 2026

### HOPOS

Columbus, OH

"Maxwell's Notion of Dynamics: Lessons for Modeling, Modality, and Explanation"

June 2026

### Society for the Metaphysics of Science

Toronto, CAN

"Constants of Nature, Law Construal, and Theory Individuation"

May 2026

### USC Math Education Seminar\*

Los Angeles, CA

"Ehrenfest-Afanassjewa's Extension of the Erlanger Program to Dimensions"

April 2026

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| <b>Association for the Philosophy of Mathematical Practice</b><br>"Descartes' Dimensions and the Euclidean Taboo"                                            | Orange, CA<br>January 2026                        |
| <b>Notre Dame Biennial History of Astronomy Workshop</b><br>"Hubble and Huxley: Hollywood Stars and Empiricists"                                             | Notre Dame, IN<br>June 2025                       |
| <b>Philosophy of Science: Past, Present, and Future</b><br>"Two Models for the Metaphysics of Science"                                                       | Minneapolis, MN<br>October 2024                   |
| <b>British Society for the Philosophy of Science</b><br>"Is Dimensionlessness an Invariant Property?"                                                        | York, UK<br>July 2024                             |
| <b>University of New Mexico, Philosophy Department*</b><br>"The Constants of Nature"                                                                         | Albuquerque, NM<br>November 2023                  |
| <b>The Gravitational Constant, from the Local to the Universal</b><br>"Dynamical Symmetries and the Values of the Constants: A Historical Episode"           | St. Andrews, SCT<br>April 2023                    |
| <b>Integrated History and Philosophy of Science 9</b><br>"Metaphysics and Convention in Dimensional Analysis, 1914-1917"                                     | Columbia, SC<br>March 2023                        |
| <b>Euro-American Migration and the Development of Postwar Philosophy</b><br>"The Roots of Operationalism in Dimensional Analysis"                            | Tilburg, NL<br>August 2022                        |
| <b>Measurement at the Crossroads: Measuring and Modeling</b><br>"Measurement Dimensions: On the Common Quantity Assumption"                                  | Milan, IT<br>July 2022                            |
| <b>SoCal Metaphysics Network Graduate Workshop*</b><br><b>9th Annual Conference of the SSHAP*</b><br>"Structuralism in the <i>Tractatus</i> "                | Irvine, CA<br>Vienna, AT<br>April 2022, July 2021 |
| <b>2nd Young Scholars Pragmatism Conference: Inquiry, Science, Truth</b><br>"Scientific Polysemy, Semantic Detoxification, and Sophisticated Operationalism" | Cambridge, UK<br>October 2021                     |

## SERVICE

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| <b>(Co-)Organizer:</b>      | Caltech Philosophy of Science Reading Group 2025-26<br>SJC Science Institute Conversations/Lectures 2024, 2025; SJC Summer Academy 2025<br>BSPS 2024 Symposium on <i>Establishing the Philosophy of Dimensions</i> ; USC/UCLA Graduate Conference 2020 |
| <b>Conference Referee:</b>  | USC/UCLA Graduate Conference 2018-2023; NASSLLI 2022                                                                                                                                                                                                   |
| <b>Article Referee:</b>     | <i>The Philosophical Review, Linguistics &amp; Philosophy, Philosophy of Physics</i><br><i>Journal for General Philosophy of Science, Ratio, Foundations of Physics</i><br><i>Philosophy of Science, British Journal for the Philosophy of Science</i> |
| <b>Book Referee:</b>        | Cambridge Elements in the Philosophy of Physics, Routledge                                                                                                                                                                                             |
| <b>Thesis Advising:</b>     | On Kant (Senior, 2025); On Hegel (Senior, 2025)<br>On Anselm (Senior, 2025); On Paracelsus (Senior, 2025)                                                                                                                                              |
| <b>Thesis Examinations:</b> | On Wittgenstein & Einstein (Senior, 2025)<br>On Euripides (Senior 2025); On Pascal (Senior, 2025, Chair); On Nietzsche (Senior, 2025)<br>On Gödel & Cohen (Senior, 2025, Chair); On Aristotle (Senior, 2024); On Bergson (Masters, 2024, Chair)        |

## SELECTED CONTINUING EDUCATION & PROFESSIONAL DEVELOPMENT

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| <b>Max Planck Institute for Mathematics in the Sciences</b><br>Summer School on the History of Space in Mathematics and Physics | Leipzig, DE<br>July 2023       |
| <b>Rutgers Center for the Philosophy of Religion</b><br>God and Fine-Tuning Summer School                                       | New Brunswick, NJ<br>July 2023 |
| <b>University of Wuppertal</b><br><i>Particle Physics at the Crossroads</i> , Epistemology of the LHC                           | Wuppertal, DE<br>July 2018     |
| <b>University of Split</b><br><i>The Chimera of Entropy</i> , Seventh Philosophy and Physics Summer School                      | Split, HR<br>July 2018         |
| <b>Memberships (semi-regular):</b> APA; PSA; HOPOS; Philosophy of Physics                                                       |                                |
| <b>Languages:</b> German (Intermediate); French (Basic)                                                                         |                                |