Curriculum Vitae
Robert Rynasiewicz

William H. Miller III Department of Philosophy
Johns Hopkins University
Baltimore, MD 21218 USA
(410) 516-7525 (admin)
(410) 516-6848 (fax)
ryno@jhu.edu
rrynasi1@jh.edu

329 Hopkins Road
Baltimore, MD 21212 USA
(410) 812-1022
rrynasi1@icloud.com

Current Academic Positions

Professor, Department of Philosophy, Johns Hopkins University, 1996–present.

Adjunct Professor, Committee for Philosophy and the Sciences, University of Maryland at College Park, 1997–present.

Previous and Visiting Academic Positions

Visiting Scholar, Max Planck Institut der Wissenschaftsgeschichte, Berlin, 2017.

Visiting Professor, Munich Center for Mathematical Philosophy, Ludwig Maximilian University, Munich, Germany, 2015.

Associate Professor, Department of Philosophy, The Johns Hopkins University, 1992–1996.

Assistant Professor, Department of Philosophy, The Johns Hopkins University, 1986–1992.

Assistant Professor, Department of Philosophy, Case Western Reserve University. 1983–86.

Postdoctoral Fellow, Sage School of Philosophy, Cornell University. 1982–83.

Postdoctoral Fellow, Department of History and Philosophy of Science, University of Pittsburgh. 1981–82.

Instructor, School of Physics and Astronomy, University of Minnesota. 1977–78.

Education

ScB, 1974. Physics, Brown University. Thesis: *Van Fraassen's Modal Interpretation of Quantum Mechanics*. Advisor: Leon Cooper, Dept. of Physics.

PhD, 1981. Philosophy, University of Minnesota. Dissertation: *Varieties of Eliminability of Theoretical Terms and the Empirical Content of Theories*. Advisor: John Earman.

Publications

'Falsifiability and the Semantic Eliminability of Theoretical Languages', *The British Journal for the Philosophy of Science*, **34** (1983): 225–241.

'On Writing the History of Special Relativity' (with J. Earman and C. Glymour), *PSA 1982* (Proceedings of the 1982 Biennial Meeting of the Philosophy of Science Association), vol. 2., pp. 403–416. East Lansing: Philosophy of Science Association, 1983.

'Theory and Evidence', *Synthese*, **56** (1983): 107–120.

'Observability', *PSA 1984*, vol. 1, pp. 189–201. East Lansing: Philosophy of Science Association, 1984.

'The Universality of Laws in Space and Time', *PSA 1986*, vol. 1. pp. 66–75. East Lansing: Philosophy of Science Association, 1986.

'Lorentz's Local Time and the Theorem of Corresponding States', *PSA 1988*, vol. 1. pp. 67–74. East Lansing: Philosophy of Science Association, 1988.

'Realism, Internalism and the Methodological Character of Theoretical Terms', translated into Polish as 'Realizm, internalizm i metodologiczny charakter przedmiotów teoretycznych', in K. Jodkowski and Z. Muszyński (eds.), *O sposobie istnienia rzeczy* (On the Way Things Are). *Realism. Rationality. Relativism*, vol. 23 (1991): 129–162. Lublin: MCS University Publishing House, 1992.

'Why the New Theory of Reference Does Not Entail Absolute Time and Space', *Philosophy of Science*, **59** (1992): 508–509.

'Rings, Holes and Substantivalism: On the Program of Leibniz Algebras', *Philosophy of Science*, **59** (1992): 572–589.

'The Lessons of the Hole Argument', *British Journal for the Philosophy of Science*, **44** (1994): 407–436.

'Earman on Absolute vs. Relational Doctrines of Space, Time and Motion', *Philosophy and Phenomenological Research*, **55** (Sept. 1995): 675–687.

'By Their Properties, Causes and Effects: Newton's Scholium on Time, Space, Place and Motion', *Studies in History and Philosophy of Science*,
'Part I: The Text', **26** (1995): 133–153.
'Part II: The Context', **26** (1995): 295–321 .

'Absolute vs. Relational Spacetime: An Outmoded Debate?', *Journal of Philosophy* vol. XCII no. 6 (June 1996): 279–306.

'Is There a Syntactic Solution to the Hole Argument?', *Philosophy of Science* **63**, No. 3 suppl. issue (1996): S55–S62.

'The Supposed Electron, or Whose "Electron" Did J. J. Thomson Discover?', Lecture delivered at, American Association for the Advancement of Science Annual Meeting, Seattle, February 1997. Audio tape published by the Advancement of Science Annual Meeting, 1997.

'Kretschmann's Analysis of Covariance and Relativity Principles', in *The Expanding Worlds of General Relativity*. Hubert Goenner, Juergen Renn, Jim Ritter, and Tilman Sauer, eds. *Einstein Studies*, vol. 7. Boston: Birkhauser, 1999, pp. 431-462.

'The Construction of the Special Theory [of Relativity]: Some Queries and Considerations', in D. Howard and J. Stachel (eds.), *Einstein: The Formative Years, 1879-1909*. *Einstein Studies*, vol. 6. Boston: Birkhäuser, 2000.

'On the Distinction between Absolute and Relative Motion', *Philosophy of Science*, 67 March 2000: 70–93.

'Definition, Convention, and Simultaneity: Malament's Result and It's Alleged Refutation by Sarkar and Stachel', *Philosophy of Science*, 68 Proceedings (2001): S345–S357.

'Reichenbach's ϵ-Definition of Simultaneity in Historical and Philosophical Perspective', in Friedrich Stadler (ed.), *The Vienna Circle and Logical Empiricism*. (Dordrecht: Kluwer, 2003).

'Field Unification in the Maxwell-Lorentz Theory with Absolute Space', *Philosophy of Science*, 70 (2003): 1063–1072.

'Newton's Doctrine of Space, Time, and Motion', *Stanford Encyclopedia of Philosophy*, 2004. (http://plato.stanford.edu/entries/newton-stm/). Reprinted in *Techniek en de cultuur van tijd en ruimte*. (Haarlem: Open Universiteit, 2006). Substantive revision 2011.

'Weyl vs. Reichenbach on *Lichtgeometrie*', *Einstein Studies*, vol. 11: *The Universe of General Relativity*, edited by A. J. Kox and Jean Eisenstaedt. Boston: Birkhäuser, 2005. Pp. 137–156.

'The Optics and Electrodynamics of 'On the Electrodynamics of Moving Bodies',' *Annalen der Physik* **14** Supplement (2005): 38–57.

"Der Weg zu einer neuen Kinematik," *Physik Journal* 4 (2005) Nr. 3: 69–75.

"The Turning Point for Einstein's *Annus Mirabilis*" (with Jürgen Renn) *Studies in History and Philosophy of Modern Physics* **37** (2006): 5-35.

"Reining in *The Reign of Relativity*," *Metascience* **16** (2007): 419–425.

"Editorial Introduction," *Foundations of Physics* **40** (2010): 333–334.

'Simultaneity, Convention, and Gauge Freedom,' *Studies in the History and Philosophy of Modern Physics* **43** (2012): 90–94.

"Philosophical Theories of Space," in Byron Kaldis (ed.) *Encyclopedia of Philosophy and the Social Sciences*. (London: Sage Publications, 1913). Pp. 950–952.

"Einstein's Copernican Revolution," (with Jürgen Renn) in Michel Janssen and Christoph Lehner (eds.), *The Cambridge Companion to Einstein*. (Cambridge: Cambridge U. Press, 2014). Pp. 38–71.

"The (?) Correspondence Principle," in Finn Aaserud and Helge Kragh (eds.), *One Hundred Years of the Bohr Atom*. (Copenhagen: Det Kongelige Danske Videnskabernes Selskab, 2015). Pp. 175–199.

"Newton's Scholium on Time, Space, Place and Motion," in Eric Schliesser and Christopher Smeenk (eds.), *The Oxford Handbook of Newton*. (Oxford: Oxford University Press, 2019).
DOI: 10.1093/oxfordhb/9780199930418.013.28 Available online. Print forthcoming.

"The Syntactic View of Theories," *The Sage Encyclopedia of Theory in Science and Technology*, edited by James Mattingly and Joseph C. Rumenapp. Los Angeles: SAGE Publications, 2023.

"What Newton Meant by 'True and Absolute Motion' " (in prep.)

"Misinterpretations of Newtonian Time" (in prep.)

revised and expanded version of *Stanford Encyclopedia of Philosophy* essay on "Newton's Views on Space, Time and Motion".

"Solutions vs. Models: How do Physicists Compare Theory with Reality in Spacetime Physics?" (in progress)

"Reichenbach's Unusual Uses of Non-standard Simultaneity" (in progress)

Translations

Erich Kretschmann, 'On the Physical Meaning of Relativity Principles, A. Einstein's New and his Original Theory of Relativity'. Translation and Commentary on: 'Über den physikalischen Sinn der Relativitätspostulate, A. Einsteins neue und seine ursprünglich Relativitätstheorie', *Annalen der Physik* **53**(1917): 575–614.

Abstracts and Reviews

W. D. Newton-Smith, *The Rationality of Science*. *Isis*, **73** (1982): 574–575.

A. I. Miller, *Einstein's Special Theory of Relativity*. *Archives Internationales D'Histoire Des Sciences*, **32** (1982): 310–312.

M. Sachs, *Ideas of Matter*. *Isis*, **74** (1983): 423–424.

E. M. MacKinnon, *Scientific Explanation and Atomic Physics*. *4S Review: Journal of the Society for Social Studies of Science*, **1** (1983): 17–20.

J. Bogen and J. E. McGuire (eds.), *How Things Are: Studies in Predication and the History of Philosophy and Science*. *Isis*, **77** (1986): 113–114.

L. Sklar, *Physics and Chance*. *Philosophy of Science*, (1995): 337–338.

"Varieties of Conventionality," *Volume of Abstracts*, International Union of History and Philosophy of Science, and 11th International Congress of Logic, Methodology and Philosophy of Science. Edited by Jacek Cachro and Katarzyna Kijania-Placek. Cracow: Kopiorama, 1999. Page 329.

Per Dahl, *The Flash of the Cathode Rays*. *Physics in Perspective*, **1** (1999): 455-7.

William Harper, *Isaac Newton's Scientific Method*. *Notre Dame Philosophical Reviews*. 2013-09-08. http://ndpr.nd.edu/news/42467-isaac-newton-s-scientific-method-turning-data-into-evidence-about-gravity-and-cosmology/.

Adrian Bardon, *A Brief History of the Philosophy of Time*. *The Journal of the International Society for the History of Philosophy of Science*, Spring, 2014: 165–168.

Howard J. Fisher, *Maxwell's "Treatise on Electricity and Magnetism": The Central Argument*. *Isis* **104** no. 4 (2016): 877–8.

Talks, Conferences, and Workshops

Commentator on papers by M. Gardner and R. Laymon, Conference on Confirmation, Minnesota Center for Philosophy of Science, June 1980.

Invited Speaker, Symposium on the Origins of Special Relativity, Philosophy of Science Association Meeting, October 1982.

Commentator on R. J. Nelson, 'Can Computers Have Intentional Attitudes?', Symposium on Language and Mind, John Carroll University, October 11–12, 1984.

Contributed paper, 'Observability', Colloquium on Realism and Empiricism, Philosophy of Science Association Meeting, October 18–21, 1984.

Contributed paper, 'Lorentz's Local Time and the Theorem of Corresponding States', XVIIth International Congress of History of Science, University of California, Berkeley, 1985.

Contributed paper, 'Einstein and the Emission Theories', Midwest Junto for the History of Science, John Carroll University, March 6–8, 1986.

Contributed paper, 'The Universality of Laws in Space and Time', Philosophy of Science Association Meeting, October 1986.

Commentator on A. Stairs, 'Possible Worlds, Leibniz's Law and the Principle of Plenitude', 3rd JHU-UMCP-UMBC Conference in Philosophy, May 1987.

Organizing Committee, The Michelson Era in American Science, Case Western Reserve University, October 28–29, 1987.

Commentator on B. Horan, 'Theoretical Entities', 4th JHU-UMCP-UMBC Conference in Philosophy, May 1988.

Invited paper, 'The Construction of Special Relativity', Osgood Hill Conference on the Early Einstein, Center for Einstein Studies, Boston University, October 1990.

Invited paper, 'Newton's Scholium on Time and Space', Symposium on Newton's Mechanics, History of Science Society Annual Meeting, October 30 – November 3, 1991.

'On the Distinction between Absolute and Relative Motion', Department of History and Philosophy of Science, University of Pittsburgh, January 1995.

'Simultaneity and Consciousness', Department of Philosophy, Carnegie Mellon University, January 1995.

'Kretschmann's Analysis of Symmetry and Relativity Principles', Fourth International Conference on History of General Relativity, Max Planck Institute for the History of Science, Berlin, July 31 - August 3, 1995.

'Relativity Principles and Gauge Freedom in Classical Cosmology', Conference on Spacetime and Cosmology, University of Western Ontario, March 30, 1996.

'Spacetime and Consciousness', Department of Philosophy, University of Kentucky, October 1996.

'Is There a Syntactic Solution to the Hole Argument?', presented at the Philosophy of Science Biennial Meeting, November 1996.

'The Supposed Electron, or Whose "Electron" Did J. J. Thomson Discover?', session on the centenial of the discovery of the electron, American Association for the Advancement of Science Annual Meeting, Seattle, February 1997.

Commentator on "Churchland's 'Rediscovery' of Analogy Argument Fallacies" (John Davenport), Pacific APA meeting, March 1997.

Panelist: Conference on Modeling and Simulation, University of Virginia, March 27–30, 1998.

Commentator on Yuri Balashov, 'Relativistic Objects'. Central Division Meeting of the American Philosophical Association: Chicago, May 1998.

Commentator and Chair, Colloquium on Foundations of Quantum Mechanics II, Philosophy of Science Association Meeting: Kansas City, October 1998.

"How to Justify Occam's Razor." Hammond Society, Johns Hopkins University. June 22, 1999.

'Local and Global Conventionality in the History of the Foundations of Geometry and Physics', presented at the Fifth International Conference on the History and Foundations of General Relativity: Notre Dame, July 1999.

'Varieties of Conventionality', presented at the 11th International Congress of Logic, Methodology and Philosophy of Science: Cracow, Poland, August 1999.

'The Nature of Philosophy', Johns Hopkins University Open House, October, 1999.

Symposium on Free Will and Determinism. University of Rome, April 2000.

'A Closer Look at the Correspondence Principle', 26th Dubrovnik Philosophy of Science Conference. April 10–15, 2000.

'The Supposed Electron, or Whose "Electron" Did J. J. Thomson Discover?'Max Planck Institut für Wissenschaftsgeschicte, Berlin. April, 2000.

'Hypothetical Entities and Other Objects of Supposition: What Realists Should Know about Reference', University of Louvain, Belgium. April, 2000.

'Definition, Convention, and Representation: The Case of Distant Simultaneity', Belgium Society for Logic and Philosophy of Science. April, 2000.

'JJ Thomson and Philipp Lenard: The Politics of Priority', University of Minnesota. May, 2000.

'Hypothetical Entities and Other Objects of Supposition: What Realists Should Know about Reference', University of Konstanz. June, 2000.

'Is the Discovery of the Electron a Socially Constructed Fact?', Institute of Exact Sciences, University of Berne. June, 2000.

'*Eindeutige Zuordnung*: Reichenbach's Early Theory of Truth', HOPOS Conference, Vienna, July 2000.

'The Spatio-Temporal Structure of the Mind: The Graining Hypothesis', Konrad Lorenz Institute for Evolution and Cognition Research, Altenberg, Austria. July, 2000.

'On the Conventionality of Simultaneity in Relativistic Physics', Committee for History and Philosophy of Science, University of Colorado, Boulder. Fall, 2000. Also University of Maryland, College Park. November, 2000.

'Definition, Convention, and Simultaneity: Malament's Result and It's Alleged Refutation by Sarkar and Stachel', Philosophy of Science Association Meeting, November 2000.

'Is Simultaneity Conventional Despite Malament's Result?' Humanities and Social Sciences Federation of Canada Congress, Quebec. May 24-26, 2001.

'How To Axiomatize Realtivity? Weyl vs. Reichenbach', Sixth International Conference on the History of General Relativity, Amsterdam, June 2002.

"Metaphysics and the Experimental Philosophy." Department of Philosophy, University of Maryland, College Park. October 16, 2002.

"Field Unification in the Maxwell-Lorentz Theory with Absolute Space." Philosophy of Science Association 18th Biennial Meeting. November 7-9, 2002.

"The Genesis of Einstein's Light Quantum Hypothesis." Max Planck Institut für Wissenshaftsgeschichte, Berlin. June 12, 2003.

"Weight-of-Opinion and Truth-Tracking in Premise vs. Conclusion Based Voting Procedures." Department of Philosophy, Universität Konstanz. June 19, 2003.

"Conformal Infinity and Light-Geometry in the Foundations of Relativity." Oxford University. June 25, 2003.

"The Locus of Collective Reason in Social Choice." 32nd Annual Meeting of the Society for Exact Philosophy. College Park, Maryland. May 13-16, 2004.

"Against Simultaneity, Becoming, and All That... The View from Neuro-Psychology." International Conference on the Ontology of Space-Time. Concordia University, Montreal. May 11–14, 2004.

"From 'Bericht' to *Axiomatik*: The Development of Reichenbach's Formulation of the Foundations of Relativity." Fifth Congress of HOPOS, the International Society for the History of Philosophy of Science. June 24–27, 2004.

"Einsteins Wunderjahr 1905," Max-Planck-Institut für Wissenschaftsgeschichte, December 12, 2004.

"Just HOW Did the Annus Mirabilis Happen?" University of Pittsburgh, February 12, 2005.

"Einstein's 'Double Discovery' of Light Quanta," The British Academy, March 5, 2005.

"Hidden Bonds in Einstein's 1905 Papers," Plenary Lecture, Einstein and the Changing World views of Physics, 1905/2005 (World Year of Physics), La Orotava, Tenerife, March 10, 2005.

"The Bridge from the Light Quanta Hypothesis to the Electrodynamics of Moving Bodies," Plenary Lecture, Einstein and the Changing World views of Physics, 1905/2005 (World Year of Physics), La Orotava, Tenerife, March 12, 2005.

"Light Quantum," 2005 Einstein-Jahr in Bern, July 7-8, 2005. Sponsored by University of Bern, Swiss Academy of Natural Sciences, and the Swiss Federal Government.

"The Birth of the Light Quantum Heuristic," Tate School of Physics and Astronomy Colloquium, University of Minnesota, November 9, 2005.

"The Road to Relativity: 1895–1905," History of Science and Technology, University of Minnesota, November 11, 2005.

"Simultaneity in Spatially Closed Manifolds Admitting a Flat Lorentzian Metric," Second International Conference on the Ontology of Spacetime, Montreal, June 9-11, 2006.

Conference on Time and Relativity, Institute for Advanced Study, U. of Minnesota, October 25-27. 2007.

"Technology in Support of Philosophy Research," Session on Computers in Philosophy Research, Eastern APA Meeting, December 29, 2007.

"The Really Hard 'Really Hard' Problem of Consciousness," Tilburg University (Netherlands), February 12, 2008.

"Simultaneity, Convention and Gauge Freedom," Oxford University, February 14, 2008.

"Simultaneity, Convention and Gauge Freedom," U. of Utrecht, February 21, 2008.

"How To Be a Natural Philosopher," U. of Geneva, February 29, 2008.

Organizer, New Directions in the Foundations of Physics, American Institute of Physics, April 25, 2008.

"The Abraham-Minkowski Controversy," 3rd International Conference on Space-Time Ontology, Montreal, June 13-15, 2008.

International Advisory Committee, 2nd International Conference on the History of Quantum Physics. Utrecht. July 14-17, 2008.

"The Art and Science of Supposition," 2nd International Conference on Integrated History and Philosophy of Science (&HPS). Notre Dame. March 12–15, 2009.

Program Committee, 2nd International Conference on Integrated History and Philosophy of Science (&HPS). Notre Dame. March 12–15, 2009.

"3rd Millennium Metaphysics," The Community College of Baltimore County, Essex. April 2, 2009.

Organizer, New Directions in the Foundations of Physics, American Institute of Physics, April, 2009.

Invited Lecture. "Conventionality of Simultaneity: The Short Story." Center for Philosophy of Science, University of Pittsburgh, Dec 4, 2009.

Invited Lecture. "Science, Supposition, and Reference: The New Program." Center for Philosophy of Science, University of Pittsburgh, Dec 4, 2009.

2nd Workshop on Infrastructure for Digital Scholarship in History and Philosophy of Science. Woods Hole, Feb 25 - 28. Sponsored by NSF.

Organizer, New Directions in the Foundations of Physics, American Institute of Physics, April, 2010.

Program Committee, Association of Symbolic Logic Annual Meeting, March 17-20, 2010.

Program Committee, &HPS-3: Third Conference on Integrated History and Philosophy of Science, Indiana University, March 2010.

Organizer, New Directions in the Foundations of Physics, American Mathematical Association, Washington, D.C., April, 2011

History and Philosophy of Science Informatics Workshop, Marine Biology Laboratory, Woods Hole, May 23 26, 2011.

Chair, Symposium on Psychology and Neuroscience, Eastern Division APA, December 29, 2011.

Organizer, New Directions in the Foundations of Physics, American Mathematical Association, Washington, D.C. May, 2012

"Hypothetical Entities as Objects of Supposition," 4th International Conference for Integrated History and Philosophy of Science, Athens, Greece, March 15–18, 2012.

Discussant, New Directions in the Foundations of Physics, American Mathematical Association, Washington, D.C. May 11-13, 2013.

"The (?) Correspondence Principle," Conference on One Hundred Years of the Bohr Atom, June 2013.

Discussant, New Directions in the Foundations of Physics, American Mathematical Association, Washington, D.C. April 18-20, 2014.

Program Committee, 5th International Conference on Integrated History and Philosophy of Science, June 26-29, 2014, Vienna.

Panel Member, NSF Data Management Workshop, January 29-31, 2015.

Discussant, New Directions in the Foundations of Physics, American Mathematical Association, Washington, D.C. April 24-26, 2015.

Invited Lecture. "The Role of the Light Postulate in Relativity," Munich Center of Mathematical Philosophy, Ludwig Maximilian University, June 10, 2015.

"What Newton Meant by True and Absolute Motion," HOPOS 2016, Minneapolis, June 23, 2016. (HOPOS = History of the Philosophy of Science)

Program Committee, &HPS6: Sixth International Conference on Integrated History and Philosophy of Science, University of Edinburgh, July 4-6, 2016.

Organizer and discussant, New Directions in the Foundations of Physics, Tarquinia, Italy, May 2017.

Organizer and discussant, New Directions in the Foundations of Physics, Viterbo, Italy, June 2018.

Program committee, &HPS7: Seventh International Conference on Integrated History and Philosophy of Science, Hanover University, June 2018.

Organizer and discussant, New Directions in the Foundations of Physics, Viterbo, Italy, May 24–26, 2019.

"Reichenbach's *Axiomatik* Treatment of General Relativity." Conference: Everything Reichenbach, Munich Center for Mathematical Philosophy, Ludwig-Maximilians-Universität, July 22-23, 2019.

(with Chris Arledge) "On Attempted Non-Metaphysical Resolutions of the Hole Argument. " ILMPS Conference in Philosophy and Foundations of Physics. (ILMPS =Irvine, London, Munich, Poli-Milan, Salzburg.) September 2-4, 2019.

Organizer and discussant, New Directions in the Foundations of Physics. Rescheduled for June 2021 due to COVID pandemic.

Program Committee, &HPS8: Eighth International Conference on Integrated History and Philosophy of Science, Virginia Polytech. Postponed due to COVID.

"Dark Matter and Referential Handles," Workshop on Dark Matter, Department of History and Philosophy of Science, U. of Bonn. March 29–30, 2021.

"How Not to Argue for the Conventionality of Simultaneity, and How Not to Argue against the Conventionality of Simultaneity." Lichtenberg Research Seminar in History and Philosophy of Physics, Bonn University. June 1, 2021.

"Permutations and Charts: Is the Hole Argument a Puzzle about Reference?", Philosophy of Science Association Meeting, November 2021.

"Early Modern Landmarks in Observational Cosmology: The Cases of Tycho & Galileo," James Webb Day, JHU. April 22, 2022.

Organizer and discussant, New Directions in the Foundations of Physics, Camera di Commercio, Viterbo, Italy, May 27–29, 2022.

"Reichenbach's Unusual Uses of Non-standard Simultaneity." 6th International Conference on the Nature and Ontology of Spacetime. Albena, Bulgaria. September 12–15, 2022.

"The Role of Simplicity in Einstein's Construction of the Special Theory of Relativity." Conference on Simplicity and Complexity. Johns Hopkins University. September 17, 2022.

Program Committee, &HPS9: Nineth International Conference on Integrated History and Philosophy of Science, University of South Carolina. March, 2023.

Workshop on Humeanism and the Laws of Nature, JHU. April 22–23, 2023.

Organizer and discussant, New Directions in the Foundations of Physics, Camera di Commercio, Viterbo, Italy, May 25–27, 2023.

Workshop on the direction of time. Johns Hopkins University, April, 2024.

Organizer, New Directions in the Foundations of Physics. Hotel Plesnik, Logar Valley, Slovenia. May, 2024.

Program Committee, &HPS10: Tenth International Conference on Integrated History and Philosophy of Science, Cal Tech. March, 2025

Organizer & discussant, New Directions in the Foundations of Physics. Hotel Plesnik, Logar Valley, Slovenia. May, 2025.

Moderator: panel discussion, Natural Philosophy Forum Symposium, Baltimore, May 30,2025.

Workshop on "Revisiting the History of Quantum Mechanics," Wissenschaftsforum, Berlin Nov. 4–7, 2025.

Courses Taught

Graduate Seminars : Locality for the Layperson; Substantivalism and Relationism; Symmetry and Relativity Principles; Philosophy of Time; Early Interpretations of Quantum Mechanics (with Jeff Bub); Topics in Philosophy of Physics; Conventionalism; History of Special Relativity; Observation and Observability; Early History of Positivism; Reference and Objects of Supposition; Proseminar (Naming and Necessity); Descartes, Newton and Leibniz; The Correspondence Principle; Supposition; Scientific Discovery; Philosophy of Experiment

Upper Level : Symbolic Logic; Mathematical Logic; Axiomatic Set Theory; Topics in History of Logic; Modal Logic and It's Applications (with Scott Smith, Computer Science); Formal Methods of Philosophy Space, Time, and Conventionalism; Absolute vs. Relational Theories of Space and Time; History of Special and General Relativity (cross-listed with Physics and History of Science); Philosophy of Science; History and Philosophy of

Quantum Physics; Time and Consciousness (with Steve Yantis, Psychology); Literary and Scientific Fictions; Einstein's "Annus Mirabilis"; Topics in Logic: Intuitionism; Metaphysics: Topics in Logic: Platonism and Anti-Platonism; Ontology and Knowledge Representation (Computer Science Dept., Whiting School of Engineering)

Lower Level : Introduction to Symbolic Logic; Formal Methods of Philosophy; Zeno's Paradoxes; Paradoxes of Infinity; History of Ancient Science; The Scientific Revolution; History of Modern Science; Einstein, Philosopher-Scientist

Grants and Awards

- Andrew Mellon Postdoctoral Fellowship, University of Pittsburgh, 1981–82.
- Andrew Mellon Postdoctoral Fellowship, Cornell University, 1982–83.
- NEH Travel to Collections Program, Grant No. Ry-20105-84, Electromagnetic Asymmetries and the Origins of Special Relativity, 1984–84.
- NSF Research Grant, No. SES 85–00137, The Empirical Content of Late Nineteenth-Century Electrodynamics, 1985.
- Lilly Teaching Fellowship, 1989–90.
- NSF Research Grant, No. SBR-9310561, Covariant Formulations of Nonrelativistic Electrodynamics with Absolute Space, February 1994 – January 1995.
- NSF Research Grant, no. SBR-9511796, Relativity Principles in Historical and Foundational Perspective, September 15, 1995 – August 31, 1996.
- American Association for the Advancement of Science Travel Grant, February 1997
- Keenan Grant, Johns Hopkins University, 2002.
- Duncan Fund Research Grant, 'Premise-Based vs. Conclusion-Based Collective Decision Making', Department of Mathematical Sciences, Johns Hopkins University, 2004.
- NSF Research Grant, No. SES-0725585, Simultaneity, Convention and Gauge: Foundational and Historical Dimensions, Sept. 1, 2007 – Sept. 1, 2008.
- NSF Research Grant, No. 1027018, Digital Essays in the History of Quantum Physics, Sept. 15, 2010 – Aug. 31, 2017. ($ 204,703)