Michael Cuffaro

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Areas of Specialisation

Philosophy of physics; Philosophy of computing; History and philosophy of science; Kant.

Areas of Competence

Legal & political philosophy; Agent-based modelling in political philosophy; Frege; Hobbes.

Academic Appointments and Affiliations

- 10/2015 – present: External member, Munich Center for Mathematical Philosophy (MCMP), LMU Munich.
- 01/2020 – 12/2022: Alexander von Humboldt Research Fellow, MCMP
- 01/2020 – 03/2020: Senior Visiting Fellow, Descartes Centre, Utrecht University
- 03/2019 – 04/2019: Visiting Researcher, Institute for Quantum Optics and Quantum Information, Vienna
- 05/2017: Visiting Scholar, MCMP
- 10/2016 – 03/2019: Postdoctoral Research Fellow, Rotman Institute of Philosophy, University of Western Ontario
- 09/2013 – 09/2015: Postdoctoral Research Fellow, MCMP

Degrees Earned

Ph.D., Philosophy, Received: June 2013.

- INSTITUTION: University of Western Ontario. London, Ontario, Canada.
- PH.D. SUPERVISOR: Professor Wayne Myrvold.
- PH.D. DISSERTATION: "On the Physical Explanation for Quantum Computational Speedup."

  Short abstract: An investigation into the philosophical implications of the circumstance that quantum computers are, as I argue, able to take advantage of the phenomenon of quantum entanglement with dramatic effect.

M.A., Philosophy, Received: August 2008.

- INSTITUTION: Concordia University. Montréal, Québec, Canada.
- M.A. SUPERVISOR: Professor Gregory Lavers.
- M.A. THESIS: "A Metaphysically Neutral Theory of Singular Scientific Explanation."

Bachelor of Computer Science (with Minor in Philosophy), Received: May 2000.

- INSTITUTION: Concordia University. Montréal, Québec, Canada.

Languages

English (native speaker), French (near fluent), Italian (near fluent), German (intermediate)

Publications

Monographs

Understanding Quantum Raffles: Quantum Mechanics on an Informational Approach - Structure and Interpretation (with Michael Janas and Michel Janssen; foreword by Jeffrey Bub). Part of the series: Boston Studies in the Philosophy of Science, Springer, 2022.

Edited volumes

(with Stephan Hartmann) *Open Systems: Physics, Metaphysics, and Methodology*, Oxford University Press (in preparation).

(with Samuel C. Fletcher) *Physical Perspectives on Computation, Computational Perspectives on Physics*, Cambridge University Press (2018).

Edited conference proceedings

(with Philippos Papayannopoulos) *Proceedings of the 9th International Workshop on Physics and Computation*, Electronic Proceedings in Theoretical Computer Science 273 (2018).

Journal articles

(with Stephan Hartmann) The Open Systems View. Forthcoming in *Philosophy of Physics*.

The Measurement Problem is a Feature, Not a Bug – Schematising the Observer and the Concept of an Open System on an Informational, or (neo-)Bohrian, Approach. *Entropy* 25 (2023), 1410.

(with Stephan Hartmann) The Open Systems View and the Everett Interpretation. *Quantum Reports* 5 (2023): 418–425.

Information Causality, The Tsirelson Bound, and the 'Being-Thus' of Things. *Studies in History and Philosophy of Modern Physics* 72 (2020): 266–277.

(with James A. Overton and Chris Mungall) String of PURLs – Frugal Migration and Maintenance of Persistent Identifiers. *Data Science* 3 (2020): 3–13.

Reconsidering No-Go Theorems from a Practical Perspective. *British Journal for the Philosophy of Science* 69 (2018): 633-655.

On the Significance of the Gottesman-Knill Theorem. *British Journal for the Philosophy of Science* 68 (2017): 91-121.

How-Possibly Explanations in (Quantum) Computer Science. *Philosophy of Science* 82 (2015): 737-748.

(with Wayne C. Myrvold) On the Debate Concerning the Proper Characterisation of Quantum Dynamical Evolution. *Philosophy of Science* 80 (2013): 1125-1136.

Many Worlds, the Cluster-state Quantum Computer, and the Problem of the Preferred Basis. *Studies in History and Philosophy of Modern Physics* 43 (2012): 35-42.

Kant and Frege on Existence and the Ontological Argument. *History of Philosophy Quarterly* 29 (2012): 337-354.

(with Ryan Muldoon and Michael Borgida) The Conditions of Tolerance. *Politics, Philosophy and Economics* 11 (2012): 322-344.

Journal articles (continued)

On Thomas Hobbes's Fallible Natural Law Theory. *History of Philosophy Quarterly* 28 (2011): 175-190.

The Kantian Framework of Complementarity. *Studies in History and Philosophy of Modern Physics* 41 (2010): 309-317.

Nativist Models of the Mind. *Gnosis: A Journal of Philosophic Interest*, no. 9.3 (2008).

Which Rights are Basic Rights? *Gnosis: A Journal of Philosophic Interest*, no. 9.1 (2007).

Encyclopedia entries

(with Amit Hagar) "Quantum Computing," in the *Stanford Encyclopedia of Philosophy* (online).

Book chapters

"Transcendental Idealism and its Influence on Nineteenth Century Science." Forthcoming in *History and Philosophy of Modern Science: 1750–1900* (Bloomsbury), E. Crull and E. Peterson, eds.

"Grete Hermann, Quantum Mechanics, and the Evolution of Kantian Philosophy." In *Women in the History of Analytic Philosophy* (Springer-Verlag), J. Peijnenburg and S. Verhaegh, eds. (2022).

"The Philosophy of Quantum Computing," In *Quantum Computing in the Arts and Humanities: An Introduction to Core Concepts, Theory and Applications* (Springer), Eduardo Miranda, ed. (2022).

"Universality, Invariance, and the Foundations of Computational Complexity in the light of the Quantum Computer." In *Technology and Mathematics: Philosophical and Historical Investigations* (Springer-Verlag), Sven Ove Hansson, ed. (2018).

Essay reviews

Essay review (with Emerson P. Doyle) of Tanya Bub & Jeffrey Bub's *Totally Random*. *Foundations of Physics* 51 (2021): 28:1-28:16.

Short book reviews

Review of "From Data to Quanta: Niels Bohr's Vision of Physics", by Slobodan Perovic. *Philosophy of Science* (Forthcoming).

Review of "Quantum Information Theory and the Foundations of Quantum Mechanics", by Christopher G. Timpson. *Philosophy of Science* 81 (2014): 681-684.

Articles in non-refereed conference proceedings

Kant's Views on Non-Euclidean Geometry. *Proceedings of the Canadian Society for History and Philosophy of Mathematics* 25 (2012): 42-54.

Wittgenstein on Prior Probabilities. *Proceedings of the Canadian Society for History and Philosophy of Mathematics* 23 (2010): 85-98.

Works in Progress

"Quantum Theory is About Open Systems" (with Stephan Hartmann). To appear in *Cuffaro & Hartmann (eds.) Open Systems: Physics, Metaphysics, and Methodology* (Oxford University Press).

"Kantianism with a Human Face: Grete Hermann's Critical Philosophy" (with Guido Bacciagaluppi and Elise Crull).

Grants, Scholarships, and Awards

Alexander von Humboldt Research Fellowship for Experienced Researchers (including German language scholarship), awarded in January 2020; host: Munich Center for Mathematical Philosophy.

Senior Visiting Fellowship, awarded in June 2019, Descartes Centre, University of Utrecht.

(with Wayne Myrvold, Markus Müller, and Lucas Dunlap) Social Sciences and Humanities Research Council (SSHRC) Connection Grant for the workshop: "Information-Theoretic Interpretations of Quantum Mechanics," Spring 2016 competition.

Ontario Graduate Scholarship Award (OGS). Awarded in three consecutive years (2011, 2012, 2013).

Joseph L. Rotman Institute of Science and Values Research Seed Grant, for the project "Rational Motivations for Tolerant Political Views," headed by Dr. Ryan Muldoon (09/2009 – 05/2010).

Presentations and Commentaries (since 2010)[1]

Invited talks

"Grete Hermann in Context: Quantum Mechanics, and the Evolution of Kantian Philosohy," Conference on Gödel and Kant on Mathematics and Physics, Tübingen, Germany, October, 2023.

"The Measurement Problem is a Feature, Not a Bug—Quantum Mechanics on an Informational, or (neo-)Bohrian, Approach," The Quantum Reconstruction Program and Beyond, Graz, Austria, August, 2023.

"Limitations to the Unification of Computation and Physics" (online panel discussion), Quarterly Lectures on Philosophy of Science, June 2023.

"Interpreting Quantum Mechanics on an Informational Approach," Deutsche Physikalische Gesellschaft (German Physical Society) meeting, Working Group on Philosophy of Physics, Dresden, Germany, March 2022.

"Grete Hermann's Neo-Kantianism in Context," Workshop on Hermann and Friends, Utrecht University, July 2022.

"An Informational Approach to Quantum Mechanics," Workshop on Physics and Computation, Université Paris 1 Panthéon-Sorbonne, May 2022.

Guest lectures (×2) on quantum computing, honours seminar: "The Quantum Century" (regular lecturer: Michel Janssen), University of Minnesota, November and December 2021.

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[1]A full list is available online at http://www.michaelcuffaro.com/talks.shtml.

Invited talks (continued)

The Informational Interpretation of Quantum Mechanics. Workshop on Philosophy and Foundations of Physics, Munich Center for Mathematical Philosophy, November 2021. *Postponed due to COVID-19*.

"The open systems view,"

- Bristol Centre for Science and Philosophy Colloquium, December, 2021 (online).
- Institute for Quantum Optics and Quantum Information Vienna, Colloqium, November, 2021. *Postponed due to COVID-19.*
- New Foundations Colloquium, Center for Advanced Studies, Munich, October 2021.
- Workshop on Experiment and Theory, University of Montreal, June, 2021 (online).

"Interpreting quantum mechanics" (online), American Physical Society March meeting, March 2021.

"Philosophy of Science" (online), Liceo parini Seregno high school, Lissone, Italy, March 2021.

Guest lecture on quantum computing, honours seminar: "The Age of Entanglement" (regular lecturer: Michel Janssen), University of Minnesota, December 2020.

Lectures on the Philosophy of Quantum Computing (online), 23rd International School in Philosophy of Physics, University of Urbino, Italy, June 2020.

"Quantum Computing and Representation," Workshop on Representation in Computation, Hebrew University of Jerusalem, May 2020. *Postponed due to COVID-19*.

"Quantum Causality, Empirical Test, and the Concept of an Open System," Conference on Causation, Hebrew University of Jerusalem, May 2020. *Postponed due to COVID-19*.

"(Quantum) Causality, Interventions, and Open Systems," at University of Montreal Workshop on Philosophy of Science, April 2020. *Cancelled due to COVID-19*.

"Grete Hermann, Quantum Mechanics, and the Evolution of Kantian Philosophy," Faculty of Philosophy Colloquium, University of Groningen, February 19, 2020.

"How Quantum Mechanics changed Kantian Philosophy: The Thought of Grete Hermann," Descartes Centre Colloquium, Utrecht University, February 18, 2020.

"Quantum Computing's Impact on the Foundations of Computational Complexity Theory," Philosophy of Science Seminar, Utrecht University, February 14, 2020.

"Kant and Frege on Existence and the Ontological Argument," Utrecht University Theoretical Philosophy Colloquium, February 11, 2020.

"Interpreting Quantum Mechanics," Workshop on Quantum Mechanics, Max Planck Institute for the History of Science, Berlin, January 9-10, 2020.

"Putting Probabilities First: How Hilbert Space Generates and Constrains Them,"

- Workshop on Interpreting Quantum Mechanics: Old and New Philosophical Problems, Politecnico di Milano, Milan, Italy, March 2019.
- Workshop on New Directions in the Foundations of Physics, Viterbo, Italy, May 2019 (with Michel Janssen and Michael Janas).

"From Mental States to the Objective World: Methodological and Ontological Approaches," Workshop on Biological Mentality, Ann Arbour, Michigan, September 2018.

Invited talks (continued)

"Classical Simulations of Quantum Correlations," Workshop on Analogue Experimentation, University of Bristol, July 2018.

"Information Causality, the Tsirelson Bound, and the 'Being-Thus' of Things,"

- Institute for Quantum Optics and Quantum Information Vienna, April 17, 2019.
- New Directions in the Foundations of Physics Workshop, Viterbo, Italy, June 2018.
- University of Minnesota, Physics Interest Group, November 2017.
- University of Geneva, Philosophy Department, September 2017.

"Objective Reality as an Emergent Phenomenon" (with Markus Müller), University of Montreal Workshop on Scientific Theory Construction, May 2018.

"The Foundations of Computational Complexity in the Light of Quantum Computing," Western University Applied Mathematics Colloquium, London, Ontario, October 2017.

"Participatory Realism: How Far Goes Too Far?" (panel discussion) at the Workshop on Participatory Realism, Stellenbosch, South Africa, June 2017.

"A New Constructional System" (with Markus Müller),

- Munich Center for Mathematical Philosophy, May 2017.
- University of Bristol, Philosophy Department, May 2017.

"Causality and Complementarity in Kant, Hermann, and Bohr," University of Hannover, Philosophy Department, May 2017.

"Quantum Computation and the Foundations of Computational Complexity Theory," Perimeter Institute for Theoretical Physics, Waterloo, Ontario, March 2017.

"Quantum Reflections on Computational Complexity," for the Inter-University Workshop on History and Philosophy of Mathematics, Montreal, Quebec, February 2017.

"Quantum Computing" (panel discussion), Undergraduate Research Conference, Physics and Astronomy Department, Western Ontario, March 2016.

"A Different Perspective on the Quantum-Classical Divide," Universitá Degli Studi Firenze, Florence, Italy, May 2015.

Internal keynote lecture on "The Copenhagen Interpretation(s) of Quantum Mechanics," at the MCMP Graduate Conference in the Philosophy of Physics, Munich, Germany, April 2015.

"The Kantian Framework of Niels Bohr's Philosophy of Science: The Electron as Noumenon," Concordia University, Montréal, Québec, September, 2014.

"Reconsidering Quantum No-Go Theorems from a Computational Perspective,"

- University of Oxford, Oxford, UK, June 2014.
- University of Bristol, Bristol, UK, June 2014.

"The Physical and Computational Significance of the Bell Inequalities," Workshop: Entanglement and Speed-up: Philosophical Issues in Quantum Computing, Stuttgart, Germany, May 2014.

"Explaining Quantum Speedup," University of Minnesota, Minneapolis, January 2013.

Talks in workshops I've (co-)organised

"Ernst Cassirer and Grete Hermann: Metaphysics and Methodology", Workshop on Conceptual and Methodological Aspects of Physics: Historical Perspectives, Utrecht University, March 6, 2020.

"Information Causality, the Tsirelson Bound, and the 'Being-Thus' of Things," Workshop in Memory of William Demopoulos, University of Western Ontario, September 2017.

"On Algorithmic How-Possibly Explanation," Workshop on Recent Work on Explanation and Confirmation, Munich Center for Mathematical Philosophy, May 2017.

Conference presentations

"Mutually Independent Existence and the Open Systems View," European Philosophy of Science Association Meeting, Belgrade, Serbia, September, 2023.

"The Open Systems View on an Informational, or (neo-)Bohrian, Approach," Foundations of Physics Conference, Bristol, UK, June 2023.

"The Principle of Complete Positivity and the Open Systems View," Workshop on Principles in Physics, University of Wuppertal, Germany, March 2022.

"Everett, the Informational Interpretation, and the Open Systems View," Workshop on the Many Worlds Interpretation of Quantum Mechanics, Tel Aviv University, October 2022.

"The Open Systems View," Canadian Society for History and Philosophy of Science (CSHPS) Annual Meeting (online), University of Alberta, May 2021.

"Quantum Mechanics and Kantian Philosophical Method: An Exploration of the Views of Grete Hermann," Workshop on *How Quantum Mechanics Changed Philosophy*, Bergische Universität Wuppertal, January 2020.

"Comparing Ernst Cassirer's and Grete Hermann's Views on Quantum Mechanics," *Kant and the Contemporary World*, Catania, Italy, October 2018.

"An Open View of Quantum Systems" (with Stephan Hartmann),

- Philosophy of Science Association (PSA) meeting, Seattle, WA, November 2018.
- British Society for Philosophy of Science (BSPS) meeting, Oxford, UK, July 2018.

"Employing Agent-Based Computer Simulations in Developing Theories of Distributive Justice" (with Molly Kao),

- Canadian Philosophical Association Annual Meeting, Montreal, Quebec, June 2018.
- Conference on Models and Simulations 8, University of South Carolina, March 2018.

"Information Causality, the Tsirelson Bound, and the 'Being-Thus' of Things,"

- 9th European Congress of Analytic Philosophy, Munich, Germany, August 2017.
- Triennial International Conference of the Italian Society for Logic and Philosophy of Science, Bologna, Italy, June 2017.

"Quantum Reflections on Computational Complexity,"

- Foundations of Physics Conference, London, UK, July 2016.
- Canadian Society for History and Philosophy of Mathematics (CSHPM) Annual Meeting, Calgary, Alberta, May 2016.

Conference presentations (continued)

"(Neo-)Kantian Frameworks for the Foundations of Quantum Mechanics,"

- History of Philosophy of Science Society (HOPOS) 2016 Meeting, Minneapolis, Minnesota, June 2016.
- Canadian Society for History and Philosophy of Science (CSHPS) Annual Meeting, Calgary, Alberta, May 2016.

"On the Limits of Classical Computational Systems," Nordic Network for Philosophy of Science Meeting, Helsinki, Finland, April 2015.

"How-Possibly Explanations in Quantum Computer Science,"

- Philosophy of Science Association (PSA) Meeting, Chicago, Illinois, November 2014.
- International Conference of the Italian Society for Logic and Philosophy of Sciences, Rome, Italy, June 2014.

"On the Significance of the Gottesman-Knill Theorem,"

- Deutsche Physikalische Gesellschaft (German Physical Society) meeting, Working Group on Philosophy of Physics, Berlin, Germany, March 2014.
- Foundations of Physics Conference, Munich, Germany, July 2013.

"Is Entanglement Sufficient to Enable Quantum Speedup?", Irvine-Pittsburgh-Princeton (IPP) Conference on the Mathematical and Conceptual Foundations of Physics, Pittsburgh, Pennsylvania, April 2013.

"On the Physical Explanation for Quantum Computational Speedup," University of Western Ontario (public talk), London, Ontario, March 2013.

"On the Debate Concerning the Proper Characterisation of Quantum Dynamical Evolution," Philosophy of Science Association (PSA) Meeting, San Diego, California, November 2012.

"Reflections on the Role of Entanglement in the Explanation of Quantum Computational Speedup," Canadian Society for History and Philosophy of Science (CSHPS) Meeting, Waterloo, Ontario, May 2012.

"Kant's Views on non-Euclidean Geometry," Canadian Society for History and Philosophy of Mathematics (CSHPM) Meeting, Waterloo, Ontario, May 2012.

"Many Worlds, the Cluster-state Quantum Computer, and the Problem of the Preferred Basis,"

- 14th Congress of Logic, Methodology and Philosophy of Science (CLMPS), Nancy, France, July 2011.
- Canadian Society for History and Philosophy of Science (CSHPS) Meeting, Fredericton, New Brunswick, May 2011.

"Kant's Arguments for Transcendental Idealism," Canadian Philosophical Association (CPA) Meeting, Fredericton, New Brunswick, May 2011.

"How Should We Set the Social Minimum?," Canadian Philosophical Association (CPA) Meeting, Montréal, Québec, May 2010.

"On Kant and Non-Euclidean Geometry," Canadian Society for History and Philosophy of Science (CSHPS) Meeting, Montréal, Québec, May 2010.

Conference presentations (continued)

"Wittgenstein on Prior Probabilities," Canadian Society for History and Philosophy of Mathematics (CSHPM) Meeting, Montréal, Québec, May 2010.

"Kant and Frege on the Ontological Argument for the Existence of God," Canadian Society for History and Philosophy of Mathematics (CSHPM), Montréal, Québec, May 2010.

"Employing Computer Simulations in Developing Theories of Liberal Toleration," Models and Simulations 4, Toronto, Ontario, May 2010, co-authored presentation with Michael Borgida.

Commentaries

Corrado Matta, "Qualitative Research and Confirmation," Nordic Network for Philosophy of Science Meeting, Helsinki, Finland, April 2015.

Sandra Lapointe, "Bolzano, Leibniz and Kant," Plenary Session (Lapointe was the winner of the *Tenured Professor Essay Prize*) of the Canadian Philosophical Association (CPA) Meeting, Waterloo, Ontario, May 2012.

David DeVidi, "Mathematical Pluralism, Abstraction and Translation," Canadian Philosophical Association (CPA) Meeting, Montréal, Québec, May 2010.

Teaching Experience

Instructorships and Teaching Assistantships

Instructor (April 2015 - September 2015):
Advanced seminar: Philosophy of Computing and Computer Science.
LMU Munich, Philosophy Department.

Instructor (October 2014 - March 2015):
Advanced seminar: Introduction to the Philosophy of Physics.
LMU Munich, Philosophy Department.

Instructor (April 2014 - September 2014):
Advanced seminar: Classical Concepts in Philosophy of Physics from Kant to the Present.
LMU Munich, Philosophy Department.

Instructor (October 2013 - March 2014):
Advanced seminar: Philosophy of Quantum Computation.
LMU Munich, Philosophy Department.

Instructor (January 2013 - May 2013):
Course: Big Ideas (i.e. Introduction to Philosophy).
The University of Western Ontario, Philosophy Department.

Instructor (January 2011 - May 2011):
Course: Basic Logic.
The University of Western Ontario, Philosophy Department.

Teaching Assistant (September 2009 - May 2010):
Course: Critical Thinking. Instructor: Professor Chris Viger.
The University of Western Ontario, Philosophy Department.

Teaching Assistant (September 2008 - May 2009):
Course: Introduction to Logic. Instructor: Dr. Zachary Silver.
The University of Western Ontario, Philosophy Department.

Teaching Assistant (January 2008 - May 2008):
Course: Introduction to Epistemology. Instructor: Pierre Daigneault.
Concordia University, Philosophy Department.

Teaching Assistant (September 2007 - December 2007):
Course: Critical Thinking. Instructor: Pierre Daigneault.
Concordia University, Philosophy Department.

Master's student thesis supervision and examination

MA Thesis 2nd Reader. Anna Sargsyan. LMU Munich, March 2016 - August 2016.
Topic: *Do Computer Simulations Provide Scientific Explanation and Understanding?*

Assistant Supervisor. Omid Charrakh (Winner of the 2017 Hanneke Janssen Memorial Prize for best Master's thesis in History and/or Philosophy of Modern Physics). LMU Munich, March 2015 - April 2016.
Topic: *The Philosophical Implications of the Pusey-Barrett-Rudolph (PBR) Theorem.*

MA Thesis 2nd Reader. Cameron Beebe. LMU Munich, February 2014 - January 2015.
Topic: *Fluid Mechanical Models in Physical and Computational Contexts.*

Non-Academic Teaching Experience

From 2000 to 2005, while employed as a software developer at Ericsson Communications, I was occasionally called upon to travel to customer sites (in Mexico, Canada, and the United States) in order to teach courses on how to use the network management software developed by my development team. My classes typically consisted of between 5 and 10 students (network and radio-frequency engineers), and they typically lasted for three complete days (i.e., for roughly seven hours per day).

Professional Activities and Service

Referee service

Journals: British Journal for the History of Philosophy; British Journal for the Philosophy of Science; Croatian Journal of Philosophy; Dialectica; Entropy, Erkenntnis; European Journal for Philosophy of Science; Foundations of Physics; GNOSIS; History of Philosophy Quarterly; Hobbes Studies; International Journal for Philosophy of Science; International Journal of Theoretical Physics; Journal for General Philosophy of Science; Journal of the History of Philosophy; Mind and Matter; Minds & Machines; Philosophical Quarterly; Philosophy of Physics; Philosophy of Science; Philosophy, Theory, and Practice in Biology; Quantum; Religious Studies; Review of Symbolic Logic; Studies in History and Philosophy of Modern Physics; Studies in History and Philosophy of Science; Synthese.

Book publishers: Bloomsbury Press, Cambridge University Press, Princeton University Press, Springer.

Funding agencies: Israel Science Foundation.

Conferences: European Conference on Foundations of Physics; University of Western Ontario Logic, Math, and Physics.

Conference, workshop, and symposium organisation

Co-organiser of the symposium, "Open and Closed Systems in Quantum Physics and Cosmology," European Philosophy of Science Association Meeting, Belgrade, Serbia, September, 2023.

Co-organiser of the symposium, "Open and Closed Systems in Quantum Physics and Cosmology," Foundations of Physics Conference, Bristol, UK, June 2023.

Co-organiser of the workshop: "Conceptual and Methodological Aspects of Physics: Historical Perspectives", Descartes Centre, Utrecht University, March 6, 2020.

Conference, workshop, and symposium organisation (continued)

Co-organiser of the special session on "History and Foundations of Computing In physics", of the Division of Computational Physics, at the American Physical Society annual meeting, Denver, CO., March 3, 2020.

Co-organiser of the "MCMP-Western Ontario Workshop on Computation in Scientific Theory and Practice," at the Munich Center for Mathematical Philosophy, May 31-June 2, 2019.

Co-organiser of the symposium "The Philosophy of Open Quantum Systems,"

- Philosophy of Science Association (PSA) meeting, Seattle, WA, Nov. 2018.
- British Society for Philosophy of Science (BSPS) meeting, Oxford, UK, July 2018.

Co-organiser of the "9th International Workshop on Physics and Computation" , Fontainebleau, France, June 25-29, 2018.

Co-organiser of the workshop: "Algorithmic Information, Induction and Observers in Physics," Perimeter Institute for Theoretical Physics, Waterloo, Ontario, April 9-13, 2018.

Co-organiser of the "Workshop in Memory of William Demopoulos," held at the University of Western Ontario in September, 2017.

Co-organiser of the workshop: "Recent work on Explanation and Confirmation," held at the Munich Center for Mathematical Philosophy in May, 2017.

Co-organiser of the workshop: "Information-Theoretic Interpretations of Quantum Mechanics," (a.k.a. 'Bananarama'), University of Western Ontario in June 2016.

Co-organiser of the conference: Quantum Computation, Quantum Information, and the Exact Sciences, a two-day conference, organised in conjunction with the Max Planck Institute of Quantum Optics, held in January 2015 at LMU Munich.

Co-organiser (three years: 2011, 2012, 2013) of the annual Philosophy of Logic, Mathematics, and Physics (LMP) Graduate Conference at the University of Western Ontario.

Co-organiser (2010-2011 academic year) of the University of Western Ontario Philosophy Graduate Students Association Weekly Colloquium.

Co-organiser (2008) of the Concordia University Annual Philosophy Graduate Conference.

Reading group organisation

Organiser of a reading group on the philosophy of Ernst Cassirer, 2017-18 academic year, University of Western Ontario.

Organiser of the Rotman Institute of Philosophy's philosophy of physics reading group, September 2017 – April 2019.

Co-organiser of a reading group on algorithmic information theory, 2016-17 academic year, University of Western Ontario.

Co-organiser of a reading group on the philosophy of quantum information theory, LMU Munich, April - July, 2014.

Administrative service

Postdoc hiring committee member, MCMP, April 2014.

Academic associations

British Society for the Philosophy of Science, Canadian Philosophical Association, Canadian Society for the History and Philosophy of Mathematics, Canadian Society for the History and Philosophy of Science, European Society for Analytic Philosophy, German Physical Society, North American Kant Society, Philosophy of Physics society, Philosophy of Science Association, Women in the History of Quantum Physics Society.

Professional and non-profit associations

Free Software Foundation (FSF), Software in the Public Interest (SPI).