

## ***Curriculum Vitae*** **Joseph Berkovitz**

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### **Academic Positions**

- Associate Professor, IHPST, University of Toronto, 2007 – present
- Affiliate, Department of Philosophy, University of Toronto, 2007 – present
- Fellow, Victoria College, University of Toronto, 2009-present
- Visiting Fellow, Centre for Time, Department of Philosophy, University of Sydney, 2006/7 and 2008/9
- Associate Professor, Philosophy, University of Maryland, Baltimore County, 2005 – 2007
- Assistant Professor, Philosophy, University of Maryland, Baltimore County, 2000 – 2005
- Visiting Fellow, Philosophy, Probability and Modelling Group, University of Konstanz, 2003 (April – August)
- Visiting Research Fellowship, Centre for Philosophy of Natural Sciences, London School of Economics, 2003 (January – August)
- Adjunct Professor, Philosophy, University of Maryland College Park, 2001 – 2007
- Associate Fellow, Center for Philosophy of Science, University of Pittsburgh, 2001 – 2014
- Associate Fellow, Centre for the Philosophy of Natural and Social Sciences, London School of Economics, 2000 – present
- Assistant Professor, Philosophy, London School of Economics, 1998 – 2000
- Visiting Fellow, Center for Philosophy of Science, University of Pittsburgh, 1997/8
- British Council Postdoctoral Fellow, University of Cambridge, 1997 (May – Sept)
- Israel Committee of Higher Education Postdoctoral Fellow, University of Haifa, Israel, (1995 – 1997)

### **Education**

Ph.D. (Oct 1996) Philosophy, Cambridge University

Thesis: *Quantum Non-locality*

Supervisors: Jeremy Butterfield (Trinity College, Cambridge University), Michael Redhead (Centre for Philosophy of Natural and Social Sciences, London School of Economics)

M.A. (May 1992) History, Philosophy & Sociology of Science (distinction), Hebrew University of Jerusalem

Thesis: *De Finetti's Subjectivist Probability Theory and Quantum Phenomena*

Supervisor: Itamar Pitowsky (Hebrew University of Jerusalem)

B.Sc. (May 1987) Economics (distinction), Technion - Israel Institute of Technology

### **Areas of Specialization**

Philosophy of Science, Philosophy of Physics, Philosophy of Probability, Philosophy of Economics, Metaphysics

### **Areas of Competence**

Decision Theory, Epistemology, Logic, Political Philosophy, Wittgenstein

## Research

My main research interests are in the philosophy of science, the philosophy of physics, philosophy of probability, philosophy of economics, epistemology and metaphysics. In the philosophy of physics, I have analyzed the curious nature of causality, probabilities and properties in the quantum realm and randomness and chaos in the classical realm. In the philosophy of probability, I have studied de Finetti's subjective theory of probability and its application to the quantum realm and propensity theories of probability. In the philosophy of economics, my research interests are mainly in rational decision theory, the conceptual foundations of economics and the relations between economics and political philosophy. In addition, I have also worked on the conceptual foundations of causal inference and the nature of mathematical explanations of physical facts.

## Publications

### Volumes

Berkovitz, J. and Huneman, P. (2015), a special issue on probability in biology and physics, *Erkenntnis* 80 (suppl. 3).

### Articles and Book Chapters

- 2017: "On time, causation and explanation in the causally symmetric Bohmian model of quantum mechanics", in C. Bouton and P. Huneman (eds.), *Nature of Time and the Time of Nature: Philosophical Perspectives of Time in Natural Sciences*, Boston Studies in the Philosophy and History of Science, pp. 139-172.
- 2017: "Some Reflections on 'Going Beyond the Consensus' about the Nature of Science in K-12 Science Education", *Canadian Journal of Science, Mathematics and Technology Education* 17(1), pp. 37-45.
- 2015: "On probability in biology and physics" (co-authored with Philippe Huneman), *Erkenntnis* 80 (suppl. 3), 433-456.
- 2015: "The Propensity Interpretation of Probability: A Reconsideration", *Erkenntnis* 80 (suppl. 3), 629-711.
- 2012: "On Supernatural Miracles and Laws of Nature", *Toronto Journal of Theology* 28/1, 145-152.
- 2012: "The World According to de Finetti: On de Finetti's probability theory and its application to quantum mechanics", in Y. Ben Menachem and M. Hemmo (eds.), *Probability in Physics*, Springer, The Frontiers Collection, pp. 249-280.
- 2011: "Ergodic Hierarchy of Randomness", the *Stanford Encyclopaedia of Philosophy*, substantial revision in 2016 (co-authored with Roman Frigg and Fred Kronz). <http://plato.stanford.edu/entries/ergodic-hierarchy/>
- 2011: "On Explanation in Retro-causal Interpretations of Quantum Mechanics", in M. Suárez (ed.), *Probabilities, Causes, and Propensities in Physics*, Synthese Library, Springer, pp. 115-155.
- 2008: "On Predictions in Retro-causal Interpretations of Quantum Mechanics", *Studies in History and Philosophy of Modern Physics* 39 (a special issue on Time-Symmetry in Quantum Mechanics), 709-735.
- 2007: "Action at a distance in quantum mechanics", *The Stanford on-line Encyclopaedia of Philosophy*. <http://plato.stanford.edu/entries/qm-action-distance/>
- 2006: "The ergodic hierarchy, decay of correlations, and Hamiltonian chaos", *Studies in History and Philosophy of Modern Physics* 37, 661-991 (co-authored with Roman Frigg and Fred Kronz).
- 2006: "A Modal Interpretation of Quantum Mechanics in Terms of Relational Properties", in W. Demopoulos

- and I. Pitowsky (eds.), *Physical Theory and Its Interpretation: Essays in Honor of Jeffrey Bub*, Western Ontario Series in Philosophy of Science, New York: Springer, pp. 1-28 (co-authored with Meir Hemmo).
- 2005: “Can Modal Interpretations of Quantum Mechanics Be Reconciled with Relativity?”, *Philosophy of Science* **72**, pp. 789-801 (co-authored with Meir Hemmo).
- 2005: “Modal Interpretations of Quantum Mechanics and Relativity: A Reconsideration”, *Foundations of Physics* **35/3**, pp. 373-395 (co-authored with Meir Hemmo).
- 2002: “On Causal Loops in the Quantum Realm”, in T. Placek and J. Butterfield (eds.), *Non-locality and Modality*, Proceedings of the NATO Advanced Research Workshop on Modality, Probability and Bell’s Theorems, Kluwer, pp. 235-257.
- 2002: “On Causal Inference in Determinism and Indeterminism”, in H. Atmanspacher and R. Bishop (eds.), *Between Chance and Choice: Interdisciplinary Perspectives on Determinism*, Imprint Academic, pp. 237-278.
- 2001: “On Chance in Causal Loops”, *Mind* **110**, pp. 1-23.
- 2000: “The Many Principles of the Common Cause”, *Reports on Philosophy* **20** (an issue on probabilities as tools for philosophical analysis), pp. 51-83.
- 2000: “The Nature of Causality in Quantum Phenomena”, *Theoria* **15/1** (an issue on causality in physics), pp. 87-122.
- 1999: “Chances and Frequencies in Causal Loops”, *Discussion Paper Series, Centre for Natural and Social Sciences, LSE* (DP40), pp. 1-12. (Proceedings of the Popper Seminar on Causation, Centre for Philosophy of Natural and Social Sciences, London School of Economics, Nov. 1998.)
- 1998: “Aspects of Quantum Non-Locality. Part II: Superluminal Causation and Relativity”, *Studies in History and Philosophy of Modern Physics* **29**, pp. 509-545.
- 1998: “Aspects of Quantum Non-Locality. Part I: Superluminal Signalling, Action-at-a-Distance, Non-Separability and Holism”, *Studies in History and Philosophy of Modern Physics* **29**, pp. 183-222.
- 1995: “What Econometrics Cannot Teach Quantum Mechanics”, *Studies in History and Philosophy of Modern Physics* **26**, pp. 163-200.
- 1993: “Newcomb’s Problem Versus Everyday Problems”, *Iyyun, The Jerusalem Philosophical Quarterly* **42**, pp. 323-331 (the paper was published in Hebrew).

### **Book Reviews**

- 2008: “Quantum Mysteries for Everyone”, Review of Ghirardi’s *Sneaking a look at God’s cards* (Princeton University Press), *Metascience* **17**, 85-89.
- 2001: Review of Peter Smith’s *Explaining Chaos* (CUP, 1998), *British Journal for the Philosophy of Science* **52**, pp. 201-205 (co-authored with Roman Frigg).

### **Articles in Preparation**

- On the Mathematical Explanation of Physical Facts <https://www.youtube.com/watch?v=qR8mo6E6lug>
- On de Finetti’s Instrumentalist Philosophy of Probability  
<https://cast.itunes.uni-muenchen.de/vod/clips/uXGOLuImeX/quicktime.mp4>

- On the nature of trait fitness: a view from a new perspective on probabilistic causality

### **Invited Talks**

- “On time, causation and explanation in the causally symmetric Bohmian model of quantum mechanics”

- June 5, 2017: 2<sup>nd</sup> Ontologia de la Fisica workshop, Catholic University of Argentina, Buenos Aires

- “On the nature of trait fitness: a view from a new perspective on probabilistic causality”

- July 6, 2017: IHPST, Paris

- June 7 2017: Modeling and Visualizations workshop, Sociedad Argentina de Análisis Filosófico, Buenos Aires

- April 27, 2016: Dubrovnik 44<sup>th</sup> Philosophy of Science Conference

- On de Finetti’s Instrumental Philosophy of Probability

- May 28, 2017: CSHPS, Toronto

- April 19, 2017: Philosophy, University of Rome Tre

- April 12, 2017: HPS, University of Sassari

- Dec 7, 2016: CPNSS, LSE, London

- January 6, 2016: IHPST, Paris

- On the Mathematical Constitution and Mathematical Explanation of Physical facts

- April 12 2016: *43rd Dubrovnik Philosophy of Science* conference, Dubrovnik, Croatia

- What is long-run propensity?

- July 17, 2015: Philosophy, University of Lisbon

- April 22, 2015: Probabilities, Propensities, and Conditionals Seminar, Institute of Philosophy, School of Advanced Study, University of London

- A New Interpretation of De Finetti’s Theory of Subjective Probability

- April 14, 2015: *42nd Dubrovnik Philosophy of Science* conference, Dubrovnik, Croatia

- November 20, 2014: Munich Center for Mathematical Philosophy, LMU, Munich, Germany

<https://cast.itunes.uni-muenchen.de/vod/clips/uXGOLuIMeX/quicktime.mp4>

- February 12, 2015: Serious Metaphysics Group, Philosophy Dept., University of Cambridge

- Hume on Induction

- June 25, 2014: Cogito Research Center for Philosophy, Institute of Advance Study, University of Bologna

- The Propensity Interpretation of Probability: A Re-evaluation
  - May 26, 2014, CSHPS annual conference, Brock University, St. Catherine, Canada
  - April 17 2014, 41<sup>st</sup> Dubrovnik Philosophy of Science conference, Dubrovnik, Croatia
  
- Can there be mathematical explanation of physical facts?
  - April 15-19, 2013, 40<sup>th</sup> Dubrovnik Philosophy of Science conference, Dubrovnik, Croatia
  
- “On time, probability and causality in Retro-causal interpretations of QM”
  - Sept. 28, 2012: *The Time of Nature and the Nature of Time*, University of Bordeaux I and University of Bordeaux III
  
- “On the Mathematical Constitution of Physical Facts”
  - July 15 2015, Faculty of Sciences, University of Lisbon
  - Feb 13 2014, Munich Center for Mathematical Philosophy, Munich  
video: <https://www.youtube.com/watch?v=qR8mo6E6lug>
  - Dec 22 2013, ISHPS, Science Museum, Jerusalem, Israel
  - December 11 2013, Philosophy, Leibniz University, Hannover, Germany
  - November 11 2013, CPNSS, LSE, London
  - June 2, 2013, CSHPS, Victoria, Canada
  - December 20, 2012: Philosophy, University of Florence
  - December 12, 2012: Philosophy, University of Rome III
  - November 7, 2012: Workshop, IHPST, University of Toronto
  - June 21, 2012: IHPST, Paris
  - April 17, 2012: 39<sup>th</sup> Dubrovnik Philosophy of Science conference, Dubrovnik, Croatia
  - March 10, 2012: *Mathematical and Geometrical Explanations in Physics*, Autonomous University of Barcelona, Barcelona
  
- “On Subjective Probability and Instrumentalism”
  - Dec 24, 2013: Israel Foundations of Physics Discussion Group, Edelstein Center, Jerusalem, Israel
  - Nov 23, 2011: Workshop, IHPST, University of Toronto
  
- “Hume on Induction”
  - February 22, 2012: Colloquium, Philosophy Department, University of Barcelona
  - October 5, 2011: Philosophy of Science Seminar, Philosophy Department, University of Toronto
  - April 11-15, 2011: 38<sup>th</sup> Dubrovnik Philosophy of Science conference, Dubrovnik, Croatia
  
- “On the Eclectic Nature of Causal Explanation and Inference”
  - March 4-5, 2011: *Causality, Inference and Science* Workshop, Philosophy, Complutense Universitat de Madrid

- “The World According to de Finetti: Subjectivity, instrumentalism and verificationism”
  - March 2, 2011, GRECC colloquium, Philosophy, Universitat Autònoma de Barcelona
  - May 29, 2010, Canadian Society for the History and Philosophy of Science, Montreal.
- “The Ergodic Hierarchy, Randomness and Chaos” (co-authored with R. Frigg and F. Kronz)
  - March 10, 2010: Mini-workshop on Chaos, IHPST, University of Toronto
  - April 6, 2010: *Modes, levels, and orders of description in the physical sciences* Seminar, Rehseis, Paris
- “On Explaining the Quantum Correlations”
  - April 12-16, 2010: “On Explaining the Quantum Correlations”, 37<sup>th</sup> Dubrovnik Philosophy of Science Conference, Dubrovnik, Croatia
  - February 18-20, 2010: *Causality and Explanation in Physics, Biology and Economics* Workshop, Universidad de Barcelona
- “On Arthur Fine’s interpretation of Bell’s theorem”
  - May 27, 2009: Philosophy of Physics seminar, University of Sydney
- “On Economics and Ideology”
  - October 1, 2009: Philosophy of Science Seminar, University of Toronto
  - June 5, 2009: History and Philosophy of Science Program, University of Sydney
  - March 13, 2009: IHPST, Paris
- “The World According to De Finetti”
  - October 9, 2009: “The World According to De Finetti”, South West Ontario (SWO) Foundations of Physics, Perimeter Institute, Waterloo, Canada
  - March 10, 2009: Philosophy, Complutense Universitat de Madrid
  - December 16, 2008: *The Probable and the Improbable: The Meaning and Role of Probability in the Foundations of Contemporary Physics*, 22<sup>nd</sup> Annual Workshop on the History and Philosophy of Science, Van Leer Institute, Jerusalem
  - December 3, 2008: Centre for Time, University of Sydney
- “The Propensity Interpretation of Probability: Reply to Critics ”
  - February 12-14, 2009: Paris Workshop on Probability and Causality in Biology and Physics
  - November 17, 2008: Current Projects Seminar, Department of Philosophy, University of Sydney
- “The World according to de Finetti: Operationality”
  - June 30, 2007: Sydney-ANU-Kyoto Probability Conference, Sydney
- “Newcomb Problems: Dilemma for Decision Makers”
  - March 11, 2009: Facultad de Filosofia, Universidad de Barcelona
  - January 8-9, 2009: *Topics in Causation and Probability* Conference, Sydney
  - August 21, 2008: Philosophy, Australian National University

- April 17, 2008: Annual Philosophy of Science Conference, Dubrovnik
  - February 13, 2008: IHPST, University of Toronto
  - March 26, 2007: Centre for Time, University of Sydney
- “On Predictions in Retro-causal Interpretations of Quantum Mechanics”
    - March 9, 2009: *Causality in Quantum Physics: Philosophers and Physicists Share Their Views* Workshop, Facultad de Filosofia, Complutense University de Madrid
    - February 9, 2009: Sigma Club, London School of Economics
    - February 23, 2007: Facultad de Filosofia, Universidad Complutense de Madrid
    - February 21, 2007: Facultad de Filosofia, Universidad de Barcelona
    - February 16, 2007: CREA, Polytechnique, Paris
    - December 15, 2006: Summer Foundations Conference, Centre for Time, University of Sydney
- “On Economics and Ethics”
    - May 24, 2007, Russellian Society, University of Sydney
    - April 6, 2006: *Ethics Week*, Community College of Baltimore County, Catonsville, Maryland
- “On Causal Loops in Retro-causal Interpretations of Quantum Mechanics”
    - July 24, 2005: Time-Symmetric Approaches to Quantum Mechanics Workshop, University of Sydney
- “How to reconcile modal interpretations of quantum mechanics with relativity” (co-authored with Meir Hemmo)
    - November 2004: Philosophy of Science Association 2004
- “A Relational Modal Interpretation of Quantum Mechanics” (co-authored with Meir Hemmo)
    - May 12, 2004: The Perimeter Institute for Theoretical Physics, Waterloo, Canada
    - November 13, 2003: Committee for Philosophy and the Sciences, University of Maryland, College Park
    - July 7, 2003: Philosophy, Freiburg University, Germany
    - March 20, 2003: Foundations of Science Colloquium, Utrecht University
    - February 19, 2003: Philosophy-of-Physics Discussion Group, Oxford University
- “Newcomb’s Problem: A Dilemma for Bayesian Decision Makers”
    - July 10, 2003: Center for Junior Researchers, Konstanz University
    - May 22, 2003: Philosophy Department Colloquium, Konstanz University
    - May 22, 2003: Philosophy, Probability and Modelling Group, Konstanz University
    - March 19, 2003: Philosophy, Utrecht University
    - March 7, 2003: Choice Colloquium, London School of Economics
- “The Ergodic Hierarchy, Decay of Correlations and Chaos” (co-authored with R. Frigg and F. Kronz)

- March 20, 2003: Quantumclub, Utrecht University
- May 5, 2002: New Directions in the Foundations of Physics Conference, American Center for Physics, Maryland
- “The Many Principles of Causal Inference”
  - June 20, 2002: *Causal Inference: Metaphysics and Modelling* Workshop, Centre for Philosophy of Natural and Social Sciences, London School of Economics
- “Causal Loops: Implications for Metaphysics and Modern Physics”
  - June 2002: Philosophy, University of Haifa, Israel
  - November 2001: Philosophy, Johns Hopkins University
  - November 2001: Physics, University of Maryland, Baltimore County
- “On Causal Inference in Determinism and Indeterminism”
  - June 2001: Interdisciplinary International Workshop on Determinism, Ringberg Castle, Germany
- “On Causal Loops in the Quantum Realm”
  - August 2001: *Modality, Probability, and Bell’s Theorems*, NATO Advanced Research Workshop, Krakow, Poland
  - May 2001: Committee for Philosophy and the Sciences, University of Maryland, College Park
  - May 2001: Physics, University of Maryland, Baltimore County
  - April 2001: Center for Philosophy of Science, University of Pittsburgh
  - March 2001: Sigma Club, Centre for Philosophy of Natural and Social Sciences, London School of Economics
  - November 2000: Philosophy of Science Association 2000, Vancouver, Canada
  - September 1999: Philosophy, University of Texas at Austin
  - November 1998: Philosophy-of-Physics Colloquium, Oxford University
- “Chances and Frequencies in Causal Loops”
  - February 2000: Philosophy, University College London
  - July 1999: Philosophy, Sheffield University
  - November 1998: Popper Seminar on Causation, A Mini Workshop on Causation, Centre for Philosophy of Natural and Social Sciences, London School of Economics
- “Intrinsic Causation, Capacities and Measurements”
  - February 2000: Measurement Group, Centre for Philosophy of Natural and Social Sciences, London School of Economics
- “Aspects of Quantum Non-Locality: A Metaphysical Reflection”
  - February 2000: Philosophy, University of Maryland, Baltimore County
- “On the Nature of Causality in Quantum Phenomena”



- November 1999: History and Philosophy of Science, Bristol University, UK
- “On Probabilistic Dependence in Causation”
  - September 1999: *Cause and Chance* Workshop, Centre for Philosophy of Natural and Social Sciences, London School of Economics
  - September 1999: Philosophy, University of Texas at Austin
  - March 1999: Philosophy, University of Southern California
  - February 1999: Philosophy, London School of Economics
  - February 1999: Philosophy-of-Physics Discussion Group, Oxford University
- “The Many Principles of the Common Cause”
  - August 1999: 11<sup>th</sup> International Congress on Logic, Methodology and Philosophy of Science, Krakow
  - February 1998: Philosophy, Northwestern University
  - January 1998: Philosophy, London School of Economics
- “Non-local Causation in Relativistic Space-time”
  - October 1998: Sigma Club, Centre for Philosophy of Natural and Social Sciences, London School of Economics
- “Causation in Relativistic Space-time”
  - October 1997: Center for Philosophy of Science, University of Pittsburgh
  - October 1997: Philosophy, Northwestern University
- “Quantum Non-Locality and Relativity”
  - July 1997: History and Philosophy of Science, University of Cambridge
- “Is Superluminal Signalling of Information Possible in Quantum Phenomena?”
  - June 1997: History and Philosophy of Science, University of Cambridge
- “Confirmation *à la* Carnap, Popper and Lakatos”
  - April 1997: Conference on the Grand Philosophical Approaches to Science, University of Haifa, Israel
- “Stochastic Einstein Locality, Action-at-a-Distance and Holism”
  - March 1997: Israel Philosophy-of-Physics Colloquium, Tel-Aviv University
- “Must Causes Be Means to Ends?”
  - March 1997: Philosophy, Bar Ilan University, Israel
  - February 1997: Philosophy, University of Haifa, Israel
  - January 1996: History and Philosophy of Science, Tel-Aviv University, Israel
  - December 1996: Philosophy, Ben-Gurion University, Israel

- “Decision, Causation and Chance”
  - October 1996: Popper Seminar on Causation, Centre for Philosophy of Natural and Social Sciences, London School of Economics
- “Quantum Non-Separability”
  - August 1996: 5<sup>th</sup> UK Conference on the Philosophical Foundations of Physics, Oxford
  - July 1996: History and Philosophy of Science, University of Cambridge
- “Newcomb’s Problem and the Einstein-Podolsky-Rosen Paradox”
  - May 1996: Philosophy, Haifa University, Israel
- “The Classical View and Quantum Phenomena”
  - May 1995: Sigma-Club Conference on the Philosophical Foundations of Physics, University of Cambridge
- “What Econometrics Cannot Teach Quantum Mechanics”
  - May 1994: History and Philosophy of Science, University of Cambridge

### **Fellowships & Grants**

- 2012-2018: SSHRC Insight
- 2007-2010: Connaught Grant, University of Toronto
- Awarded on December 18, 2007: STARS 100K Research Planning Grant, “Subjective Experience as a Window on Foundational Physics”, Templeton Foundation (team project consultant with Jeffrey Bub; co-investigators: Yakir Aharonov, David Albert, Brian Greene, Menas Kafatos and Jeffrey Tollaksen) [http://www.ctnsstars.org/enews/news\\_team5.html](http://www.ctnsstars.org/enews/news_team5.html)
- Awarded on June 15, 2007: STARS 20K Research Planning Grant, “Time and Reality: New Insights from Quantum Non-Locality and Gentle Measurements”, Templeton Foundation (co-investigator with Yakir Aharonov, Jeffrey Bub, Menas Kafatos and Jeffrey Tollaksen)
- 2006/7, 2008/9: Visiting Fellow, Centre for Time, Department of Philosophy, University of Sydney (Full salary for 2 years of research)
- April 2003 – August 2003: Visiting Fellow, University of Konstanz (sponsored by the Alexander-von-Humboldt Foundation and the Dean of Arts & Sciences, UMBC)
- January 2003 – August 2003: Visiting Fellowship, Centre for Philosophy of Natural Sciences, London School of Economics (sponsored by the Dean of Arts & Sciences, UMBC)
- June 2002 – August 2002: Summer Research Fellowship, University of Maryland, Baltimore County
- September 1997 – August 1998: Visiting Fellow, Center for Philosophy of Science, University of Pittsburgh
- September 1997 – August 1998: Rothschild Foundation Fellow, University of Pittsburgh
- May 1997 – September 1997: British Council Postdoctoral Fellow, University of Cambridge

- December 1995 – April 1997: Israel Committee of Higher Education Postdoctoral Fellow, University of Haifa, Israel
- October 1993 – September 1995: Overseas Research Student's Award, University of Cambridge
- October 1993 – September 1995: Cambridge Overseas Bursary, University of Cambridge
- October 1993 – December 1995: Gerstenberg Foundation Scholarship, University of Cambridge
- 1991/1992, 1989/1990: Student Scholarship, Hebrew University of Jerusalem
- 1989/1990, 1987/8: Asseo Foundation for Excellence in the Humanities Scholarship, Hebrew University of Jerusalem

### **Teaching**

- *Graduate*: Courses and seminars in epistemology, metaphysics, philosophy of science, philosophy of probability, philosophy of physics, philosophy of economics and political philosophy
- *Undergraduate*: Courses, classes and tutorials in electrical engineering, epistemology, metaphysics, philosophy of science, philosophy of economics, philosophy of physics and political philosophy

### **Thesis Supervision and Ph.D. Thesis Committees**

- *Supervisor of Ph.D. Theses*
  - University of Toronto: Chris Belanger (philosophy of chaos) 2009 – Oct 2014, Agnes Bolinska (philosophy of scientific representation) 2011 – Oct 2014, Mike Thicke (economics philosophy of science) 2010 – May 2016, Noah Stemmeroff (philosophy of physics/mathematics) 2014-present, Aaron Kenna (philosophy of probability and statistics) 2016 – present.
  - London School of Economics (1998 - 2000): Michela Massimi (philosophy of quantum mechanics), Szu-Ting Chen (philosophy of economics, co-supervisor with Nancy Cartwright)
- *Member of Ph.D. Thesis Committees*
  - University of Toronto: Boaz Miller (social epistemology of science, 2008 – Dec 2010); Isaac Record (philosophy of scientific explanation, 2007 – Nov 2011), Bruce Petri (history of 18<sup>th</sup> C mathematics, 2008 – present), Alex Koo (philosophy of mathematics, 2010 – Nov 2014), Carol-Ann Burke (western expatriate science teacher in a post-colonial context, 2011 – Oct 2013), Greg Lusk (philosophy of climate models, 2012 – Sept 2015), Mike Stuart (philosophy of thought experiments, 2012 – March 2015).
  - University of Maryland, College Park (2003-2006): Dan Parker (philosophy of statistical mechanics); Michael Cifone (2005-2007) (philosophy of quantum mechanics)
- *Member of PhD Oral Exam Committees*
  - University of Toronto: Boaz Miller (October 2010), Isaac Record (November 2011), Eran Tal (June 2012), Ari Gross (May 2013), Carol-Ann Burke (October 2013), Agnes Bolinska (Oct 2014), Chris Belanger (Oct 2014), Alex Koo (Nov 2014), Mike Stuart (March 2015), Greg Lusk (Sept 2015), Mike Thicke (May 2016), Curtis Forbes (May 2017)
  - University of Maryland: Dan Parker (July 2006)

- *Supervisor or Committee Member of Specialist Exam*

- University of Toronto: Isaac Record (committee), Bruce Petri (committee), Alex Koo (committee), Mike Thicke (committee), Chris Belanger (supervisor), Mike Stuart (committee), Greg Lusk (committee), Eran Tal (committee), Noah Stemeroff (supervisor).

- *Supervisor of M.Sc. Theses*

- LSE (1998 - 2000): a number of M.Sc. theses in the Philosophy of Economics and Political Philosophy (M.Sc. degrees in Economics and Philosophy and the Philosophy of Social Sciences)

- *Supervisor of Final Projects in Electrical Engineering*

- Ort College of Engineering, Jerusalem: a number of Junior Engineer theses (1988-1992)

### **Peer-Review Referee**

British Journal for the Philosophy of Science, Cambridge University Press, Canadian Philosophical Association, Canadian Society for the History and Philosophy of Science, *Dialectica*, *Erkenntnis*, European Journal for the Philosophy of Science, Foundations of Physics, Killam Foundation, Leverhulme Foundation, Mathematical Intelligencer, Mind, Minds and Machines, NSF, Philosophy of Science, Studies in History and Philosophy of Science, Studies in History and Philosophy of Modern Physics, Synthese.

### **Editorial**

Guest editor (jointly with Philippe Huneman) for a special volume of *Erkenntnis* on probability in biology and physics.

### **Administration**

- 2017 – present: IHPST Director of Undergraduate Studies
- 2016-2017: Boards of Regents, Member of Finance and Audit Committee, Victoria University
- 2016 – 2017: UTFA council member – Representative of Philosophy, Religious Studies and IHPST
- 2015 – 2016: Research Committee, Victoria College
- 2009-2012: Colloquium coordinator, IHPST, University of Toronto
- 2004-2006: University Faculty Senator, University of Maryland, Baltimore County
- 1998-2000: Co-ordinator of the M.Sc. Program in the Philosophy & History of Science, London School of Economics
- 1998-2000: Tutor of students in the M.Sc. Program in Economics and Philosophy, London School of Economics
- 1998-2000: Tutor of students in the Undergraduate Program in Philosophy and Economics, London School of Economics

### **Search Committees for tenure-track positions**

- 2016/2017 – Joint search for Philosophy and IHPST (Philosophy of Physics), University of Toronto
- 2015/16 – Joint search for Computer Science and Statistical Sciences, University of Toronto
- 2013/14 – Philosophy (Kant), University of Toronto

- 2009/10 – Physics (Physical Biology), University of Toronto
- 2005/6 – Philosophy (Ancient Philosophy), University of Maryland, Baltimore County
- 2004/5 – Philosophy (Political Philosophy), University of Maryland, Baltimore County
- 2002/3 – Philosophy (Ancient Philosophy/Applied Ethics), University of Maryland, Baltimore County

### **Conference and Workshop Organization**

- Workshop on Chaos, Institute for History and Philosophy of Science and Technology, University of Toronto, Toronto, March 10, 2010.
- Workshop on *Probability in Biology and Physics*, Institute for History and Philosophy of Science and Technology, Paris, February 12-14, 2009 (co-organized with Philippe Huneman). The conference papers are forthcoming in a special issue of *Erkenntnis*.
- The first annual conference on the *New Directions in the Foundations of Physics*, American Center of Physics, Maryland, May 3-5, 2002 (co-organized with Jeff Bub and Robin Schuster)
- Conference on the *Philosophical Foundations of General Relativity*, London School of Economics, May 1999 (co-organized with Michael Redhead). The conference papers were published in 2000 in a special issue of the *Studies in History and Philosophy of Modern Physics* **31**, “Relativity: History and Interpretations”