

GORDON BELOT

Department of Philosophy
University of Michigan
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Ann Arbor, MI 48104
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DEGREES

- 1996 Ph.D., Philosophy, University of Pittsburgh
1993 M.Sc., Mathematics, University of Toronto
1991 B.Sc., Mathematics and Philosophy, University of Toronto

ACADEMIC APPOINTMENTS

- 2019–
2008–2019 University of Michigan
Lawrence Sklar Collegiate Professor of Philosophy
Professor of Philosophy
- 2004–2008 University of Pittsburgh
Associate Professor of Philosophy
- 2003 New York University
Associate Professor of Philosophy
1999–2003 Associate Professor of Philosophy without Tenure
- 1997–1999 Princeton University
Assistant Professor of Philosophy
- 1996–1997 University of Pittsburgh
Post-Doctoral Scholar, Center for Philosophy of Science

AWARDS AND HONOURS

- 2019 Michigan Humanities Award
- 2017 Steven Humphrey Lecturer in the Philosophy of Science. UC Santa Barbara
- 2014 Lakatos Award for *Geometric Possibility*
- 2006–2007 Burkhardt Fellowship, American Council of Learned Societies
- 2002–2003 Fellowship, National Science Foundation
- 1996–97 Post-doctoral fellowship, Social Sciences and Humanities Research Council

VISITING POSITIONS

Munich Center for Mathematical Philosophy

2018 Research Fellow

University of Bristol

2017 Benjamin Meaker Visiting Professor, Institute for Advanced Studies

Center for Advanced Studies in the Behavioral Sciences

2006–2007 Fellow

BOOK

2011 *Geometric Possibility*. Oxford University Press. Paperback edition 2013.

PAPERS

Forthcoming “An Automatic Ockham’s Razor for Bayesians?” *Erkenntnis*.

2018 “Fifty Million Elvis Fans Can’t Be Wrong.” *Noûs* 52: 946–981.

2017 “Curve-Fitting for Bayesians?” *British Journal for the Philosophy of Science* 68: 689–702.

2017 “Objectivity and Bias.” *Mind* 126: 655–695.

2016 “Sober as a Judge.” *Metascience* 25: 387–92.

2016 “Undermined.” *Australasian Journal of Philosophy* 94: 781–91.

2015 “Down to Earth Underdetermination.” *Philosophy and Phenomenological Research* XCI: 456–64.

2013 “Bayesian Orgulity.” *Philosophy of Science* 80: 483–503.

2013 “Failure of Calibration is Typical.” *Statistics & Probability Letters* 83: 2316–18.

2013 “Time in Classical and Relativistic Physics.” In A. Bardon and H. Dykes (eds.), *A Companion to the Philosophy of Time*. Blackwell, pp. 185–200.

2013 “Symmetry and Equivalence.” In R. Batterman (ed.), *Oxford Handbook of Philosophy of Physics*. Oxford University Press, pp. 318–39.

2012 “Quantum States for Primitive Ontologists: A Case Study.” *European Journal for Philosophy of Science* 2: 67–83.

2011 “Background Independence.” *General Relativity and Gravitation* 43: 2865–84.

- 2010 “Transcendental Idealism among the Jersey Metaphysicians.” *Philosophical Studies* 150: 429–38.
- 2008 “An Elementary Notion of Gauge Equivalence.” *General Relativity and Gravitation* 40: 199–215.
- 2007 “Is Classical Electrodynamics an Inconsistent Theory?” *Canadian Journal of Philosophy* 37: 263–82.
- 2006 “The Representation of Time and Change in Mechanics.” In J. Butterfield and J. Earman (eds.), *Philosophy of Physics*. North-Holland, pp. 133–227.
- 2006 “Conservation Principles.” In D. Borchert (ed.), *Encyclopedia of Philosophy*, second edition. Macmillan, volume 2, pp. 461–64.
- 2005 “Dust, Time, and Symmetry.” *British Journal for the Philosophy of Science* 56: 255–91.
- 2005 “Whose Devil? Which Details?” *Philosophy of Science* 72: 128–53.
- 2003 “Notes on Symmetry.” In K. Brading and E. Castellani (eds.), *Symmetries in Physics: Philosophical Reflections*. Cambridge University Press, pp. 393–412.
- 2003 “Remarks on the Geometry of Visibles.” *The Philosophical Quarterly* 53: 581–86.
- 2003 “Symmetry and Gauge Freedom.” *Studies in History and Philosophy of Modern Physics* 34: 189–225.
- 2001 “The Principle of Sufficient Reason.” *Journal of Philosophy* XCVIII: 55–74.
- 2001 With J. Earman, “Pre-Socratic Quantum Gravity.” In C. Callender and N. Huggett (eds.), *Philosophy Meets Physics at the Planck Scale*. Cambridge University Press, pp. 213–55.
- 2000 “Geometry and Motion.” *British Journal for the Philosophy of Science* 51: 561–95 (50th Anniversary Issue). Reprinted in P. Clark and K. Hawley (eds.), *Philosophy of Science Today*. Oxford University Press (2003), pp. 201–35.
- 2000 “Chaos and Fundamentalism.” *Philosophy of Science* 67: S454–65.
- 1999 With J. Earman, “From Metaphysics to Physics.” In J. Butterfield, and C. Pagonis (eds.), *From Physics to Philosophy*. Cambridge University Press, pp. 166–86.
- 1999 With J. Earman and L. Ruetsche, “The Hawking Information Loss Paradox:

- Anatomy of a Controversy.” *British Journal for the Philosophy of Science* 50: 189–229.
- 1999 “Rehabilitating Relationalism.” *International Studies in the Philosophy of Science* 13: 35–52.
- 1998 “Understanding Electromagnetism.” *British Journal for the Philosophy of Science* 49: 531–55.
- 1997 With J. Earman, “Chaos Out of Order: Quantum Mechanics, the Correspondence Principle, and Chaos.” *Studies in History and Philosophy of Modern Physics* 28: 147–82.
- 1996 “Why General Relativity *Does* Need an Interpretation.” *Philosophy of Science* 63: S80–S88.
- 1995 “Determinism and Ontology.” *International Studies in the Philosophy of Science* 9: 85–101.
- 1995 “New Work for Counterpart Theorists: Determinism.” *British Journal for the Philosophy of Science* 46: 185–95.

REVIEWS

- 2010 With L. Jansson, review of A. Bokulich, *Reexamining the Quantum-Classical Relation: Beyond Reductionism and Pluralism*, in *Studies in History and Philosophy of Modern Physics* 41: 81–83.
- 2001 Review of L. Sklar, *Theory and Truth*, in *British Journal for the Philosophy of Science* 52: 647–50.
- 1998 Review of H. Price, *Time’s Arrow and Archimedes’ Point: New Directions for the Physics of Time*, in *Philosophical Review* 107: 477–80.
- 1998 Review of J. Earman, *Bangs, Crunches, Whimpers, and Shrieks: Singularities and Acausalities in Relativistic Spacetimes*, in *Studies in History and Philosophy of Modern Physics* 29: 273–75.
- 1997 Review of R. Clifton (ed.), *Perspectives on Quantum Reality: Non-Relativistic, Relativistic, and Field-Theoretic*, in *International Studies in the Philosophy of Science* 11: 305–307.

Editorial Work

- 2019 Editor, special issue of *The Monist* on probability in physics.
- 1996 Editor, with J. Butterfield and M. Hogarth, *Spacetime*. Aldershot: Dartmouth.

PRESENTATIONS

“Ratbag Idealism”

- Workshop on the Future of the Foundations of Physics. Columbia. October 2018.

“What does AdS/CFT Teach us about Physical Black Holes?”

- Black Hole Initiative. Harvard University. March 2018.

“Taking it to the Limit”

- Direct Empirical Status and the Ontology of Symmetries in Physics. Université Catholique de Louvain. July 2017.

“Gravity and GRACE: Does Underdetermination Undermine Scientific Objectivity?”

- Workshop: Objectivity—New Perspectives on Objective Inquiry. Munich Center for Mathematical Philosophy. May 2018.
- Annual Lecture Series of the Center for Philosophy of Science. University of Pittsburgh. October 2017.
- Workshop on Philosophy of Science. University of Bergen. May 2017.
- Steven Humphrey Lecture in the Philosophy of Science. UC Santa Barbara. March 2017.

“Typical!”

- Decisions, Games, and Logic. University of Michigan. July 2016.
- Workshop on Probability and Learning. Columbia University. April 2017.

“Let the Good Times Roll: Time and Physics in de Sitter Spacetime(s)”

- Rotman Summer Institute in Philosophy of Cosmology. Goderich, ON. June 2018.
- Symmetry and Representations in Physics. University of Bristol. May 2017.
- Summer Institute in Philosophy of Physics on Philosophy of Quantum Gravity. Williams Bay WI. June 2016.

“Objectivity, Limited”

- Lakatos Award Lecture, London School of Economics. May 2016.
- Public Lecture, NYU Abu Dhabi Institute. March 2015.

“The Mach-Einstein Principle of 1917–18”

- Masterclass. University of Bristol. May 2017.
- Department of Logic and Philosophy of Science Colloquium. UC Irvine. May 2017.
- Philosophy of Science Association Biennial Meeting, Atlanta. November 2016.
- Workshop of Geometry and Physics, London School of Economics. May 2016.

“Infinity and the Monster Within: Einstein on Cosmology”

- Cambridge Foundations of Physics Group. May 2016.
- Philosophy of Science Conference. UCLA. March 2015.

- Space-Time Theories: Historical and Philosophical Contexts. Van Leer Institute. Jerusalem. January 2015.

“50, 000, 000 Elvis Fans Can’t be Wrong”

- Philosophy Department Colloquium. MIT. November 2015.
- Ranch Metaphysics Workshop. White Stallion Ranch. January 2015.
- Philosophy of Science Association Biennial Meeting. Chicago. November 2014.
- Lakatos Award Conferences on Philosophy of Physics. London School of Economics. October 2014.
- Metaphysics Meets Philosophy of Physics in Rochester. University of Rochester. September 2014.
- Foundations of Gauge Theories. UC Irvine. March 2014.
- Philosophy of Mechanics: Mathematical Foundations. Université Paris Diderot. February 2014.

“Time and Dynamics in General Relativity”

- Foundations of Modern Physics Workshop. University of Michigan. January 2013.
- Physics and Philosophy of Time, Black Forest Summer School. Saig, July 2013.

“Reply to Brighouse, Huggett, Curiel, and Smeenk”

- Quantum and Geometric Possibility — A Book Symposium Celebrating Recent Books by Gordon Belot and Laura Ruetsche. University of Western Ontario, London, September 2012.

“Objectivity and Bias”

- Philosophy Colloquium, NYU Abu Dhabi. March 2015.
- Conference on Structure in Physics, Rutgers University. New Brunswick, April 2013.
- Philosophy Colloquium, Occidental College. Los Angeles, November 2012.
- Midwest Workshop in Philosophy of Science, Technology, Engineering, and Mathematics. Fort Wayne, October 2012.
- Dubrovnik Philosophy of Science Meeting. Dubrovnik, April 2012.
- Philosophy Colloquium, University of Rochester. Rochester, November 2011.

“Two Arguments for the Emergence of Spacetime Topology”

- Workshop on the Metaphysics of Time, University of Lausanne. Lausanne, July 2013.
- Emergence and Effective Field Theory, Perimeter Institute. Waterloo, October 2011.

“The Substantival-Relational Debate”

- Central APA. Minneapolis, April 2011.

“A Didactic Rant; *or*, Of Symmetry”

- Philosophy of Science Association Biennial Meeting. Montreal, November, 2010.
- Chicagoland Philosophy of Physics Group. Chicago, February 2010.

“Feelin’ Groovy?”

- Central APA. Chicago, February 2010.

“Simplicity and Ontology”

- Pacific APA. Vancouver, April 2009.

“The Wave-Function for Primitive Ontologists”

- Workshop on Philosophy of Quantum Field Theory, University of Western Ontario. London, April 2009.
- Keynote Address, Graduate Conference in Philosophy of Physics, University at Buffalo. Buffalo, November 2009.

“Philosophy of Physics? Why Bother?”

- Physics Colloquium, University of Michigan. Ann Arbor, January 2009.

“Geometric Possibility”

- Philosophy Department, University at Buffalo. Buffalo, November 2008.
- Third International Conference on the Ontology of Spacetime. Montreal, June 2008.
- Faculty Speaker, Pitt–CMU Graduate Philosophy Conference. Pittsburgh, March 2007.
- Center for Philosophy of Science. University of Pittsburgh. Pittsburgh, November 2007.
- Distinguished Speaker Series, The Committee on History and Philosophy of Science, University of Colorado. Boulder, November 2007.

“Fundamentalism”

- Seminar Series, Center for Advanced Study in the Behavioral Sciences. Stanford, March 2007.

“Relationalisms”

- NYU Conference on Issues in Modern Philosophy—Understanding Space and Time. New York, November 2006.

“Background-Independence”

- Summer Institute in Philosophy of Physics on Philosophy of Quantum Gravity. Williams Bay WI. June 2016.
- Quantum Phenomena Lecture, Pacific Institute of Theoretical Physics. Vancouver, March 2007.
- Philosophy Colloquium, Stanford University. Stanford, March 2007.
- Third UCLA Conference in History and Philosophy of Science—Determinism in the Sciences. Los Angeles, November 2006.
- Second International Conference on the Ontology of Spacetime. Montreal, June 2006.

“Understanding and False Theories”

- Colloque “Aux frontières de la physique et de la philosophie”—Année Mondiale de la Physique, Ecole Normale Supérieure. Paris, January 2006.

“Time in General Relativity”

- Séminaire de Philosophie des Sciences et des Techniques de l’Institut d’Histoire et de la Philosophie des Sciences et des Techniques, Sorbonne. Paris, January 2006.

“Is Classical Electrodynamics Consistent?”

- 42nd Annual Conference of the Western Canadian Philosophy Association. Winnipeg, October 2005.

“No, Really—The *Problem of Time*”

- Butterman Workshop, University of Pittsburgh. Pittsburgh, October 2004.
- International Conference on the Ontology of Spacetime. Montreal, May 2004.
- Columbia Seminar in History and Philosophy of Science. New York, April 2004.
- Center for Philosophy of Science, University of Pittsburgh. Pittsburgh, April 2004.

“Whose Devil? Which Details?”

- Pacific APA. San Francisco, March 2003.
- Columbia Conference on Recent Developments in the Philosophical Foundations of Physics, March 2003.

“Dust, Time, and Symmetry”

- Philosophy Colloquium, Dartmouth College. Hanover, May 2006.
- Historical and Philosophical Perspectives on Physical Sciences. Abdera, July 2005.
- Philosophy Colloquium, Ohio State University. Columbus, October 2004.
- Oxford-Princeton Conference on Understanding Symmetry in Physics. Princeton, May 2002.
- Center for Philosophy of Science, University of Pittsburgh. Pittsburgh, November 2001.
- University of Florida conference on Metaphysical Issues in Physics. Gainesville, October 2001.

“Interpreting Gauge Theories”

- Philosophy of Science Association Biennial Meeting. Vancouver, November, 2000.

“Cosmology and the Interpretation of Quantum Mechanics”

- Dubrovnik Philosophy of Science Meeting. Dubrovnik, April 2000.
- Eastern APA. Boston. December 1999.

“Content and Method in Quantum Gravity”

- History and Foundations of General Relativity 5, University of Notre Dame. South Bend, July 1999.

“Symmetry and Reduction”

- Irvine Conference on Philosophy of Physics. Laguna Beach, February 2000.
- The Philosophical Significance of Gauge Theories in Physics, University of Arizona. Tucson, March 1999.

“Chaos and Fundamentalism”

- Philosophy of Science Association Biennial Meeting. Kansas City, November 1998.

“Rehabilitating Relationalism”

- Dubrovnik Philosophy of Science Meeting. Dubrovnik, April 1998.
- Columbia Seminar in History and Philosophy of Science. New York, April 1998.

“A. Wayne’s ‘Quantum Field Theory and Locality’”

- Pacific APA. Los Angeles, March 1998.

“Understanding False Theories”

- New York University Philosophy Colloquium. New York, November 1997.
- College of Charleston Philosophy Colloquium. Charleston, October 1997.

“Understanding Electromagnetism”

- UCLA Philosophy Colloquium. Los Angeles, January 1997.
- Stanford, Philosophy Colloquium. Palo Alto, January 1997.
- University of Michigan Philosophy Colloquium., Ann Arbor, January 1997.
- University of Western Ontario Philosophy Colloquium. London, January 1997.
- Carnegie Mellon University Philosophy Colloquium. Pittsburgh, November 1996.
- Center for Philosophy of Science, University of Pittsburgh. Pittsburgh, October 1996.

“Why General Relativity *Does* Need an Interpretation”

- Philosophy of Science Association Biennial Meeting. Cleveland, November 1996.

“Chaos Out Of Order”

- Cambridge HPS Mini-Conference on Quantum Chaos. Cambridge, July 1995.

“Structuralism and Spacetime”

- Dubrovnik Philosophy of Science Meeting. Dubrovnik, April 1994.