## Conor Mayo-Wilson

University of Washington
Department of Philosophy
Savery Hall, Room 361
Seattle, WA 98195

Phone: +1 (206) 543-6496

conormw@uw.edu
http://www.mayowilson.org/

EMPLOYMENT

**University of Washington**. Seattle, Washington.

Assistant Professor (2014-).

**Munich Center for Mathematical Philosophy**, München, Bayern Germany

Assistant Professor (2013-2014)

**Carnegie Mellon University**, Pittsburgh, Pennsylvania USA

Postdoctoral Researcher (2012-2013)

EDUCATION

**Carnegie Mellon University**, Pittsburgh, Pennsylvania USA

PhD Philosophy (August of 2012)
- Dissertation: *Combining Causal Theories and Dividing Scientific Labor*
- Committee: David Danks (Advisor), Clark Glymour, Kevin Kelly, Michael Strevens (NYU), Kevin Zollman

M.S. Logic, Computation, and Methodology (2009)
- Thesis Title: A Game Theoretic Argument for Ockham's Razor
- Committee: Kevin Kelly and David Danks

M.S. Mathematics (2009)

**Stanford University**, Stanford, California USA

B.A. Philosophy with Honors (2006)
- Thesis Title: *Cauchy's Philosophy of the Infinite and The Development of the Definite Integral*
- Thesis Advisors: Michael Friedman and Thomas Ryckman; Reader: Solomon Feferman

B.S. Mathematics (2006)

AREAS OF SPECIALIZATION

Philosophy of Science, Epistemology, History and Philosophy of Mathematics, Logic

AREAS OF COMPETENCE

Analytic Philosophy, Decision and Game Theory, Ancient Philosophy

JOURNAL ARTICLES

Conor Mayo-Wilson and Gregory Wheeler. "Scoring Imprecise Credences." Forthcoming in *Philosophy and Phenomenological Research*.

"Structural Chaos." Forthcoming in *Philosophy of Science*.

"Reliability of Testimonial Norms in Scientific Communities." *Synthese*. Volume 191, Issue 1 (2014). pp. 55-78.

"The Limits of Piecemeal Causal Inference." *The British Journal for Philosophy of Science*. March, 2013.

Conor Mayo-Wilson, Kevin Zollman, and David Danks. "Wisdom of the Crowds vs. Groupthink: Learning in Groups and in Isolation." *International Journal of Game Theory.* April, 2012. pp., 1-29.

- Popular summary in Koerth-Baker, Maggie. "Crowds are not People, My Friend." New York Times Sunday Magazine. December 22nd, 2012.

"The Problem of Piecemeal Induction." *Philosophy of Science.* Vol. 78. Issue 5. December, 2011. pp. 864-874.

Conor Mayo-Wilson, Kevin Zollman, and David Danks. "The Independence Thesis: When Epistemic Norms for Individuals and Groups Diverge." *Philosophy of Science.* Vo. 78, No. 4. October, 2011. pp. 653-657.

"Russell's Logicism and Theory of Coherence." *Russell: The Journal of Bertrand Russell Studies.* Vol. 31 (Summer 2011), pp. 89 - 106.

Kevin Kelly and Conor Mayo-Wilson. "Ockham Efficiency Theorem for Random Empirical Methods." *Journal of Philosophical Logic.* Vol. 39, Issue 6. 2010. pp. 679 -712.

Kevin Kelly and Conor Mayo-Wilson. "Causal Conclusions That Flip Repeatedly and Their Justification." *Proceedings of the Twenty Sixth Conference on Uncertainty in Artificial Intelligence.* 2010. Eds. Peter Grunwald and Peter Spirtes. pp. 277-286.

## Edited Volumes

*Scientific Collaboration and Collective Knowledge.* Eds. Thomas Boyer, Conor Mayo-Wilson, and Michael Weisberg. Under contract with Oxford University Press.

## Reviews

Kevin Kelly and Conor Mayo-Wilson. Review of Gilbert Harman's and Sanjeev Kulkarni's *Reliable Reasoning. Notre Dame Philosophical Review.* March 19th, 2008.

## Other Publications

Wilfried Sieg, Conor Mayo-Wilson, Michael Warren, Dawn McLaughlin, and Davin Lafon. *Functions and Computations.* An online, interactive textbook for introductory set theory and computability theory. Available via the Open Learning Initiative.

## Presentations

"Knowledge in a Statistical World."

- University of Salzburg. June 23rd, 2015.
- University of Bristol. March 19th, 2015
- University of Victoria. November 21st, 2014

"Structural Chaos."

- Philosophy of Science Association. November 6th, 2014. Chicago, Il.
- British Society for the Philosophy of Science. University of Cambridge. July, 2014.
- Mathematizing Science II. University of East Anglia. June 2nd, 2014.

"An Epistemic Justification of Interval Estimation."

- Society for Exact Philosophy. CalTech. June 23rd, 2014.
- Philosophy of Probability. Venice International University. April 3rd, 2014.

"Epistemic Closure in Statistics."

- Western Canadian Philosophical Association. University of British Columbia October 4th, 2014.
- Formal Epistemology Workshop. University of Southern California. June 20th, 2014.

"Computational Modeling: A Tool for the Philosopher." *Modeling and Scientific Explanation.* The Van Leer Jerusalem Institute. Jerusalem. June 9th, 2014.

"Games Against Nature, Voting on Methodology, and the Social Structure of Science."

- European Philosophy of Science Association. Helsinki, Finland. August 29th, 2013.
- British Society for the Philosophy of Science. University of Exeter. July 15th, 2013.
- Epistemic Groups and Collaborative Research in Science. University of Nancy. France. December 17th, 2012.
- PhiloStem 4: The Midwest Workshop in Philosophy of Science, Technology, Engineering and Mathematics. Indiana-Purdue University, Fort Wayne. October 20th, 2012.

"A New Solution to the Problem of Logical Omniscience"

- Joint Session of the Aristotelian and Mind Associations. University of Exeter. July 14th, 2013.
- North Carolina Philosophical Society. February 15th, 2013.

"Micro and Macro Causation." Philosophy of Clark Glymour. Universität Düsseldorf. June 15th, 2013.

"Statistical and Causal Inference from Agent-Based Models." Mathematizing Science. May 13, 2013. University of East Anglia.

"Optimal Patterns of Scientific Communication." Logic, Questions, and Inquiry. Paris Sorbonne. May 13, 2013.

"Whewell on the Division of Scientific Labor" - Philosophy of Science Association. San Diego, California. November 15th, 2012.

"Reliability of Testimonial Norms in Scientific Communities" - Decisions, Games, and Logic. Munich Center for Mathematical Philosophy. June 28th, 2012.

"Values in Agent-Based Models of Scientific Communities." Values and Norms in Modeling. Eindhoven University of Technology. June 25th, 2012.

"The Markov Condition" *Foundations of Statistics.* Ludwig Maximilan's Universität. Munich, Germany. June 13th, 2012.

"Combining Causal Theories." Works in Progress Series. Munich Center for Mathematical Philosophy. May 24th, 2012.

"Expert Testimony in Scientific Communities." The Collective Dimensions of Science. University of Nancy. France. December 8th, 2011.

"Efficient Experimentation." $14^{th}$ Congress of Logic Methodology and Philosophy of Science. Nancy, France. July 22nd, 2011.

"Specialization in the Sciences and the Acquisition of Truth" - $7^{th}$ Annual Episteme Conference. Carnegie Mellon University. Pittsburgh, PA. June 24th, 2011.

"The Problem of Piecemeal Induction."

- Philosophy of Science Association. November 4th, 2010. Montreal, Quebec.
- British Society For Philosophy of Science. University College Dublin, Ireland. July 8th, 2010.
- Princeton-Rutgers Graduate Conference. May 2, 2010.

"Russell's Logicism and Theory of Coherence." Principia Mathematica at 100 - Centenary Celebration of the publication of *Principia Mathematica* held in conjunction with annual meeting of the Bertrand Russell Society. McMaster University. May 21st 2010.

"Ockham Efficiency Theorem for Random Empirical Methods." Formal Epistemology Workshop (FEW) 2009. Carnegie Mellon University. June 19th, 2009.

"Mixed Strategies in Formal Learning Theory and Ockham's Razor." Decisions, Games, and Logic. Institute of Logic, Language, and Computation. Amsterdam, July 2, 2008.

"Theoretical Virtues and the Repeated Game of Science." University of Colorado at Boulder Graduate Conference. April 5, 2008.

"Peirce and Brouwer." $8^{th}$ Annual Midwest Philosophy of Mathematics Workshop. University of Notre Dame. October 27, 2007.

"Formalization and Justification." Harvard-MIT Graduate Philosophy Conference. March 18, 2007

"Formalization and Justification," University of Missouri St. Louis Graduate Philosophy Conference, April 15, 2007

"Causes for Undecidability of the Theory of Relation Algebras," Logical Methods in the Humanities, Stanford University, May 2006.

"Wisdom of the Crowds vs. Groupthink." [Presentations delivered by Kevin Zollman]

- Logic, Reasoning, and Rationality. Ghent University, Belgium. September 20-22, 2010.
- Logic and the Foundations of Game and Decision Theory (LOFT). University of Toulouse, France. July 5th, 2010.

"The Independence Thesis: When Individual and Social Epistemology Diverge." [Presentations delivered by Kevin Zollman]

- Tillburg Institute for Logic and Philosophy of Science Colloquium. Tillburg University, Germany. September 22nd, 2010.
- Networks, Signals, and Social Epistemology. London School of Economics. July 6th, 2010.

"Causal Conclusions that Flip Repeatedly and Their Justification." [Presentation delivered by Kevin Kelly]. Twenty Sixth Conference on Uncertainty in Artificial Intelligence. July 9th, 2010.

## Honors and Awards

Josephine de Karman Fellowship Trust Dissertation Fellowship (2010 - 2011)

Undergraduate Research Programs (URP) Grant in the Humanities - June to September 2003

Chick D'Arpino Prize for Best Undergraduate Philosophical Essay, Stanford University 2003

## Research Experience

Research Assistant 2008-2012
AProS Project Wilfried Sieg Carnegie Mellon University University
The Automated Proof Search (AProS) project consists of two principal parts. First, the AProS team develops an *automated proof generator* which improves on existing proof engines by increasing (a) the complexity of theorems that can be verified by computer and (b) the intelligibility of proofs found by automated search. Second, the project uses the improved proof search engine to create a *proof tutor*, which provides strategic hints to students who are completing exercises in introductory logic classes at the university level. As a researcher on the AProS project, my primary responsibilities included (1) writing and revising the (online) textbook used in conjunction with the Proof Tutor in

a second semester logic and set theory class at Carnegie Mellon and (2) improving the automated proof generator by improving the strategies it uses in searching for proofs.

Research Assistant 2006-2008
Kevin Kelly Carnegie Mellon University University
Kelly's earlier work in formal learning theory justifies Ockham's razor as a rationale for choosing the simplest scientific theory, when faced with competing theories that are empirically indistinguishable. Employing techniques from recursion theory and topology, we generalized these earlier results to (i) accommodate the use of Ockham's razor in causal inference from statistical data, and (ii) consider probabilistic, "mixed" strategies for inferrring theories from data.

Research Assistant 2003-2006
Grigori Mints Stanford University
During the summer of 2004, I worked with jointly Jesse Alama in writing a proof of Gödel's Completeness Theorem that could be checked within Otter, an automated theorem prover. In the summer of 2005 and beginning of the 2006 school year, I conducted research into the causes of undecidability for the theory of relation algebras

## Teaching Experience

UW = University of Washington; CMU = Carnegie Mellon University; MCMP = Munich Center for Mathematical Philosophy

**Primary Instructor**

- Epistemology of Testimony. Spring 2015. UW.
- Introduction to Logic. Spring 2015. UW.
- Introduction to Philosophy of Mathematics. Winter 2014-2015. UW.
- Epistemology. Fall 2014. UW.
- Models and Simulations in Value Theory and Philosophy of Language. Winter 2013. MCMP.
- Mathematical Methods for Philosophy. Winter 2013. MCMP.
- Philosophy of Science: Models and Simulations. Summer 2013. MCMP.
- Philosophy of Probability, Munich Center for Mathematical Philosophy, Summer 2013. MCMP.
- Epistemology, Fall 2012. CMU.
- What Philosophy Is, Summer 2010, Fall 2010, Spring 2012. CMU.
- Ancient Philosophy, Summer 2007, 2008, and 2009. CMU.
- Logic and Proofs, Fall 2009. CMU.

**Teaching Assistant**

- Social Structure, Public Policy, and Ethical Dilemmas Fall 2007. CMU.
- What Philosophy Is, Spring 2006. CMU.
- Ancient Philosophy, Fall 2006. CMU.
- Set Theory, Winter 2005. Stanford University.

## Service

Coordinator of Masters Program
In 2013, together with Olivier Roy, I designed a new curriculum for the MA program at the Munich Center for Mathematical Philosophy. Currently, I am one of two coordinators for the program, which means that I am responsible for admissions decisions, advising students, and revising the curriculum as is appropriate.

Referee
*British Journal for Philosophy of Science*, *Economics and Philosophy*, *Ergo*, *Erkenntnis*, *Episteme*,

*Minds and Machines*, *Philosophy of Science*, *Studies in History and Philosophy of Science*, *Synthese*, *Topoi*

Pitt-CMU Graduate Philosophy Conference — Pittsburgh, Pennsylvania
Organizer — March 2008, 2009, 2010
I was one of six organizers for the Pitt-CMU graduate philosophy conference. I was responsible for reviewing submitted papers, communicating with invited speakers, and other administrative tasks.

## Non-Academic Employment

Philadelphia Debate Institute (PDI) — Philadelphia, Pennsylvania
Instructor — August 2007, 2008
PDI is a one-week debate camp for high school students primarily from inner-city Philadelphia and rural Pennsylvania. As a debate instructor, I helped students to learn public-speaking skills and develop the ability to form and critique arguments. I also gave several camp-wide lectures helping students to recognize logical fallacies and correctly use statistical data.

www.combinenet.com — Pittsburgh, Pennsylvania
Intern — June to September 2003
Combinenet employs combinatorial optimization techniques for solving industrial sourcing problems. My primary responsibility consisted of quality control for web-based applications.

Stanford National Forensics Institute (SNFI) — Stanford, California
Instructor — July to August 2002
SNFI is a debate camp for high school students. My role here was similar to that at PDI.