

Academic Vita

Name: Maximilian Schlosshauer

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CURRENT ACADEMIC RANK AND DEPARTMENT

Assistant Professor of Physics

EDUCATION

University of Washington, Seattle, WA, 1999–2000, Ph.D. in Physics, with distinction (Henderson Prize), *The Quantum-to-Classical Transition: Decoherence and Beyond* (Advisor: A. Fine)

Lund University, Sweden, 2000–1, M.S. in Physics, *Quantifying Local Reliability of Sequence Alignments Using Mean Field Annealing* (Advisor: C. Peterson)

University of Washington, Seattle, WA, 1999–2000, Visiting Graduate Student, Department of Physics

University of Freiburg, Germany, 1997–99, Physics (minors in Mathematics and Chemistry), Pre-Diploma (similar to B.S.)

ACADEMIC APPOINTMENTS

University of Portland, 2012–present, Assistant Professor of Physics

Institute for Quantum Optics and Quantum Information, Austrian Academy of Sciences, Vienna, Austria, 2011, Senior Research Fellow

Niels Bohr Institute, University of Copenhagen, Denmark, 2009–11, Danish Research Council Postdoctoral Fellow, and Associate of the Center for the Philosophy of Nature and Science Studies

University of Melbourne, Australia, 2007–9, Australian Research Council Postdoctoral Fellow, School of Physics

University of Queensland, Australia, 2006, Postdoctoral Fellow, School of Physics

RESEARCH SUPPORT AND GRANTS

Provost's Initiative on Undergraduate Research, "Studying quantum decoherence with single photons," 2017 (\$1,000)

Foundational Questions Institute Grant, "Stealthy observation in a quantum world," 2017 (\$2,500)

Murdock Charitable Trust Grant, "Protecting quantum states from decoherence using weak measurements," 2016–2019 (\$56,134)

Foundational Questions Institute Grant, "Quantum randomness, correlations, and the physics of information," 2014 (\$3,000)

UP Academic Technology Roundtable Fellow Grant, "A computer interface for the upper-division physics laboratory," 2013–2014 (\$2,000)

Foundational Questions Institute Grant, "Quantum physics and information: A single-photon interference experiment for undergraduate students," 2013 (\$3,050)

Foundational Questions Institute Grant, "Revolutionizing quantum mechanics teaching through quantum information," 2013 (\$3,500)

Foundational Questions Institute Grant, "Quantum experience lab for undergraduate students," 2012 (\$1,500)

Foundational Questions Institute Grant, "Textbook on the foundations of quantum theory," 2011 (\$2,500)

Danish Research Council, "The quantum-to-classical transition: decoherence, nanomechanics, and quantum information," 2009–11 (\$270,000)

Australian Research Council (jointly with H. Price and G. Bacciagaluppi), "Decoherence, time asymmetry, and the Bohmian view of the quantum world," 2008–10 (\$194,000)

Foundational Questions Institute Grant, "Foundations of quantum mechanics in the light of 21st-century developments," 2008 (\$4,000)

Australian Research Council, "Decoherence in quantum computing and quantum electromechanical systems," 2007–9 (\$230,000)

RESEARCH INTERESTS

Quantum mechanics: quantum measurement; decoherence theory and the transition from quantum to classical physics; quantum optics; quantum information; foundations of quantum mechanics.

AWARDS, FELLOWSHIPS, AND HONORS

Provost's Initiative on Undergraduate Research Award, Spring 2017

Nomination for the Faculty Scholarship Award, 2016

University of Portland Shepard's Shepherd for the 2014–2015 Academic Year
Danish Research Council Postdoctoral Fellowship, 2009–2011
Australian Research Council Postdoctoral Fellowship, 2007–2009
Henderson Prize, University of Washington, Seattle, WA, 2006
University of Freiburg Scholarship for Visiting Graduate Studies at the University of Washington, Seattle, WA, 1999–2000
Bavarian Government Scholarship for Highly Gifted Students, 1997–2001

PUBLICATIONS

Notes:

- Publications marked with a black square (■) were written and published during my time at UP.
- Authors in **bold** indicate UP undergraduate students.
- Where available, citation statistics (from Google Scholar, retrieved March 2017) are provided in square brackets. **Total citations = 2,514.**

Books

- M. Schlosshauer, *Decoherence and the Quantum-to-Classical Transition* (Springer: Berlin/Heidelberg, 1st ed. 2007, 4th printing 2009), 417 pages, 69 illustrations [cited by 941]
- M. Schlosshauer (ed.), *Elegance and Enigma: The Quantum Interviews* (Springer: Berlin/Heidelberg, 2011), 311 pages, 18 illustrations [cited by 39]
- G. Jaeger, A. Khrennikov, M. Schlosshauer, and G. Weihs (eds.), *Proceedings of the Annual Conference on "Advances in Quantum Theory," Linnaeus University, Sweden, June 14–17, 2010* (American Institute of Physics, 2011)

Articles in peer-reviewed journals

- **J. M. Ashby, P. D. Schwarz,** and M. Schlosshauer, "Observation of the quantum paradox of separation of a single photon from one of its properties," *Phys. Rev. A* **94**, 012102 (2016). Featured as front-page news story in *APS Physics*, an online publication of the American Physical Society that "spotlights exceptional research" (URL: <http://physics.aps.org/synopsis-for/10.1103/PhysRevA.94.012102>)
- M. Schlosshauer, "Measuring the quantum state of a single system with minimum state disturbance," *Phys. Rev. A* **93**, 012115 (2016)

- J. Franklin, Y. Guo, K. Cole Newton, and M. Schlosshauer, “The dynamics of the Schrödinger–Newton system with self-field coupling,” *Class. Quant. Grav.* **33**, 075002 (2016) [cited by 2]
- **J. M. Ashby, P. D. Schwarz**, and M. Schlosshauer, “Delayed-choice quantum eraser for the undergraduate laboratory,” *Am. J. Phys.* **84**, 95 (2016) [cited by 2]
- M. Schlosshauer, “Analysis of quantum-state disturbance in a protective measurement of a spin-1/2 particle,” *Phys. Rev. A* **92**, 062116 (2015) [cited by 1]
- M. Schlosshauer and K. Camilleri, “Niels Bohr as philosopher of experiment: Does decoherence theory challenge Bohrs doctrine of classical concepts?,” *Stud. Hist. Phil. Mod. Phys.* **49**, 73–83 (2015) [cited by 6]
- M. Schlosshauer, “State disturbance and pointer shift in protective quantum measurements,” *Phys. Rev. A* **90**, 052106 (2014) [cited by 3]
- M. Schlosshauer and A. Fine, “No-go theorem for the composition of quantum systems,” *Phys. Rev. Lett.* **112**, 070407 (2014) [cited by 14]
- M. Schlosshauer, J. Kofler, and A. Zeilinger, “A snapshot of foundational attitudes toward quantum mechanics,” *Stud. Hist. Phil. Mod. Phys.* **44**, 222–230 (2013) [cited by 103]
- M. Schlosshauer and A. Fine, “Implications of the Pusey–Barrett–Rudolph quantum no-go theorem,” *Phys. Rev. Lett.* **108**, 260404 (2012) [cited by 41]
- M. Schlosshauer and G. Wheeler, “Focused correlation, confirmation, and the jigsaw puzzle of variable evidence,” *Phil. Sci.* **78**, 376–392 (2011) [cited by 12]
- A. P. Flitney, M. Schlosshauer, C. Schmid, W. Laskowski, and L. C. L. Hollenberg, “Equivalence between Bell inequalities and quantum minority game,” *Phys. Lett. A* **373**, 521–524 (2009) [cited by 15]
- M. Schlosshauer, “Classicality, the ensemble interpretation, and decoherence: Resolving the Hyperion dispute”, *Found. Phys.* **38**, 796–803 (2008) [cited by 14]
- M. Schlosshauer, A. P. Hines, and G. J. Milburn, “Decoherence and dissipation of a quantum harmonic oscillator coupled to two-level systems,” *Phys. Rev. A* **77**, 022111 (2008) [cited by 40]
- M. Schlosshauer, “Experimental motivation and empirical consistency in minimal no-collapse quantum mechanics,” *Ann. Phys.* **321**, 112–149 (2006) [cited by 73]
- M. Schlosshauer, “‘Self-induced decoherence’ approach: Strong limitations on its validity in a simple spin bath model and on its general physical relevance,” *Phys. Rev. A* **72**, 012109 (2005) [cited by 14]
- M. Schlosshauer and A. Fine, “On Zurek’s derivation of the Born rule,” *Found. Phys.* **35**(2), 197–213 (2005) [cited by 63]

- M. Schlosshauer, “Decoherence, the measurement problem, and interpretations of quantum mechanics,” *Rev. Mod. Phys.* **76**(4), 1267–1305 (2004) [cited by 852]
- M. Schlosshauer and D. Baker, “Realistic protein–protein association rates from a simple diffusional model neglecting long-range interactions, free energy barriers, and landscape ruggedness,” *Prot. Sci.* **13**, 1660–1669 (2004) [cited by 108]
- M. Schlosshauer and D. Baker, “A general expression for bimolecular association rates with orientational constraints,” *J. Phys. Chem. B* **106**(46), 12079–12083 (2002) [cited by 29]
- M. Schlosshauer and M. Ohlsson, “A novel approach to local reliability of sequence alignments,” *Bioinformatics* **18**(6), 847–854 (2002) [cited by 37]
- B. J. Pichler, G. Böning, M. Rafecas, M. Schlosshauer, E. Lorenz, and S. I. Ziegler, “LGSO scintillation crystals coupled to new large area APDs compared to LSO and BGO,” *IEEE Transact. Nucl. Sci.* **46**(3), 289–291 (1999) [cited by 25]
- M. Toepfer, M. Schlosshauer, T. Sitter, C. Burchardi, T. Behr, and H. Schiffel, “Effects of hemodialysis on circulating adrenomedullin concentrations in patients with end-stage renal disease,” *Blood Purif.* **16**(5), 269–274 (1998) [cited by 21]
- M. Toepfer, G. Hartmann, M. Schlosshauer, H. Hautmann, M. Tschöp, R. Fischer, and R. M. Huber, “Adrenomedullin: A player at high altitude?,” *Chest* **113**(5), 1428 (1998) [cited by 24]
- M. Toepfer, M. Schröder, H. Lochmüller, A. Klauser, R. Riepl, M. Schlosshauer, S. Werner, W. Müller-Felber, and D. Pongratz, “Measurement of colonic transit time in patients with amyotrophic lateral sclerosis,” *J. Neurol. Sci.* **150**(1001), S6 (1997)

Book chapters

- M. Schlosshauer and K. Camilleri, “Bohr and the Problem of the Quantum-to-Classical Transition,” forthcoming in: *Niels Bohr and Philosophy of Physics: Twenty First Century Perspectives*, edited by H. Folse and J. Faye (Bloomsbury Publishing, London, UK, 2017)
- M. Schlosshauer, “Foreword,” in: C. A. Fuchs, *My Struggles with the Block Universe*, edited by B. C. Stacey, eprint arXiv:1405.2390 [quant-ph]
- M. Schlosshauer, “The quantum-to-classical transition and decoherence,” in *Handbook of Quantum Information*, edited by M. Aspelmeyer, T. Calarco, J. Eisert, and F. Schmidt-Kaler (Springer: Berlin/Heidelberg, 2017, in press)
- M. Schlosshauer and **T. V. B. Claringbold**, “Entanglement, scaling, and the meaning of the wave function in protective measurement,” in *Protective Measurements and Quantum Reality: Toward a New Understanding of Quantum Mechanics*, edited by S. Gao (Cambridge University Press, Cambridge, 2014), pp. 180–194 [cited by 9]

- M. Schlosshauer, “Experimental observation of decoherence,” in *Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy*, edited by Daniel Greenberger, Klaus Hentschel, and Friedel Weinert, pp. 223–229 (Springer: Berlin/Heidelberg, 2009) [cited by 2]
- M. Schlosshauer and A. Fine, “Decoherence and the Foundations of Quantum Mechanics,” in *Quantum Mechanics at the Crossroads: New Perspectives from History, Philosophy and Physics*, edited by James Evans and Alan Thorndike (Springer, Berlin, 2006), pp. 125–148 [cited by 5]

Articles in collections and conference proceedings

- M. Schlosshauer and K. Camilleri, “What classicality? Decoherence and Bohr’s classical concepts,” *AIP Conf. Proc.* **1327**, 26–35 (2011) [cited by 7]
- M. Schlosshauer, “Schrödinger-cat states and decoherence in quantum electromechanical systems,” *J. Phys.: Conf. Ser.* **67**, 012003 (2007)
- B. J. Pichler, G. Böning, M. Rafecas, and M. Schlosshauer, “Readout of novel LGSO scintillation crystals coupled to new large-area avalanche photodiodes for high-resolution positron emission tomography,” in *Medizinische Physik 99*, edited by H. Gfirtner (Deutsche Gesellschaft für Medizinische Physik, Passau, 1999), p. 221
- M. Toepfer, C. Folwaczny, S. Werner, M. Schlosshauer, R. Riepl, M. Schröder, A. Abicht, W. Müller-Felber, and D. Pongratz, “Noninvasive ^{13}C octanoic acid breath test shows delayed gastric emptying in patients with amyotrophic lateral sclerosis: Proof of a subclinical autonomic involvement of the autonomous nervous system?,” in *Jahrbuch der neuromuskulären Erkrankungen 1996*, edited by T. Grimm, F. Hanefeld, H. C. Hopf, K. Kunze, W. Mortier, B. Neundörfer, D. Pongratz, R. D. Rüdell (Arcis Verlag, Munich, 1997)
- M. Toepfer, T. Müller, S. Werner, M. Schlosshauer, D. Pongratz, and W. Müller-Felber, “Expression of TGF- β 1 in mdx mice and in the muscle dystrophy Duchenne: Is the missing expression of TGF- β 1 the key to missing fibrosization and persisting regeneration of muscle cells in mdx mice?,” in *Research Festival 1996* (MMV Medizin, Munich 1996)

Abstracts in conference proceedings

- **J. Ashby, P. Schwarz,** and M. Schlosshauer, “Experimental realization of a single-photon quantum Cheshire cat,” *Proc. Oregon Acad. Sci.* **76**, 38 (2017)
- **J. Ashby, I. Averman, P. Schwarz,** and M. Schlosshauer, “Testing realism in an undergraduate quantum optics laboratory,” *Proc. Oregon Acad. Sci.* **74**, 34 (2015)
- M. Toepfer, M. Schlosshauer, G. Hartmann, R. Fischer, S. Werner, H. Pongratz, F. Sepp, T. Behr, H. Hautmann, R. Riepl, and M. Tschöp, “Short exposure to high altitude does not influence plasma levels of adrenomedullin (ADM),” in *Abstract Book of the International*

Congress of Mountain Medicine “Francois-Xavier Bagnoud” (Interlaken, August 27–30, 1997)
(AKM Congress Service, Basel, 1997)

Invited essays

- M. Schlosshauer, “Not What You Thought,” in *Awaken the Stars: Reflections On What We Really Teach*, edited by S. Mayer and J. Van Hoomissen (ACTA Publications, Chicago, 2017)
- M. Schlosshauer, “What *is* quantum mechanics?,” UP’s *Portland Magazine*, March 2015, p. 10
- M. Schlosshauer, J. Kofler, and A. Zeilinger, “The interpretation of quantum mechanics: from disagreement to consensus?,” *Annalen der Physik* **525**, A51 (2013) [cited by 5]
- M. Schlosshauer, “Agreeing to disagree,” *Physics World* **26**, 29 (2013) [cited by 1]
- M. Schlosshauer, “Lifting the fog from the north,” *Nature* **453**, 39 (2008) [cited by 6]
- M. Schlosshauer, “Why did Nature choose quantum theory?,” commissioned by the *Foundational Questions Institute*, <http://www.fqxi.org/community/articles/display/160>

MEMBERSHIP IN PROFESSIONAL SOCIETIES AND POSITION HELD

Peer-selected Member, Foundational Questions Institute

Member, American Physical Society

Member, American Association of Physics Teachers

Member, Oregon Academy of Science

Member, Council on Undergraduate Research

Member, Advanced Laboratory Physics Association

DEPARTMENT AND UNIVERSITY SERVICE

Organizer and Coordinator, Physics Department Seminars, since Fall 2013 (ongoing)

Honors Mentor, 2014–2016

Member, Faculty Search Committee for Music, 2015–2016

Advisor for Physics majors and minors, since Fall 2015 (ongoing)

Faculty Advisor, UP Chapter of SEDS (Students for the Exploration and Development of Space), Fall 2015

Member, Digital Futures Task Force, 2013–14

Participant, Faculty Search Committee for Environmental Science, 2013

Department Representative, Weekend on the Bluff, 2013 and 2014

Faculty Representative, Junior Parents Weekend Reception, 2015 and 2016

Faculty Volunteer, “Building Community,” 2013

COMMUNITY SERVICE

Faculty volunteer, “Science Night” (UP, November 2015; Astor Elementary, April 2014; Le Monde, June 2014; Holy Redeemer, November 2013 and 2012; Le Monde, February 2013; Chief Joseph, April 2013)

UNDERGRADUATE RESEARCH STUDENT SUPERVISION

Undergraduate students supervised (by semester)

Summer 2017: Alexander York + TBD (funded by a Murdock Charitable Trust grant)

Spring 2017: Mathew Coleman, Efrain Venegas Ramirez, Alexander York (funded by the Provost’s Initiative on Undergraduate Research)

Fall 2016: Nicholas Nelson, Efrain Venegas Ramirez

Spring 2016: James Ashby, Nicholas Nelson

Fall 2015: James Ashby

Spring 2015: James Ashby, Ian Averman, Tangereen Claringbold, Peter Schwarz

Fall 2014: James Ashby, Ian Averman, Peter Schwarz

Summer 2014: James Ashby, Peter Schwarz (funded by S4)

Spring 2014: Chase Calvi (Senior Thesis student), Tangereen Claringbold, Marley Rutowski, Peter Schwarz

Fall 2013: Chase Calvi (Senior Thesis student), Nick Shindler, James Gaynor

Summer 2013: Chase Calvi (funded by S4), Tangereen Claringbold (funded by S4), Maggie Wilbanks (funded by external grant from the Foundational Questions Institute)

Spring 2013: Walter Malone, Anna Wetterer

Publications with undergraduate students under my supervision

Note: Authors in **bold** indicate UP undergraduate students.

- **J. M. Ashby, P. D. Schwarz**, and M. Schlosshauer, “Observation of the quantum paradox of separation of a single photon from one of its properties,” *Phys. Rev. A* **94**, 012102 (2016). Featured as front-page news story in *APS Physics*, an online publication of the American Phys-

ical Society that “spotlights exceptional research” (URL: <http://physics.aps.org/synopsis-for/10.1103/PhysRevA.94.012102>)

- **J. M. Ashby, P. D. Schwarz,** and M. Schlosshauer, “Delayed-choice quantum eraser for the undergraduate laboratory,” *Am. J. Phys.* **84**, 95 (2016) [cited by 2]
- **J. Ashby, P. Schwarz,** and M. Schlosshauer, “Experimental realization of a single-photon quantum Cheshire cat,” *Proc. Oregon Acad. Sci.*, in press
- **J. Ashby, I. Averman, P. Schwarz,** and M. Schlosshauer, “Testing realism in an undergraduate quantum optics laboratory,” *Proc. Oregon Acad. Sci.* **74**, 34 (2015)

Research presentations by undergraduate students under my supervision

“Creating a Quantum Cheshire Cat from Single Particles of Light,” poster presented by P. D. Schwarz, Founders’ Day, University of Portland, April 2017

“Experimental Realization of a Single-Photon Quantum Cheshire Cat,” oral presentation by P. D. Schwarz, Annual Meeting of the Oregon Academy of Science, Oregon State University, February 2017

“Experimental Demonstration of a Delayed-Choice Quantum Eraser,” poster presented by J. M. Ashby and P. D. Schwarz, Founders’ Day, University of Portland, April 2016

“Demonstrating the Fundamentals of Quantum Mechanics Using an Optical Quantum Eraser,” poster presented by J. M. Ashby, I. Averman, and P. D. Schwarz, Founders’ Day, University of Portland, April 2015

“Testing Realism in an Undergraduate Quantum Optics Laboratory,” oral presentation by P. D. Schwarz, Annual Meeting of the Oregon Academy of Science, University of Portland, February 2015

“Demonstrating the Fundamentals of Quantum Mechanics Using an Optical Quantum Eraser,” poster presentation by J. M. Ashby and P. D. Schwarz, Murdock College Science Research Conference, Vancouver, Washington, November 2014

“Measuring the quantumness of light,” poster presentation by C. Calvi and T. V. B. Claringbold, Founders’ Day, University of Portland, April 2014

“Measuring the Quantumness of Light,” invited oral presentation by C. Calvi and T. V. B. Claringbold, Murdock College Science Research Conference, Vancouver, Washington, November 2013

“The Quantum Eraser: Now You See It, Now You Don’t,” poster presented by W. Malone and A. Wetterer, Founders’ Day, University of Portland, April 2013

CONSULTANTSHIPS AND PROFESSIONAL SERVICE

Editorial positions

Member, Editorial Board of the peer-reviewed physics journal *International Journal of Quantum Foundations*

Member, Editorial Board of the peer-reviewed physics journal *Quanta*

Series Editor, Springer book series *Quantum Science and Technology*

Series Editor, Springer book series *The Frontiers Collection*

Conference organization

Member of the Advisory Board, Workshop “Ninety Years of Quantum Mechanics,” July 9–29, 2015 (conducted online)

Co-Organizer, Conference “The Meaning of the Wave Function,” October 25–31, 2014 (conducted online)

Member of the International Advisory Committee, Conference “Time and Matter,” 2012–2013

Session organizer, Conference “Decoherence and Entanglement: New Concepts and Perspectives,” Linnaeus University, Sweden, June 2010

Organizer, Lecture Series “Quantum Foundations in Light of Quantum Information,” University of Melbourne, Australia, 2008

Peer review

Reviewer for *Nature Physics*, *Physical Review Letters*, *Physical Review A*, *American Journal of Physics*, *Physics Letters A*, *Journal of Physics A*, *Foundations of Physics*, *International Journal of Quantum Foundations*, *British Journal for the Philosophy of Science*, *Studies in the History and Philosophy of Modern Physics*, and *Proceedings of the Royal Society A*

Reviewer of book proposals for Springer, Oxford University Press, Cambridge University Press

Reviewer of proposals submitted to the funding program “Future Emerging Technologies” of the European Commission

CONFERENCES, WORKSHOPS, INVITED TALKS

* = attended as invited speaker; for a list of presentations by my undergraduate research students, please see section “Undergraduate Research Student Supervision” above.

*Physics Colloquium, Oregon State University, January 2017

Spring Meeting of the Pacific Northwest Association for College Physics, Portland, Oregon, April 2016

*Physics Colloquium, Willamette University, April 2016

*Physics Colloquium, Reed College, March 2016

*Northwest Section Meeting of the American Physical Society, Pullman, Washington, May 2015

*Spring Meeting of the Pacific Northwest Association for College Physics, Bellingham, Washington, April 2015

*Physics Colloquium, Reed College, December 2014

Workshop “Writing More Competitive Research Grant Proposals,” Willamette University, June 2014

*Physics Colloquium, Oregon State University, June 2014

Workshop “Advanced Laboratory Immersion,” Whitman College, Walla Walla, Washington, May 2014.

*Physics Colloquium, Portland State University, May 2014

*American Physical Society Northwest Section Meeting, Seattle, Washington, May 2014

Workshop of the Advanced Laboratory Physics Association, Harvey Mudd College, Claremont, California, June 2013

*Conference “Decoherence and Friends,” University of Waterloo, Waterloo, Canada, May 2013

Conference “New Directions in the Foundations of Physics,” Washington, D.C., May 2013

Meeting of the Pacific Northwest Association for College Physics, University of Oregon, Eugene, Oregon, April 2013

*Physics Colloquium, Reed College, December 2011

*Physics Colloquium, Lewis & Clark College, December 2011

*Conference “Concepts of Reality in the Foundations of Quantum Mechanics,” International Academy Traunkirchen, Traunkirchen, Austria, July 2011

*Workshop “Decoherence and No-signaling,” University of Bern, Switzerland, June 2011

*Conference “Advances in Quantum Theory,” Linnaeus, Sweden, June 2010

*Annual Meeting of the Danish Society for Philosophy, Copenhagen, Denmark, March 2010

*Workshop “Physical and Philosophical Perspectives on Probability, Explanation and Time” of the European Philosophy of Science Association, University of Utrecht, The Netherlands, October 2009

*Workshop “History of Quantum Theory,” University of Sydney, Australia, May 2008

*Workshop “Frontiers of Quantum Theory”, Berlin, Germany, April 2008

*Workshop “DICE 2006,” Piombino, Italy, September 2006

PAPERS PRESENTED TO PROFESSIONAL MEETINGS

Spring Meeting of the Pacific Northwest Association for College Physics, Portland, Oregon, April 2015: *Exploring Quantum Mechanics One Photon at a Time: A Quantum Eraser Experiment for Undergraduates*

Northwest Section Meeting of the American Physical Society, Pullman, Washington, May 2015: *Optimizing protective quantum measurements*

Spring Meeting of the Pacific Northwest Association for College Physics, Bellingham, Washington, April 2015: *Optimizing protective quantum measurements*

Northwest Section Meeting of the American Physical Society, Seattle, Washington, May 2014: *No-go theorem for the composition of quantum systems*

Conference “Decoherence and Friends,” University of Waterloo, Waterloo, Canada, May 2013: *The Decoherence Prism*

Conference “Concepts of Reality in the Foundations of Quantum Mechanics,” International Academy Traunkirchen, Traunkirchen, Austria, July 2011: *Elegance and Enigma: The Quantum Interviews*

Workshop “Decoherence and No-signaling,” University of Bern, Switzerland, June 2011: *Elegance and Enigma: The Quantum Interviews Project*

Conference “Advances in Quantum Theory,” Linnaeus, Sweden, June 2010: *Decoherence and Bohr’s classical concepts*

Annual Meeting of the Danish Society for Philosophy, Copenhagen, Denmark, March 2010: *Interpretation vs. reconstruction in quantum mechanics*

Workshop “Physical and Philosophical Perspectives on Probability, Explanation and Time” of the European Philosophy of Science Association, University of Utrecht, The Netherlands, October 2009: *Quantum probabilities from entanglement?*

Workshop “History of Quantum Theory,” University of Sydney, Australia, May 2008: *Quantum states: From Schrödinger to decoherence*

Workshop “Frontiers of Quantum Theory”, Berlin, Germany, April 2008: *The nature of quantum states and collapse: Interpretations, decoherence, and classical concepts*

Workshop “DICE 2006,” Piombino, Italy, September 2006: *Decoherence in quantum electromechanical systems*