# JEFFREY A. BARRETT

LOGIC AND PHILOSOPHY OF SCIENCE UNIVERSITY OF CALIFORNIA, IRVINE IRVINE, CA 92697-5100 J.BARRETT@UCI.EDU

## $9 {\rm \ May} \ 2022$

#### Employment UC Irvine 2018–present Chancellor's Professor 2004 - 2018Professor Logic and Philosophy of Science, UC Irvine Professor Philosophy, UC Irvine 2014 - 2018Associate Professor 1998 - 2004Logic and Philosophy of Science, UC Irvine 1998 Associate Professor Philosophy, UC Irvine Assistant Professor Philosophy, UC Irvine 1992 - 981990-92 Lecturer Columbia College, Columbia University EDUCATION 1992 Ph.D. with Distinction Philosophy Columbia University 1991 M.Phil. Philosophy Columbia University 1991 M.A. Philosophy Columbia University 1986 B.A. Physics Brigham Young University AREAS OF Specialization Philosophy of Physics, Philosophy of Science, Epistemology, Decision Theory, Game Theory, and Logic. Areas of Competence Philosophy of Mathematics, History of Empiricism, and American Pragmatism. BOOKS AND ANTHOLOGIES B5. Barrett, J. A. (2020) The Conceptual Foundations of Quantum Mechanics, Oxford: Oxford University Press. B4. Barrett, J. A. and P. Byrne (2012) The Everett Interpretation of Quantum Mechanics: Collected Works and Commentary 1955–1980, Princeton University Press. B3. Barrett, J. A. and J. Alexander, eds. (2002) PSA 2000 Volume II, Selected papers from symposium paper sessions of the Philosophy of Science Association meeting in Vancouver, Canada 2–4 November 2000. University of Chicago Press: Chicago. B2. Barrett, J. A. and J. Alexander, eds. (2001) PSA 2000 Volume I, Selected papers from contributed paper sessions of the Philosophy of Science Association

meeting in Vancouver, Canada 2–4 November 2000. University of Chicago Press: Chicago.

B1. Barrett, J. A. (1999) *The Quantum Mechanics of Minds and Worlds*, Oxford: Oxford University Press.

#### Archive

E1. Barrett, J. A., P. Byrne, J. Weatherall, eds. (2011) *Hugh Everett III Manuscripts*, UCIspace @ the Libraries.

Permanent url: http://hdl.handle.net/10575/1060.

This archive contains an edited collection of 230 scanned original documents and audio recordings related to Hugh Everett III (11 November 1930–19 July 1982), the American physicist who first proposed what has come to be known as the many-worlds interpretation (MWI) of quantum physics. These documents include draft and final versions of Everetts long and short Ph.D. theses and the earlier notes and draft papers that led to these published works, Everetts correspondence regarding his relative state formulation of pure wave mechanics, and miscellaneous biographical material. Most of these documents were discovered in the basement of Mark Everett, Hugh Everett III's son, in Los Feliz, California. They were scanned by the editors and are published here for the first time. This archive is a companion to the volume Barrett and Byrne (2012) The Everett Interpretation of Quantum Mechanics: Collected Works and Commentary 1955–1980, Princeton University Press.

## JOURNAL ARTICLES

A54. Barrett, J. A. and J. VanDrunen (2022) "Language Games and the Emergence of Discourse," *Synthese* volume 200, Article number 159.

A53. Barrett, J. A. and I. Goldbring (2021) Everettian Mechanics with Hyperfinitely Many Worlds, forthcoming.

A52. Barrett, J. A. (2021) "Situated Observation in Bohmian Mechanics," *Studies in the History and Philosophy of Science* 88: 345–357.

A51. Barrett, J. A. and S. Huttegger (2020) "Quantum Randomness and Underdetermination," forthcoming in *Philosophy of Science*. https://doi.org/10.1086/708712.

A50. Barrett, J. A. (2020) "Self-Assembling Games and the Evolution of Salience," forthcoming in *The British Journal for the Philosophy of Science*.

A49. Barrett, J. A. and T. LaCroix (2020) "Epistemology and the Structure of Language," forthcoming in *Erkenntnis*. Published online 10 February 2020.

A48. Barrett, J. A., B. Skyrms, and C. T. Cochran (2020) "A Hierarchical Model for the Evolution of Compositional Language," forthcoming in *Philosophy* of Science

A47. Skyrms, B. and J. A. Barrett (2018) "Propositional Content in Signals," Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences 74: 34–39. A46. Barrett, J. A., B. Skyrms, and C. T. Cochran (2018) "Hierarchical Models for the Evolution of Compositional Language, *Institute for Mathematical Behavioral Sciences* Technical Report MBS 18-03.

A45. Barrett, J. A. (2017) "Typical Worlds," *Studies in the History and Philosophy of Modern Physics* (58) 31–40.

A44. Barrett, J. A., A. Mohseni, B. Skyrms (2017) "Self-Assembling Networks," forthcoming in *The British Journal for the Philosophy of Science*.

A43. Barrett, J. A., C. T. Cochran, S. Huttegger, and N. Fujiwara (2017) "Hybrid Learning in Signaling Games," forthcoming in *Journal of Experimental* & *Theoretical Artificial Intelligence*.

\*A42 Barrett, J. A (2016) "Wigner's Friend and Bell's Beables," *Cadernos de Història e Filosofia da Ciência* 2(1) (2016): Sèrie 4.

A41. Barrett, J. A. (2016) "Typicality in Pure Wave Mechanics," *Fluctuation and Noise Letters* 15(3). https://doi.org/10.1142/S0219477516400095.

A40. Barrett, J. A. (2016) "Quantum Worlds," Principia 20(1): 45.

A39. Barrett, J. A. (2016) "Truth and Probability in Evolutionary Games," Journal of Experimental & Theoretical Artificial Intelligence 29(1): 219–225.

A38. Barrett, J. A. (2015) "On the Evolution of Truth," *Erkenntnis* 81(6): 1323–1332

A37. Barrett, J. A. (2015) "Pure Wave Mechanics and the Very Idea of Empirical Adequacy," *Synthese* 192(10): 3071–3104.

A36. Barrett, J. A. and B. Skyrms (2015) "Self-Assembling Games," British Journal for the Philosophy of Science 68(2): 329–353
\*Reprinted in Philosopher's Annual, volume XXXVII. http://www.pgrim.org/philosophersannual/past.html

A35. Barrett, J. A. (2014) "Rule-Following and the Evolution of Basic Concepts," *Philosophy of Science* 81(5): 829–39.

A34. Barrett, J. A. (2014) "Description and the Problem of Priors," *Erkenntnis* 79(6): 1343–53.

A33. Barrett, J. A. (2014) "Entanglement and Disentanglement in Relativistic Quantum Mechanics," forthcoming in *Studies in History and Philosophy of Modern Physics* 48(B): 168-74.

A32. Barrett, J. A. (2014) "The Evolution, Appropriation, and Composition of Rules," forthcoming in *Synthese*. http://dx.doi.org/10.1007/s11229-014-0421-6.

A31. Barrett, J. A. (2014) "On the Coevolution of Theory and Language and the Nature of Successful Inquiry," *Erkenntnis* 79(4): 821–834.

A30. Barrett, J. A. (2013) "On the Coevolution of Basic Arithmetic Language and Knowledge," *Erkenntnis* 78(5): 1025–1036.

A29. Barrett, J. A. (2013). "The Evolution of Simple Rule-Following" *Biological Theory* 8(2): 142–150.

A28. Barrett, J. A. (2011) "Everett's Pure Wave Mechanics and the Notion of Worlds," *European Journal for Philosophy of Science* 1(2): 277–302. doi: 10.1007/s13194-011-0023-9.

A27. Barrett, J. A. (2011) "On the Faithful Interpretation of Pure Wave Mechanics," *British Journal for the Philosophy of Science* 62(4): 693–709. doi: 10.1093/bjps/axr004.

A26. Barrett, J. A. (2010) "A Structural Interpretation of Pure Wave Mechanics," *Humana.Mente* 13: 225–236.

A25. Barrett, J. A. and W. Aitken (2010) "A Note on the Physical Possibility of Ordinal Computation," *British Journal for the Philosophy of Science* 61(4): 867–874.

A24. Barrett, J. A. and K. Zollman (2009) "The Role of Forgetting in the Evolution and Learning of Language," *Journal of Experimental and Theoretical Artificial Intelligence* 21(4): 293–309.

A23. Barrett, J. A. (2010) "Faithful Description and the Incommensurability of Evolved Languages," *Philosophical Studies* 147: 123–137.

A22. Barrett, J. A. (2008) "Approximate Truth and Descriptive Nesting," *Erkenntnis* 68: 213–24.

A21. Barrett, J. A. (2007) "Dynamic Partitioning and the Conventionality of Kinds," *Philosophy of Science* 74: 527–46.

A20. Aitken W. and J. A. Barrett (2007) Abstraction in Algorithmic Logic, *Journal of Philosophical Logic* 37: 23–43.

A19. Barrett, J. A. (2007) "The Evolution of Coding in Signaling Games," *Theory and Decision* (2009) 67:223–237. doi 10.1007/s11238-007-9064-0.

A18. Aitken W. and J. A. Barrett (2007) "Stability and Paradox in Algorithmic Logic," *Journal of Philosophical Logic* 36(1): 61–95.

A17. Barrett, J. A. (2006) "A Quantum-Mechanical Argument for Mind-Body Dualism," *Erkenntnis* 65(1): 97–115.

A16. Barrett, J. A. (2005) "Relativistic Quantum Mechanics Through Frame-Dependent Constructions," *Philosophy of Science* 72: 802–813.

A15. Barrett, J. A. (2005) "The Preferred Basis Problem and the Quantum Mechanics of Everything," *British Journal for the Philosophy of Science* 56(2): 199–220.

A14. Aitken W. and J. A. Barrett (2004) "Computer Implication and the Curry Paradox," *Journal of Philosophical Logic* 33(6): 631–637.

A13. Barrett, J. A. (2003) "Are Our Best Physical Theories Probably and/or Approximately True?" *Philosophy of Science* 70(5): 1206–1218.

A12. Barrett, J. A. and F. Arntzenius (2002) "Why the Infinite Decision Puzzle is Puzzling," *Theory and Decision* 52(2): 139–147.

A11. Barrett, J. A. (2000) "The Persistence of Memory: Surreal Trajectories in Bohms Theory," *Philosophy of Science* 67(4): 680–703.

A10. Barrett, J. A. and F. Arntzenius (1998) "An Infinite Decision Puzzle," *Theory and Decision* 46(1): 101–103.

A9. Barrett, J. A. (1998) "On the Nature of Experience in the Bare Theory," *Synthese* 113(3): 347–55.

A8. Barrett, J. A. (1997) "On Everett's Formulation of Quantum Mechanics," *The Monist* 80(1): 70–96.

A7. Barrett, J. A. (1996) "Oracles, Aesthetics, and Bayesian Consensus," *Philosophy of Science*, 63(3): 273–280.

A6. Barrett, J. A. (1996) "Empirical Adequacy and the Availability of Reliable Records in Quantum Mechanics," *Philosophy of Science* 63(1): 49–64.

A5. Barrett, J. A. (1995) "The Single-Mind and Many-Minds Versions of Quantum Mechanics," *Erkenntnis* 42: 89–105.

A4. Barrett, J. A. (1995) "The Distribution Postulate in Bohm's Theory," *Topoi* 14(1): 45–54.

A3. Barrett, J. A. and D. Z. Albert (1995) "On What It Takes to Be a World," *Topoi* 14(1): 35–37.

A2. Barrett, J. A. (1995) "Quantum Mechanics and the Measurement Problem," *Topoi* 14(1): 1–6.

A1. Barrett, J. A. (1994) "The Suggestive Properties of the Bare Theory of Quantum Mechanics," *Erkenntnis* 41: 233–252.

### OTHER

Refereed Articles and Chapters \*BC18. Barrett, J. A. (2020) "Pure Wave Mechanics, Relative States, and Many Worlds," forthcoming in *The Oxford Handbook of the History of Interpretations and Foundations of Quantum Mechanics*, Olival Freire Junior (ed), Oxford: Oxford University Press.

\*BC17. Barrett, J. A. (2020) "Scientific Inquiry and the Evolution of Language" forthcoming in *Language and Scientific Research*, Gonzalez, W. J. (ed), Palgrave Macmillan.

\*BC16. Barrett, J. A. (2020) "The Evolution of Truth and Belief" forthcoming in *Language and Scientific Research*, Gonzalez, W. J. (ed), Palgrave Macmillan.

BC15. Barrett, J. A. (2018) "Everett's Relative-State Formulation of Quantum Mechanics," *The Stanford Encyclopedia of Philosophy.* 

http://plato.stanford.edu/entries/qm-everett/ accessed 28 May 2020. New peer-reviewed article. Older articles are archived at http://plato.stanford.edu.

BC14. Barrett, J. A. (2014) "Everett's Relative-State Formulation of Quantum Mechanics," *The Stanford Encyclopedia of Philosophy.* 

http://plato.stanford.edu/entries/qm-everett/ accessed 17 August 2014. New peer-reviewed article. Older articles are archived at http://plato.stanford.edu.

BC13. Barrett, J. A. (2014) "The Prisoners Dilemma and the Coevolution of Descriptive and Predictive Dispositions," forthcoming in *The Prisoners Dilemma*, Martin Peterson (ed), Cambridge University Press. BC12. Barrett, J. A. (2014) "Quantum Mechanics and Dualism," in *Quantum Physics Meets the Philosophy of Mind.* A. Corradini and U. Meixner (eds.), de Gruyter, Berlin/New York, pp. 65–82.

BC11. Barrett, J. A. (2009) "The Ithaca Interpretation of Quantum Mechanics," in *Compendium of Quantum Physics*. D. Greenberger, K. Hentschel, F. Weinert (eds.), Springer, Berlin, pp. 325–6.

BC10. Barrett, J. A. (2009) "Many Worlds Interpretation of Quantum Mechanics," in *Compendium of Quantum Physics*. D. Greenberger, K. Hentschel, F. Weinert (eds.), Springer, Berlin, pp. 363–8.

BC9. Barrett, J. A. (2008) "Everett's Relative-State Formulation of Quantum Mechanics," *The Stanford Encyclopedia of Philosophy.* http://plato.stanford.edu/entries/qm-everett/. Revised and expanded.

BC8. Barrett, J. A. (2006) "Numerical Simulations of the Lewis Signaling Game: Learning Strategies, Pooling Equilibria, and the Evolution of Grammar," *Institute for Mathematical Behavioral Sciences* Paper 54. http://repositories.cdlib.org/imbs/54.

BC7. Barrett, J. A. and P. K. Stanford (2006) "Prediction," *The Philosophy of Science: An Encyclopedia*, Routledge.

BC6. Barrett, J. A. (2005) "Bohm, David Joseph," *Dictionary of American Philosophers*, Thoemmes Continuum Press.

BC5. Barrett, J. A. (2004) "Many-Worlds and Many-Minds Formulations of Quantum Mechanics," *Encyclopedia of Philosophy*, Macmillan Reference USA.

BC4. Barrett, J. A. (2004) "Everett's Relative-State Formulation of Quantum Mechanics," *The Stanford Encyclopedia of Philosophy.* First revised version.

BC3. Barrett, J. A. (2002) "The Nature of Measurement Records in Relativistic Quantum Field Theory," in M. Kuhlman, H. Lyre, and A. Wayne (eds.), *Onto-logical Aspects of Quantum Field Theory*, World Scientific, Singapore (2002).

BC2. Barrett, J. A. (1999) "Everett's Relative-State Formulation of Quantum Mechanics," *The Stanford Encyclopedia of Philosophy* First version.

BC1. Barrett, J. A. (1998) "The Bare Theory and How to Fix It," in The Modal Interpretation of Quantum Mechanics, D. G. B. J. Dieks and P. E. Vermaas (eds), Kluwer Academic Press (1998).

## BOOK REVIEWS

\*R11. Review of What is Real? The Unfinished Quest for the Meaning of Quantum Physics by Adam Becker. New York: Basic Books (2018). In Isis: A Journal of the History of Science Society 110(1): 213–4.

R10. Review of *The Wave Function: Essays on the Metaphysics of Quantum Mechanics* by Alyssa Ney and David Z Albert (eds.), Oxford University Press (2013). In *Notre Dame Philosophical Reviews* 2013.08.03.

R9. Review of *Scientific Representation: Paradoxes of Perspective* by Bas C. van Fraassen, Oxford University Press (2009). In *The Journal of Philosophy* 106(11): 634–639.

R8. Review of *Beyond Measure: Modern Physics, Philosophy and the Meaning of Quantum Theory* by Jim Baggott, Oxford University Press (2004) in *Metascience* 15: 279–282 (2006).

R7. Review of *The Strange World of Quantum Mechanics* by Daniel F. Styer, Cambridge University Press (2000). In *British Journal for the Philosophy of Science* 52(2): 393–396.

R6. Review of *Philosophical Concepts in Physics* by James T. Cushing, Cambridge University Press (1998). In *Isis: Official Journal of the History of Science Society* 91(4): 839–840.

R5. Review of *Quantum Chance and Nonlocality* by Michael Dickson, Cambridge University Press (1998). In *Foundations of Physics* 29(6): 1011–18.

R4. Review of Interpreting the Quantum World by Jeffrey Bub, Cambridge University Press (1997). In Isis: Official Journal of the History of Science Society 91(1): 188.

R3. Review of *How to Prove It: A Structured Approach* by Daniel J. Velleman, Cambridge University Press (1994). In *Journal of Symbolic Logic* 60: 1329–30.

R2. Review of *The Broken Dice* by Ivar Ekeland, University of Chicago Press (1993). In *Philosophia Mathematica* 3(3): 310–13.

R1. Review of *The Mind Matters: Consciousness and Choice in a Quantum World* by David Hodgson, Oxford University Press (1991). In *Philosophical Review* 103(2): 350-53.

### Other

PUBLICATIONS \*OA14. Barrett, J. A. (2020) "The Philosophy of Quantum Mechanics," The and Media Dissenter no. 332. https://www.youtube.com/watch?v=hVp1RjCu1nU OA13. Barrett, J. A. (2016) "Typical Worlds," University of Pittsburgh Center for Philosophy of Science Annual Lecture Series, 28 September 2016 (video). OA12. Barrett, J. A. (2014) "Editors Pick," The Philosophers' Magazine, Issue 66, 3rd Quarter 2014, 112–114. OA11. Barrett, J. A. (2014) "Modeling the Coevolution of Theory and Language," 17 September 2013 (video 122) iTunes U: Munich Center for Mathematical Philosophy (MCMP). OA10. Barrett, J. A. (2013) "Quantum Mechanics and Wigners Mind-Body-Dualism," Zukunftskolleg Lecture Series 10 June 2013. Forthcoming on *iTunes* U: University of Konstanz. Copy at https://www.zukunftskolleg.uni-konstanz.de/news-events/videos/. OA9. Barrett, J. A. (2013) "Description and the Problem of Priors',' in *PhilSci* Archive [2013] 6th Munich-Sydney-Tilburg Conference on Models and Decisions (Munich; 10-12 April 2013): http://philsci-archive.pitt.edu/9835/ (accessed 25 Feb 2015). OA8. Barrett, J. A. and Dickson, M. and Purves, G. (2013) "Prediction Games" PhilSci Archive

http://philsci-archive.pitt.edu/10042/ (accessed 25 Feb 2015).

OA7. Barrett, J. A. (2012) "The Quantum Measurement Problem and the Everett Interpretation," *Berfrois*, 21 June 2012. http://www.berfrois.com/2012/06/hugh-everett-iii-many-worlds-man/ (accessed 17 August 2014).

OA6. Barrett, J. A. (2011) "Quantum 101: Or Why Quantum Mechanics is Revolutionary" Aviation Week & Space Technology 173(38) 64.

OA5. Barrett, J. A. (2011) "Hyperspeed Computing" Aviation Week & Space Technology. 173(38) 64.

OA4. Barrett, J. A. (2008) "Wigners Friend and Bells Field Beables," *PhilSci* Archive, working paper.

http://philsci-archive.pitt.edu/id/eprint/8969 (accessed 17 August 2014).

OA3. Barrett, J. (2004) "Relativistic Quantum Mechanics through Frame-Dependent Constructions," in *PhilSci Archive* [2004] *Philosophy of Science Assoc. 19th Biennial Meeting - PSA2004: Contributed Papers* (Austin, TX; 2004). http://philsci-archive.pitt.edu/view/confandvol/91.html (accessed 25 Feb 2015).

OA2. Livingston, P. and J. A. Barrett (2003) "Pure Pragmatics and the Transcendence of Belief," http://philpapers.org/rec/BARPPA-5 accessed 17 August 2014.

OA1. Barrett, J. A. (2001) "Toward a Pragmatic Account of Scientific Knowledge," *PhilSci Archive*. uri: http://philsci-archive.pitt.edu/498/ accessed 20 August 2014.

#### Recent

PRESENTATIONS \*13 February 2020 "Quantum Records and Experience" CEC Seminar, Stanford University

\*15 November 2019 "Quantum Randomness and Underdetermination" Quantum Foundations in Honor of David Albert, Columbia University, NYC

\*22 July 2019 "Quantum Randomness" Los Alamos National Lab Summer School Seminar, Los Alamos, NM

\*8 May 2019 "Physical Computation in Quantum Mechanics" UC Quantum Information Science Workshop, Berkeley

\*11 March 2019 "Quantum Randomness and Underdetermination" *Philosophy* at Work: SIM Workshop, LMU, Munich

\*9 November 2018 "Quantum Randomness and Underdetermination" LPS Research Tea, UC Irvine

\*8 November 2018 "Self-Assembling Games and Networks" Philosophy of Science Association Biennial Meeting, Seattle, WA

\*4 November 2018 "A Hierarchical Model for the Evolution of Compositional Language" (paper with Cochran and Skyrms) Philosophy of Science Association Biennial Meeting, Seattle, WA

\*30 October 2018 "Quantum Measurement and Ontology" Seminar on History and Philosophy of Science, Cal Tech.

\*26 October 2018 "Typicality on Pure Wave Mechanics" invited talk at the Workshop on the Future of the Foundations of Physics, Columbia University, NYC

\*1 June 2018 "Quantum Randomness" CQIN, Lake Arrowhead, CA

\*25 May 2018 "Self-Assembling Networks" Formal Social Epistemology Workshop, Irvine, CA

\*7 November 2017 "Typical Quantum Worlds" MAPS, NYU, NYC.

\*22 September 2017 "Typicality in Quantum Mechanics" CQIN, Lake Arrowhead, CA

22 July 2017 "Quantum Records and Explanation" *Black Forest Summer School* in *Philosophy of Physics*; Saig (Black Forest), Germany.

21 July 2017 "Typical Worlds" *Black Forest Summer School in Philosophy of Physics*; Saig (Black Forest), Germany.

27 June 2017 "Probable Quantum Worlds" University of Salzburg, Philosophy Department Colloquium.

10 March 2017 "Description and the Evolution of Truth" (keynote lecture) Lenguaje e investigación científica: Papel del lenguaje en la Ciencia Básica y la Ciencia Aplicada, Ferrol (A Corua), Spain.

9 March 2017 "Scientific Inquiry and the Evolution of Language" (keynote lecture) Lenguaje e investigación científica: Papel del lenguaje en la Ciencia Básica y la Ciencia Aplicada, Ferrol (A Corua), Spain.

3 March 2017 "Coevolution of Language and Knowledge" Salzburg, Irvine, Munich (SIM) Workshop, UC Irvine.

18 November 2016 "Quantum Field Theory and the Problem of Determinate Records" *Metaphysics and Physics: Methodological Links*, University of Lausanne.

28 October 2016 "Typical Worlds" Pittsburgh Center for Philosophy of Science Annual Lecture Series.

18 July 2016 "Typicality and Pure Wave Mechanics" Foundations 2016: The 18th UK and European Conference on Foundations of Physics; LSE, London, England.

3 April 2016 "Typicality in Pure Wave Mechanics" University of Michigan Foundations of Modern Physics Workshop.

7 October 2015 "Self Assembling Games" Social Dynamics Seminar, UC Irvine.

20 August 2015 "Probability in Pure Wave Mechanics" Ninth *Principia* International Symposium: Possible worlds and their applications in philosophy and the sciences, Federal University of Santa Catarina. 19 August 2015 "Quantum Worlds" Ninth *Principia* International Symposium: Possible worlds and their applications in philosophy and the sciences, Federal University of Santa Catarina.

24 July 2015 "How Everett Understood Pure Wave Mechanics" 3rd International Summer School in Philosophy of Physics: The Ontology of Physics, Saig (Black Forest), Germany, 20-25 July 2015.

22 July 2015 "Entanglement and Disentangment in Relativistic Quantum Mechanics" 3rd International Summer School in Philosophy of Physics: The Ontology of Physics, Saig (Black Forest), Germany, 20-25 July 2015.

23 April 2015 "On the Evolution of the Notion of Probability" SIM Workshop, Salzburg, Austria.

7 October 2014 "Birds, Games, and Logic" Social Dynamics Seminar, UC Irvine.

25 April 2014 "The Quantum Measurement Problem and Wigners Solution" Philosophy Department Colloquium, CSUSB.

25 January 2014 "A Logic of Intensional Functions" (with Wayne Aitken) SoCal PhilMath + PhilLogic + FoM Workshop, USC.

30 July 2013 "Pure Wave Mechanics and the Very Idea of Empirical Adequacy" Foundations of Physics Conference, LMU, Munich, Germany.

5 June 2013 "Why Wigner Thought That Quantum Mechanics Required Mind-Body Dualism" Quantum Physics Meets Philosophy of Mind, Catholic University of Milan, Italy.

26 April 2013 "On the Evolution of Simple Ordinal Concepts and Transitive Inference" GIRL'13@LUND, Lund, Sweden.

20 April 2013 "Pure Wave Mechanics and the Very Idea of Empirical Adequacy" PERSP Workshop on Spacetime and the Wave Function, Barcelona, Spain.

11 April 2013 "Description and the Problem of Priors" Models and Decisions Conference, LMU (MCMP), Munich, Germany.

1 April 2013 "Everett's Relative State Formulation of Quantum Mechanics and the very Idea of Empirical Adequacy" Philosophy Department, Princeton University .

10 June 2013 "Quantum Mechanics and Wigner's Mind-Body Dualism" Zukunftskolleg Lecture, University of Konstanz.

16 November 2012 "The Evolution of Rule Following in Nature" 2012 Biennial Philosophy of Science Association Meeting, San Diego, California.

23 October 2012 "The Evolution of Rule Following Behavior and Inductive Inference" LPS Game Theory Seminar, UC Irvine.

8 October 2012 "Quantum Mechanics and the Measurement Problem" Freshman Seminar, Physics Department UC Irvine.

3 July 2012 "Empirical Adequacy and Pure Wave Mechanics" Colloquium, Department of Physics, University of Konstanz.

28 June 2012 "On the Physical Possibility of Ordinal Computation" Physics and Computation Workshop, Institut Henri Poincarè, Paris.

6 June 2012 "Coevolution of Numbers and Basic Arithmetic Knowledge" Formal Epistemology Festival, University of Konstanz.

24 May 2012 "On the Empirical Adequacy of Pure Wave Mechanics" Philosophy of Physics Research Seminar, Oxford University.

16 May 2012 "Reality and Quantum Information: A Conversation between a Theoretical Physicist and a Philosopher" with Guido Burkard Philosophy Beyond Borders, Zukunftskolleg, University of Konstanz.

10 May 2012 "On the Coevolution of Theory and Language" Colloquium, Center for Mathematical Philosophy, Ludwig-Maximilians-Universität München (LMU).

30 April 2012 "Modeling the Coevolution of Theory and Language" Logic Workshop, University of Konstanz.

16 April 2012 "On the Empirical Adequacy of Pure Wave Mechanics" Philosophy of Science Colloquium, Institute Vienna Circle, University of Vienna.

11 April 2012 "Quantum Entanglement and Relativity" Foundations of Physics Colloquium, Universitat Autònoma de Barcelona/ Universitat de Barcelona.

19 March 2012 "Entanglement and Disentanglement in Relativistic Quantum Mechanics" Philosophy of Science Workshop, University of Konstanz.

8 March 2012 "The Coevolution of Theory and Language" Colloquium, Department of Philosophy, University of Salzburg.

13 February 2012 "How to Understand Everett's Pure Wave Mechanics as Empirically Adequate" Sigma Club Lecture, London School of Economics.

26 January 2012 "The Coevolution of Arithmetic Language and Knowledge" Colloquium, Zukunftskolleg, University of Konstanz

12 January 2012 "On the Coevolution of Theory and Language" Colloquium, Department of Philosophy, University of Konstanz

12 December 2011 "Pure Wave Mechanics and the Very Idea of Empirical Adequacy" Foundations of Physics Workshop, University of Konstanz.

#### PROFESSIONAL SERVICE

*2018–present	Editorial Board, Philosophy of Science
*2018	Reviewer for Philosophical Gourmet
*2018-20	PSA Open Access Monograph Series Committee
*2020	Member of Program committee, Co-organizer, and Reviewer for FEW 2020
*2018	Skyrms Conference Co-organizer
*2018	Reviewer for the Zukunftskolleg Fellowship Program, University of Konstanz
2009 - 2017	Editor-in-Chief, Philosophy of Science
*2007-present	Editorial Board, Blackwell Philosophy Compass
2011 - 2017	Advisory Board, <i>PhilSci Archive</i>
2014 - 2016	Program Committee, IPP Phil Physics Workshops

2013 - 4	Program Committee, 2014 Lund G.I.R.L. Conference
2008 - 9	Program Committee, 2009 EPSA, Amsterdam
2004 - 5	Nominating Committee Chair, Philosophy of Science Association
2003 - 4	Program Committee, APA Western Division Meeting
1998 - 2000	Program Committee Chair, PSA 2000

Reviewed journal articles for: Philosophy of Science (8\*), British Journal for the Philosophy of Science (2\*), Erkenntnis(2\*), Physical Review, Physics Letters, Foundations of Physics, Journal of Symbolic Logic, Synthese(3\*), Notre Dame Journal of Formal Logic, Journal of Philosophical Logic, Studies in the History and Philosophy of Modern Physics (3\*), Studies in History and Philosophy of Biological and Biomedical Sciences (2\*), Journal of Biomedical Optics, International Studies in the Philosophy of Science, Consciousness and Cognition, Theory and Decision, American Journal of Physics, Philosophers' Imprint, European Journal for the Philosophy of Science\*, Topoi, Philosophy Compass, and Nature\*.

Reviewed book manuscripts for Oxford University Press, Cambridge University Press, \*Synthese Library, Broadview Press, SUNY Press, and Princeton University Press.

Served as an ad hoc proposal reviewer for VolkswagenStiftung Momentum Grant (2019)\*, the National Science Foundation (2017, 2014, 2012), the Swiss National Science Foundation (2017), the Israel Science Foundation (2015), and the Netherlands Organization for Scientific Research (2015).

I ELLOWSIII S,		
Awards, and Honors	2022–present	Fellow of the American Academy of Arts and Sciences
	2019	Philosophers Annual Paper Award with Brian Skyrms
	2018	UC Irvine Chancellor's Professor
	2018–present	Honorary Fellow, John Bell Institute for the Foundations of Physics
	2016 - 17	FQXi small research grant for Salzburg book project
	2009-7	PSA graduate student PhilSci Managing Editor grants
	2015 - 6	Daniel G. Aldrich, Jr. Distinguished University Service Award
	2013	Zukunftskolleg Lecture, University of Konstanz
	2013	FQXi small research grant for IPP conference
	2011 - 12	Senior Fellow, University of Konstanz
	2010 - 13	Chancellors Fellow, UC Irvine
	2009 - 10	NSF Grant "Everett Papers Archive and Commentary" \$160k
	1996 - 7	University of California President's Faculty Research Fellowship
	1996 - 7	University of Pittsburgh Center for Philosophy of Science Fellow

## Special

FELLOWSHIPS.

Projects

Primary advisor for history and philosophy of science on a \$100,000 research and planning grant from the Getty Foundation to the Beall Center for Art + Technology. David Familian, artistic director and curator for the Beall Center, is responsible for leading the research and planning.

# UNIVERSITY

## SERVICE

- 2022 Search Committee for Dean of DCE
- 2020–21 Chair of the Academic Senate, Irvine Division
- 2020–21 Committee on Committees (ex officio)
- 2019–21 UC Irvine Division Senate Cabinet (ex officio chair)
- 2019–21 Senate Assembly (Irvine Division) (ex officio chair)
- 2020–21 Systemwide Academic Senate Council
- 2021 UC Systemwide Senate-Administration Mitigating COVID-19 Impacts on Faculty V
- 2021 Reimagining Graduate Education APG Workgroup (Co-Chair with Gillian Hayes)
- 2019–20 Chair-Elect and Secretary of the Academic Senate, Irvine Division
- 2018–19 Academic Planning Group (Co-Chair)
- 2020–21 UC Irvine COVID-19 Strategic Advisory Group
- 2020–21 UC Irvine Budget Work Group
- 2020–21 Budget Workgroup Subcommittee on Academic Policies
- 2020-21 SCOREX (Executive Committee for Campus Reaffirmation)
- 2020-21 WASC Reaffirmation Committee
- 2020-21 UC Irvine Provost Search Committee
- 2021 Search Committee for Chief Information Officer and AVC
- 2021 Search Committee for Chief Innovation Officer & Executive Director UCI Beall Ap
- 2021 Campus Vaccine Preparation Group
- 2021 International Student Workgroup
- 2019-20 APG Data-Use Task Group (Co-Chair)
- 2019–20 UC Irvine Council on Planning and Budget (ex officio)
- 2018–21 UC Irvine Distinctions Committee
- 2015-pr PPE MA Program Admissions Committee and Executive Committee
- 2020–21 Systemwide reviewer for UC Presidents Postdoctoral Fellows Program
- 2020–21 Educational Continuity Planning Group
- 2020 Fall Incoming Students and Coronavirus Task Group
- 2019–20 UC Irvine Budget Model Workgroup
- \*2018 Social Sciences Dean Review Committee
- 2016–pr Campuswide Honors Collegium Professor
- 2018–19 Executive Level Cybersecurity Risk Workgroup
- 2018–19 Systemwide UCORP (UC Irvine Representative)
- 2018–19 APG Self-Supporting program Task Group
- 2018–19 Science Library Review Committee
- 2018–pr PPE MA Admissions Committee
- 2016–19 Council on Research Computing and Libraries (CORCL) (Chair 2018-9)
- 2015–pr LPS Personnel Committee
- 2015–pr LPS Admissions Committee
- 2015–pr LPS Graduate Student Spring Evaluation Committee
- 2003–pr Social Science CHC Course Lecturer
- 2014–5 Chair, Political Science Chair Search Committee
- 2014–5 Social Sciences Semicentennial Committee
- 2014 Acting Chair, Logic and Philosophy of Science
- 2014 Chair, Ad Hoc Personnel Review Committee
- 2014 Member Campuswide Honors Program External Review Committee
- 2013–4 Co-Proposer, M.A. Degree in Philosophy, Political Science, & Economics

- 2009–13 Department Chair, Logic and Philosophy of Science
- 2008–9 Member of the Council on Academic Personnel (CAP)
- 2008–9 Acting LPS Graduate Recruitment Officer
- 2007–9 Director of Undergraduate Studies, LPS
- 2001–7 Chair, Logic and Philosophy of Science
- 1999–02 Member of Council on Educational Policy (CEP)
- 1999–01 UCI Director for the UCI/UCSD PhilSci Joint Research Program
- 1999–01 Director of Undergraduate Studies, LPS
- 2000 Acting Chair, Logic and Philosophy of Sciences
- 1999–00 Director of Undergraduate and Graduate Studies, LPS
- 1998 Member of UC Irvine Humanities Executive Committee
- 1997–98 Acting Director for UC Irvine Program in HPS
- 1994–96 Director of Graduate Studies, Department of Philosophy
- 1994–96 Member and Chair, Humanities Computer Policy Committee
- 1994–95 Member of the UC Irvine Committee for Teaching Quality
- 1993–95 Humanities Core Course Lecturer

#### Mentoring

Served on UC Irvine Ph.D. dissertation and/or advancement committees in Logic and Philosophy of Science, Philosophy, Economics, Physics, Chemistry, Biological Sciences, Computer and Information Science, Cognitive Science, English and Comparative Literature, Comparative Literature, East Asian, and Anthropology. Served on a University of Illinois, Chicago Circle Philosophy Ph.D. dissertation committee, a UCSD Philosophy advancement committee, a Paris-Sorbonne/Paris-1 Philosophy committee as Rapporteur (2014), and a University of Lausanne Ph.D. committee as external examiner (2016).

Salient Advancement Committees: Andrew Burton (2019, Cognitive Science), Kevin Kadowaki (2020, LPS), Lee Killam (2019, LPS), Travis Lacroix (2019, LPS; advisor), Kino Zhao (2018, LPS), Gerard Rothfus (2018, LPS), Michael Schneider (2018, LPS), Christopher Mitsch (2018, LPS), Marian Gilton (2017, LPS), Sarita Rosenstock (2016, LPS), K. Violet McKeon (2013, Philosophy), Mark Bloxsom (2013, Economics), Ian Finn (2013, Economics), Matthew Kidder (2013, Economics), Paul Lombardi (2013, Economics), Bryan Reeves (2013, Economics), Jiaxi Wang (2013, Economics), Katherine Williams (2013, Economics), Alexander Wijangco (Physics, 2013), Benjamin Rin (LPS, 2012; advisor).

Salient Ph.D. Committees: Travis Lacroix (2020, LPS; Chair), Calvin Cochran (2020, IMBS; Chair), Sarita Rosenstock (2019, LPS), Marian J.R. Gilton (2019, LPS), Benjamin Feintzeig (2016, LPS), K. Violet McKeon (2016, Philosophy), Bennett Holman (2015, LPS), Benjamin Rin (2014, LPS; Co-Chair), Gregory McWhirter (2014, LPS), Samuel Fletcher (2014, LPS), Forrest Flemming (2014, Philosophy), Maël Pégny (Paris-Sorbonne/Paris-1, Philosophy; Rapporteur), Cailin O'Connor (2013, LPS), James Owen Weatherall (2012, LPS), Elliott Wagner (2012, LPS), Peter Lewis (1995, Philosophy; Chair).

Currently advising Ph.D. students: Tim Schmitz (LPS)\*. Served as undergraduate CHP honors thesis advisor for Jacob Vandrunen (2020)\*, UROP faculty sponsor, SURF faculty sponsor. Served on two UTeach projects including one with Ema Bidiwala for 2014-5.

Community presentations: Presented "How Quantum Mechanics Works" at the Irvine Unified School District STEM Career Conference 15 December 2015. Presented "Quantum Mechanics" three times at IUSD 21st Century Career Conference UCI 14 December 2017. Participated in IUSD "Ask and Scientist" at Rancho Middle School 13 October 2016. \*Ask a Scientist Night IUSD (2018 and 2019). \*IUSD science fair judge (2019 and 2020), \*21st Century Conference (7th graders) IUSD "Quantum Mechanics" (2018 and 2019), \*Keynote speaker for UCI Volleyball Senior Tribute "Games in the Iliad" (31 March 2019), \*Panel Member Sci-Fi Faculty Forum on Future Science 17 May 2019, \*Panel Member on Journal Editing, Reviewing, and Submitting at Society of Inclusive Excellence Fellows Lunch 12 Feb 2020.

Campuswide Honors Program Experience Day Speaker (2011,13,14), CHP Quiz Bowl (2011,13,14,15,16), CHP Fireside Chat Speaker (20 May 2014).

## Affiliations

2014–present	American Association for the Advancement of Science
1997–present	Member of UC Irvine Institute for Mathematical Behavioral Sciences
1992–present	Member of American Philosophical Association
1992–present	Member of the Philosophy of Science Association