GUALTIERO PICCININI

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Employment

Curators' Distinguished Professor, Department of Philosophy, University of Missouri – Columbia, 2024-present.

Curators' Distinguished Professor, Department of Philosophy and Center for Neurodynamics, University of Missouri – Saint Louis, 2019-2024.

Associate Director, Center for Neurodynamics, 2015-2024.
Affiliate, Gender Studies, 2015-2024.
Department chair, 2011-2014.

Professor, Department of Philosophy and Center for Neurodynamics, University of Missouri - Saint Louis, 2014-2019.

Associate Professor, Department of Philosophy and Center for Neurodynamics, University of Missouri – Saint Louis, 2010-2014.

Assistant Professor, Department of Philosophy, University of Missouri – Saint Louis, 2005-2010.

James S. McDonnell Post Doctoral Research Fellow, Program in Philosophy, Neuroscience, and Psychology, Washington University in St. Louis, 2003-2005.

Visiting Positions

Visiting Fellow, Australian National University, July-August 2023.

Visiting Professor, Washington University in St. Louis, Spring 2015.

Fellow, Institute for Advanced Studies at the Hebrew University of Jerusalem, Jerusalem, Israel, May 2011.

Visiting Assistant Professor, SCUDO (engineering graduate school), Politecnico di Torino, Italy, May 2007 and June 2009.

Education

Ph.D., History and Philosophy of Science, University of Pittsburgh, August 2003.

B.A., Philosophy and Cognitive Science, *cum laude* (highest honor), Università di Torino, Italy, 1994.

Research Areas

Specialization: Mind, Psychology, Neuroscience, Computation
Competence: Metaphysics, Epistemology, Language, Science

Awards

2019 *Chancellor's Award for Research and Creativity*, University of Missouri - St. Louis.

2018 *K. Jon Barwise Prize*, given by the American Philosophical Association in conjunction with the APA Committee on Philosophy and Computers.

2014 *Herbert A. Simon Award*, given by the International Association for Computing and Philosophy (IACAP).

Editorial Service

1. Editorial Board, *Minds and Machines*, 2024-.
2. Review Editor, *Frontiers in Psychology – Consciousness Research*, 2022-.

3. Scientific Committee, Rosenberg&Sellier book series "Le Scienze: Storia-teorie-metodo-etica," 2019-.
4. Editorial Advisory Board, *Open Philosophy*, 2017-.
5. Board of Reviewers, *Cognitive Science*, 2015-.
6. Editorial Board, *Humanities*, 2011-.
7. Editor of the *Synthese* ongoing Topical Collection "Neuroscience and Its Philosophy," 2010-.
8. Editor-in-Chief of the Springer book series "Studies in Brain and Mind," 2010-.
9. Board of Editors, *The Rutherford Journal: The New Zealand Journal for the History and Philosophy of Science and Technology*, 2010-.
10. Area Editor of PhilPapers for Philosophy of Cognitive Science, 2011-2019.
11. Philosophy Editor, *Journal of Cognitive Science*, 2009-2019.

Books

1. *The Physical Signature of Computation: A Robust Mapping Account* (with Neal Anderson). Oxford: Oxford University Press (2024). Oxford Scholarship Online: Oxford University Press (May 2024). DOI:10.1093/9780191872075.001.0001
2. *The Computational Theory of Mind* (with Matteo Colombo), for Cambridge Elements. Cambridge: Cambridge University Press (2023). DOI:10.1017/9781009183734
3. *Neurocognitive Mechanisms: Explaining Biological Cognition*, Oxford: Oxford University Press (2020). Oxford Scholarship Online: Oxford University Press (November 2020). DOI:10.1093/oso/9780198866282.001.0001
   (Chinese translation, 2023)
4. *Physical Computation: A Mechanistic Account*, Oxford: Oxford University Press (2015). Oxford Scholarship Online: Oxford University Press (August 2015). DOI:10.1093/acprof:oso/9780199658855.001.0001

Edited Volumes and Special Issues

1. Guest editor (with Johannes Brinz), *Philosophy of Neuromorphic AI*, special issue of *Philosophy of AI* (in preparation).
2. Editor and introduction, *Neurocognitive Foundations of Mind*. Under contract with Routledge.
3. Guest editor (with Michelle Ciurria), *Rape and Trauma*, special issue of *Humanities*, 7.2 (2018).
4. Guest editor, *Computation and Representation in Cognitive Neuroscience*, special issue of *Minds and Machines*, 28.1 (2018).
5. Section editor and Introduction, Foundational Issues in Cognitive Neuroscience, in *Handbook of Neuroethics*, edited by Jens Clausen and Neil Levy (2015), Berlin: Springer.
6. Guest editor (with Liza Skidelsky), *Computationalism and Mechanism in Psychological Explanation*, special issue of the *Journal of Cognitive Science*, 14.3 (2013).
7. Guest editor, *A Computational Foundation for the Study of Cognition I, II, III*, *IV* four special issues of the *Journal of Cognitive Science*, 12.4 (2011), 13.1, 13.2, 13.3 (2012).
8. Guest editor, *Computational Explanation in Neuroscience*, special issue of *Synthese*, 153.3 (2006).

Articles

1. "Knowledge as Factually Grounded Belief," *American Philosophical Quarterly* 59.4 (2022), pp. 403-417.
2. "Neurocognitive Mechanisms: A Situated, Multilevel, Mechanistic, Neurocomputational, Representational Framework for Biological Cognition," *Journal of Consciousness Studies*, 29.7-8 (2022), pp. 167-174. (Summary of *Neurocognitive Mechanisms: Explaining Biological Cognition*.)

3. "Neurocognitive Mechanisms: Some Clarifications," *Journal of Consciousness Studies*, 29.7-8 (2022), pp. 226-250. (Response to commentators on *Neurocognitive Mechanisms: Explaining Biological Cognition*.)
4. "Physicalism: Flat and Egalitarian," in Meir Hemmo, Stavros Ioannidis, Orly Shenker, and Gal Vishne, eds., *Levels of Reality*, Berlin: Springer (2022), pp. 195-208.
5. "Situated Neural Representations: Solving the Problems of Content," in a special issue of *Frontiers in Neurorobotics* edited by Adam Safron, Inês Hipólito, and Andy Clark on Bio A.I. - From Embodied Cognition to Enactive Robotics, 16 (2022): 846979.
   Reprinted in A. Safron, A., I. Hipólito, and A. Clark, eds., *Bio A.I. - From Embodied Cognition to Enactive Robotics*. Lausanne: Frontiers Media SA (2023).
6. "An Egalitarian Account of Composition and Realization," *The Monist*, 105.2 (2022), pp. 276–292.
7. "The Myth of Mind Uploading," in Robert W. Clowes, Klaus Gärtner, and Inês Hipólito, eds., *The Mind-Technology Problem: Investigating Minds, Selves and 21st Century Artefacts*, Berlin: Springer (2021), pp. 125-144.
8. "Nonnatural Mental Representation," in K. Dolega, T. Schlicht, J. Smortchkova, eds., *What Are Mental Representations?* Oxford: Oxford University Press (2020), pp. 254-286.
9. "Quantum-like Behavior without Quantum Physics III. Logic and Memory" (with Stephen A. Selesnik), *Journal of Biological Physics* 45.4 (2019), pp. 335-366.
10. "The Mechanistic Account of Physical Computation: Some Clarifications," *APA Newsletter on Philosophy and Computing* 19.1 (2019), pp. 27-32.
11. "Conceived This Way: Innateness Defended" (with Robert Northcott), *Philosophers' Imprint* 18.18 (2018), pp. 1-16.
12. "The Ways of Altruism" (with Armin Schulz), *Evolutionary Psychological Science* 5.1 (2018), pp. 58-70.
13. "Quantum-like Behavior without Quantum Physics II. A Quantum-like Model of Neural Network Dynamics" (with Stephen A. Selesnik), *Journal of Biological Physics* 44.4 (2018), pp. 501–538.
14. "The Evolution of Psychological Altruism" (with Armin Schulz), *Philosophy of Science* 18.5 (2018), pp. 1054-1064.
15. "Ontic Pancomputationalism" (with Neal Anderson), in M. E. Cuffaro and S. E. Fletcher, eds., *Physical Perspectives on Computation, Computational Perspectives on Physics*, Cambridge: Cambridge University Press (2018), pp. 23-38.
16. "Towards a Cognitive Neuroscience of Intentionality" (with Alex Morgan), *Minds and Machines* 28.1 (2018), pp. 119-139.
17. "Neural Representations Observed" (with Eric Thomson), *Minds and Machines* 28.1 (2018), pp. 191-235.
18. "A Unified Mechanistic Account of Teleological Functions for Psychology and Neuroscience" (with Corey J. Maley), in David Kaplan (ed.), *Explanation and Integration in Mind and Brain Science*, Oxford: Oxford University Press (2017), pp. 236-256.
19. "Quantum-like Behavior without Quantum Physics I: Kinematics of Quantum-like Systems" (with Stephen A. Selesnik and J. Piers Rawling), in *Journal of Biological Physics* 43.3 (2017), pp. 415-444.
20. "Activities are Manifestations of Causal Powers," in Marcus Adams, Zvi Biener, Uljana Feest, and Jacqueline Sullivan (eds.), *Eppur Si Muove: Doing History and Philosophy of Science with Peter Machamer*, Berlin: Springer (2017), pp. 171-182.
21. "Access Denied to Zombies," *Topoi* 36.1 (2017), pp. 81-93.
22. "Mechanistic Abstraction" (with Worth Boone), *Philosophy of Science* (2016), 83.5, pp. 686–697.

23. "Closed Loops and Computation in Neuroscience: What It Means and Why It Matters" (with Corey J. Maley), in Ahmed El Hady (ed.), *Closed Loop Neuroscience*, London: Elsevier (2016), pp. 271-277.
24. "The Computational Theory of Cognition," in V. C. Müller (ed.), *Fundamental Issues of Artificial Intelligence* (Synthese Library Volume 376), Berlin: Springer (2016), pp. 201-219.
25. "The Cognitive Neuroscience Revolution" (with Worth Boone), *Synthese* (2016), 193.5, 1509–1534.
26. "Is Consciousness a Spandrel?" (with Zack Robinson and Corey J. Maley), *Journal of the American Philosophical Association*, 1.2 (2015), 365-383.
27. "No Mental Life after Brain Death: The Argument from the Neural Localization of Mental Functions" (with Sonya Bahar). In Michael Martin and Keith Augustine, eds., *The Myth of an Afterlife: The Case against Life after Death*, Lanham, MD: Rowman and Littlefield (2015), pp. 135-170.
28. "The Metaphysics of Mind and the Multiple Sources of Multiple Realizability" (with Corey J. Maley), in M. Sprevak and J. Kallestrup, eds., *New Waves in the Philosophy of Mind*, Palgrave Macmillan (2014), pp. 125-152.
29. "Functions Must Be Performed at Appropriate Rates in Appropriate Situations" (with Justin Garson), *British Journal for the Philosophy of Science*, 65.1 (2014), pp. 1-20.
30. "Get the Latest Upgrade: Functionalism 6.3.1" (with Corey J. Maley), in a special issue of *Philosophia Scientiae* on the Mind-Body Problem in Cognitive Neuroscience edited by Gabriel Vacariu, 17.2 (2013), pp. 135-149.
31. "Neural Computation and the Computational Theory of Cognition" (with Sonya Bahar), *Cognitive Science* 34 (2013), pp. 453–488.
32. "From Phenomenology to the Self-Measurement Methodology of First-Person Data" (with Corey J. Maley), in Richard Brown, ed., *Consciousness Inside and Out: Phenomenology, Neuroscience, and the Nature of Experience*, Berlin: Springer (2013), pp. 27-34.
33. "Integrating Psychology and Neuroscience: Functional Analyses as Mechanism Sketches" (with Carl F. Craver), *Synthese*, 183.3 (2011), pp. 283-311.
    Reprinted in J. L. Bermudez and B. N. Towl, eds., *The Philosophy of Psychology*, New York: Routledge (2012).
34. "The Physical Church-Turing Thesis: Modest or Bold?" *The British Journal for the Philosophy of Science*, 62.4 (2011), pp. 733-769.
35. "Information Processing, Computation, and Cognition" (with Andrea Scarantino). *Journal of Biological Physics*, 37.1 (2011), pp. 1-38.
36. "Two Kinds of Concept: Implicit and Explicit," *Dialogue*, 50 (2011), pp. 179-193.
37. "Scientific Methods Must Be Public, and Descriptive Experience Sampling Qualifies." *Journal of Consciousness Studies*, 18.1 (2011), pp. 102-117, a symposium on *Describing Inner Experience? Proponent Meets Skeptic*, by R. T. Hurlburt and E. Schwitzgebel (followed by a response by Schwitzgebel).
38. "The Resilience of Computationalism." *Philosophy of Science*, 77.5 (2010), pp. 852-861.
39. "Computation vs. Information Processing: Why Their Difference Matters to Cognitive Science" (with Andrea Scarantino). *Studies in the History and Philosophy of Science*, 41.3 (2010), pp. 237-246.
40. "The Mind as Neural Software? Understanding Functionalism, Computationalism, and Computational Functionalism." *Philosophy and Phenomenological Research*, 81.2 (2010), pp. 269-311.
41. "Recovering What Is Said with Empty Names" (with Sam Scott). *Canadian Journal of Philosophy*, 40.2 (2010), pp. 239-274.
42. "Information without Truth" (with Andrea Scarantino). *Metaphilosophy*, 43.3 (2010), pp. 313-330.

Reprinted in P. Allo, ed., *Putting Information First: Luciano Floridi and the Philosophy of Information*, Blackwell (2011), pp. 66-83.

43. "How to Improve on Heterophenomenology: The Self-Measurement Methodology of First-Person Data." *Journal of Consciousness Studies*, 17.3-4 (2010), pp. 84-106.
44. "Are Prototypes and Exemplars Used in Distinct Cognitive Processes?" (with James Virtel), commentary on Edouard Machery's book *Doing without Concepts*, *Behavioral and Brain Sciences*, 33 (2010), pp. 226-227.
45. "First-Person Data, Publicity, and Self-Measurement." *Philosophers' Imprint,* 9.9 (2009), pp. 1-16.
46. "Some Neural Networks Compute, Others Don't," *Neural Networks*, 21.2-3 (2008), pp. 311-321, invited submission to a special issue on "Advances in Neural Networks Research: IJCNN '07, 2007 International Joint Conference on Neural Networks."

    An early, abbreviated version of some portions of this article appeared as "Connectionist Computation" in *International Joint Conference on Neural Networks 2007 Conference Proceedings*. CD-ROM. International Neural Network Society and IEEE Computational Intelligence Society (2007).
47. "Computation without Representation," *Philosophical Studies*, 137.2 (2008), 205-241.
48. "Computers," *Pacific Philosophical Quarterly*, 89.1 (2008), 32-73.
49. "Computing Mechanisms," *Philosophy of Science*, 74.4 (2007), 501-526.
50. "Computational Modeling vs. Computational Explanation: Is Everything a Turing Machine, and Does It Matter to the Philosophy of Mind?" *Australasian Journal of Philosophy*, 85.1 (2007), pp. 93-115.

    Italian translation (slightly abridged, followed by a commentary by Simone Gozzano): "Modelli computazionali e spiegazioni computazionali," in P. Cherubini, P. Giaretta, M. Marraffa, and A. Paternoster (eds.), *Cognizione e Computazione: Problemi, metodi e prospettive delle spiegazioni computazionali nelle scienze cognitive*, CLEUP, Padova (2006), pp. 103-125.
51. "Computationalism, the Church-Turing Thesis, and the Church-Turing Fallacy," *Synthese*, 154.1 (2007), pp. 97-120.
52. "The Ontology of Creature Consciousness: A Challenge for Philosophy" (commentary on "Consciousness without a Cerebral Cortex: A Challenge for Neuroscience and Medicine," by Björn Merker), *Behavioral and Brain Sciences*, 30.1 (2007), pp. 103-104.
53. "Computational Explanation and Mechanistic Explanation of Mind," in *Cartographies of the Mind: Philosophy and Psychology in Intersection*, M. de Caro, F. Ferretti, and M. Marraffa, eds., Dordrecht: Springer (2007), pp. 23-36.

    Chinese translation, Science Press, Beijing, 2011.
54. "Splitting Concepts" (with Sam Scott), *Philosophy of Science*, 73.4 (2006), pp. 390-409 (followed by a response by Edouard Machery).
55. "Functionalism, Computationalism, and Mental Contents," *Canadian Journal of Philosophy*, 34.3 (2004), pp. 375-410.
56. "Functionalism, Computationalism, and Mental States," *Studies in the History and Philosophy of Science*, 35.4 (2004), pp. 811-833.
57. "The First Computational Theory of Mind and Brain: A Close Look at McCulloch and Pitts's 'Logical Calculus of Ideas Immanent in Nervous Activity'," *Synthese*, 141.2 (2004), pp. 175-215.
58. "Data from Introspective Reports: Upgrading from Commonsense to Science," *Journal of Consciousness Studies*, 10.9-10 (2003), pp. 141-156, invited submission to a special issue.

    Reprinted in Anthony I. Jack and Andreas Roepstorff, eds., *Trusting the Subject? The Use of Introspective Evidence in Cognitive Science*, *Volume 1*, Exeter: Imprint Academic (2003), pp. 141-156.

59. "Epistemic Divergence and the Publicity of Scientific Methods," *Studies in the History and Philosophy of Science*, 34.3 (2003), pp. 597-612.
60. "Alan Turing and the Mathematical Objection," *Minds and Machines*, 13.1 (2003), pp. 23-48, invited submission to a special issue on hypercomputation.
61. "Turing's Rules for the Imitation Game," *Minds and Machines*, 10.4 (2000), pp. 573-582, invited submission to a special issue on the Turing test.
    Reprinted in James H. Moor, ed., *The Turing Test: The Elusive Standard of Artificial Intelligence*, Dordrecht: Kluwer (2003), pp. 111-120.

Review Articles and Encyclopedia Entries

1. "Technology and Philosophy" (with Danielle Williams), forthcoming in Chan Sin-wai, ed., *Routledge Encyclopedia of Technology and the Humanities*, Routledge.
2. "Cognitive Computational Neuroscience" (with J. Brendan Ritchie), in Nora Heinzelmann, ed., *Advances in Neurophilosophy*. Bloomsbury (2024), pp. 151-178.
3. "Computation in Physical Systems" (with Corey Maley), *The Stanford Encyclopedia of Philosophy* (2021), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/sum2021/entries/computation-physicalsystems/>. (Substantive revision of the 2015 article by the same name.)
4. "Philosophy of Neuroscience" (with John Bickle). In Oxford Bibliographies in Philosophy. Ed. Duncan Pritchard. New York: Oxford University Press (2020). DOI: 10.1093/OBO/9780195396577-0399
5. "Computational Implementation" (with J. Brendan Ritchie), in Mark Sprevak and Matteo Colombo, *Routledge Handbook of the Computational Mind*, New York: Routledge (2018), pp. 192-204.
6. "Computation and Representation in Cognitive Neuroscience," in *Minds and Machines* 28.1 (2018), pp. 1–6.
7. "The Evolution of Consciousness" (with Corey J. Maley), in Rocco Gennaro, ed., *Routledge Handbook of Consciousness*, New York: Routledge (2018), pp. 379-387.
8. "Computational Mechanisms," in Stuart Glennan and Phyllis Illari (eds.), *Routledge Handbook of Philosophy of Mechanisms*, New York: Routledge (2017), pp. 435-446.
9. "The Computational Theory of Mind," in B.P. McLaughlin (ed.), *Philosophy: Mind.* Farmington Hills, MI: Macmillan (2016), pp. 355-373.
10. "Computation and Information" (with Andrea Scarantino), in L. Floridi, *The Routledge Handbook of Philosophy of Information*, New York: Routledge (2016), pp. 23-29.
11. "Computation in Physical Systems," *The Stanford Encyclopedia of Philosophy* (Summer 2015 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/sum2015/entries/computation-physicalsystems/>. (Substantive revision of the 2010 article by the same name.)
12. "Neural Representation and Computation" (with Corey J. Maley), in *Handbook of Neuroethics*, Jens Clausen and Neil Levy, eds., Berlin: Springer (2015), pp. 79-94.
13. "Foundations of Computational Neuroscience" (with Oron Shagrir), *Current Opinion in Neurobiology* 25 (2014): 25-30.
14. "Classical Computationalism, Connectionism, and Computational Neuroscience," in the *Encyclopedia of Philosophy and the Social Sciences*, SAGE (2013).
15. "Computationalism," in *Oxford Handbook of Philosophy of Cognitive Science*, Eric Margolis, Richard Samuels, and Stephen Stich, eds., Oxford: Oxford University Press (2011), pp. 222-249.
16. "Computation in Physical Systems," *The Stanford Encyclopedia of Philosophy* (Fall 2010 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/fall2010/entries/computation-physicalsystems/>.

17. "Computationalism in the Philosophy of Mind," *Philosophy Compass*, 4.3 (2009), pp. 515-532.
18. "Allen Newell," in *New Dictionary of Scientific Biography*, N. Koertge, ed., New York: Scribner (2007), Volume 5, pp. 254-258.
19. "Computational Explanation in Neuroscience," *Synthese*, 153.3 (2006), pp. 343-353.
20. "Artificial Intelligence," in J. Pfeifer and S. Sarkar, eds., *The Philosophy of Science: An Encyclopedia*, New York: Routledge (2006), pp. 27-32.

Book Reviews

1. Review of *Describing Inner Experience? Proponent Meets Skeptic*, by R. T. Hurlburt and E. Schwitzgebel, *Notre Dame Philosophical Reviews*, 2008-04-25 (2008).
2. Review of *Computationalism: New Directions*, edited by M. Scheutz, *Philosophical Psychology*, 18.3 (2005), pp. 387-391.
3. Review of *The Computer and the Brain*, by J. von Neumann, *Minds and Machines*, 13.2 (2003), pp. 327-332.
4. Review of *The Mechanization of Mind: On the Origins of Cognitive Science*, by J. Dupuy, *Minds and Machines*, 12.3 (2002), pp. 449-453.
5. Review of *Theory and Method in the Neurosciences*, edited by P. Machamer, R. Grush, and P. McLaughlin, *Philosophy of Science*, 68.4 (2001), pp. 584-588.

Refereed Presentations

1. "A Defense of the Mechanistic Account of Explanation in Cognitive Computational Neuroscience" (with Brendan Ritchie), at WCP_25, presented World Congress of Philosophy, Rome, Italy, August 2024.
2. "The Robust Mapping Account of Implementation" (with Neal Anderson), presented at:
   Philosophy of Science Association Meeting, Pittsburgh, PA, November 2022.
3. "Empirical Phenomenology," presented at:
   Conference on the Present and Future of Hermeneutics and Phenomenology, Odense, Denmark, August 2022.
   Southern Methodist University, Dallas, TX, January 2023.
   University of Illinois Urbana-Champaign, Urbana, IL, January 2023.
4. "On computational Statehood: When Are Physical States Computational?" (with Neal Anderson), Philosophy of Science Association Meeting, Baltimore, MD, November 2021 (poster).
5. "Ontic Pancomputationalism and Computational Structuralism," Philosophy and Theory of Artificial Intelligence (PT-AI 2021), Gothenburg, Sweden, September 2021 (online).
6. "Knowledge as Factually Grounded Belief," Central States Philosophical Association 2019 Meeting, St. Louis, MO, October 2019.
7. "Observing Neural Representations Using Multiple Methods and Tools," Tool Development in Experimental Neuroscience: A Science-in-Practice Workshop, Pensacola, FL, September 2019.
8. "Levels of Being: An Egalitarian Ontology," 16th International Congress on Logic, Methodology and Philosophy of Science and Technology, Prague, Czech Republic, August 2019.
9. "The Ways of Altruism" (with Armin Schulz), Society for Philosophy and Psychology, Ann Arbor, MI, July 2018.
10. "Ontic Pancomputationalism" (with Neal Anderson), Computability in Europe, Kiel, Germany, July 2018.
11. "A Dilemma for the Autonomy of Computational Psychology" (with J. Brendan Ritchie), European Philosophy of Science Association, Exeter, UK, September 2017.

12. "Conceived This Way: Innateness Defended" (with Robert Northcott), Society for Philosophy and Psychology, Baltimore, MD, June 2017 (poster).
13. "The Evolution of Altruism," Philosophy of Science Association Meeting, Atlanta, GA, November 2016.
14. "The Computational Theory of Cognition," Society for Philosophy and Psychology, Vancouver, Canada, June 2014.
15. "The Cognitive Neuroscience Revolution," presented at:
    Philosophy of Science Association Meeting, Chicago, IL, November 2014.
    Society for Philosophy and Psychology, Vancouver, Canada, June 2014 (poster).
    Also invited at:
    Workshop on Mechanisms in the Life Sciences, Copenhagen, Denmark, November 2014.
    APA Central Division, Chicago, IL, February 2014.
    Georgia State University, November 2013.
    Washington University in St. Louis, October 2013.
16. "The Ontology of Functional Mechanisms," presented at:
    Southern Society for Philosophy and Psychology, Savannah, GA, March 2012.
    Society for Philosophy and Psychology, Providence, RI, June 2013 (poster).
    Also invited at:
    University of Alabama at Birmingham, January 2012.
    St. Louis Area Philosophy Association meeting, March 2012.
    University of Nevada at Las Vegas, April 2013.
17. "The Metaphysics of Mind and the Multiple Sources of Multiple Realizability: A Mechanistic Perspective," Southern Society for Philosophy and Psychology, Austin, TX, March 2013.
    Also invited at:
    "Philosophy and the Brain," Jerusalem, Israel, May 2013.
18. "Functions Must Be Performed at Appropriate Rates in Appropriate Situations," presented at:
    Central States Philosophical Association Meeting, St. Louis, MO, September 2011.
    APA Central Division, Chicago, IL, February 2012.
19. "Integrating Psychology and Neuroscience: Functional Analyses as Mechanism Sketches," Eastern APA, Washington, D.C., December 2011. Also invited at:
    Saint Louis University, St. Louis, MO, September 2010.
    University of Missouri, Columbia, MO, October 2010.
    "Philosophy and the Brain: Computation, Realization, Representation," Hebrew University of Jerusalem, May 2011.
20. "Information Processing, Computation, and Cognition," Southern Society for Philosophy and Psychology, Savannah, GA, April 2009. Also invited at:
    7th International Conference on Cognitive Science, Beijing, China, August 2010.
21. "First-Person Data, Publicity, and Self-Measurement." Consciousness Online (http://consciousnessonline.wordpress.com/), February 2009.
22. "The Resilience of Computationalism," Philosophy of Science Association Meeting, Pittsburgh, PA, November 2008.
23. "Recovering What Is Said with Empty Names," Joint Session of the Aristotelian Society and the Mind Association, Aberdeen, U.K., 2008.
24. "Access Denied to Zombies," presented at:
    APA Central Division, Chicago, IL, April 2008.
    Tucson VII - Toward a Science of Consciousness 2006, Tucson, AZ, April 2006.
    Also invited at Johns Hopkins, Baltimore, MD, February 2014.

25. "First-person Data," Philosophy of Medicine Roundtable, University of Alabama at Birmingham, Birmingham, AL, March 2008.
26. "Connectionist Computation," 2007 International Joint Conference on Neural Networks, Orlando, FL, August 2007.
27. "Digits, Strings, and Spikes: Empirical Evidence against Computationalism," North American Computing and Philosophy, Chicago, IL, July 2007. Also invited at:
    Modeling, Computation and Computational Science: Perspectives from Different Sciences, Helsinki, Finland, November 2007.
28. "The Mind as Neural Software? Revisiting Functionalism, Computationalism, and Computational Functionalism." SSPP, Atlanta, GA, April 2007.
29. "Public Evidence from First-person Reports," PSA Meeting, Vancouver, Canada, November 2006. Also invited at:
    University of Missouri St. Louis, October 2006.
    Washington University in St. Louis, November 2006.
30. "Splitting Concepts," SPP, Winston-Salem, NC, June 2005.
31. "The Functional Account of Computing Mechanisms," SSPP, Durham, NC, March 2005.
32. "Computation without Representation," APA Eastern Division, Boston, MA, December 2004.
33. "Functionalism, Computationalism, and Mental Contents," First Joint Conference of the SPP and EuroSPP, Barcelona, Spain, July 2004.
34. "The Mind as Neural Software: Functionalism, Computationalism, and Computational Functionalism," *symposium session*, APA Pacific Division, Pasadena, CA, March 2004.
35. "Why Functionalism Does Not Entail Computationalism," APA Pacific Division, San Francisco, CA, March 2003.
36. "Is Everything a Turing Machine, and Does It Matter to the Philosophy of Mind?" APA Eastern Division, Philadelphia, PA, December 2002.
37. "The Functional View of Computational States," Northwest Philosophy Conference, Portland, OR, October 2002.
38. "Computing Mechanisms II: A Functional Account," Computing and Philosophy (CAP@CMU), Pittsburgh, PA, August 2002.
39. "Experimental Epistemology: Warren McCulloch and the Philosophical Birth of Cognitive Science," HOPOS 2002, Montreal, Canada, June 2002.
40. "Computing Mechanisms I: Desiderata," Canadian Society for the History and Philosophy of Science, Toronto, Canada, May 2002.
41. "Mind Gauging: Introspection as a Public Epistemic Resource," Grad Expo, University of Pittsburgh, Pittsburgh, PA, September 2001.
42. "Turing's Rules for the Imitation Game," The Future of the Turing Test, Dartmouth College, Dartmouth, NH, January 2000.
43. "Alan Turing and the Mathematical Objection," Joint Atlantic Seminar in the History of the Physical Sciences, Washington, DC, September 1999. Also invited at:
    Hypercomputation, University College, London, UK, May 2000.
    Pugwash Conference, Carnegie Mellon University, September 1999.
    Theoretical Cognition Group, University of Pittsburgh, Pittsburgh, PA, September 1999.

Invited Presentations

1. TBA, Rutgers-Seton Hall Philosophy Workshop on "Neural Mechanisms and Neural Representations," September 2024 (online).
2. TBA, keynote, 8th IIFs-UNAM Philosophy Graduate Conference, Mexico City, Mexico, September 2024 (online).

3. "Physical-Computational Equivalence," Physical Computation, APA Central Division, New Orleans, LA, February 2024.
4. "Cognition: The Modern Synthesis," presidential address, International Society for the Philosophy of the Sciences of the Mind, November 2023 (online).
5. "The Physical Signature of Computation: A Robust Mapping Account," presented at:
   Applied Logic, Philosophy, and History of Science Seminars, University of Cagliari, Cagliari, Italy, June 2023.
   IACAP 23, International Association for Computing and Philosophy, Prague, Czech Republic, July 2023.
   The Indeterminacy of Computation, Jerusalem, Israel, July 2023.
   Foundations of Computation, Australian National University, Canberra, Australia, July 2023.
6. "Consciousness, Causal Powers, and Physical Qualities," presented at:
   COGS Research Seminars, University of Sussex, Brighton, UK, May 2023 (online).
   University of Adelaide, Adelaide, Australia, August 2023.
   University of Missouri – Columbia, September 2023.
7. "Brains, Behavior, Gender, and Intersectionality," University of Salento, Lecce, Italy, February 2023.
8. "Knowing That as Knowing How: A Neurocognitive Practicalism," presented at:
   Seminar on the Philosophy of Cognitive Science, Polish Academy of Sciences, Warsaw, Poland, February 2023 (online).
   Neural Mechanisms Online, Turin, Italy, February 2023 (hybrid)
   Distinguished Alumni Lecture, HPS Department, University of Pittsburgh, Pittsburgh, PA, March 2023.
9. "Neural Hardware for the Language of Thought," presented at:
   Final GeSiMEx Workshop: Computational Mechanisms in Brains and Machines, Berlin, Germany, October 2022 (online).
   "Computation and Representation," Dubrovnik, Croatia, June 2023.
   Representation: Past, Present, and Future, Trinity College Dublin, Dublin, Ireland, October 2023 (online).
   Philosophy of Neuromorphic AI, Universität Osnabrück, May 2024 (online).
10. "Knowing That as Knowing How: A Neurocognitive Perspective," presented at:
    Universidad Alberto Hurtado, Santiago de Chile, Chile, May 2022 (online).
    Mind and Technology Congress, September 2022 (keynote, online).
11. "How Brains Think: Via Situated Neural Representations," Neuroscience & Philosophy Salon, May 2022 (online).
12. "Situated Neural Representations: Solving the Problems of Content," presented at:
    Neural Mechanisms Online, April 2022.
    Brain, Mind & Markets Lab, University of Melbourne, Melbourne, Australia, April 2022 (online).
    Workshop on "The Nature of Physical Computation" by Oron Shagrir, Center for Logic, Language and Cognition, Jerusalem, Israel, June 2022.
    SNACK SIPF, Società Italiana di Psicofisiologia e Neuroscienze Cognitive, University of Salento, Lecce, Italy, February 2023.
13. Author-meets-critics session on *Neurocognitive Mechanisms: Explaining Biological Cognition*, APA Central Division, Chicago, IL, February 2022.
14. "The Causal Structure of Representation," commentary on "What Is a Theory of Neural Representation For?" by Andrew Richmond, APA Central Division, Chicago, IL, February 2022.

15. "Situated Neurocognitive Mechanisms Can Acquire Original, Causally Efficacious Semantic Contents," Workshop on Biological Mentality, January 2022 (online).
16. "Knowing That as Knowing How: A Neurocognitive Account," Reading Group, Washington University in St. Louis, St. Louis, MO, December 2021.
17. "Neural Computation and 4EA Cognition: Embodied, Embedded, Enactive, Extended, and Affective Neurocognitive Mechanisms," Kent State University, October 2021 (online).
18. "Qualitativism: Consciousness Consists of Physical Qualities," presented at:
    Models of Consciousness (MoC2-2021), September 2021 (online).
    Consciousness and Reality, Bucharest, Romania, June 2022 (keynote, online).
19. Discussant on "Analog Computation and Representation," by Corey Maley, Neural Mechanisms Online, May 2021.
20. "Composition as Trans-Scalar Identity," University of Illinois at Urbana-Champaign, Department of Mathematics, April 2021.
21. "An Egalitarian Account of Composition and Realization," University of Missouri – St. Louis, December 2020.
22. "Simulation, Computation, and Consciousness," University of Georgia, Athens, GA, November 2020.
23. Discussant on "The Physics of Representation," by Russell Poldrack, Neural Mechanisms Online, May 2020.
24. "Neurocognitive Mechanisms: Explaining Biological Cognition," presented at:
    University of Cincinnati, Cincinnati, OH, November 2019.
    Barwise Lecture, APA Pacific Division, April 2021.
    Center for Neurodynamics, University of Missouri – St. Louis, April 2021.
25. Commentary on "Compare and Contrast: How to assess the completeness of mechanistic explanation," by Beate Krickel and Matej Kohar, Neural Mechanisms Online, July 2019.
26. "Simulation, Computation, and the Mind," keynote, Computational Methods and the Future of Science, University of Kansas, Lawrence, KS, June 2019.
27. "Computational Mind in a Computational World," workshop on "Computation in the Theory and Practice of Natural Science," Munich, Germany, May 2019.
28. "An Egalitarian Account of Composition and Realization," workshop on "The Multi-Level Structure of Reality," Jerusalem, Israel, May 2019.
29. "Mechanisms, Multiple Realizability, and Medium Independence," University of Minnesota, Minneapolis, MN, February 2019.
30. Author-meets-critics session on *Physical Computation: A Mechanistic Account*, APA Eastern Division, New York City, NY, January 2019.
31. "The Myth of Mind Uploading," presented at:
    "Promise and Problems in Emerging Technology: Shaping the Societal Impact of Artificial Intelligence," University of Florida, Gainesville, FL, March 2019.
    APA Central Division, Chicago, IL, February 2018.
    "Minds, Selves and 21st Century Technology," Lisbon, Portugal, June 2016.
32. "Computation and the Function of Consciousness," presented at:
    Second Workshop on Biological Mentality, Ann Arbor, MI, September 2018.
    University of Kansas, Lawrence, KS, March 2018.
    University at Buffalo, Buffalo, NY, February 2018.
    Tulane University, New Orleans, LA, January 2018.
33. "Levels of Being: An Egalitarian Account," presented at:
    Neural Mechanisms, WebConference, October 2018.
    Tulane University, New Orleans, LA, January 2018.
    Jerusalem, Israel, December 2017.

34. "Towards a Mechanistic Explanation of Intentionality," Biological Mentality Workshop, Ann Arbor, MI, August 2017.
35. "Mental Representation, Simulation, and Thought Experiments," Simulation and Thought Experiment, Geneva, Switzerland, June 2017.
36. "Towards a Cognitive Neuroscience of Intentionality," presented at:
    Symposium on "Computation, Mind, and Brain," IACAP 17, Meeting of the International Association for Computing and Philosophy, Stanford, CA, June 2017.
    Turin, Italy, May 2017.
    Center for Neurodynamics, University of Missouri - St. Louis, St. Louis, MO, April 2017.
37. "Towards a Unified Account of Wellbeing," St. Louis Area Well-being Workshop, St. Louis, MO, February 2017.
38. "Moral Responsibility as Agency Cultivation," Extended Responsibility Workshop, UNSW, Sydney, Australia, November 2016.
39. Commentary on "Miscomputing Individualistically: It's the Only Way to Do It," by Chris Tucker, Minds Online, September 2016.
40. "Non-natural Representation," presented at:
    Workshop on "Mental Representation: The foundation of cognitive science?" Bochum, Germany, September 2015.
    Workshop on "Information and its Role in Science: Physics, Biology, Cognitive and Brain Sciences," Jerusalem and Tel Aviv, Israel, 30 May - 2 June 2016.
41. "Computational Mechanisms," Symposium on "Computation and Representation in Cognitive Neuroscience," IACAP 16, Meeting of the International Association for Computing and Philosophy, Ferrara, Italy, June 2016.
42. "Explaining Cognition Mechanistically: The Cognitive Neuroscience Revolution," at:
    Keynote, 3rd International Conference on Cognition, Brain and Computation, Ahmedabad, India, December 2015.
    Keynote, 10th International Brazilian Meeting on Cognitive Science, Sao Paulo, Brazil, December 2015.
43. "Computation is Dynamical," Conference of the International Association for Computing and Philosophy (IACAP 15), University of Delaware, Newark, Delaware, June 2015.
44. "Minds as Computers," Nature as Computation workshop, Arizona State University, Tempe, Arizona, May 2015.
45. "Functional Tradeoffs," Book Symposium on Justin Garson, *The Biological Mind: A Philosophical Introduction*, APA Pacific Division, Vancouver, Canada, April 2015.
46. Commentary on "Computational Individualism and Functional Significance," by Chris Tucker, APA Central Division, St. Louis, MO, February 2015.
47. "Computation and the Metaphysics of Mind," Keynote speech as Herbert Simon Award recipient, Conference of the International Association for Computing and Philosophy (IACAP 14), Thessaloniki, Greece, July 2014.
48. "First-Person Data, Self-Measurement, and the Vegetative State," University of Western Ontario, London, Ontario, June 2014.
49. "Explaining Cognition: The Cognitive Neuroscience Revolution," at:
    University of Western Ontario, London, Ontario, May 2014.
    Johns Hopkins University, Baltimore, MD, February 2015.
    Michigan State University, East Lansing, MI, February 2015.
50. "Egalitarian Composition," Monism, Pluralism, and Beyond, Society for the Metaphysics of Science, APA Central Division, Chicago, IL, February 2014.
51. "Computation: Abstract and Concrete," Missouri Philosophy of Science workshop, Columbia, MO, October 2013.

52. "An Egalitarian Approach to Levels," workshop on "Inter-Level Relations in Cognitive Neuroscience," Cologne, Germany, September 2013.
53. "The Metaphysics of Mind and the Multiple Sources of Multiple Realizability," online conference organized by Mark Sprevak, November 2012.
54. "Implicit vs. Explicit Concepts," Conceptual Change Research – The State of the Art, August 2012, Helsinki, Finland.
55. "Is Consciousness a Spandrel?" at summer school "The Evolution and Function of Consciousness," Université du Québec à Montréal, Canada, July 2012.
56. "First-Person Data as the Output of Self-Measurement," First-Person Methods Workshop, Tuebingen, Germany, June 2012.
57. "Neural Computation and the Computational Theory of Cognition," at:
    Institute for Advanced Studies, Hebrew University of Jerusalem, May 2011.
    Philosophy and Computation, Lund, Sweden, May 2012.
    Southern Illinois University's Neuroscience Retreat (plenary lecture), Collinsville, IL, September 2012.
    Neuphi, October 2012.
58. "Scientific Methods Ought to Be Public, and Descriptive Experience Sampling Is One of Them," author-meets-critics session on R. Hurlburt and E. Schwitzgebel, *Describing Inner Experience? Proponent Meets Skeptic*, APA Pacific Division, San Francisco, CA, April 2010.
59. "Functional Analyses as Mechanism Sketches," panel on "Decomposing the Mind: From Functional Analysis to Mechanistic Explanation," Society for the Metaphysics of Science, APA Pacific Division, San Francisco, CA, April 2010.
60. "Computationalism in the Philosophy of Mind," presented at:
    Washington University in St. Louis, September 2008.
    MOPS (Missouri Philosophy of Science), Columbia, MO, September 19-20, 2008.
61. "Computation vs. Information Processing: How They Are Different and Why It Matters," Workshop on Computation in Cognitive Science, King's College, Cambridge, UK, 7th-8th July 2008.
62. "Mechanistic Functionalism," Panel on Functionalism and Mechanisms, Society for the Metaphysics of Science, APA Central Division, Chicago, IL, April 2008.
63. "Some Neural Networks Compute, Others Don't," Center of Neurodynamics, University of Missouri – St. Louis, January 2008.
64. "The Physical Church-Turing Thesis: Modest or Bold?" Presented at:
    APA Eastern Division, New York City, December 2005.
    University of Missouri – St. Louis (Department of Mathematics and Computer Science), February 2006.
65. "Zombie Conceivability Arguments," University of Missouri – St. Louis, October 2005.
66. "The Functional Account of Computing Mechanisms (And Some of Its Payoff)," presented at:
    University of Georgia, Athens, GA, January 2005.
    Georgia State University, Atlanta, GA, January 2005.
67. "Computational Explanation in Neuroscience," Workshop on Computational Modeling and Explanation in Neuroscience, Washington University, St. Louis, MO, November 2004.
68. "Computational Models and Computational Explanations" (in Italian), Cognition and Computation: Problems, Methods, and Prospects of Computational Explanations in the Cognitive Sciences, Padova, Italy, October 2004.
69. "Computing Mechanisms," 2nd Reichenbach Conference, St. Louis, MO, November 2003.
70. "The First Computational Theory of Mind and Brain: A Close Look at McCulloch and Pitts's 'Calculus of Ideas Immanent in Nervous Activity'," Washington University, St. Louis, MO, September 2003.

71. "Science and Introspection," Washington University, St. Louis, MO, September 2003.
72. "How to Extract Scientific Data from Introspective Reports," Università del Piemonte Orientale, Vercelli, Italy, February 2003.
73. "The Functional Account of Computing Mechanisms," University of Pittsburgh, Pittsburgh, PA January 2003.
74. Commentary on "Connectionist Representation," by David DeMoss, Northwest Philosophy Conference, Portland, OR, October 2002.
75. "Computational Modeling of Computational Systems," Modeling Workshop, University of Pittsburgh, Pittsburgh, PA, April 2002.
76. "Mind-brains as Computers: Origin of an Idea at the Foundation of Psychology and Neuroscience," Florida International University, Miami, FL, April 2001.
77. "Epistemic Divergence, Introspection, and the Publicity of Scientific Methods," Florida International University, Miami, FL, April 2001.

Other Media

Interview with Richard Brown on *The Physical Signature of Computation: A Robust Mapping Account* for the *Consciousness Live!* podcast, YouTube, March 2024.

Interview with Ashar Khan for the *Thing-in-Itself* podcast, YouTube, June 2022.

Interview with Sahar Joakim on *Neurocognitive Mechanisms: Explaining Biological Cognition*, YouTube, March 2022.

"Alan Turing and Neural Computation," forthcoming in The Turing Conversation.

Discussion of the movie *The Matrix* with Keith Miller, St. Louis Science Center, St. Louis, MO, April 2022.

"How Brains Think," Science Honors Society, Parkway Central High School, St. Louis, MO, March 2022.

"Neuroscience, Consciousness, and Human Nature," presentation at the Ethical Society of St. Louis, St. Louis, MO, January 2022.

"How Brains Perceive, Think, and Control Action: Neural Computation and Neural Representation," Science in St. Louis Series of the Academy of Science – St. Louis and the St. Louis County Libraries, St. Louis, MO, November 2011 (online).

Interview with Glen Wright Colopy on first person data, in the podcast Pod of Asclepius, August 2021. https://www.youtube.com/watch?v=81lx1xTqHGQ

"Exploring the Cogs of Cognition," presented at STEM THEMES Education Enhancement, University of Missouri – St. Louis, February 2021.

"Ask an Expert: Why your phone won't become self-aware and other fears about AI," *UMSL Daily*, June 2019.

Interview with Carrie Figdor for New Book Network, July 2017. http://newbooksnetwork.com/gualtiero-piccinini-physical-computation-a-mechanistic-account-oxford-up-2016/

"The Cognitive Neuroscience Revolution: Explaining Cognition Mechanistically," Science Seminar Series of the Academy of Science – St. Louis and St. Louis Zoo, St. Louis, MO, October 2015.

"The Imitation Game: A Philosophical Review," a review of the movie "The Imitation Game," January 2015, http://www.thecritique.com/articles/the-imitation-game-a-philosophical-review/.

"Is Data a Person?" Presentation at St. Louis Science Center, St. Louis, MO, January 2015.

Founder and Administrator of Brains, a group blog in the philosophy of mind, at http://philosophyofbrains.com/, December 2005-November 2012.

Interview with Carola Houtemaker for the Dutch newspaper NRC Handelsblad, which featured me and my blog, Brains, in the article "Blogs uit het lab" (1/18/2008, http://www.nrc.nl/wetenschap/article899637.ece/Blogs_uit_het_lab)

Interview with KNPR – Nevada Public Radio, April 2006.

"The Computer That Started It All" (on *Imitation of Life: How Biology Is Inspiring Computing*, by N. Forbes), *Cerebrum*, 7.1 (2005), pp. 96-103.

Review of *Sync: The Emerging Science of Spontaneous Order*, by S. Strogatz, *Popular Science*, 262.4 (2003), p. 98.

"Economics Takes a Run at Brain Science's Toughest Problems" (on *Decisions, Uncertainty, and the Brain: The Science of Neuroeconomics*, by P. W. Glimcher), *Cerebrum*, 5.2 (2003), pp. 97-105.

"The Perils of Prediction" (on *The Next Fifty Years: Science in the First Half of the Twenty-First Century*, edited by J. Brockman), *Cerebrum*, 4.2 (2002), pp. 89-98.

"On a Critique of Strong Artificial Intelligence" (in Italian, on *The Emperor's New Mind*, by R. Penrose), *Rivista di Filosofia*, LXXXV (1994), pp. 141-146.

Honors

NEH Summer Seminar "Mind and Metaphysics," Washington University in St. Louis, June-July 2006.

Adelle and Erwin Tomash Fellowship, Charles Babbage Institute, 2002-2003.

Andrew Mellon Predoctoral Fellowship, University of Pittsburgh, 2001-2002.

Award for *Outstanding Paper Presentation*, Grad Expo, University of Pittsburgh, 2001.

Doctoral Scholarship, Regione Sardegna, Italy, 1995-1996 and renewed for the following six academic years.

Grants

Scholars' Award, National Science Foundation, 2017-2019, SES-1654982, $166,757.

Research Award, University of Missouri – St. Louis, 2015-2016, $12,485 (with Bettina Casad).

Research Board Award, University of Missouri, 2013-2014, $10,000.

Arts and Sciences Travel Grant, UM St. Louis College of Arts and Sciences, 2011-2 ($1,000), 2012-3 ($1,000), 2013-4 ($1,000), 2014-5 ($1,000), 2015-6 ($800), 2016-7 ($1,000).

Curriculum Improvement Grant, UM St. Louis College of Arts and Sciences, 2011, $2,500.

Scholars' Award, National Science Foundation, 2009-2010, SES-0924527, $123,495.

Research Board Award, University of Missouri, 2008, $10,000.

Research Board Award, University of Missouri, 2006, $10,000.

Research Award, University of Missouri – St. Louis, 2006, $10,265.

Fellow, Center for International Studies, University of Missouri – St. Louis, 2008-9 ($800), 2015-6 ($2,000).

Small Grants, University of Missouri – St. Louis, 2005-6 ($1,000), 2006-7 ($500), 2007-8 ($958), 2009-10 ($1,000).

Doctoral Dissertation Improvement Grant, National Science Foundation, 2002-2003, $12,000.

Teaching

University of Missouri—Saint Louis

Special Readings in Philosophy—Physical Computation and Computationalism, spring 2023. Advanced undergraduate, cross-listed with a graduate seminar.

Special Readings in Philosophy—Introspection Reliability, spring 2022. Advanced undergraduate, cross-listed with a graduate seminar.

Bioethics, winter intersession 2021. Undergraduate survey.

Topics in Philosophy of Mind—Mind Design, fall 2020. Advanced undergraduate, cross-listed with a graduate seminar.

Knowledge and Reality, spring 2022, spring 2021, spring 2020. Undergraduate survey.
Seminar in Philosophy of Science, spring 2018. Graduate seminar.
Theories of Knowledge, spring 2024, spring 2016. Advanced undergraduate, cross-listed with a graduate seminar.
Topics in Philosophy of Mind—Current Controversies in Philosophy of Mind, fall 2015. Advanced undergraduate, cross-listed with a graduate seminar.
Topics in Philosophy of Mind—Explaining Cognition, fall 2014. Advanced undergraduate, cross-listed with a graduate seminar.
Existentialism and Phenomenology, fall 2021, fall 2019, fall 2016, fall 2015, fall 2014. Introductory.
Philosophy of Cognitive Science—Computation and Cognition, spring 2013. Advanced undergraduate, cross-listed with a graduate seminar.
Science vs. God, spring 2021, spring 2016, spring 2012. Introductory.
Topics in Philosophy of Mind: Physicalism, Dualism, and the Afterlife, spring 2011. Advanced undergraduate, cross-listed with a graduate seminar.
Topics in Philosophy of Science—Computation in Physical Systems, fall 2010. Advanced undergraduate, cross-listed with a graduate seminar.
Topics in Philosophy of Mind—Concepts, summer 2009. Advanced undergraduate, cross-listed with a graduate seminar.
Proseminar, fall 2011 and fall 2008. Seminar for the incoming class of M.A. students.
Topics in Philosophy of Mind—Fodor, Churchland, Heil, summer 2008. Advanced undergraduate, cross-listed with a graduate seminar.
Metaphysics, fall 2023, fall 2021, fall 2019, fall 2018, fall 2016, fall 2012 and spring 2008. Advanced undergraduate survey, cross-listed with a graduate seminar.
Philosophy of Mind, spring 2024, spring 2019, spring 2008. Advanced undergraduate survey.
Philosophy of Language, fall 2007. Advanced undergraduate, cross-listed with a graduate seminar. Focus on the semantics of proper names.
Senior Seminar, spring 2019, spring 2018. Undergraduate capstone.
Topics in Philosophy of Mind—Consciousness, spring 2007. Advanced undergraduate, cross-listed with a graduate seminar.
Topics in History and Philosophy of Science—Mechanisms and Functions, spring 2007. Advanced undergraduate, cross-listed with a graduate seminar.
Philosophy of Cognitive Science, spring 2006. Advanced undergraduate, cross-listed with a graduate seminar. Focused on work by Herbert Simon and Allen Newell.
Minds, Brains, and Machines, fall 2022, fall 2018, spring 2011, spring 2009, fall 2007, fall 2005. Introductory.
Ethics and the Computer, fall 2005 and spring 2006. Advanced undergraduate seminar.
Topics in Philosophy of Mind—Mental Content, summer 2005. Graduate seminar.

Politecnico di Torino

Computation and Nature, May 2007 and June 2009. Graduate seminar.

Washington University in St. Louis:

Philosophy of Mind, fall 2003 and spring 2005. Advanced undergraduate survey.
Current Controversies in Cognitive Science—Intentionality, fall 2004 (with Sam Scott). Advanced undergraduate seminar open to graduate students.
Theories of Concepts, fall 2004 (with Sam Scott). Advanced undergraduate seminar open to graduate students.
Current Controversies in Cognitive Science—Computational Theories of Mind and Brain, spring 2004. Advanced undergraduate seminar open to graduate students.

University of Pittsburgh:

Magic, Medicine, and Science, fall 2002. Introductory.

Problem Solving: How Science Works, fall 1998. Introductory.
Teaching assistant, *Magic, Medicine and Science*, spring 1998. Introductory.
Teaching assistant, *Mind and Medicine*, fall 1997. Advanced undergraduate.

Pennsylvania Governor's School for the Sciences, Carnegie Mellon University.
Philosophy of Science, summer 2002, summer 2001, summer 2000, summer 1999. Introductory for high school juniors.

Academic Enrichment Certificate Program, State Correctional Institution at Pittsburgh.
Science and Religion, summer 2002. Seminar.
Current Events, spring 2002. Seminar.

Ph.D. Theses Directed

Jorge Fuentes, "Computational Mechanisms in Cognitive Neuroscience," Universidad Humberto Hurtado (Santiago, Chile), co-advisor with Juan R. Loaiza and Abel Wajnerman, March 2024.

M.A. Theses Directed

Hangzhe Dong, "Between Fodor and Sellars – A Middle Ground for Language-like Neural Representations," University of Missouri – St. Louis, April 2024.

Timothy Patrick Luft, "Towards Erasing the Distinction between the Syntactic and Computational Accounts of Scientific Theories," University of Missouri – St. Louis, April 2024.

Mirinda James, "Are Numbers Fundamental to the Neural Code?" University of Missouri – St. Louis, November 2022.

Zhexi Zhang, "Representational Enactivism," University of Missouri – St. Louis, April 2021.

Curtis Howd, "Probability of Naturalism and Metanormative Realism," University of Missouri – St. Louis, April 2020.

Seth Reed, "How to Distinguish Qualities and Disposition," University of Missouri - St. Louis, April 2019.

Tamala Endriss, "Justify This! The Roles of Epistemic Justification," University of Missouri - St. Louis, April 2017.

Nils Richards, "The Explanatory Indispensability of Mathematics: Why Structure is 'What there is,'" University of Missouri – St. Louis, April 2013.

David McGraw, "Concepts, Universals, and the Abstract," University of Missouri – St. Louis, April 2013.

Frank Faries, "Akrasia and the Elusive Self," University of Missouri – St. Louis, April 2013.

Krista Hyde, "Thomas Aquinas: Soul-Body Connection and the Afterlife," University of Missouri – St. Louis, April 2012.

Christian Richeson, "An Insanity Defense Should be Available to Psychopaths," University of Missouri – St. Louis, April 2011.

Lawrence J. Rosenberger, "Are All Universals Instantiated?" University of Missouri – St. Louis, July 2009.

Blake Myers, "Imagination and Phenomenal Experience," University of Missouri – St. Louis, June 2008.

Michael R. Massey, "Transfer and the Fuzzy Trace Theory," University of Missouri – St. Louis, December 2007.

Michael J. Ferreira, "Two Degrees of Intentionality: Approaching the Ascription of Psychological Content in Non-linguistic Creatures," University of Missouri – St. Louis, July 2006.

Adam J. Arico, "Anti-individualism and Rationality," University of Missouri – St. Louis, April 2006.

Ph.D. Thesis Committee Member

Dan Durso (University of Illinois Urbana Champaign, in progress)
Jesse Kuokkanen (University of Helsinki, 2023)
Frank Faries (University of Cincinnati, 2022)
Aviv Spector (Hebrew University in Jerusalem, 2021)
Ezequiel López-Rubio (UNED, 2020)
Hyungrae Noh (University of Iowa, 2019)
M. Ryan Massey (UMSL, Education, 2017)
Brendan Ritchie (University of Maryland, 2015)

Alex Morgan (Rutgers University, 2014)
Florent Franchette (Université Paris I, 2013)
Samuli Pohyonen (University of Helsinki, 2012)
Brandon Towl (Washington University in St. Louis, 2008)

Professional Service

Refereeing

Philosophical Gourmet Report, evaluator, 2014, 2017, 2021.

Funding Agencies: Academia Sinica (Taiwan), Agenzia Nazionale per la Valutazione del Sistema Universitario e della Ricerca (Italy), Canadian Institute for Advanced Research, Danish Council for Independent Research, European Research Council, German-Israeli Foundation for Scientific Research and Development, Israel Science Foundation, National Science Foundation, Research Council of Canada, Social Sciences and Humanities, The Fund for Scientific Research – FNRS (Belgium), University of Missouri Research Board.

Presses: Association for Symbolic Logic, Cambridge University Press, College Publications, Elsevier, MIT Press, Open Book Publishers, Oxford University Press, Palgrave Macmillan, Springer, Routledge, University of Chicago Press, University of Toronto Press, Wiley-Blackwell, World Scientific.

Societies and Conferences: American Philosophical Association, Central States Philosophical Association, Cognitive Science Society, European Society for Analytic Philosophy, Minds Online Conference, International Association for Computing and Philosophy, Society for Philosophy and Psychology, Southern Society for Philosophy and Psychology, Workshop on the Philosophy of Cognitive Science.

Journals: *Academia Letters*, *Analysis*, *Australasian Journal of Philosophy*, *AVANT Trends in Interdisciplinary Studies*, *Biological Theory*, *Biology and Philosophy*, *British Journal for the Philosophy of Science, Cognitive Science*, *Cognitive Systems Research*, *Complexity*, *Consciousness and Cognition, Croatian Journal of Philosophy*, *Current Opinion in Behavioral Sciences*, *Dialectica*, *Diametros – A Journal of Philosophy*, *Entropy*, *Episteme*, *Ergo*, *Erkenntnis*, *European Journal for Philosophy of Science*, *Feminist Philosophy Quarterly*, *Frontiers in Psychology, Humanities*, *Humanities & Social Sciences Communications*, *IEEE Annals of the History of Computing*, *IEEE Transactions on Neural Networks and Learning Systems*, *History and Philosophy or the Life Sciences*, *Information*, *Interdisciplinary Science Reviews*, *International Studies in the Philosophy of Science*, *Journal for General Philosophy of Science*, *Journal of Applied Logic*, *Journal of the American Philosophical Association*, *Journal of Cognitive Science, Journal of Computational Neuroscience*, *Journal of Consciousness Studies*, *Journal of Economic Methodology*, *Journal of Intelligent Systems*, *Journal of Philosophy*, *Mind*, *Mind and Language*, *Minds and Machines*, *Neural Computation*, *Neuroscience of Consciousness*, *New Ideas in Psychology*, *Noûs*, *OBM Neurobiology*, *Pacific Philosophical Quarterly*, *Philosophers' Imprint*, *Philosophia*, *Philosophical Explorations*, *Philosophical Psychology*, *Philosophia Mathematica*, *Philosophical Perspectives*, *Philosophical Studies, Philosophies*, *Philosophy & Technology*, *Philosophy and the Mind Sciences*, *Philosophy of Science*, *Quarterly Review of Biology*, *Recent Patents in Computer Science*, *Review of Philosophy and Psychology*, *Reviews in the Neurosciences*, *Rivista di Filosofia*, *Scientific Reports*, *Studies in the History and Philosophy of Science Parts A*, *B*, and *C*, *Synthese*, *Theoretical Computer Science*, *Theoria*, *Thought: A Journal of Philosophy*, *Topics in Cognitive Science*, *Wiley Interdisciplinary Reviews: Cognitive Science*.

Department

Director of Graduate Studies, 2018-2023.
Department Chair, 2011-2014.
Philosophy Colloquium chair, University of Missouri – St. Louis, 2008-2010, 2015-2018.

Philosophy Department's representative on the Faculty Senate and University Assembly, January 2010-December 2011, August 2016-February 2017.
Organizer, PNP Medical School Lunch Seminar, 2004-2005.
Organizer, Workshop on Computational Modeling and Explanation in Neuroscience, Washington University in St. Louis, November 2004.
Organizer, WIPS (Work In Progress Sessions), Washington University in St. Louis, 2003-2004.

University

Member, Oversight Committee, 2023-2025.
Member, Mid-Career Seed Funding Panel, 2021-2022.
Member, Appointments, Tenure and Promotion Committee, 2014-2016, 2020-2024.
Member, UM President's Awards Committee, 2019-fall 2021.
Member, Issues of Tenure Removal Committee, 2019-2021.
Member, College of Arts and Sciences Research Grant Review Committee, 2016-2017.
Member, Search Committee for Interim Vice Provost for Graduate Studies and Research and Dean of the Graduate School, fall 2015.
Member, College of Arts and Sciences committee to interpret and revise the university's rules on tenure and promotion, fall 2012-spring 2013.
Member, Spring Research Panel, University of Missouri – St. Louis, 2012-2014.
Member, College of Arts and Sciences committee to examine whether the college should use an advocate system in our P&T deliberations, 2011.
Member, Research Committee – spring panel, University of Missouri – St. Louis, 2011-2013.
Member, Budget Committee, Arts and Sciences, University of Missouri – St. Louis, 2010-2011.
Member, Teaching and Service Awards Standing Committee, University of Missouri – St. Louis, 2009-2011. *Chair*, 2010-2011.
Member, Scholarships and Awards Standing Committee, College of Arts and Sciences, UM St. Louis, 2009-2010.

Professional Societies

Program Committee Member, PhAI 2023: Philosophy of AI, Erlangen, Germany, December 2023.
Founding President, International Society for the Philosophy of the Sciences of the Mind, 2022-2023.
Organier, Symposium on "Physical Signatures of Computation," PSA Meeting, Pittsburgh, PA, November 2022.
Program Committee Member, Philosophy and Theory of Artificial Intelligence 2021, Gothenburg, Sweden, September 2021.
Program Committee Member, CEPE/IACAP Joint Conference 2021: The Philosophy and Ethics of Artificial Intelligence, online, July 2021.
Poster Committee Member, Philosophy of Science Association meeting, Baltimore, MD, November 2020 (2 years).
Program Committee Member, History and Philosophy of Computing, Bergamo, Italy, October 2019.
Program Committee Member, Workshop on Physics and Computation, Fontainebleau, France, June 2018.
Member, APA Committee on Philosophy and Computers, 2017-2018.
Organizer, Symposium on "Computation, Mind, and Brain," IACAP 17, Meeting of the International Association for Computing and Philosophy, Stanford, CA, June 2017.
Academic Committee Member, Workshop on Philosophy of Cognitive Science, Buenos Aires, November 2017.

Organizer, Symposium on "New Perspectives on the Evolution of Mind," PSA Meeting, Atlanta, GA, November 2016.
Organizer, Symposium on "Computation and Representation in Cognitive Neuroscience," IACAP 16, Meeting of the International Association for Computing and Philosophy, Ferrara, Italy, June 2016.
Panelist, National Science Foundation: Science, Technology, and Society, 2015, 2017-2018.
Secretary, St. Louis Area Philosophy of Science Association, 2009-present.
Program Committee Member, Philosophy & Theory of Artificial Intelligence 2017, Leeds, UK, November 2017.
Program Committee Member, IACAP 17, Meeting of the International Association for Computing and Philosophy, Stanford, CA, June 2017.
Program Committee Member, IACAP 16, Meeting of the International Association for Computing and Philosophy, Ferrara, Italy, June 2016.
Program Committee Member, IACAP 15, Meeting of the International Association for Computing and Philosophy, University of Delaware, June 2015.
Program Committee Member, IACAP 14, Meeting of the International Association for Computing and Philosophy, Thessaloniki, Greece, July 2014.
Organizer, panel on "Monism, Pluralism, and Beyond," Society for the Metaphysics of Science, APA Central Division, Chicago, IL, February 2014.
Program Committee Member, History and Philosophy of Computing 2, Paris, France, October-November 2013.
Program Committee Member, Philosophy and Theory of Artificial Intelligence 2013, Oxford, UK, September 2013.
Organizer, St. Louis Area Philosophy of Science Association Meeting, 2013.
Member, APA Committee on Lectures, Publications, and Research, 2011-2014.
Organizer, author-meets-critics session on R. Hurlburt and E. Schwitzgebel, Describing Inner Experience? Proponent Meets Skeptic, APA Pacific Division, San Francisco, CA, April 2010.
Organizer, panel on "Decomposing the Mind: From Functional Analysis to Mechanistic Explanation," Society for the Metaphysics of Science, APA Pacific Division, San Francisco, CA, April 2010 (with Carrie Figdor).
Council Member, Southern Society for Philosophy and Psychology, 2009-2012.
Program chair, Southern Society for Philosophy and Psychology, 2009.
Organizer, Symposium on "Neural Computation," PSA Meeting, Pittsburgh, PA, November 2008.
Presenter, "Preparing and Presenting Lectures," Teaching at UMSL 2008 TA/RA Professional Development Conference, University of Missouri – St. Louis, August 2008.
Presenter, "Publishing in Graduate School? Tips on Journals, Web Publishing and More," Future Directions in Genetic Studies Graduate Training Workshop, Washington University in St. Louis, August 2008.
Organizer, panel on "Functionalism and Mechanisms," Society for the Metaphysics of Science, APA Central Division, Chicago, IL, April 2008 (with Carl Gillett).
Member, APA Committee on Academic Career Opportunities and Placement, 2007-2010.
Organizer, Symposium on "Can Introspective Reports Be Scientific Evidence?" PSA Meeting, Vancouver, Canada, November 2006 (with Anna Alexandrova).