# Anthony F. Peressini

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Department of Philosophy
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## Areas of Expertise

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| **Specialization** | Philosophy of Science, Psychology, Consciousness, Mathematics. |
| **Competence** | Philosophy of Mind, Probability, Economics. |
| **Outside Areas** | Mathematics: Data Analytics, Numerical/Functional Analysis, Statistics. |
| | Computer Programming: C, C++, R, Java, Pascal, Python, BASIC, FORTRAN. |

## Appointments Held

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| 2017-pres | **Professor**, Marquette University, Milwaukee |
| 2001-2017 | **Associate Professor**, Marquette University, Milwaukee |
| 1994-2001 | **Assistant Professor**, Marquette University, Milwaukee |
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| 2020-pres | **Associate Chair**, Department of Philosophy, Marquette University, Milwaukee |
| 2012-2013 | **Visiting Associate Professor**, Berlin School of Mind and Brain, Berlin, Germany |
| 2005-2012 | **Director**, University Honors Program, Marquette University, Milwaukee |
| 2001-2005 | **Co-Director**, University Honors Program, Marquette University, Milwaukee |
| 1989-1993 | **Teaching/Research Assistant**, Philosophy, University of Wisconsin-Madison |
| 1989-1992 | **Lead Programmer**, Center for Health Systems Research & Analysis, U. W-Madison |
| 1988-1989 | **Programmer**, Center for Health Systems Research & Analysis, U. W-Madison |
| 1988-1988 | **Numerical Analyst**, PC Scientific, Arden Hills, MN |
| 1986-1988 | **Teaching Assistant**, Mathematics, University of Wisconsin-Madison |
| 1981-1986 | **Computer Programmer**, Educational Research Inc., Helena, MT |

## Education

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| 2022 | **Certificate** | Data Science, Marquette University, Milwaukee |
| 1994 | **PhD** | Philosophy, University of Wisconsin-Madison |
| 1991 | **MA** | Philosophy, University of Wisconsin-Madison |
| 1988 | **MS** | Mathematics, University of Wisconsin-Madison |
| 1986 | **BS** | Mathematics/Computer Science, Montana State University, Bozeman |

## Publications (single author)

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| 2021 | Peressini, A. F. (2021). Against the Philosophical Project of 'Biologizing' Race. *Metaphilosophy*, 52(5):593–615, doi:10.1111/meta.12511. |
| 2020 | Peressini, A. F. (2020). Critical Studies/Book Reviews: Otávio Bueno and Steven French. *Applying Mathematics: Immersion, Inference, Interpretation*. *Philosophia Mathematica*, 28(1):116–127, doi:10.1093/philmat/nkz015. |

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| 2018 | Peressini, A. F. (2018a). Causation, Probability, and the Continuity Bind. *British Journal for the Philosophy of Science*, 69(3):881–909, doi:10.1093/bjps/axw030. |
| | Peressini, A. F. (2018b). There Is Nothing It Is Like to See Red: Holism and Subjective Experience. *Synthese*, 195(10):4637–4666, doi:10.1007/s11229-017-1425-9. |
| 2016 | Peressini, A. F. (2016). Imprecise Probability and Chance. *Erkenntnis*, 81(3):561–586, doi:10.1007/s10670-015-9755-9. |
| 2014 | Peressini, A. F. (2014). Blurring Two Conceptions of Subjective Experience: Folk Versus Philosophical Phenomenality. *Philosophical Psychology*, 27(6):862–889, doi:10.1080/09515089.2013.793150. |
| 2013 | Peressini, A. F. (2013). Consciousness as Integrated Information: A Provisional Philosophical Critique. *Journal of Consciousness Studies*, 20(1):180–206. |
| 2010 | Peressini, A. F. (2010). Numerical Analysis and Its (Invisible?) Role in Mathematical Application. In Kerkhove, B. V., Vuyst, J. D., and Bendegem, J. P. V., editors, *Philosophical Perspectives on Mathematical Practice*, pages 331–349. College Pub., London. |
| 2008 | Peressini, A. F. (2008). Confirmational Holism and its Mathematical (W)Holes. *Studies in History and Philosophy of Science Part A*, 39(1):102–111. |
| 2003 | Peressini, A. F. (2003a). Critical Studies/Book Reviews: Mark Colyvan. *The Indispensibility of Mathematics. Philosophia Mathematica*, 11(2):208–223, doi:10.1093/philmat/11.2.208. |
| | Peressini, A. F. (2003b). Proof, Reliability, and Mathematical Knowledge. *Theoria*, 69(3):211–232. |
| 1999 | Peressini, A. F. (1999a). Applying Pure Mathematics. *Philosophy of Science*, 66(3):S1–S13. |
| | Peressini, A. F. (1999b). Confirming Mathematical Theories: An Ontologically Agnostic Stance. *Synthese*, 118(2):257–277. |
| 1998 | Peressini, A. F. (1998). Naturalism, Evolution, and Self-Defeat. *International Journal for Philosophy of Religion*, 44(1):41–51. |
| 1997 | Peressini, A. F. (1997a). Cumulative Versus Noncumulative Ramified Types. *Notre Dame Journal of Formal Logic*, 38(3):385–397. |
| | Peressini, A. F. (1997b). Psychological Explanation and Behavior Broadly Conceived. *Behavior and Philosophy*, 25(2):137–159. |
| | Peressini, A. F. (1997c). Troubles with Indispensability: Applying Pure Mathematics in Physical Theory. *Philosophia Mathematica*, 5(3):210–227, doi:https://academic.oup.com/philmat/article/5/3/210/1439056. |
| 1993 | Peressini, A. F. (1993). Generalizing Evolutionary Altruism. *Philosophy of Science*, 60(4):568–586. |

## Publications (joint author)

2023    Guastello, S. J. and Peressini, A. F. (2023). Quantifying synchronization in groups with three or more members using synccalc: The driver-empath model of group dynamics. *Group Dynamics: Theory, Research, and Practice*, doi:https://doi.org/10.1037/gdn0000199. Advance online publication.

2022    Guastello, S. J., Bednarczyk, C., Hagan, R., Johnson, C., Marscisek, L., McGuigan, L., and Peressini, A. F. (2022). Team situation awareness, cohesion, and autonomic synchrony. *Human Factors*, doi:10.1177/00187208221118301. First published online August 16, 2022.

2021    Guastello, S. J. and Peressini, A. F. (2021b). The relative influence of drivers and empaths on team synchronization. *Nonlinear Dynamics, Psychology, and Life Sciences*, 25(3):357–382.

Guastello, S. J. and Peressini, A. F. (2021a). A comparison of four dyadic synchronization models. *Nonlinear Dynamics, Psychology, and Life Sciences*, 25(1):19–39.

2020    Guastello, S. J., Witty, B., Johnson, C., and Peressini, A. F. (2020c). Autonomic synchronization, leadership emergence, and the roles of drivers and empaths. *Nonlinear Dynamics, Psychology, and Life Sciences*, 24:451–473.

Guastello, S. J., Palmer, C., Marra, D. E., and Peressini, A. F. (2020b). The effect of cooperation and competition dynamics on autonomic synchrony in teams. In Viol, K., Schöller, H., and Aichhorn, W., editors, *Self-Organization: A Paradigm for the Human Sciences?*, pages 303–318. Springer, Weisbaden, Germany.

Guastello, S. J., Mirabito, L., and Peressini, A. F. (2020a). Autonomic synchronization under three task conditions and its impact on team performance. *Nonlinear Dynamics, Psychology, and Life Sciences*, 24:79–104.

2019    Guastello, S. J., Palmer, C., Marra, D. E., and Peressini, A. F. (2019b). The effect of cooperation and competition dynamics on autonomic synchrony in teams. *Society for Chaos Theory in Psychology & Life Sciences Newletter*, 27(1):9–11.

Guastello, S. J., Correro, A. N., Marra, D. E., and Peressini, A. F. (2019a). Physiological synchronization and subjective workload in a competitive emergency response task. *Nonlinear Dynamics, Psychology, and Life Sciences*, 23(3):347–376.

2018    Guastello, S. J., Marra, D. E., Peressini, A. F., Castro, J., and Gomez, M. (2018). Autonomic synchronization, team coordination, participation, and performance. *Nonlinear Dynamics, Psychology, and Life Sciences*, 22(3):359–394.

2017    Guastello, S. J. and Peressini, A. F. (2017b). The relative influence of drivers and empaths on team synchronization. *Society for Chaos Theory in Psychology & Life Sciences Newletter*, 24(3):8–11.

Guastello, S. J., Marra, D. E., Castro, J., Equi, M., and Peressini, A. F. (2017). Turn taking, team synchronization, and non-stationarity in physiological time series. *Nonlinear Dynamics, Psychology, and Life Sciences*, 21(3):319–334.

Guastello, S. J. and Peressini, A. F. (2017a). Development of a Synchronization Coefficient for Biosocial Interactions in Groups and Teams. *Small Group Research*, 48(1):3–33, doi:10.1177/1046496416675225.

2016    Peressini, A. F. and Guastello, S. J. (2016). Group synchronization coefficient calculation: A short user's guide to SyncCalc v1.0. Software, Retrieved September 15, 2016 from http://academic.mu.edu/peressini/synccalc/synccalc.htm.

Guastello, S. J. and Peressini, A. F. (2016). Determining Optimization-Risk Profiles for Individual Decision Makers. In Guastello, S. J., editor, *Cognitive Workload and Fatigue in Financial Decision Making*, pages 109–120. Springer, Tokyo.

Guastello, S. J., Marra, D. E., Perna, C., Castro, J., Gomez, M., and Peressini, A. F. (2016). Physiological synchronization in emergency response teams: Subjective workload, drivers and empaths. *Nonlinear Dynamics, Psychology and Life Sciences*, 20(2):223–270.

2014    Peressini, A. F. and Guastello, S. J. (2014). Orbital decomposition: A short user's guide to ORBDE v2.4. Software, Retrieved May 1, 2014 from http://www.societyforchaostheory.org/resources/, Menu 4 (fourth item) or from http://academic.mu.edu/peressini/orbde/orbde.htm.

2011    Guastello, S. J., Peressini, A. F., and Bond, R. W. J. (2011). Orbital decomposition for ill-behaved event sequences: transients and superordinate structures. *Nonlinear Dynamics, Psychology and Life Sciences*, 15(4):465–476.

2010    Peressini, A. F. and Guastello, S. J. (2010). Orbital decomposition: A short user's guide to ORBDE v1.0. Software, http://www.societyforchaostheory.org/resources/.

2007    Peressini, A. F. and Peressini, D. D. (2007). Philosophy of mathematics and mathematics education. In van Kerkhove, B. and van Bendegem, J., editors, *Perspectives On Mathematical Practices*, volume 5 of *Logic, Epistemology, and the Unity of Science*, pages 175–189. Springer Netherlands, doi:10.1007/1-4020-5034-8_10.

1995    Boberg, E. W., Gustafson, D. H., Hawkins, R. P., Chan, C.-L., Bricker, E., Pingree, S., Berhe, H., and Peressini, A. F. (1995). Development, acceptance, and use patterns of a computer-based education and social support system for people living with AIDS/HIV infection. *Computers in Human Behavior*, 11(2):289–311, doi:10.1016/0747-5632(94)00037-I.

## Presentations (selected)

**Paper Presented:** "Large Scale Databases for Nonlinear Phenomena: Sync Coefficient and Variations"," with Stephen J. Guastello. Society for Chaos Theory in Psychology & Life Sciences 31st Annual International Conference, Online, July 22–24, 2021.

**Paper Presented:** "Racialized Disequilibriums and Marx's Working Day, Today." Marquette University Philosophy Department Colloquium, April, 2021.

**Paper Presented:** "Autonomic Synchronization, Leadership Emergence, Drivers and Empaths," with Stephen J. Guastello, Brittany Witty, and Camerhon Johnson. Society for Chaos Theory in Psychology & Life Sciences 30th Annual International Conference, Toronto, Canada, July 22–24, 2020.

**Paper Presented:** "A Comparison of Four Dyadic Synchronization Models," with Stephen J. Guastello. Society for Chaos Theory in Psychology & Life Sciences 30th Annual International Conference, Toronto, Canada, July 22–24, 2020.

**Paper Presented:** "Autonomic Synchronization under Three Task Conditions and its Impact on Team Performance," with Stephen J. Guastello and Lucas Mirabito. Society for Chaos Theory in Psychology & Life Sciences 8th International Nonlinear Science Conference, Coimbra, Portugal, March 28–30, 2019.

**Paper Presented:** "Physiological Synchronization under Three Task Conditions and its Impact on Team Performance," with Stephen J. Guastello and Lucas Mirabito. Society for Chaos Theory in Psychology & Life Sciences 28th Annual International Conference, Raleigh, NC, August 2–4, 2018.

**Paper Presented:** "Physiological Synchronization and the Communication of Emotion," with Stephen J. Guastello. Montreal Cognitive Science Day: Université du Québec à Montréal (Montreal, Canada), March 29, 2018.

**Paper Presented:** "Against the Philosophical-Scientific Racial Project of Biologizing Race." ICSP 2017: 19th International Conference on Society and Philosophy, Berlin, Germany, May 21–22, 2017.

**Paper Presented:** "Development and Validation of a Group Synchronization Coefficient," with Stephen J. Guastello, David E. Marra, Julian Castro, and Maribeth Gomez. 26th Annual International Conference of the Society for Chaos Theory in Psychology & Life Sciences, Salt Lake City, July 29–31, 2016.

**Paper Presented:** "Imprecise Probability and the Temporal Evolution of Chance." *Imprecise Probabilities in Statistics and Philosophy* Conference, München Center for Mathematical Philosophy, Ludwig-Maximilians-Universität, München Germany, June 28, 2014.

**Paper Presented:** "Computation of Orbital Decomposition with Multiple Categorical Variables," with Stephen J. Guastello, David Pincus, and Robert W. Bond Jr. American Psychological Society 26th Annual Convention, San Francisco, May 25, 2014.

**Paper Presented:** "Reduction, Qualia, and 'Something It Is Like' Consciousness." Berlin School of Mind and Brain, Philosophy of Mind Seminar Series, Humboldt University, Berlin, February 5, 2013.

**Paper Presented:** "Quining Qualia—Empirical Style." Philosophy of Dennett Graduate Seminar, Humboldt Universität, Berlin, October, 2012.

**Paper Presented:** "Against the Reduction of Phenomenological Consciousness to Qualia." Eastern American Philosophical Association Meeting, Atlanta, GA, December 2012.

**Paper Presented:** "Integrated Information: Functional Consciousness or Biological Qualia?" *Toward a Science of Consciousness 2012*, Tucson, Arizona, April 2012.

**Paper Presented:** "Naturalism in Philosophy." *Methods in Philosophy* Workshop, Marquette University, November, 2011.

**Paper Presented:** "Dis-Integrating Intuitions About Qualia and Consciousness." MERG Experimental Philosophy Conference, CUNY/NYU, March 2011.

**Poster Presented:** "Neurodynamics and Conscious Intentional Action." *Toward a Science of Consciousness 2010*, Tucson, Arizona, April 2010.

**Discussant:** Pitt-Paris II Conference Workshop, "Emergence and Reduction in the Sciences,"Center for Philosophy of Science, University of Pittsburgh, December 2009.

**Poster Presented:** "Naturalizing Phenomenology: Lessons from Physics." *Toward a Science of Consciousness 2008*, Tucson, Arizona, April 2008.

**Paper Presented:** "Invisible Mathematics: Numerical Analysis and its Role in Mathematical Application." Perspectives on Mathematical Practice Conference, Brussels, March 2007.

**Paper Presented:** "Branching Out: Moving from Contemplative Practice Courses to a Curricular Requirement," with Heather Hathaway at Contemplative Curriculum Development Summer Workshop, Smith College, August 2006.

**Paper Presented:** "How True Must Our Thoughts Be?" Marquette University Philosophy Department Colloquium, Fall 2006.

**Paper Presented:** "Confirmational Holism and Its Mathematical (w)Holes." University of Wisconsin-Milwaukee Philosophy Department Colloquium, 2000.

**Paper Presented:** "Applying Pure Mathematics." Philosophy of Science Association Biennial Meeting, October 1998.

## Honors, Award, & Grants (selected)

**NSF (Social Psychology) Research Grant Proposal** for "Toward a Refined Group Synchronization Measure," with Stephen Guastello, **unfunded**, (2019).

**DOD Basic Science Research Grant Proposal** for "Leadership Emergence and Group Synchronization: A Refined Metric and Process Theory," with Stephen Guastello, **unfunded**, (2018).

**NSF (Social Psychology) Research Grant Proposal** for "Toward a Refined Group Synchronization Measure," with Stephen Guastello, **unfunded**, (2018).

**Summer Faculty Fellowship and Regular Research Grant** for "Extending Nonlinear Symbolic Dynamic Analysis via Orbital Decomposition to Take fMRI Analysis to the Next Level," Marquette University, **funded**, (2016).

**DOD Basic Science Research Grant Proposal** for "Group Workload, Physiological Synchronization, Resilience, and Leadership Emergence," with Stephen Guastello, **unfunded**, (2016).

**Strategic Innovation Fund Award** for "Engendering Dignity in Philosophy," Marquette University, with Drew Dumaine, Theresa Tobin, and Marisola Xhelili, **funded: $ 71,600**, May 2016.

**NASA Research Grant Proposal** for "Physiological synchronization and team performance: Metrics for monitoring behavioral health," with Stephen Guastello, **unfunded**, (2015).

**Greater Milwaukee Foundation Grant Proposal** for "Engendering Dignity in Philosophy" (Community Building and Education Program), with Drew Dumaine, Theresa Tobin, and Marisola Xhelili, **unfunded**, (December 2015).

**NIH Research Grant Proposal** for "Orbital Decomposition Analysis for Extracting Patterns of Activation with fMRI Data," with Stephen Guastello and Kristy Nielson, **unfunded**, (2015).

**APA Grant Proposal** for "Engendering Dignity in Philosophy" (Diversity and Inclusiveness Program), with Drew Dumaine, Theresa Tobin, and Marisola Xhelili, **unfunded**, (June 2015).

**Center for Peacemaking (Marquette U.) Course Development Award** for The Social Human Marx and Catholic Social Teaching, (2014-15).

**Berlin School of Mind and Brain, Visiting Scholar** Humboldt University, Berlin (2012-2013).

**ACLS Contemplative Program Development Fellowship Grant** for Contemplative Curriculum Development, co-authored with Heather Hathaway and Michael Vater, (2006).

**American Council of Learned Societies (ACLS) Grant** to develop an interdisciplinary course on philosophy and literature, co-authored with Heather Hathaway in English Department, (1999).

**Summer Faculty Fellowship (Marquette University)** for project entitled "A Study of the Process of Applying Pure Mathematical Theories in Science," (1998).

**Awarded Mellon Grant** for "Origins of the Universe" team-taught interdisciplinary (Physics, History, Philosophy, Theology) course offered Spring, 1998. Co-authored with John Karkheck, Jamie Schaefer, and Ron Zupko, (1997).

## Courses Taught

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| **Graduate** | Philosophy of Science, Mind, Consciousness, Evolutionary Biology; Problems in Metaphysics Seminar: Qualia; Philosophy of Mathematics; Seminar: Value, Economics, & Philosophy of Social Science. |
| **Undergraduate** | Philosophy Science, Knowledge, Mathematics, Mind, Human Nature; Logic; Metaphysics; Marx and Marxism; Metaphysics of Love; Theory of Ethics; Foundations in Philosophy; 20$^{th}$ Century Anglo-American Philosophy; Senior CORE Course: Faith and Justice; Seminar: Origins of the Universe; Research Methods in Philosophy; Seminar: Meaning and Identity—A Literary and Philosophical Inquiry; Seminar: Consciousness, Causation and Emergence. |
| **Honors** | Narrating Freedom: Gender and Mass Incarceration; Authority and Authorship; Evolution and the Human Person; Philosophy and Science Fiction; Contemplating Mind and Soul; Merton, Mindfulness, and Mysticism; Privilege and Practice; Exploring Spirituality and Mindfulness at the Margins; Job and Justice; Marx, Nature, Materialism, and Value. |

## Dissertations Directed

**Kristin Schaupp** "Conceiving Mind: A critique of Descartes' Dualism and Contemporary Immaterialist Views of Consciousness" (2004).

**Matt Pierlott** "The Principle of Alternate Possibilities: Finding Freedom after Frankfurt" (2006).

**Earl Cookson** "Naturalized Panpsychism" (2012).

## Professional Activities

**Refereeing** (* = multiple manuscripts reviewed):

*British Journal for the Philosophy of Science, Analysis, Journal of Consciousness Studies*\*, *Philosophia Mathematica*\*, *Philosophical Psychology, Synthese*\*, *Nonlinear Dynamics, Psychology and Life Sciences*\*, *Phenomenology and the Cognitive Sciences, Logique et Analyse*, Routledge Press\*, MIT Press, Oxford University Press.

## Service (selected)

**Associate Chair, Department of Philosophy**, 2020–present

*General Responsibilities*: Undergraduate course selection, staffing, and scheduling for approximately 100 undergraduate sections per semester; scheduling for approximately 10 graduate section per semester; transfer credit equivalencies (TES system); monitoring and adjusting course section availability during registration; handling requests to enroll in full sections; assisting with webpage maintenance.

*Innovations and Accomplishments*

- Developed and implemented web-based teaching preference system.

- Developed and implemented web-based urgent request system.

- Developed and implemented a system to contact and recruit outstanding first-time philosophy students.

**Director, University Honors Program**, 2001–12 (co-director, 2001–5)

*General Responsibilities*: Recruiting and advising for university wide program of approximately 320–60 students; choosing scheduling and recruiting instructors for honors seminars and classes; supervising Assistant Director.

*Innovations and Accomplishments*

- Developed an entirely new mission, curriculum, admission procedures, and profile.

- Developed and instituted contemplative curriculum as part of honors curriculum that has received national attention and funding (ACLS Grants).

- Designed and implemented recruitment processes that substantially increased number and quality of applications.

- Created and implemented an Honors Living and Learning Community.

- Developed and taught Honors Research Seminar in concert with Honors Undergraduate Research Opportunity.

**Director of Academic Services, Philosophy**, 2015–2017

*General Responsibilities*: Assigning/coordinating department major advisors; website maintenance and design; marketing PR for undergraduate courses/majors; course selection and scheduling; coordinating graduate student teaching assessment; processing undergraduate course requests and waivers.

**Executive Committee, Philosophy**

Seven terms: 1997–99, 2000–2, 2006–8, 2009–11, 2011-12, 2013–15, 2017–18.

**Graduate Committee, Philosophy**

One term: 2014–16.

**Undergraduate Committee, Philosophy**

Four terms: 1995–97, 2006–8, 2010–12, 2013–present.

**Department Hiring Committees, Philosophy**

Four hires: 2003–4, 2005–6, 2011–12, 2014–15.

**Dissertation Qualifying Exam Committee, Philosophy**

Ten students: 2013–18.

**Senior Experience Ad Hoc Committee, College**

One term: 2003–4.

**Rhodes Scholarship Advisor, University**

Four years: 2006–10.

**Humanities Area Tenure and Promotion Committee, University**

Years: 2017, 2021