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Employment

Research Fellow, Climate Information for Adaptation. June 2019–October 2021.
School of Earth and Environment, Faculty of Environment, University of Leeds, UK.

Research Assistant, American Electric Power Project. August 2018–May 2019.
Voinovich School of Leadership and Public Affairs, Ohio University, USA.

Education

PhD, History and Philosophy of Science, University of Pittsburgh, 2018.
Dissertation: *Spatiotemporal scales in scientific modeling: identifying target systems*.
Committee: Robert Batterman (director), James F. Woodward, Mark Wilson, Sandra D. Mitchell,
Charlotte Werndl (external).

MSc, History and Philosophy of Science, London School of Economics and Political Science, 2010.
Passed with *Distinction*.

BSc, Mathematics and Physics, University College London, 2009. Passed with *First Class Honours*.

Areas of Specialization

General Philosophy of Science, Philosophy of Climate Science / Environmental Philosophy, Climate Change Adaptation

Areas of Competence

History of Science (esp. Early Modern), Philosophy of Physics, Logic, Ancient Philosophy, Feminist Philosophy

Publications

Journal Articles

2021. **Baldissera Pacchetti, M.**, S. Dessai, S. Bradley, D. A. Stainforth. Assessing the quality of regional climate information. *Bulletin of the American Meteorological Society*. <https://doi.org/10.1175/BAMS-D-20-0008.1>

2020. **Baldissera Pacchetti, M.** Structural uncertainty through the lens of model building. *Synthese*. Online First: <https://doi.org/10.1007/s11229-020-02727-8>

2018. **Baldissera Pacchetti, M.** A role for spatiotemporal scales in modeling. *Studies in History and Philosophy of Science*, 67, 14–21. <https://doi.org/10.1016/j.shpsa.2017.10.006>

White Papers

2019. Michaud, G., Zimmer, M., Khalaf, C., Allwine, D., Pitt, D., Trainer, M., Kloefer, J., **Baldissera Pacchetti, M.**, Westover, K., Riley, J., Hall-Jones, C., Cordetti, A., & Ewart, M. *Evaluating the economic benefits of solar energy deployment in Southeastern Ohio*. Prepared for American Electric Power (AEP) Ohio.

Translations

2021. **Baldissera Pacchetti, M.** English translations of

Ehrenfest-Afanassjewa, Tatjana. (1925). Zur Axiomatisierung des zweiten Hauptsatzes der Thermodynamik. *Zeitschrift für Physik*, 33, 933–945; and

Selected parts of Ehrenfest-Afanassjewa, Tatjana. (1956). *Grundlagen der Thermodynamik*. Leiden: Brill.

In Jos Uffink, Giovanni Valente, Charlotte Werndl, & Lena Zuchowski (Eds.), *Tatjana Afanassjewa and her legacy: philosophical insights from the work of an original physicist and mathematician*. Springer. <https://doi.org/10.1007/978-3-030-47971-8>

Papers in preparation

An interdisciplinary paper that tests the framework for assessing the quality of information for adaptation. (under review with minor revisions– with Suraje Dessai, Seamus Bradley, and David A. Stainforth)

A philosophical paper on the role of uncertainty on the trust relationship between policy makers and scientists in the context of climate adaptation. (in preparation for submission)

An interdisciplinary paper that explores diversity of modeling approaches to address the shortcomings of uncertainty quantification in estimates of climatic change. (in preparation for submission – with Julie Jebeile and Erica Thompson)

A Socratic dialogue on the foundations of knowledge about future climate for decision support. (in preparation for submission to *Nature Climate Change* after a successful initial presubmission inquiry – with Erica Thompson, Suraje Dessai and David A. Stainforth)

An invited chapter for the *Routledge Handbook for the Philosophy of Climate Science* on philosophical issues in climate change adaptation. (in preparation for submission)

Presentations

Peer-Reviewed

Evaluating the quality of model-based regional climate information: the case of the UK Climate Projections 2018

European Geophysical Union General Assembly,
Virtual Conference
April 19-30, 2021.

Revisiting the distinction between predictions and projections.

Biennial Meeting of the Society for the Philosophy of Science in Practice (SPSP),
Michigan State University (MSU) in East Lansing, Michigan, USA.
July 7-10, 2020. Cancelled due to COVID-19

Assessing the epistemic quality of climate information for adaptation.

Consortium for Socially Relevant Philosophy of/in Science and Engineering (SRPoiSE),
Michigan State University (MSU) in East Lansing, Michigan, USA.
July 7-10, 2020. Cancelled due to COVID-19

The International Conference on Climate Services,
Indian Institute of Tropical Meteorology, Pune, India.
February 11–13, 2020.

Studying the Climate: A Challenge of Complexity,
Institute of Physics, London, UK.
February 6, 2020.

Trust and values at the science-policy interface.

The 2019 Annual Meeting of the Society for Decision Making under Deep Uncertainty,
Delft University of Technology, Netherlands.
November 5–7, 2019.

A role for spatiotemporal scales in modeling.

The 18th UK and European Conference on Foundations of Physics,
London School of Economics, UK.
July 16–18, 2016.

In what sense is uncertainty intrinsic to climate science?

British Society for the Philosophy of Science Annual Meeting,
University of Manchester, UK.
July 2–3, 2015.

Uncertainty in Climate Science and its Impact on Decision Making,
Sorbonne–Universités (SND), University of Paris 4, France.
May 26–28, 2015.

Algorithms and Complexity in Mathematics, Epistemology and Science,
Rotman Institute, University of Western Ontario, Canada
May 4–5, 2015.

Idealization of scales of motion in atmospheric dynamics.

Second Irvine-Pittsburgh-Princeton Conference on the Mathematical
and Conceptual Foundations of Physics,
Department of Logic and Philosophy of Science, University of California, Irvine, USA.
March 20–21, 2014.

Turning music into sound: Vincenzo Galilei's contributions to acoustics.

Biennial Meeting of the History of Science Society, Chicago, USA.
November 6–9, 2014.

167th Meeting of the Acoustical Society of America, Providence, RI, USA.
May 5–9, 2014.

Galileo: Science, Faith and the Arts,
St. Michael's College, University of Toronto, Canada.
October 3–4, 2013.

Invited

Trust and values at the science-policy interface.

Values in Science Workshop,
Institute for Future Studies, Stockholm.
May 17-18, 2021.

Structural uncertainty through the lens of model building.

Research Seminar,
Department of Geography,
University of Bergen, Bergen, Norway.
May 28, 2020.

Department of Philosophy,
George Mason University, Fairfax, VA, USA.
February 20, 2020.

Epistemic pluralism in public policy.

MPA 5850: Policy Analysis for Public Affairs and Leadership,
Voinovich School of Leadership and Public Affairs, Ohio University, USA.
February 11, 2019.

Structural uncertainty: target system identification.

Philosophy Department,
Virginia Polytechnic Institute and State University, Blacksburg, USA.
February 12, 2018.

Teaching Experience

At the University of Leeds

As Independent Instructor

Section on Climate Change Adaptation for SOEE5550M Climate Change: Impacts and Adaptation,
Spring 2020, 2021.

Lecture on Scientific Uncertainty for SOEE3112 Environmental Risk: Science, Policy and Management,
Fall 2019, 2020.

At the University of Pittsburgh

As Independent Instructor

Magic, Medicine and Science (Introductory undergraduate course on the history of science from Ancient Greek philosophy and science to the Early Modern period), Spring 2017.

Myth and Science (Introductory undergraduate course on the history of Ancient Greek philosophy and science), Fall 2016.

Principles of Scientific Reasoning (Introductory undergraduate course on critical thinking), Spring 2015.

As Teaching Assistant

Magic, Medicine and Science, with Prof. Peter Machamer, Spring 2013.

The Nature of Emotions, with Prof. James Lennox, Fall 2012.

Service to the Profession

Editorship

Lead Guest Associate Editor, *Climatic Change*, with Suraje Dessai, Seamus Bradley, David A. Stainforth, Erica Thompson and James Risbey, Special issue on “Quality of climate information for climate change adaptation”.

Guest Associate Editor in Climate Risk Management, *Frontiers in Climate*, with Scott Bremer, Marta Bruno Soares, Arjan Wardekker and Jeroen Van Der Sluijs, Research Topic on “High-Quality Knowledge for Climate Adaptation: Revisiting Criteria of Credibility, Legitimacy, Salience, and Usability”.

Other

Co-lead with Prof. James Ford of the research group “Climate Change Adaptation and Vulnerability Services”, part of the Sustainability Research Institute, School of Earth and Environment, University of Leeds.

Reviewer for *Philosophy of Science*, *Solar Energy*, *Climate Risk Management*.

Expert Reviewer for *Intergovernmental Panel on Climate Change, Working Group II, First Order Draft and Working Group I, Second Order Draft of AR6*.

Co-organizer with Jillian Schacher, Suraje Dessai, Rob Lawlor, Marta Bruno Soares and Seamus Bradley on the Ethics of Climate Services, School of Earth and Environment and the IDEA Centre, University of Leeds. *Funded by the pump-priming grant “ReactCC”*. November 2020.

Lead organizer with Suraje Dessai, Erica Thompson, Seamus Bradley and David A. Stainforth, Workshop on Quality of Climate Information, School of Earth and Environment, University of Leeds, and ESRC Centre for Climate Change Economics and Policy. October 2020.

Co-organizer with Giovanni Valente, Workshop on Climate Models and Public Policy, Department of Philosophy, University of Pittsburgh. February 28, 2015.

Co-organizer with Elay Shech and Giovanni Valente, Workshop on Climate Models and Uncertainty, Center for History and Philosophy of Science, University of Pittsburgh. February 26, 2015.

Professional Development

Online training on Climate Services for Adaptation Using Climate Data. Copernicus and European Center for Medium Range Weather Forecast. Online. November–December, 2020.

Autumn School on Co-Producing Climate Adaptation Research. Center for the Study of the Sciences and the Humanities, University of Bergen. Bergen, Norway. October 20–25, 2019.

Workshop on Teaching and Learning in Philosophy with a Special Emphasis on Inclusive Pedagogy. University of Pittsburgh. Pittsburgh, USA. February 4, 2017.

Utrecht Summer School on Physics of the Atmosphere at the Institute for Marine and Atmospheric Research. Utrecht, Netherlands. August 18–29, 2014.

Research Methods Workshop for Early-Career Graduate Students on Music and Travel, 1500-1700. The Newberry Library, Chicago, USA. March 7, 2014.

Vienna International Summer School – Scientific World Conceptions, Session on “Climate Studies”. Vienna, Austria. July 1–14, 2013.

Grants and Awards

Newberry Renaissance Consortium Grant, 2014.

Travel Grant to attend Second IPP conference at UC Irvine, 2014.

Wesley C. Salmon Research Fund, 2014.

Travel Grant for the Philosophy of Logic, Math and Physics Graduate conference and Metaphysics within and without Physics, University of Western Ontario, 2014.

NSF Travel grant for HSS, Chicago, 2014.

Teaching award for excellent student reviews for the course “Magic, Medicine and Science”, Department of History and Philosophy of Science, 2013.

Media Contributions

Nature Podcast: Music and the making of science, Published March 12, 2015.

<http://www.nature.com/nature/podcast/index-audiofile-2015-03-12.html>

Language Competence

Italian (native), English (fluent), German (fluent), Spanish (conversational), French (novice), Latin (intermediate).

Last updated: April 8, 2021