

Eric B. Winsberg

PHILOSOPHY OF SCIENCE · ETHICS OF COMPUTER SIMULATION · PHILOSOPHY OF CLIMATE SCIENCE

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h-index: 26 · i10-index:37 · Google Scholar Citations: 4360

Employment

2023 - 2027	British Academy Global Professor of History and Philosophy of Science , University of Cambridge	Cambridge, UK
2014 -	Professor of Philosophy , University of South Florida (on leave 2023-2027)	Tampa, FL
2006 -	Associate Professor of Philosophy , University of South Florida	Tampa, FL
2001 -	Assistant Professor of Philosophy , University of South Florida	Tampa, FL
1999 -	Postdoctoral Fellow , Northwestern University	Evanston, IL

Education

1999	Ph.D. in History and Philosophy of Science , Indiana University	Bloomington, IN
1989	B.A., History, Philosophy and Social Studies of Science and Medicine , University of Chicago	Chicago, IL

Grants

Complex Modelling and Political Decision Making: Addressing technical and moral problems <i>The British Academy</i>	Winsberg, E. 2022: £890,000
Demographic factors in intended major and completed major: a comparison of philosophy and other disciplines <i>American Philosophical Association</i>	Winsberg, E., Schwitzgebel, E., Thompson, M. 2018: \$2,800
How can health economic models better reflect patient and public values? Understanding stakeholder perspectives and research priorities through the Peer Models Network <i>Michael Smith Foundation for Health Research Convening and Collaborating Grant</i>	Collaborator [PI: Mohsen Sadatsafavi, University of British Columbia (UBC)] 2021: CA\$15,000

Fellowships

2023-27	British Academy Global Professor , History and Philosophy of Science, University of Cambridge	Cambridge, UK
2020	Visiting Scholar , Institute for Practical Ethics, University of California	San Diego, CA, USA
2016	Senior Fellow , Institute for Advanced Study, Leuphana University	Lüneburg, Germany
2013	Fellow , Center for Advanced Study, MCMP, Ludwig Maximilians Universität	Munich, Germany
2013	Visiting Scholar , Department of Philosophy, University of California	Berkeley, CA, USA
2008	Fellow , Institute of Advanced Study, University of Durham	Durham, UK
2006	Fellow , Center for Interdisciplinary Studies (ZiF), University of Bielefeld	Bielefeld, Germany

Books

Philosophy and Climate Science ERIC WINSBERG	Cambridge University Press 2018
<ul style="list-style-type: none">Reviewed in: <i>Notre Dame Philosophical Reviews, the British Journal for Philosophy of Science, Philosophy of Science, Journal for General Philosophy of Science, and Ethics, Policy and Environment.</i>CHOICE Honorable Mention award, Atmospheric Science Librarians International	

Science in the Age of Computer Simulation

University of Chicago Press

ERIC WINSBERG

2010

- Short list for the 2011 Lakatos Award
- Reviewed in: *Science*, *Physics Today*, *Metascience*, *Notre Dame Philosophical Reviews*, *Theoria*, *Minds and Machines*.
- Author meets critics at 2011 Eastern APA

Cambridge Elements: Models in Science and Decision Making

Cambridge University Press

ERIC WINSBERG AND STEPHANIE HARVARD

2024

The Probability Map of the Universe: Essays on David Albert's Time and Chance

Harvard University Press

BARRY LOEWER, BRAD WESLAKE, AND ERIC WINSBERG, EDS.

2023

- A collection of papers on the foundations of statistical mechanics and the arrow of time.

Climate Modeling: Philosophical and Conceptual Issues

Palgrave Macmillan

ELISABETH S. LLOYD AND ERIC WINSBERG, EDS.

2018

- A collection of papers on the foundations of climate models. Contributors include Nancy Cartwright, Mathias Frisch, Reto Knutti, Michael Mann, Linda Mearns, Jonathan Rougier, Ben Santer, Nancy Cartwright, Elisabeth Lloyd, Jay Odenbaugh, Naomi Oreskes, Wendy Parker, and Eric Winsberg

Edited Journals

2014 **Special Issue on Climate Science**, *Journal for General Philosophy of Science*

Public Contributions

DOCUMENTARY FILM SUBJECT

Moral Models: Crucial Decisions in the Age of Computer Simulation

Salazar Film

2022

A 25-minute extended interview exploring the social and ethical significance of simulation modeling in the Covid-19 Pandemic

VIDEO

Science & Social Values: Values in Modelling

Harvard, S., Winsberg, E.

2020

A 7-part video series on scientific modelling and social values, with a focus on health economics.

PRINT MEDIA

We Need Scientific Dissidents Now More than Ever: The early artificial consensus around Covid's origins is a wake-up call

Winsberg, E.

The Chronicle of Higher Education

2023

Coronavirus: why it's dangerous to blindly 'follow the science' when there's no consensus yet

Winsberg, E., Schliesser, E., Levy, N.

The Conversation

2020

Climate and coronavirus: the science is not the same

Winsberg, E., Schliesser, E.

The New Statesman

2020

OTHER MEDIA

Epidemiological Modeling, Policy, and Covid-19

Winsberg, E., Symons, J., Kaufman,

D.

Meaningoflife.tv

2020

Pandemic and Policy, a virtual conversation with Elizabeth Anderson (University of Michigan – Ann Arbor), Alexander Broadbent (University of Johannesburg) and Eric Winsberg (University of South Florida)

University of Cambridge Public Seminar in History and Philosophy of Science

*Winsberg, E., Broadbent, A.,
Anderson, E.*

2020

Journal Articles

Falsehoods Fly: a review essay

The Journal of Value Inquiry

Winsberg, E.

2024

‘Managing values’ in health economics modelling: philosophical and practical considerations

Social Science and Medicine

Harvard, S., Winsberg, E.

2024

Three Hidden Disagreements Over E-Cigarettes

Annals of the American Thoracic Society

*Harvard, S., Winsberg, E., Duan, K.,
Carlsten, C.*

2024

Patient and Public Involvement in Health Economics Modelling Raises the Need for Normative Guidance

Pharmacoeconomics

Harvard, S., Winsberg, E.

2023

Who is responsible for global health inequalities after Covid-19?

Global Epidemiology

Winsberg, E.

2022

Purposes and Duties in Scientific Modeling

Journal of Epidemiology and Community Health

Harvard, S., Winsberg, E.

2022

Putting Races on the Ontological Map: a Close Look at Spencer’s ‘New Biologism’ of Race.

Biology & Philosophy

Winsberg, E.

2022

The Epistemic Risk in Representation

Kennedy Institute of Ethics Journal

Harvard, S., Winsberg, E.

2022

Causal Inference, Moral Intuition, and Modeling in a Pandemic

Philosophy of Medicine

Harvard, S., Winsberg, E.

2021

Don’t Stop Thinking About Tomorrow!

Pacific Philosophical Quarterly

Winsberg, E.

2021

Value Judgments in a COVID-19 Vaccination model: a Case Study in the Need for Public Involvement in Health-oriented Modelling

Social Science & Medicine

*Harvard, S., Winsberg, E., Symons,
J., Adibi, A.*

2021

The Diversity of Philosophy Students and Faculty in the United States

The Philosophers’ Magazine

*Schwitzgebel, E., Bright, L.K.,
Jennings, C.D., Thompson, M. and
Winsberg, E.*

2021

- This Paper Attacks a Strawman, and the Strawman Wins: A Reply to van Basshuyen and White** *Winsberg, E., Brennan, J., Surprenant, C.*
Kennedy Institute of Ethics Journal 2021
- A Modest Defense of Geoengineering Research** *Winsberg, E.*
Philosophy and Technology 2021
- How Government Leaders Violated Their Epistemic Duties during the SARS-CoV-2 Crisis** *Winsberg, E., Brennan, J., Surprenant, C.*
Kennedy Institute of Ethics Journal 2020
- Severe Weather Event Attribution: Why Values Won't Go Away** *Winsberg, E., Oreskes N., Lloyd, E.*
Studies in History and Philosophy of Science 2020
- Hawking Radiation and Analogue Experiments: a Bayesian Analysis** *Dardashti, R., Hartmann, S., Thébault, K., Winsberg, E.*
Studies in History & Philosophy of Modern Physics 2019
- An Antidote for Hawkmoths: a Response to Recent Arguments Grounded in the Topology of Dynamical Systems** *Nabergall, L., Navas, A., Winsberg, E.*
European Journal for Philosophy of Science 2018
- What does Robustness Teach us in Climate Science: a Re-appraisal** *Winsberg, E.*
Sythese 2018
- Values and Evidence: How Models Make a Difference** *Parker, W., Winsberg, E.*
European Journal for Philosophy of Science 2017
- The Adventures of Climate Science in the Sweet Land of Idle Dreams** *Winsberg, E., Goodwin, W.*
Studies in History and Philosophy of Modern Physics 2016
- Missing the Forest for the Fish: How Much does the 'Hawkmoth effect' Threaten the Viability of Climate Projections?** *Goodwin, W., Winsberg, E.*
Philosophy of Science 2016
- Confirmation via Analogue Simulation: What Dumb Holes could tell us about Gravity** *Dardashti, R., Thébault, K., Winsberg, E.*
British Journal for the Philosophy of Science 2015
- Accountability and Values in Radically Collaborative Research** *Winsberg, E., Huebner, B., Kukla, R.*
Studies in History and Philosophy of Science 2014
- Bumps on the Road to Here (from Eternity)** *Winsberg, E.*
Entropy 14(3), 390-406 2012
- Values and Uncertainties in the Predictions of Global Climate Models** *Winsberg, E.*
Kennedy Institute of Ethics Journal 22 (2), 111-137 2012
- Holism, Entrenchment, and the Future of Climate Model Pluralism** *Lenhard, J., and Winsberg, E.*
Studies in History and Philosophy of Modern Physics 41 (3): 253-262 2012

A Tale of Two Methods <i>Synthese</i> 169 (3): 575-92	<i>Winsberg, E.</i> 2009
Laws and Chances in Statistical Mechanics <i>Studies in History and Philosophy of Modern Physics</i> 39 (4): 872-888	<i>Winsberg, E.</i> 2008
Handshaking Your Way to the Top: Inconsistency and Falsification in Intertheoretic Reduction <i>Philosophy of Science</i> 73: 582-594	<i>Winsberg, E.</i> 2006
Models of Success vs. the Success of Models: Reliability without Truth <i>Synthese</i> 152: 1-19	<i>Winsberg, E.</i> 2006
Laws and Statistical Mechanics <i>Philosophy of Science</i> 71: 707-718	<i>Winsberg, E.</i> 2004
Can Conditionalizing on the “Past Hypothesis” Militate Against the Reversibility Objections? <i>Philosophy of Science</i> 71: 489-504 winner of 2004 award for outstanding Philosophy of Science article by a recent Ph.D	<i>Winsberg, E.</i> 2004
Quantum Life: Interaction, Entanglement, and Separation <i>Journal of Philosophy C</i> : 80-97	<i>Winsberg, E. and Fine, A.</i> 2003
Simulated Experiments: Methodology for a Virtual World <i>Philosophy of Science</i> 70: 105-125	<i>Winsberg, E.</i> 2003
Simulations, Models, and Theories: Complex Physical Systems and their Representations <i>Philosophy of Science</i> 68: S442-S454	<i>Winsberg, E.</i> 2001
Sanctioning Models: The Epistemology of Simulation <i>Science in Context</i> 12 (3): 275-92	<i>Winsberg, E.</i> 1999
Encyclopedia Entries <hr/>	
Computer Simulation in Science <i>Stanford Encyclopedia of Philosophy</i>	<i>Winsberg, E.</i> 2013
Computer Simulation and the Philosophy of Science <i>Philosophy Compass</i> , Vol 4	<i>Winsberg, E.</i> 2009
Simulation <i>Oxford Companion to the History of Science</i>	<i>Winsberg, E.</i> 2002
Book Chapters <hr/>	
Representational Risk <i>Routledge Handbook on Science and Values</i> , EDITED BY KEVIN ELLIOT AND TED RICHARDS, ROUTLEDGE	<i>Winsberg, E. and Harvard, S.</i> 2017

The Metaphysics of PROB and PH

Time's arrow and the Probability Structure of the World, EDITED BY LOEWER, B., WINSBERG, E. AND WESLAKE, B.,
HARVARD UNIVERSITY PRESS

Winsberg, E.

2023

Uncertainty Quantification in Climate Modelling

Philosophical and Conceptual Issues in Climate Modeling, EDITED BY WINSBERG, E. AND LLOYD, E., PALGRAVE
MACMILLAN

Winsberg, E.

2018

Success and Scientific Realism: Considerations from the Philosophy of Simulation

Routledge Handbook on Scientific Realism, EDITED BY JUHA SAATSI, ROUTLEDGE

Winsberg, E. and Mirza, A.

2017

Making an Author in Radically Collaborative Research

The Collective Dimensions of Science, EDITED BY WEISBERG, MAYO-WILSON AND BOYER, OXFORD UNIVERSITY
PRESS

Huebner, B., Kukla, R. and Winsberg,
E.

2017

Deflationism, Pragmatism, and Metaphysics

Aspects of Anti-Representationalism: Truth, Expression, Normativity, and Naturalism, EDITED BY STEVEN
GROSS, NICHOLAS TEBBEN, AND MICHAEL WILLIAMS, OXFORD UNIVERSITY PRESS

Kukla, R., and Winsberg, E.

2015

A Function for Fictions: Expanding the Scope of Science

Fictions in Science: Philosophical Essays on Modeling and Idealization EDITED BY SUAREZ, M., ROUTLEDGE

Winsberg, E.

2009

Value Judgments and the Estimation of Uncertainty in Climate Modeling

New Waves in the Philosophy of Science, EDITED BY MAGNUS, P.D., AND BUSCH, J., PALGRAVE MACMILLAN

Biddle, J. and Winsberg, E.

2009

Book Reviews

Nature, the Artful Modeler

Notre Dame Philosophical Reviews

Nancy Cartwright

2019

Simulation and Similarity

Notre Dame Philosophical Reviews

Michael Weisberg

2013

Science without Laws: Model Systems, Cases, Exemplary Narratives

Metascience, 18(2): 265-8

A. Creager & E. Lunbeck, eds

2009

Model-Based Reasoning: Technology, Science, Values

Philosophy of Science

L. Magnani & N. Nersessian, eds.

2003

The Dappled World: Essays on the Boundaries of Science

Journal of Philosophy

with Frisch, M., Darling, K., and Fine, A.

Nancy Cartwright

2002

Wittgenstein, Finitism and the Foundations of Mathematics

Philosophy of Science

Mathieu Marion

2000

Summer Schools, etc. Taught

- 2024 **Scientific Models and Decision Making**, Davidson University *North Carolina*
- 2022 **Climate Science: Historical, Philosophical and Sociological Issues**, University of Vienna *Vienna, Austria*
- 2018 **Philosophy of Cosmology**, Western University and University of California, Irvine *Gonderich, Ontario*

Presentations (selected, recent)

- Representational Risk in Climate Models** *Stanford University*
PHILOSOPHY AND THE ENVIRONMENT WORKSHOP *December, 2024*
- Managing Values in Science: a return to decision theory** *University of Hannover*
SOCRATES WORKSHOP: TRUST IN SCIENCE *June, 2024*
- From Modelling Climate Change to Modelling Epidemics and Beyond: Moral-Epistemic Duties in Model Building** *KU, Lueven, Belgium*
BIENNIAL HERMAN ROELANTS LECTURE ON SCIENCE *May, 2024*
- So Friggin' Likely: Gatekeeping during the Covid Pandemic** *University of Innsbruck, Austria*
SCIENTIFIC GATEKEEPING *April, 2024*
- From Modelling Climate Change to Modelling Epidemics and Beyond: Moral-Epistemic Duties in Model Building** *KU, Lueven, Belgium*
BIENNIAL HERMAN ROELANTS LECTURE ON SCIENCE *May, 2024*
- Managing Values in Science: a return to decision theory** *University of Bristol*
DEPARTMENT COLLOQUIUM *October, 2023*
- What can Covid Modeling Teach us about public Participation in Science?** *University of Cambridge*
DEPARTMENT COLLOQUIUM *February, 2023*
- Cost Benefit Models and their Alternatives** *University of Lund, Sweden*
CLIMATE ECONOMICS WORKSHOP *September, 2023*
- A Modest Defense of Geoengineering Research: a Case Study in the Cost of Learning** *Utrecht, Netherlands*
THE INSTITUTE FOR MARINE AND ATMOSPHERIC RESEARCH UTRECHT (IMAU) *December, 2021*
- Value Judgments in Modeling and Causal Inference for Decision-Making** *University of British Columbia, BC, Canada*
FACULTY OF PHARMACEUTICAL SCIENCES *October, 2021*
- Value Judgments in a Covid-19 Vaccination Model** *University of Guelph, Ontario, CA*
PHILOSOPHY DEPARTMENT COLLOQUIUM *October, 2021*
- The Joint Strategy in Simulation Modeling: Machine Learning in Parameterization** *Max Planck Institute for the History of Science, Berlin, Germany*
APPROXIMATION METHODS: HISTORICAL AND PHILOSOPHICAL PERSPECTIVES *June, 2021*
- Severe Weather Event Attribution: Why Values Won't Go Away** *Leibniz University, Germany*
10TH ANNIVERSARY CONFERENCE OF THE INSTITUTE OF PHILOSOPHY AT THE LEIBNIZ UNIVERSITY *June, 2021*

Causal Inference in Non-linear Systems

UNDERSTANDING THE NATURE OF INFERENCE: CAUSATION AND CORRELATION

*Franke Program in Science and the
Humanities, Yale University*

June, 2021

Covid Modeling: How it Started, Where We are Now.

GEORGE MASON PANDEMIC MODELING FORUM

George Mason University

March, 2021

Simulations and Dark Matter

AMERICAN PHYSICAL SOCIETY

Denver

March, 2021

What is a Cause and Why does it always Precede its Effect? Reply to Carlo Rovelli

UNDERSTANDING THE NATURE OF INFERENCE: CAUSATION AND CORRELATION

*Franke Program in Science and the
Humanities, Yale University*

February, 2021

Models, Values, and Precaution

AMERICAN PHILOSOPHICAL ASSOCIATION, CENTRAL DIVISION MEETING

Online

February, 2021

Philosophy, Science and Pandemics: Why the Models Failed Us

BARCELONA INSTITUTE FOR ANALYTIC PHILOPHY

Barcelona, Spain

November, 2020

Why Study Solar Radiation Management? A Case Study in the Cost of Acquiring New Evidence

PHILOSOPHY OF SCIENCE GROUP IN INDIA

*National Institute of Advanced
Studies, Bengaluru*

September, 2020

A Modest Defense of Geoengineering Research

CLIMATE TECHNOLOGIES WORKSHOP

University of California, San Diego

April, 2020

Simulating Epidemics: Why the Models Failed Us

WINTER SIMULATION CONFERENCE

Orlando, FL

December, 2020

Evidence in Simulation

SEVEN PINES CONFERENCE

Stillwater, Minnesota

June, 2018

Robustness Rebooted

PHILOSOPHY OF SCIENCE ASSOCIATION

Seattle Washington

November 2018

A Framework for Emergent Constraints in Climate Science

BRITISH SOCIETY FOR THE PHILOSOPHY OF SCIENCE

Oxford, UK

July, 2018

Simulation in Cosmology

AMERICAN PHILOSOPHICAL ASSOCIATION PACIFIC DIVISION MEETING

- Invited symposium on physics and cosmology in practice

Washington, DC

April, 2017

'Testing this Extraordinary Scenario': Simulation and Models of Big Bang Cosmology

METHODOLOGY AND EPISTEMOLOGY IN COSMOLOGY CONFERENCE

- Plenary talk

Irvine, California

February, 2017

Confirmation in Analog and Computer Simulation

AMERICAN PHILOSOPHICAL ASSOCIATION EASTERN DIVISION MEETING

- Invited symposium on computer simulation

Washington, DC

January, 2016

Threats to Model Confidence: A Cautionary Tale

DESIGN MODELING SYMPOSIUM

- Keynote Address

Copenhagen, Denmark

October, 2015

How Important is the Hawkmoth Effect for Climate Science?

KNOWLEDGE AND MODELS IN CLIMATE SCIENCE

- Plenary talk

Rotman Institute, London, ON, CA

October, 2014

Author Meets Critics: Science in the Age of Computer Simulation

AMERICAN PHILOSOPHICAL ASSOCIATION EASTERN DIVISION MEETING

- Critics: Isabelle Peschard, Wendy Parker

Washington, DC

December 2011

Verification and Validation

SCIENTIFIC MODELING AT SFU: THEMATIC YEAR 2011

- Keynote Address

IRMACS, Burnaby, BC, Canada

April, 2011

Service

Profession

MENTOR FOR PSA'S UNDERREPRESENTED PHILOSOPHY OF SCIENCE SCHOLARS PROGRAM

Contributions to Diversity

Profession

NSF, NATIONAL HUMANITIES CENTER (USA); SSHRC (CANADA); FWF (AUSTRIA); NWO (NETHERLANDS); DFG (GERMANY); BRITISH ACADEMY, WELLCOME TRUST (UK).

Grant review

Profession

PHILOSOPHY OF SCIENCE; BRITISH JOURNAL FOR THE PHILOSOPHY OF SCIENCE; PHILOSOPHER'S IMPRINT; ERKENNTNIS; SYNTHESE; STUDIES IN HISTORY AND PHILOSOPHY OF SCIENCE; STUDIES IN HISTORY AND PHILOSOPHY OF MODERN PHYSICS; STUDIES IN HISTORY AND PHILOSOPHY OF BIOLOGY; PERSPECTIVES ON SCIENCE; INTERNATIONAL STUDIES IN PHILOSOPHY OF SCIENCE; COGNITIVE SCIENCE; ENTROPY; KENNEDY INSTITUTE OF ETHICS JOURNAL; PHILOSOPHY OF TECHNOLOGY; PUBLIC AFFAIRS QUARTERLY; SIMULATION AND GAMING; ERASMUS JOURNAL FOR PHILOSOPHY AND ECONOMICS

Journal referee

Profession

CAMBRIDGE UNIVERSITY PRESS; UNIVERSITY OF CHICAGO PRESS; ROUTLEDGE; PRENTICE-HALL.

Manuscript review

Profession

PHILOSOPHY OF SCIENCE ASSOCIATION; MODELS AND SIMULATIONS CONFERENCES: (MS1, MS2, MS3, MS4, MS5, MS7); INCONSISTENCY ROBUSTNESS

Program Committees

Department

UNDERGRADUATE ADVISOR; UNDERGRADUATE COMMITTEE (CHAIR); DIRECTOR OF PLACEMENT; PHILOSOPHY OF MIND SEARCH COMMITTEE (CO-CHAIR); SPECIAL COMMITTEE ON LOGIC AND CRITICAL THINKING (CHAIR); GRADUATE COMMITTEE; TENURE AND PROMOTION COMMITTEE (CHAIR).

Committees

University

HONORS AND AWARDS COMMITTEE; INSTRUCTOR PROMOTIONS COMMITTEE; SPECIAL GRADE GRIEVANCE COMMITTEE.

Committees