

Eric B. Winsberg

PHILOSOPHY OF SCIENCE · PHILOSOPHY OF PHYSICS · PHILOSOPHY OF CLIMATE SCIENCE

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Employment

- 2014 - **Professor of Philosophy**, University of South Florida *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*

Visiting Fellowships

- 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

Cambridge University Press

ERIC WINSBERG

2018

- An introduction to the major topics in the philosophy of climate science

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

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. Confirmed 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*

Journal Articles

Putting races on the ontological map: a close look at Spencer's 'new biologism' of race.

Winsberg, E.

Biology & Philosophy

Invited for special issue

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.

Synthese

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

Winsberg, E.

Synthese 169 (3): 575-92

2009

Laws and Chances in Statistical Mechanics

Winsberg, E.

Studies in History and Philosophy of Modern Physics 39 (4): 872-888

2008

Handshaking Your Way to the Top: Inconsistency and falsification in intertheoretic reduction

Winsberg, E.

Philosophy of Science 73: 582-594

2006

- Models of Success vs. the Success of Models: Reliability without truth** *Winsberg, E.*
2006
Synthese 152: 1-19
- Laws and Statistical Mechanics** *Winsberg, E.*
2004
Philosophy of Science 71: 707-718
- Can Conditionalizing on the “Past Hypothesis” Militate Against the Reversibility Objections?** *Winsberg, E.*
2004
Philosophy of Science 71: 489-504
winner of 2004 award for outstanding Philosophy of Science article by a recent Ph.D.
- Quantum Life: Interaction, Entanglement, and Separation** *Winsberg, E. and Fine, A.*
2003
Journal of Philosophy C: 80-97
- Simulated Experiments: Methodology for a Virtual World** *Winsberg, E.*
2003
Philosophy of Science 70: 105-125
- Simulations, Models, and Theories: Complex Physical Systems and their Representations** *Winsberg, E.*
2001
Philosophy of Science 68: S442-S454
- Sanctioning Models: The Epistemology of Simulation** *Winsberg, E.*
1999
Science in Context 12 (3): 275-92

Encyclopedia Entries

- Computer Simulation in Science** *Winsberg, E.*
2013
Stanford Encyclopedia of Philosophy
- Computer Simulation and the Philosophy of Science** *Winsberg, E.*
2009
Philosophy Compass, Vol. 4
- Simulation** *Winsberg, E.*
2002
Oxford Companion to the History of Science

Book Chapters

- Uncertainty Quantification in Climate Modelling** *Winsberg, E.*
2018
Philosophical and Conceptual Issues in Climate Modeling, EDITED BY WINSBERG, E. AND LLOYD, E., PALGRAVE
MACMILLAN
- The Metaphysical Foundations of Statistical Mechanics: on the status of PROB and PH** *Winsberg, E.*
2018
Time’s arrow and the Probability Structure of the World, EDITED BY LOEWER, B., WINSBERG, E. AND WESLAKE, B.,
HARVARD UNIVERSITY PRESS
- Success and Scientific Realism: Considerations from the Philosophy of Simulation** *Winsberg, E. and Mirza, A.*
2017
Routledge Handbook on Scientific Realism, EDITED BY JUHA SAATSI, ROUTLEDGE

Making an Author in Radically Collaborative Research

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

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

2017

Deflationism, Pragmatism, and Metaphysics

Kukla, R., and Winsberg, E.

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

2015

A Function for Fictions: Expanding the scope of science

Winsberg, E.

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

2009

Value Judgments and the Estimation of Uncertainty in Climate Modeling

Biddle, J. and Winsberg, E.

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

2009

Book Reviews

Nature, the Artful Modeler

Nancy Cartwright

Notre Dame Philosophical Reviews

2019

Simulation and Similarity

Michael Weisberg

Notre Dame Philosophical Reviews

2013

Science without Laws: Model Systems, Cases, Exemplary Narratives

A. Creager & E. Lunbeck, eds

Metascience, 18(2): 265-8

2009

Model-Based Reasoning Technology, Science, Values

L. Magnani & N. Nersessian, eds.

Philosophy of Science

2003

The Dappled World: Essays on the Boundaries of Science

Nancy Cartwright

Journal of Philosophy

2002

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

Invited keynotes, plenaries, etc.

Simulation in Cosmology

Gondrich, Ontario, Canada

SUMMER SCHOOL IN PHILOSOPHY OF COSMOLOGY

June, 2018

Evidence in Simulation

Stillwater, Minnesota

SEVEN PINES CONFERENCE

June, 2018

Simulation in Cosmology

Washington, DC

AMERICAN PHILOSOPHICAL ASSOCIATION PACIFIC DIVISION MEETING

April, 2017

- Invited symposium on physics and cosmology in practice

'Testing this Extraordinary Scenario': Simulation and models of Big Bang cosmology

Irvine, California

METHODOLOGY AND EPISTEMOLOGY IN COSMOLOGY CONFERENCE

February, 2017

- Plenary talk

Confirmation in Analog and Computer Simulation

Washington, DC

AMERICAN PHILOSOPHICAL ASSOCIATION EASTERN DIVISION MEETING

January, 2016

- Invited symposium on computer simulation

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

Values and Uncertainties in Climate Modeling

VALUES AND NORMS IN MODELING

- Keynote Address

Eindhoven, Netherlands

June, 2012

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

Other Presentations

SELECTED INVITED PRESENTATIONS SINCE 2013

Simulation and Experiment

WORKSHOP ON ANALOG EXPERIMENTS

University of Bristol, UK

July, 2018

Values and Event Attribution

PHILOSOPHY AND POLITICS OF CLIMATE CHANGE

University of Chicago

April, 2018

Model Skill

WILL SCIENCE REMAIN HUMAN

Rome, Italy

March, 2018

Probability in Weather and Climate

DEPARTMENT COLLOQUIUM

Ruhr-Universität Bochum

June 2016

Confirmation in Analog and Computer Simulation

DEPARTMENT COLLOQUIUM

Leibniz Universität Hannover

April 2016

Confirmation in Analog and Computer Simulation

INTERFERENCES|EVENTS

MECS, Universität Leuphana

January 2016

Confirmation in Analog and Computer Simulation

MODELING AND REPRESENTATION CONFERENCE

San Sebastian, Spain

December 2015

Reflections on the Relationship between Verification and Validation in Computer Simulation

WORKSHOP ON "THE ART AND SCIENCE OF SIMULATION"

Stuttgart, Germany

October 2015

Reflections on the Relationship between Verification and Validation in Computer Simulation

WORKSHOP ON "HOW TO BUILD TRUST IN COMPUTER SIMULATIONS: TOWARDS A GENERAL EPISTEMOLOGY OF VALIDATION."

Hannover, Germany

July 2015

Values and uncertainties in the predictions of global climate models

WORKSHOP ON "UNCERTAINTY IN CLIMATE MODELING"

*Pittsburgh Center for the Philosophy
of Science, PA
February 2015*

The adventures of climate science in the sweet land of idle arguments

WORKSHOP ON "CLIMATE MODELING AND PUBLIC POLICY"

- joint work with William Goodwin

*University of Pittsburgh Philosophy
Department, PA
February 2015*

Confirmation via Analogue Simulation: What Dumb Holes Could Tell us About Gravity

MODELS AND EXPERIMENTS WORKSHOP

- joint work with Radin Dardashti and Karim Thébault

Geneva, Switzerland

June, 2014

How anti-realists could learn to stop worrying and love unobservables

DEPARTMENT COLLOQUIUM

University of Maryland

March, 2014

How anti-realists could learn to stop worrying and love unobservables

REDUCTION AND EMERGENCE IN SCIENCE WORKSHOP

LMU, Munich, Germany

July, 2013

Confirmation via Analogue Simulation: What Dumb Holes Could Tell us About Gravity

REDUCTION AND EMERGENCE IN SCIENCE WORKSHOP

- with Radin Dardashti and Karim Thébault

LMU, Munich, Germany

July, 2013

Handshaking Your Way to the Top

MULTISCALE MODELING AND ARCHITECTURE. CENTER FOR INFORMATION TECHNOLOGY AND ARCHITECTURE

Copenhagen, Denmark

May 2013

Fuzzy Modularity

CULTURES OF ENERGY SPRING SYMPOSIUM

Rice University, Houston, TX

April 2013

Climate Uncertainty and Ambiguity Aversion

LMPS COLLOQUIUM

UC, Berkeley

March 2013

SELECTED RECENT SUBMITTED PRESENTATIONS

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

Missing the Forest for the Fish: uncertainty in climate modeling

PHILOSOPHY OF SCIENCE ASSOCIATION

- with William Goodwin

Chicago, IL

November 2014

Confirmation via Analogue Simulation: What Dumb Holes Could Tell us About Gravity

PHILOSOPHY OF SCIENCE ASSOCIATION

- with Radin Dardashti and Karim Thébault

Chicago, IL

November 2014

Confirmation via Analogue Simulation: What Dumb Holes Could Tell us About Gravity

Cambridge, UK

BRITISH SOCIETY FOR THE PHILOSOPHY OF SCIENCE

November 2014

- with Radin Dardashti and Karim Thébault

Deflationism, Pragmatism and Metaphysics

Orlando, Florida

FLORIDA PHILOSOPHICAL ASSOCIATION

November 2012

- with with Rebecca Kukla

Deflationism, Pragmatism and Metaphysics

Orlando, Florida

FLORIDA PHILOSOPHICAL ASSOCIATION

November 2012

Deflationism, Pragmatism and Metaphysics

University of Pittsburgh, PA

NEW SCIENCE—NEW RISKS: CENTER FOR PHILOSOPHY OF SCIENCE

March 2012

Levels of Shared Epistemic Norms

Athens, Greece

EUROPEAN PHILOSOPHY OF SCIENCE ASSOCIATION

October, 2011

Laws and Chances in Statistical Mechanics

Amsterdam, Netherlands

EUROPEAN PHILOSOPHY OF SCIENCE ASSOCIATION

October, 2009

Courses Taught

Graduate

PHILOSOPHY OF CLIMATE SCIENCE, PHILOSOPHY OF SCIENCE, PHILOSOPHY OF SPACE AND TIME; LOGICAL THEORY; MODAL LOGIC: TRUTH; SCIENCE AND SOCIAL VALUES; THE LATE WITTGENSTEIN; COMMERCIALIZATION IN BIOMEDICAL RESEARCH; WITTGENSTEIN AND USE THEORIES OF MEANING.

Undergraduate

PHILOSOPHY OF SCIENCE; PHILOSOPHY OF MIND; LOGIC; EPISTEMOLOGY; SCIENCE AND SOCIETY (UNDERSTANDING SCIENTIFIC REASONING); MINDS AND MACHINES; SCIENCE CULTURE AND SOCIETY; REVOLUTIONS IN SCIENCE; PHILOSOPHY CAPSTONE SEMINAR (“TIME IN PHILOSOPHY, LITERATURE AND FILM”).

Service

Department

USF Philosophy

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).

University

USF

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

Profession

Grant review

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

Profession*Journal referee*

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

Profession*Manuscript review*

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

Profession*Program Committees*

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

Languages

Fluent

ENGLISH; FRENCH

Intermediate

GERMAN