

Heather Demarest

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University of Colorado
Muenzinger D110, 232 UCB
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Areas of Specialization

Philosophy of Science, Metaphysics, and Philosophy of Physics

Areas of Competence

Logic, Epistemology, and Philosophy of Language

Employment

University of Colorado, Boulder

Assistant Professor of Philosophy

2017-present

University of Oklahoma

Assistant Professor of Philosophy

2013-2017

Education

Rutgers University

2013

PhD in Philosophy

Dissertation: *A Theory of Laws, Dispositions, and Chances*

Advisor: Barry Loewer

Committee: Jonathan Schaffer, Branden Fitelson, and Jenann Ismael

Oxford University

2007

BPhil in Philosophy

Advisors: Timothy Williamson and John Hawthorne

University of Colorado, Boulder

2004

BA in Philosophy, *Phi Beta Kappa*, *summa cum laude* with Allan Franklin

BA in Physics, *summa cum laude* with Noah Finkelstein

Minor in Mathematics

Publications

“Persisting Despite the Relativistic Odds”

forthcoming

Australasian Journal of Philosophy

“Time and Special Relativity”

forthcoming

In *Routledge Companion to the Philosophy of Time*,

Routledge Taylor and Francis, ed., Nina Emery

“Reply to Root-Bernstein: Increasing complexity allows for the pervasiveness of low-

2024

- complexity entities and is not anthropocentric,” with Michael Wong, Robert Hazen
Hazen, Carol Cleland, Jonathan Lunine, Stuart Bartlett, Henderson Cleaves, and
Anirudh Prabhu
Proceedings of the National Academy of Sciences doi/10.1073/pnas.2406598121
- “On the Roles of Function and Selection in Evolving Systems,” with Michael Wong, 2023
Robert Hazen, Carol Cleland, Jonathan Lunine, Stuart Bartlett, Henderson Cleaves,
Anirudh Prabhu, and Daniel Arends Jr
Proceedings of the National Academy of Sciences **120**(43): e2310223120
- “Generalizing the Problem of Humean Undermining” with Elizabeth Miller 2023
In *Humean Laws for Humean Agents*, Oxford University Press, eds., Michael Townsen Hicks,
Siegfried Jaag, and Christian Loew
- “Isolation, Not Locality,” with Michael Townsen Hicks 2021
Philosophy and Phenomenological Research, **103**: 607–619.
- “Mentaculus Laws and Metaphysics” 2019
Principia **23**(3): 387–399.
- “Similarity and Enjoyment Predict Continuation for Women in Philosophy” 2017
Analysis, **77**(3): 525–541.
- “Powerful Properties, Powerless Laws” 2017
In *Causal Powers*, Oxford University Press, ed., Jonathan Jacobs.
- “Fission May Kill You (But Not for the Reasons You Thought)” 2016
Philosophy and Phenomenological Research, **93**(3): 565–582.
- “The Universe Had One Chance” 2016
Philosophy of Science, **83**(2): 248–264.
- “Fundamental Properties and the Laws of Nature” 2015
Philosophy Compass, **10**(5): 334–344.
- “Do Counterfactuals Ground the Laws? A Critique of Lange” 2012
Philosophy of Science, **79**(3): 333–344.
- Review: “Laws of Nature”* (2018) eds. Walter Ott and Lydia Patton, Oxford University Press 2018
Notre Dame Philosophical Reviews.

In-Progress

- “Objective Chances, Anomalies, and Bayes” *invited*
In *Anomalies*, Springer Nature, eds., Carol Cleland and Michael Deitrich
- “A New Metaphysics: Relativity, Time, and Causation” *invited*

In <i>Astronomy and Philosophy: Conceptual and Methodological Foundations</i> , Cambridge University Press, ed. Steven Dick	
“Entropy, Complexity, and the Direction of Time”	<i>invited</i>
In <i>Philosophy of Time, Naturalized</i> , ed., Heather Dyke	
“How (Not) to be a Pragmatic Humean”	<i>under review</i>
“Bringing the Mentaculus to Life”	<i>under review</i>
“Humean Laws” with Isaac Wilhelm	<i>under review</i>
“Powers Best Systems and the Production of New Powers”	<i>draft</i>

Presentations

TBD	
National University of Singapore	2025
<i>Jowett Society Lecture</i> , Oxford University	2025
<i>Metaphysics Workshop</i> , Princeton University	2025
University of California, Irvine, <i>Colloquium Speaker</i>	2025
“What is a Law of Nature and Do We Need Another One?”	
<i>Workshop on Information, Selection, and Evolution</i> , Carnegie Institution, Washington DC	2024
“Personal Identity and Coherence in Spacetime”	
<i>Workshop on Mind and Value</i> , Cornell University	2024
“A Time-Asymmetric Law of Increasing Complexity”	
<i>International Association for the Philosophy of Time</i> , Lugano, Switzerland	2024
“Complexity, Entropy, and the Direction of Time”	
<i>Philosophy of Time Naturalized</i> , Wake Forest University	2024
“Potency Best Systems and the Generation of New Powers”	
<i>Powers, Processes, and Persistence</i> , University of Siegen, Germany	2024
“Low Probability, Surprisingness, and Anomalies”	
<i>Rethinking Anomalies in Science</i> , University of Pittsburgh	2023
“Bringing the Mentaculus to Life”	
<i>SPAWN Workshop: Laws of Nature</i> , Syracuse University	2023
“Ontology for the Best System”	
<i>Humeanism Conference</i> , Johns Hopkins University	2023
“Are the Laws of Nature Useful?”	
<i>Laws of Nature, Explanation, and Understanding Conference</i> , North Carolina State University	2022
“Persisting Against the (Spatiotemporal) Odds”	
<i>Colloquium</i> , University of Massachusetts, Amherst	2022

<i>International Association for the Philosophy of Time 7th Annual Conference</i> , Barcelona	2022
“Does Complexity Require a Temporally Asymmetric Law?”	
<i>Workshop on Complexity and Time</i> , Carnegie Institution for Science, Washington DC	2022
“Against Pragmatic Humean Accounts of Laws”	
<i>Society for the Metaphysics of Science</i> (online)	2021
“Relativistic Causation”	
<i>Causation, Modality, and Explanation</i> , Simon Fraser University (online)	2020
“Mentaculus Counterfactuals” with Elizabeth Miller	
<i>Workshop on Humeanism</i> , Harvard University	2019
“Flowing Alone”	
<i>Workshop on Time and Explanation</i> , CPT and FraMEPhys, Milan	2018
Comments on Casey McCoy’s, “The Universe Never Had a Chance: A Critique of Demarest”	
<i>Fourth Annual Conference</i> , Society for the Metaphysics of Science, Milan	2018
“Nonlocal Science” with Michael Townsend Hicks	
<i>Conference on History and Metaphysics of Laws</i> , Central European University, Budapest	2018
“Relativistic Persons: What special and general relativity can tell us about who we are”	
<i>Morris Colloquium: The Self and Its Realizations</i> , University of Colorado, Boulder	2018
“Women in Philosophy”	
<i>Colorado Summer Seminar in Philosophy</i> , University of Colorado	2017–2021, 2023–2024
“In Defense of a Modal Best System”	
<i>International Workshop: Properties and Laws</i> , University of Dusseldorf	2018
“Consequences of Relativistic Frame-Dependence”	
<i>Pacific APA</i>	2018
<i>Colloquium</i> , Center for Philosophy of Time, Milan	2018
<i>Metro Area Philosophers of Science</i> , New York University	2017
“Special Relativity and Consciousness”	
<i>Undergraduate Philosophy Club</i> , University of Colorado, Boulder	2017
“It Matters how You Slice it: Special Relativity and Causation”	
<i>1st New England Workshop on Philosophy of Time</i> , Rhode Island College	2017
<i>Mentoring Workshop for Pre-tenure Women Faculty in Philosophy</i> , University of Utah	2017
Panel on Time and Causation	
<i>International Association for the Philosophy of Time</i> , Wake Forest University, NC	2016
“What is Bad About the Lack of Diversity in Philosophy? Implicit Bias and Efforts to Recruit and Retain Philosophers from Underrepresented Groups”	
Western Washington, <i>13th Northwest Student Philosophy Conference</i> (Special Lecture)	2015
Comments on “A Scientific Realist’s Guide to Objective Chance” by Nina Emery	

Whistler, British Columbia, <i>The Philosophy Mountain Workshop</i>	2015
“Fission May Kill You (But Not for the Reasons You Thought)”	
Western Washington, <i>13th Annual Northwest Student Philosophy Conference</i> (Keynote)	2015
<i>Back at the Ranch</i> Metaphysics Conference, Tucson, AZ (Invited Speaker)	2015
University of Colorado, Boulder (Colloquium)	2015
<i>Midwest Annual Workshop on Metaphysics</i> (Invited Speaker)	2014
Comments on “Against Simplicity” by Mary Beth Willard	
Western Washington University, <i>Bellingham Summer Philosophy Conference</i>	2013
“Fundamental Chance”	
The University of Oklahoma, <i>Mathematics Department, Analysis and Convexity Seminar</i>	2016
The University of Nebraska-Lincoln, <i>Necessity Conference</i>	2013
The University of Georgia (Colloquium Speaker)	2013
The University of Oklahoma (Colloquium Speaker)	2013
Purdue University (Colloquium Speaker)	2013
“Fundamental Chance and the Mentaculus”	
Prague, <i>Ernst Mach Workshop: Issues in Physicalism</i>	2012
“Dispositional Best System Accounts of Laws”	
St. Louis University, <i>Putting Powers to Work</i>	2011
“Justifying the Lebesgue Measure”	
SUNY, Buffalo, Graduate Conference, <i>Nature and Structure</i>	2007

Honors and Awards

Carnegie Foundation & Templeton Grant, “Information, Selection, and Evolution”	2024–2027
One month of summer salary for three years to explore the relationship between complexity and time, and to develop a philosophically coherent concept of a temporally asymmetrical law of nature describing increasing functional information (Co-PI)	
Umeå Universitet Research Grant, “Why are the Physical Laws so Useful?”	2024–2027
One month of summer salary for three years to argue against pragmatic conceptions of the laws, and to examine how non-pragmatic theories of laws could explain the usefulness of laws (Co-PI)	
Faculty Fellow for Quality Teaching Initiative: Education through Technology	2021–2022
Stipend to explore inclusive, goal oriented, and scholarly teaching as well as multiple measures of evaluation and to create a plan to lead the Philosophy Department in developing teaching quality standards and measures during the 2021-22 AY	

President's Fund for the Humanities Grant	2019
Grant to help CU's Committee on the History and Philosophy of Science fund the annual conference of the <i>International Association for the Philosophy of Time</i> in 2019	
Research and Innovation Office Conference Grant	2019
Grant to help CU's Committee on the History and Philosophy of Science fund the annual conference of the <i>International Association for the Philosophy of Time</i> in 2019	
Dean's Summer Grant	2018
Summer salary for early career research	
Course Development Grant (University of Oklahoma)	2016
Faculty Fellow Award (University of Oklahoma)	2015
College of Arts and Sciences Career Development Grant (University of Oklahoma)	2015
Arts and Sciences Junior Faculty Summer Fellowships (University of Oklahoma)	2014, 2015
SAS Excellence Fellowship (Rutgers)	2007–2008, 2012–2013
Mellon Summer Grants (Rutgers)	2011, 2012
Jacob K. Javits Fellowship (Rutgers)	2008–2012
Clarendon Scholarship (Oxford)	2005–2007
Fawkes Memorial Scholarship (Oxford)	2005–2007
Overseas Research Student Award (Oxford)	2005–2007
<i>Phi Beta Kappa</i> Merit Scholarship	2004

Teaching and Advising

Philosophy and the Sciences (honors, 35, and 70 students)	2017, 2022, 2024
History and Philosophy of Physics	2021, 2022
Introduction to Philosophy (35, 75, and 150 students)	2014, 2015, 2016, 2019, 2020, 2024
Metaphysics	2013, 2017, 2018, 2019, 2020
Philosophy of Time Seminar	2014, 2019, 2021
Metaphysics of Laws of Nature at CEU Summer School, Budapest	2018, 2022
Critical Thinking and Writing in Philosophy	2018
Philosophy of Physics and Cosmology	2014, 2016, 2017
Self and Identity	2013, 2015, 2016
Philosophy of Physics	2012
Current Moral and Social Issues	2011

Introduction to Logic	2011
Introduction to Metaphysics	2010
Philosophy of Literature	2009
Dissertation Committee Member (4 completed, 3 in-progress)	2019, 2020, 2023, 2024
Masters Thesis Committee Member (4 completed)	2021, 2022, 2023
Honors Thesis Advisor (4 completed)	2018, 2019, 2020

Service

Professional Service

Society for the Metaphysics of Science Program Committee Member	2023
Society for the Metaphysics of Science Council Member	2017–2021
International Association for the Philosophy of Time Board of Advisors	2018–2023
International Association for the Philosophy of Time Conference Organizer	2019

Journal, Book, and Grant Referee for:

Philosophical Review, Mind, Nous, Philosophy of Science, British Journal for the Philosophy of Science, European Journal for the Philosophy of Science, Journal for General Philosophy of Science, Philosopher's Imprint, Philosophical Studies, Synthese, Philosophical Quarterly, Analysis, American Philosophical Quarterly, Pacific Philosophical Quarterly, Erkenntis, Ergo, Journal of the American Philosophical Association, Thought, Dialectica, Topoi, Philosophical Papers, Oxford University Press (Book Proposal), Routledge/Taylor & Francis (Book Proposal), National Science Foundation (Grant Proposal), European Research Council (Grant Proposal)

University Service

Chair of Committee on the History and Philosophy of Science (CHPS)	2017–2024
Organizer of CU Boulder's CHPS Conference	2017, 2018, 2019, 2024
Center for the Study of Origins Core Faculty Member	2021–2022
Mentor for graduate and undergraduate students in philosophy	2018–2024
Climate Committee Member	2017–2023
Chair of Quality Teaching Initiative Committee	2021–2022
Department Liaison for Hellems Renovation	2021–2024
Graduate Admissions Committee Member	2021, 2024
Executive Council Committee Member	2020–2021
3-Year Visiting Scholar Hiring Committee Member	2018

Evaluation of Interventions to Retain Women in Philosophy (Design and Implementation)	2014–2016
Initiatives for Undergraduate Inclusiveness and Community-Building (Creator and Organizer)	2014–2016
Recruitment and Diversity Committee	2014–2017
Undergraduate Studies Committee	2013–2017
Rutgers-Columbia-NYU Philosophy of Cosmology Project (Organizer)	2012–2013
Rutgers Graduate Summary Workshop (Creator and Organizer)	2012
Climate Committee for Underrepresented Groups (Graduate Representative)	2011–2012
Graduate Student Climate Survey (Chief Designer and Implementer)	2012
Departmental Colloquia (Organizer)	2011–2012
Philosophy of Science Reading Group (Organizer)	2007–2011
Philosophy of Cosmology, Quantum Theory, and Time Conference (Organizer)	2010
Foundations of Statistical Mechanics Conference (Organizer)	2009
Metaphysics Meets Physics on the Banks of the Raritan Conference (Organizer)	2008