

John Dougherty

CONTACT INFORMATION	Department of Philosophy University of California, San Diego 9500 Gilman Drive, mail code 0119 La Jolla, CA 92093 USA john.e.dougherty.ii@gmail.com johnedougherty.com	
AOS	Philosophy of Physics, Philosophy of Mathematics	
AOC	Philosophy of Science, Logic, Metaphysics	
EDUCATION	University of California, San Diego , La Jolla, California USA Ph.D., Philosophy	Expected Spring 2018
	University of Chicago , Chicago, Illinois USA A.B., Honors, Physics	May 2010
	A.B., Honors, The History, Philosophy, and Social Studies of Science and Medicine	May 2010
DISSERTATION	<i>Identity in gauge theories</i> <i>Committee:</i> Craig Callender (chair), Nancy Cartwright, David Meyer, Chip Sebens, Jim Weatherall I argue that contemporary theories of physics are best understood as involving a more refined identity relation than the one found in first order logic. I use this identity relation to resolve an ambiguity that dominates the philosophical literature on these theories and show that the most plausible disambiguations of extant interpretations are physically inadequate. I offer novel interpretations of these theories that avoid these inadequacies and justify heuristic arguments in the physics literature.	
FELLOWSHIPS & AWARDS	Beyond Spacetime Predoctoral Research Fellow	Winter & Spring 2017
	2016 PSA Graduate Student Essay Award	November 2016
	UC San Diego Frontiers of Innovation Scholars Program Fellow	AY 2016
	UC San Diego GSA Travel Grant	Spring 2015
	UC San Diego Philosophy Dept. Graduate Essay Prize	Spring 2014
PUBLICATIONS	Black hole thermodynamics: More than an analogy? (With C. Callender)	Forthcoming
	<i>Guide to the Philosophy of Cosmology</i> ed. A. Ijjas and B. Loewer. Oxford University Press.	
	What inductive explanations could not be, <i>Synthese</i>	2017
	Sameness and separability in gauge theories, <i>Philosophy of Science</i> , 84(5)	2017
PRESENTATIONS	Sizing up gauge <i>Philosophy of Logic, Math and Physics Graduate Conference</i> Western University	June 2017
	Equality and separability in gauge theories <i>Philosophy of Science Association — Twenty-Fifth Biennial Meeting</i> Atlanta, GA	November 2016
	<i>Foundations 2016</i> London School of Economics	July 2016
	<i>British Society for the Philosophy of Science Annual Conference 2016</i> Cardiff University	July 2016
	The Aharonov–Bohm effect, take n <i>Third International Summer School in Philosophy of Physics</i> Saig, Germany	July 2015
	What mathematical explanations could not be <i>Philosophy of Logic, Math and Physics Graduate Conference</i> Western University	June 2015

	The hole argument, take <i>n</i>	
	<i>Third Irvine–Pittsburgh–Princeton Conference on the Foundations of Physics</i> Princeton University	March 2015
	The geometry of black hole entropy	
	<i>Beyond Spacetime II: Time in Quantum Gravity</i> University of California, San Diego	March 2015
	A few points on gunky space	
	<i>Philosophy of Science Association — Twenty-Fourth Biennial Meeting</i> Chicago, IL	November 2014
	Black hole thermodynamics: More than an analogy? (with C. Callender)	
	<i>Philosophy of Science Association — Twenty-Fourth Biennial Meeting</i> Chicago, IL	November 2014
	Symmetries, Laws, and Quantum Fields	
	<i>Philosophy Dept. Graduate Student Conference with A. Chakravartty</i> University of California, San Diego	May 2014
	Problems with Justifying Typicality Measures	
	<i>Second Irvine–Pittsburgh–Princeton Conference on the Foundations of Physics</i> University of California, Irvine	March 2014
COMMENTARIES	Comments on T. Menon, “Rebuilding Neurath’s boat Planck by Planck”	
	<i>Conference on the Philosophical Foundations of Quantum Gravity</i> Bogis-Bossey, Switzerland	June 2017
	Comments on T. Barrett, “What do symmetries tell us about structure?”	
	<i>2017 American Philosophical Association Pacific Division Meeting</i> Seattle, Washington	April 2017
	Comments on C. Chall, “Doubt for Dawid’s Non-empirical Theory Assessment”	
	<i>2016 American Philosophical Association Pacific Division Meeting</i> San Francisco, CA	April 2016
	Comments on R. Wald, “The ‘Geodesic Principle’ ... in General Relativity”	
	<i>Foundations of General Relativity Workshop: What are the Laws of General Relativity?</i> University of Michigan	January 2014
TEACHING EXPERIENCE	Pomona College , Claremont, California USA	
	<i>Lecturer in Philosophy— Philosophy Dept.</i>	August 2017 – December 2017
	PHIL 1 Problems of Philosophy	Fall 2017
	PHIL 104 Philosophy of Science	Fall 2017
	PHIL 199 Directed Readings on the Philosophy of Mathematics	Fall 2017
	University of California, San Diego , La Jolla, California USA	
	<i>Associate in Philosophy — Philosophy Dept.</i>	March 2015 – August 2017
	PHIL 10 Introduction to Logic	Summer 2017
	PHIL 12 Scientific Reasoning	Spring 2015
	PHIL 26 Science, Society, and Values	Summer 2016
	<i>Teaching Assistant — Philosophy Dept.</i>	September 2011 – December 2016
	PHIL 1 Intro. to Philosophy	Winter 2012
	PHIL 10 Intro. to Logic	Spring 2013, Summer 2014, Fall 2014
	PHIL 14 Intro. to Philosophy: Metaphysics	Winter 2015
	PHIL 15 Intro. to Philosophy: Epistemology	Fall 2012
	PHIL 27 Ethics & Society I	Fall 2011, Summer 2012, Winter 2013
	PHIL 28 Ethics & Society II	Spring 2012, Fall 2016
	PHIL 101 Aristotle	Summer 2015
	PHIL 181 Existentialism	Summer 2013
	<i>Graduate Writing Consultant — UC San Diego Writing Center</i>	AY 2016

<i>Teaching Assistant — Revelle Humanities Program</i>	<i>September 2013 – June 2014</i>
HUM 1 Foundations of Western Civilization: Israel and Greece	Winter 2014
HUM 2 Rome, Christianity, and the Middle Ages	Spring 2014

University of Chicago, Chicago, Illinois USA

<i>Teaching Assistant — Mathematics Dept.</i>	<i>September 2007 – June 2010</i>
MATH 131–133 Elementary Functions and Calculus I-II-III	AY 2008, 2010
MATH 105–106 Fundamental Mathematics	AY 2009

RESEARCH
EXPERIENCE

University of California, San Diego, La Jolla, California USA

Research Assistant to Christian Wüthrich Fall 2011 – Spring 2015
 Assisted Prof. Wüthrich in research on causal set theory. Managed the `beyondspacetime.net` website for the Seminar on the Philosophical Foundations of Quantum Gravity. Helped organize the 2015 ‘Beyond Spacetime II’ seminar.

Research Assistant to J. William Helton Spring 2013 – Fall 2013
 Assisted Prof. Helton in the creation of an online historical archive for the Mathematical Theory of Networks and Systems conference series.

University of Chicago, Chicago, Illinois USA

CERN Technologist August 2010 – August 2011
 Employed on-site at CERN in Geneva, Switzerland. Duties included development of software interface to the charge injection system (CIS) of the ATLAS experiment, development of live monitoring applications for the TileCal detector, and calibration of the TileCal using the CIS.

PROFESSIONAL
SERVICE

Refereeing:

British Journal for the Philosophy of Science, European Journal for Philosophy of Science, Foundations of Physics, Philosophical Studies, Philosophy of Science, Synthese

Selection committee member, UC San Diego Summer Program for Women in Philosophy	2015
Coordinator, Graduate Philosophy Colloquium series	2013 – 2015

GRADUATE
COURSEWORK

University of California, San Diego, La Jolla, California USA

Philosophy

Independent Study on Black Holes	Christian Wüthrich	Spring 2014
<i>Aristotle’s Posterior Analytics</i>	Monte Johnson	Spring 2014
The Metaphysics and Ethics of Omissions	Dana Nelkin & Sam Rickless	Winter 2014
Beyond Perception	Matthew Fulkerson	Fall 2013
Independent Study on General Covariance	Christian Wüthrich & Oliver Pooley	Spring 2013
Time	Craig Callender	Spring 2013
Independent Study on Entropy	Craig Callender	Winter 2013
Law & Order	Nancy Cartwright & Gerald Doppelt	Winter 2013
Metaphysics	Christian Wüthrich	Winter 2013
Truth	Gila Sher	Fall 2012
Aristotle’s Philosophy of Science	Monte Johnson	Fall 2012
Quantum Mechanics	Craig Callender	Spring 2012
Kant and the Nature and Limits of Knowledge	Clinton Tolley & Eric Watkins	Spring 2012
Quine & the Direction of Philosophy	Gila Sher	Winter 2012
The Epistemology of Science	Christian Wüthrich	Fall 2011
Proseminar in Free Will and Responsibility	Dana Nelkin	Fall 2011

Physics

Particles & Fields II	Elizabeth Jenkins	Winter 2014
Particles & Fields I	Benjamin Grinstein	Fall 2013
General Relativity	Kim Griest	Spring 2012

Humanities

Seminar in the Humanities	Stephen Cox	Fall 2013
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Cognitive Science

Diagrams in Scientific Reasoning	William Bechtel	Fall 2012
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Mathematics

Mathematical Logic I	Sam Buss	Winter 2012
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University of California, Irvine, Irvine, California USA

Logic and Philosophy of Science

Geometry & Spacetime

David Malament

Winter 2012