## John Dougherty

CONTACT Ludwig-Maximilians-Universität München Fakultät für Philosophie, Wissenschaftstheorie und Religionswissenschaft Munich Center for Mathematical Philosophy Geschwister-Scholl-Platz 1 80539 München john.e.dougherty.ii@gmail.com johnedougherty.com **AOS** Philosophy of Physics, Philosophy of Mathematics AOC. Logic, Philosophy of Science Munich Center for Mathematical Philosophy, LMU Munich Academic **Assistant Professor** 2021 - present APPOINTMENTS Postdoctoral Fellow 2018 - 2021**EDUCATION** University of California, San Diego, La Jolla, California Ph.D., Philosophy 2018 Dissertation: Identity in Gauge Theories Committee: Craig Callender (Chair), Nancy Cartwright, David Meyer, Charles Sebens, James Owen Weatherall University of Chicago, Chicago, Illinois 2010 A.B., Honors, Physics A.B., Honors, History, Philosophy, and Social Studies of Science and Medicine 2010 The substantial role of Weyl symmetry ARTICLES Forthcoming in deriving general relativity from string theory Philosophy of Science Black hole thermodynamics: More than an analogy? Forthcoming With C. Callender Guide to the Philosophy of Cosmology, ed. A. Ijjas and B. Loewer. Oxford University Press. The non-ideal theory of the Aharonov-Bohm effect 2021 Synthese, 198(12):12195-12221 I ain't afraid of no ghost 2021 Studies in History and Philosophy of Science, 88:70–84 The hole argument, take *n* 2020 Foundations of Physics, 50(4):330-347 Large gauge transformations and the strong CP problem 2020 Studies in History and Philosophy of Modern Physics, 69:50-66 What inductive explanations could not be 2018 Synthese, 195(12):5473-5483 Sameness and separability in gauge theories 2017 Philosophy of Science, 84(5):1189-1201 E. Landry, ed., Categories for the Working Philosopher Reviews 2021 Philosophy of Science, 88(4) T. Vistarini, The Emergence of Spacetime in String Theory 2020 Notre Dame Philosophical Reviews

Awards and Fellowships	James T. Cushing Memorial Prize in History and Philosophy of Physics Beyond Spacetime Predoctoral Research Fellow 2016 Philosophy of Science Association Graduate Student Essay Award UC San Diego Frontiers of Innovation Scholars Program Fellow UC San Diego Philosophy Dept. Graduate Essay Prize	2020 2017 2016 2016 2014
Invited Talks	Some philosophical aspects of the renormalization of gauge theories Higher Structures Emerging from Renormalisation, ESI Vienna	November 2021
	I ain't afraid of no ghost	
	Sigma Club, London School of Economics Philosophy of Physics Reading Group, Caltech Philosophy of Physics Research Seminar, Oxford	March 2021 October 2020 February 2020
Papers Presented	The substantial role of Weyl symmetry in deriving general relativity from string theory	
	Philosophy of Science Association Meeting	November 2021
	Gauge theories from the effective perspective	
	European Philosophy of Science Association Meeting	September 2021
	I ain't afraid of no ghost	•
	British Society for the Philosophy of Science Conference Virtual entities in science: a virtual workshop Munich Center for Mathematical Philosophy	July 2021 March 2021 November 2019
	The geometry of black hole entropy	
	Cambridge/LMU workshop on Black Hole Thermodynamics Beyond Spacetime II: Time in Quantum Gravity	October 2019 March 2015
	Black holes as black boxes	
	European Philosophy of Science Association Meeting	September 2019
	Sizing up gauge	•
	Second ILMPS Conference Philosophy of Logic, Math and Physics Graduate Conference	September 2019 June 2017
	Fields, loops, and the strong CP problem	
	British Society for the Philosophy of Science Conference Pittsburgh Early Career Workshop	July 2019 April 2019
	Problems, puzzles, and paradoxes in particle physics	-
	Second Joint MCMP–Hannover Workshop	June 2019
	Subsystem independence in gauge theories	
	Workshop on Relativistic Locality, MCMP	May 2019
	Equivalence within and between theories	-
	Foundations of Categorical Philosophy of Science	April 2019
	How to do things with isomorphisms	•
	Munich Center for Mathematical Philosophy	October 2018
	The inertial structure of a Newtonian cosmos	
	UK and European Conference on Foundations of Physics	July 2018
	Sameness and separability in gauge theories	- 2
	Philosophy of Science Association Meeting UK and European Conference on Foundations of Physics British Society for the Philosophy of Science Conference Third International Summer School in Philosophy of Physics	November 2016 July 2016 July 2016 July 2015

	What mathematical explanations could not be	
	Philosophy of Logic, Math and Physics Graduate Conference	June 2015
	The hole argument, take $n$	
	IPP Conference on the Foundations of Physics	March 2015
	A few points on gunky space	
	Philosophy of Science Association Meeting	November 2014
	Black hole thermodynamics: More than an analogy? (with C. Callende	
	Philosophy of Science Association Meeting	November 2014
	Symmetries, laws, and quantum fields	
	UC San Diego Philosophy Graduate Student Conference	May 2014
	Problems with justifying typicality measures	
	IPP Conference on the Foundations of Physics	March 2014
Commentaries	J. Norton, "No time for the Hamiltonian constraint"	
	American Philosophical Association Pacific Division Meeting	April 2018
	T. Menon, "Rebuilding Neurath's boat Planck by Planck"	
	Conference on the Philosophical Foundations of Quantum Gravity	June 2017
	T. Barrett, "What do symmetries tell us about structure?"	
	American Philosophical Association Pacific Division Meeting	April 2017
	C. Chall, "Doubt for Dawid's non-empirical theory assessment"	
	American Philosophical Association Pacific Division Meeting	April 2016
	R. Wald, "The 'geodesic principle' in general relativity"	
	Michigan Foundations of Physics Workshop	January 2014
Teaching	Munich Center for Mathematical Philosophy, Munich	
	Lecturer	2018 – present
	Philosophy of Physics: Space and Time (BA) The Applicability of Mathematics (MA)	
	The Applicability of Mathematics (MA) Categorical Logic (MA)	
	Scientific Reasoning (MA)	
	University of California, San Diego, La Jolla, California	
	Instructor of Record — Philosophy Dept.	2015 - 2018
	Introduction to Logic	
	Scientific Reasoning Science, Society, and Values	
	Teaching Assistant — Philosophy Dept.	2011 – 2016
	Introduction to Philosophy	
	Introduction to Logic	
	Introduction to Philosophy: Metaphysics Introduction to Philosophy: Epistemology	
	Ethics & Society I	
	Ethics & Society II	
	Aristotle	
	Existentialism	2017
	Graduate Writing Consultant — UC San Diego Writing Center	2016
	Teaching Assistant — Revelle Humanities Program Foundations of Western Civilization: Israel and Greece	2014
	Rome, Christianity, and the Middle Ages	

	Pomona College, Claremont, California Lecturer in Philosophy — Philosophy Dept. Problems of Philosophy Philosophy of Science Directed Readings on the Philosophy of Mathematics	Fall 2017
Professional Activities	Organizer  MCMP Colloquium in Logic and Philosophy of Science MCMP Work in Progress Seminar MCMP Philosophy of Physics Reading Group UC San Diego Graduate Philosophy Colloquium Series	2022 2022 2019 – present 2013 – 2015
	Assistant Organizer	
	Category Theory in Philosophy of Science Second Joint MCMP–Hannover Workshop	2021 2019
	Program Committee	
	Alternative Approaches to Scientific Realism UC San Diego Summer Program for Women in Philosophy	2021 2015
	Discussion group leader	
	Midwest Summer School in Philosophy of Physics	2020
	Refereeing:	

Analysis, British Journal for the Philosophy of Science, Erkenntnis, European Journal for Philosophy of Science, Foundations of Physics, Journal for General Philosophy of Science, Kriterion, Philosophical Studies, Philosophy of Science, Studies in History and Philosophy of Modern Physics, Studies in History and Philosophy of Science, Synthese