

Josiah Couch

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Education

Ph.D. Physics, University of Texas at Austin, May 2020 (expected).
Thesis advisor: Prof. Willy Fischler
GPA: 3.68

B.S. Physics and B.S. Mathematics, Oklahoma State University, August 2013.
GPA: 3.69

Publications

E. Cáceres, J. Couch, S. Eccles and W. Fischler, "Holographic Purification Complexity," [arXiv:1811.10650](https://arxiv.org/abs/1811.10650) [hep-th].

J. Couch, S. Eccles, T. Jacobson and P. Nguyen, "Holographic Complexity and Volume," *JHEP* **1811**, 044 (2018) doi:[10.1007/JHEP11\(2018\)044](https://doi.org/10.1007/JHEP11(2018)044) [[arXiv:1807.02186](https://arxiv.org/abs/1807.02186) [hep-th]]. 9 citations counted in INSPIRE as of 07 Feb 2019

J. Couch, S. Eccles, W. Fischler and M. L. Xiao, "Holographic complexity and noncommutative gauge theory," *JHEP* **1803**, 108 (2018) doi:[10.1007/JHEP03\(2018\)108](https://doi.org/10.1007/JHEP03(2018)108) [[arXiv:1710.07833](https://arxiv.org/abs/1710.07833) [hep-th]]. 29 citations counted in INSPIRE as of 07 Feb 2019

J. Couch, W. Fischler and P. H. Nguyen, "Noether charge, black hole volume, and complexity," *JHEP* **1703**, 119 (2017) doi:[10.1007/JHEP03\(2017\)119](https://doi.org/10.1007/JHEP03(2017)119) [[arXiv:1610.02038](https://arxiv.org/abs/1610.02038) [hep-th]]. 77 citations counted in INSPIRE as of 07 Feb 2019

Talks

"Purification complexity in free scalar field theory," Joint Meeting of the Texas Section of the APS, Texas Section of the AAPT, and Zone 13 of the SPS, Houston, TX October 2018

"Holographic Complexity," Oklahoma State University, Stillwater, OK April 2018

"Holographic Complexity and Non-Commutative Gauge Theory," Southwest Holography Meeting 2018, University of Texas at Austin, Austin, TX March 2018

"Holographic Complexity and Non-Commutative Gauge Theory," Joint Meeting of the Texas Section of the APS, Texas Section of the AAPT, and Zone 13 of the SPS, Richardson, TX October 2017

Teaching Experience

PHY 389K (Graduate Quantum Mechanics I) - Grader	Spring 2018
PHY 362L (Quantum Physics III: Particles and Nuclei) - Grader	Spring 2016 & 2018
PHY 373 (Quantum Physics I: Foundations) - Grader and Discussion TA	Fall 2015 & 2018
PHY 316 (Electricity and Magnetism) - Grader and Discussion TA	Spring 2017 & 2018
PHY 341 (Forensic Science) - Grader	Fall 2017
PHY 352K (Classical Electrodynamics I) - Grader and Discussion TA	Fall 2016
PHY 103M (Lab for Engineering Physics II) - Teaching Assistant	S/F 2014 & S/Summer 2015
PHY 103N (Lab for Engineering Physics I) - Teaching Assistant	Fall 2013

Honors and Awards

OGS Summer Only Fellowship	Summer 2018
Nominated for UT Services for Students with Disabilities Appreciation Award	Fall 2016
OSU Department of Physics Outstanding Senior	2012
OSU Department of Physics Outstanding Junior	2011