

Katelin Schutz

CONTACT	kschutz@berkeley.edu	
EMPLOYMENT	Pappalardo Fellow, MIT MIT Center for Theoretical Physics	September 2019
EDUCATION	Ph.D. in Physics, Berkeley Thesis Advisor: Hitoshi Murayama GPA: 4.0/4.0	May 2019
	S.B. in Physics, MIT Research Advisors: Max Tegmark, Alan Guth, David Kaiser, Tracy Slatyer GPA: 4.9/5.0 (Phi Beta Kappa & Sigma Pi Sigma) Physics GRE: 990/990	June 2014
HONORS AND AWARDS	Pappalardo Fellow , MIT Department of Physics Brantley Tuttle Fellow , The Brantley Tuttle Foundation Hertz Fellow , The Fannie and John Hertz Foundation NSF Graduate Research Fellow , The National Science Foundation Berkeley Fellow , UC Berkeley LeRoy Apker Award Finalist , American Physical Society Barrett Astrophysics Prize , MIT Department of Physics Orloff Award for Service , MIT Department of Physics Lord Foundation Undergraduate Research Fellow , The Lord Foundation	2019 2018-2019 2014-2019 2014-2019 2014-2017 2014 2014 2013, 2014 2013
PUBLICATIONS	Primary contributor or equivalent (* indicates alphabetical authorship order):	
	14. Cora Dvorkin, Tongyan Lin, Katelin Schutz* (2019), <i>Making dark matter out of light: freeze-in from plasma effects</i> arXiv:1902.08623.	
	13. Yonit Hochberg, Eric Kuflik, Robert McGehee, Hitoshi Murayama, Katelin Schutz* (2018), <i>SIMPs through the axion portal</i> , Phys. Rev. D 98 115031, arXiv:1806.10139.	
	12. Mark Vogelsberger, Jesús Zavala, Katelin Schutz , Tracy R. Slatyer (2018), <i>Evaporating the Milky Way halo and its satellites with inelastic self-interacting dark matter</i> , MNRAS 484 5437-5452, arXiv:1805.03203.	
	11. Katelin Schutz , Tongyan Lin, Benjamin R. Safdi, Chih-Liang Wu (2017), <i>Constraining a Thin Dark Matter Disk with Gaia</i> , Phys. Rev. Lett. 121 081101, arXiv: 1711.03103.	
	10. Katelin Schutz & Adrian Liu (2016), <i>Pulsar timing can constrain primordial black holes in the LIGO mass window</i> , Phys. Rev. D 95 023002, arXiv: 1610.04234.	
	9. Katelin Schutz* & Kathryn Zurek (2016), <i>On the Detectability of Light Dark Matter with Superfluid Helium</i> , Phys. Rev. Lett. 117 121302 (featured), arXiv: 1604.08206.	
	8. Daniele Bertolini, Katelin Schutz* , Mikhail Solon, and Kathryn Zurek (2016), <i>The Trispectrum in the Effective Field Theory of Large Scale Structure</i> , JCAP 052 1606, arXiv: 1604.01770.	
	7. Daniele Bertolini, Katelin Schutz* , Mikhail Solon, Jonathan Walsh, and Kathryn Zurek (2015), <i>Non-Gaussian Covariance of the Matter Power Spectrum in the Effective Field Theory of Large Scale Structure</i> , Phys. Rev. D 93 123505, arXiv: 1512.07630.	
	6. Katelin Schutz & Chung-Pei Ma (2015), <i>Constraints on Individual Supermassive Black Hole Binaries from Pulsar Timing Array Limits on Continuous Gravitational Waves</i> , MNRAS 459 1737-1744, arXiv: 1510.08472.	

5. **Katelin Schutz*** & Tracy R. Slatyer (2014), *Self-Scattering for Dark Matter with an Excited State*, JCAP **021** 1501, arXiv: 1409.2867.
4. **Katelin Schutz**, Evangelos Sfakianakis, David Kaiser (2013), *Multifield Inflation after Planck: Isocurvature Modes from Nonminimal Couplings*, Phys. Rev. D **89** 064044, arXiv: 1310.8285.

Contributor from a large collaboration:

3. Haoxuan Zheng, Max Tegmark, et al. (2016), *Brute-Force Mapmaking with Compact Interferometers: A MITEoR Northern Sky Map from 128 MHz to 175 MHz*, MNRAS, **465** (3) 2901-2915, arXiv: 1605.03980.
2. Haoxuan Zheng, Max Tegmark, et al. (2014), *MITEoR: A Scalable Interferometer for Precision 21 cm Cosmology*, MNRAS **445** (2) 1084-1103, arXiv: 1405.5527.
1. Haoxuan Zheng, Max Tegmark, et al. (2013), *Mapping our Universe in 3D with MITEoR*, IEEE International Symposium on Phased Array Systems & Technology 784-791, arXiv: 1309.2639.

INVITED TALKS

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| 18. Stanford Linear Accelerator Laboratory Theory Seminar | Mar. 2019 |
| 17. New York University High Energy Physics Seminar | Mar. 2019 |
| 16. Princeton Pheno & Vino Seminar | Dec. 2018 |
| 15. Stanford Institute for Theoretical Physics Seminar | Oct. 2018 |
| 14. Harvard Dvorkin Group Seminar | Oct. 2018 |
| 13. Perimeter Institute Particle Theory Seminar | Oct. 2018 |
| 12. University of Michigan Pheno Seminar | Sept. 2018 |
| 11. UC Santa Cruz Institute for Particle Physics Seminar | Apr. 2018 |
| 10. Brookhaven National Lab High Energy Theory Seminar | Apr. 2018 |
| 9. Israeli Joint Particle Physics Seminar, Weizmann Institute | Feb. 2018 |
| 8. University of Chicago Kavli Institute for Cosmological Physics Seminar | Nov. 2017 |
| 7. Institute for Advanced Study astro-ph Coffee | Nov. 2017 |
| 6. Princeton Pheno & Vino Seminar | Nov. 2017 |
| 5. Lawrence Berkeley Lab Institute for Nuclear & Particle Astrophysics Seminar | Nov. 2017 |
| 4. Caltech High Energy Physics Seminar | May 2017 |
| 3. UC San Diego High Energy Theory Seminar | Oct. 2016 |
| 2. Institut d'astrophysique de Paris Large Scale Structure Workshop | May 2016 |
| 1. Caltech Theoretical Astrophysics Including Relativity & Cosmology Seminar | Mar. 2016 |

INTERNAL TALKS

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| 5. Berkeley-IPMU Workshop | Jan. 2019 |
| 4. BCTP Tahoe Summit (fellowship winner) | Sept. 2018 |
| 3. Berkeley-IPMU Workshop | Jan. 2018 |
| 2. Berkeley Astronomy Department Lunch Seminar Series | Feb. 2016 |
| 1. BCTP 4D Particle Physics Seminar | Jan. 2016 |

CONFERENCE TALKS & PRESENTATIONS

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| 5. TeVPA, Dark Matter Session (video abstract winner) | Aug. 2017 |
| 4. American Physical Society April Meeting | Jan. 2017 |
| 3. American Astronomical Society 227th Meeting | Jan. 2016 |
| 2. American Astronomical Society 225th Meeting | Jan. 2015 |
| 1. Institute for Nuclear and Particle Astrophysics and Cosmology Meeting | Dec. 2014 |

POPULAR-LEVEL AND OUTREACH TALKS	5. Conference for Undergraduate Women in Physics, Santa Barbara CA	Jan. 2019
	4. Drive for the Nobel Prize Symposium, Berkeley CA	Nov. 2017
	3. Grounds for Science Cafe, Berkeley CA	Oct. 2017
	2. Homefarm Eclipse Campground, Terrebonne OR	Aug. 2017
	1. Dovetail Artist Collective, San Francisco CA	Nov. 2016
TEACHING	Grader, Quantum Mechanics I	Spring 2014
	Grader, Classical Mechanics III	Fall 2013
	Teaching Assistant, Electricity & Magnetism	Spring 2013
PROFESSIONAL ACTIVITIES	Journal Referee	Feb. 2016 - Present
	Physical Review D, Physical Review Letters, Journal of High Energy Physics	
	Theoretical Advanced Study Institute (TASI)	Jun. 2016
	Attended summer school in theoretical particle physics at CU Boulder, with the theme: “Anticipating the Next Discoveries in Particle Physics”	
COMMUNITY	Organizer, Berkeley 4D Particle Physics Seminar	Jan. 2018 - Present
	Facilitator, Berkeley “Respect is Part of Research” Workshop	Aug. 2015 - Aug. 2017
	Coordinator, Berkeley Graduate Poster Session	Oct. 2014
	Coordinator, Berkeley Physics Social Hour	Aug. 2014 - Aug. 2015
	President, MIT Society of Physics Students	May 2013 - May 2014
	Vice President, MIT Society of Physics Students	May 2012 - May 2013
	Treasurer, MIT Society of Physics Students	May 2011 - May 2012
	Head Coordinator, MIT Physics Pre-Orientation Program	Aug. 2012 and Aug. 2013
President, MIT Undergraduate Women in Physics	Jan. 2012 - May 2013	