

# Ely D. Kovetz

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Department of Physics  
Building 54, Office 209  
Be'er Sheva 84105, Israel

PERSONAL DETAILS  
Citizenship: Israeli and American  
Married +2

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EMPLOYMENT  
Ben-Gurion University, Senior Lecturer  
Department of Physics  
Mar. 2019 - present

Johns Hopkins University, Postdoctoral Fellow  
Department of Physics and Astronomy  
Oct. 2014 - Feb. 2019

University of Texas at Austin, Postdoctoral Fellow  
Weinberg Theory Group, Department of Physics and Texas Cosmology Center  
Oct. 2011 - Sep. 2014

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EDUCATION  
*Ph.D. in High-Energy Physics*, Tel-Aviv University  
Admitted to direct Ph.D. track in Mar. 2007 (with Summa Cum Laude M.Sc. course record).  
Advisor: Prof. Nissan Itzhaki  
Thesis: "Models of Inflation in String Theory and their Cosmological Signatures"  
2006 - 2011 (awarded Jun. 2012)

*B.Sc. in Physics and Mathematics*, Tel-Aviv University (Magna Cum Laude)  
2003 - 2006

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TEACHING  
*Teaching Assistant and Recitation Instructor*, Tel-Aviv University  
Physics Lab I and II, 2006-2007  
Mathematical Introduction for Physicists, 2007  
Thermal Physics, 2009-2010  
Introduction to Astrophysics, 2010  
Analytical Mechanics, 2008-2011  
Advanced Quantum Mechanics (Graduate course), 2008-2011  
2006 - 2011

*Teacher*, Youth University Program (grades 9-10), Tel-Aviv University  
2010 - 2011

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AWARDS  
Getty Foundation Prize for Excellence in Teaching  
Yossef Dothan Prize for Excellence in Research  
Abraham and Dvora Cohen Prize for Excellence in Teaching  
Amos de-Shalit Foundation Scholarship by The Weizmann Institute  
2010  
2010  
2008  
2003

## PEER REVIEW

Astrophysics and High-Energy Physics Journals including: PRL, PRD, ApJ, MNRAS, JCAP, A&A

External Expert Reviewer for European Research Council (ERC)

Proposal Reviewer for National Science Foundation (NSF)

Panel Reviewer for NASA Astrophysics Theory Program (ATP)

## OTHER ACTIVITIES

Organizer of HEP/Cosmology departmental seminar at Johns Hopkins University

Member of the CMB-S4 Collaboration

Member of the LISA Consortium

Member of the STARFIRE Collaboration

Member of the Australian SKA Pathfinder (ASKAP) Cosmology group

Member of the US Team of the CORE CMB Satellite proposal to ESA

Member of the Inflation Probe Mission Concept Study proposal to NASA

Lead organizer and Chair of the Scientific Organizing Committee:

“Second Annual Intensity Mapping Workshop (IM@Hopkins)”, JHU, Jun. 2017, Baltimore, MD

Member of the Scientific Organizing Committee:

“Cosmological Signals from Cosmic Dawn to the Present”, Feb. 2018, Aspen Center for Physics

## MENTORING

Hiroya Nishikawa, Lingyuan Ji and Kaze Wong, current JHU graduate students

Courtney Schmitt, George Danforth and Chenxiao Zeng, former JHU undergraduates

Patrick C. Bryesse, former JHU graduate student (now postdoc at CITA)

Julian Muñoz, former JHU graduate student (now postdoc at Harvard)

Daniel Carney and Anindya Dey, former UT Austin graduate student (now postdocs at UMD/Rutgers)

## SEMINAR TALKS

- High-Energy Physics seminar, Joint Israeli High-Energy Theory seminar, Neve Shalom, Israel 2008
- High-Energy Physics seminar, Tel-Aviv University, Israel 2008
- Astrophysics seminars at the Technion and Tel-Aviv University, Israel 2011
- Astrophysics seminar, Oxford University, Oxford, UK 2011

- Theory Group brown bag seminar, University of Texas at Austin, Austin 2011
- High-Energy Physics seminar, Texas A&M University, College Station, TX (invited talk) 2012
- Theory Group brown bag seminar, University of Texas at Austin, Austin, TX 2012
- Astrophysics seminars at Technion, Tel-Aviv University and Hebrew University, Israel 2012
- High-Energy Physics seminar, Texas A&M University, College Station, TX (invited talk) 2013
- Joint IAS/Princeton cosmology seminar, Princeton University, Princeton, NJ (invited talk) 2013
- Astrophysics (CAS) seminar, Johns Hopkins University, Baltimore, MD (invited talk) 2013
- Theory seminar, Case Western Reserve University, Cleveland, OH (invited talk) 2013
- Astrophysics talk, New York University, New York City, NY 2013
- Astrophysics seminar, Columbia University, New York City, NY 2013
- Astrophysics seminar, CITA, Toronto, Canada (invited talk) 2013
- INPA Journal Club, Lawrence Berkeley National Labs, Berkeley, CA 2013
- KIPAC Tea Talk, Stanford University, Stanford, CA 2013
- OBSCOS seminar, California Institute of Technology, Pasadena, CA (invited talk) 2013
- ITC seminar, Harvard University, Cambridge, MA (invited talk) 2013
- Astrophysics seminars at Technion, Tel-Aviv University and Hebrew University, Israel 2014
- Astrophysics Journal Club, Institut d'Astrophysique de Paris, Paris, France 2015
- Particle Physics and Astrophysics seminar, Weizmann Institute, Rehovot, Israel (invited talk) 2015
- Joint Astrophysics and High-Energy Physics seminar, Tel-Aviv University, Israel (invited talk) 2015
- Astrophysics seminar, Hebrew University of Jerusalem, Jerusalem, Israel (invited talk) 2015
- High-Energy Physics seminar, Harvard University, Cambridge, MA (invited talk) 2016
- Physics Colloquium, Washington University, St. Louis, MO (invited talk) 2016
- High-Energy Physics seminar, Ben-Gurion University, Beer Sheva, Israel (invited talk) 2016
- Astrophysics seminar, Tel-Aviv University, Tel-Aviv, Israel (invited talk) 2016
- Astrophysics seminar, Hebrew University of Jerusalem, Jerusalem, Israel (invited talk) 2016

- Astrophysics seminar, Ben-Gurion University, Beer Sheva, Israel (invited talk) 2016
- High-Energy Physics seminar, Tel-Aviv University, Tel-Aviv, Israel (invited talk) 2016
- Physics Colloquium, University of Washington, Seattle, WA (invited talk) 2017
- High-Energy Physics seminar, Syracuse University, Syracuse, NY (invited talk) 2017
- High-Energy Physics seminar, University of Minnesota, Minneapolis, MN (invited talk) 2017
- Astrophysics seminar, University of Pennsylvania, Philadelphia, PA (invited talk) 2017
- Physics Colloquium, University of Southern California, Los Angeles, CA (invited talk) 2018
- Astrophysics (CAS) seminar, Johns Hopkins University, Baltimore, MD (invited talk) 2018
- High-Energy Physics seminar, University of Maryland, College Park, MD (invited talk) 2018
- Astrophysics seminar, Technion, Haifa, Israel (invited talk) 2019
- Joint Israeli Particle-Physics seminar, Weizmann Institute, Rehovot, Israel (invited talk) 2019
- Astrophysics seminar, New York University, New York, NY (invited talk) 2019
- Astrophysics seminar, Hebrew University, New York, NY (invited talk) 2019
- Particle Physics seminar, Harvard University, Boston, MA (invited talk) 2019
- High-Energy Physics seminar, Tel-Aviv University, Tel-Aviv, Israel (invited talk) 2019
- Physics Colloquium, Ben-Gurion University, Beer-Sheva, Israel (invited talk) 2019

CONFERENCES,  
WORKSHOPS

- Conference, COSMO 2009, CERN, Geneva, Switzerland Sep. 2009  
Poster: “Cosmological imprints of pre-inflationary particles”
- Conference, PASCOS 2011, DAMTP, Cambridge, UK Jul. 2011  
Talk: “Pre-inflationary relics and large scale anomalies”
- Conference, “Inflationary Theory and Confrontation with Planck”, Aspen, CO Jan. 2012  
Invited talk: “Pre-inflationary relics and CMB anomalies”
- University of Cambridge/Texas A&M Workshop on Inflation, Cook’s Branch, TX Mar. 2012  
Invited talk: “Probes of pre-inflationary relics: from theory to data analysis”
- Workshop at University of Kyoto, Kyoto, Japan; “Gravitation and Cosmology” Dec. 2012

- Talk: “Probing structures using 21st-century measurements of 21-cm lensing”
- Workshop, APC, Paris, France; “Big Bang, Big Data, Big Computers” Sep. 2012
  - Workshop “Cosmology Beyond the Power Spectrum”, BCCP, Berkeley, CA Apr. 2013  
Invited talk: “Probing structures using measurements of 21-cm lensing”
  - Conference, UC Davis, Davis, CA May 2013  
“Mining the Cosmic Frontier in the Planck Era”
  - Conferences, UC Davis, Davis, CA May 2013  
“Fundamental Questions in Cosmology”
  - Workshop, Princeton Center for Theoretical Science, Princeton, NJ Jun. 2013  
“Cosmology in the Planck era” (invited participant)
  - Workshop, Aspen Center for Physics, Aspen, CO Jul. 2014  
“Combining Probes in Cosmological Surveys” (invited participant)
  - Workshop, Penn State University, State College, PA Mar. 2015  
“3rd Neighborhood workshop on Astrophysics and Cosmology”
  - Workshop, University of Michigan, Ann Arbor, MI Sep. 2015  
“Cosmology with CMB-S4”
  - Workshop, LBNL, Berkeley, CA Mar. 2016  
“Cosmology with CMB-S4”
  - Workshop, KIPAC, Stanford University, Menlo Park, CA Mar. 2016  
“Opportunities and Challenges in Intensity Mapping” (invited participant)
  - Workshop, Penn State University, State College, PA Mar. 2016  
“4th Neighborhood workshop on Astrophysics and Cosmology”  
Talk: “Flaring Tidally Compressed Dark Matter Clumps”
  - Workshop, NRAO and Kavli Foundation, Baltimore, MD Aug. 2016  
“U.S. Radio/Millimeter/Submillimeter Science Futures II”
  - Workshop, Fermilab, Batavia, IL Sep. 2016  
“Simplicity II Theory Workshop”  
Invited Talk: “The LIGO Discovery and Massive Compact Dark Matter”
  - Workshop, University of Chicago, Chicago, IL Sep. 2016  
“Cosmology with CMB-S4”
  - Workshop, University of Chicago, Chicago, IL Sep. 2016  
”Future Cosmic Surveys”
  - Workshop, Brookhaven National Laboratory, Upton, NY Oct. 2016

- “Dark Interactions: Perspectives from Theory and Experiment”  
 Invited Plenary Talk: “The Status of Primordial Black Holes as Dark Matter”
- Workshop, NASA Goddard Space Flight Center, Goddard, MD Oct. 2016  
 “Joint JHU/Goddard Annual Interaction Workshop”  
 Invited Talk: “The LIGO Discovery and Primordial Black Holes as Dark Matter”
  - Workshop, Technion, Haifa, Israel Nov. 2016  
 “Gravitational Waves and Compact Objects”  
 Invited Talk: “The LIGO Discovery and Massive Compact Dark Matter”
  - April Meeting, American Physical Society, Washington DC Jan. 2017  
 “Focus Session: Gravitational Wave Observations and Dark Matter”  
 Invited Talk: “The LIGO Discovery and Massive Compact Dark Matter”
  - Workshop, Johns Hopkins University, Baltimore, MD Jul. 2017  
 “Second Annual Line-Intensity Mapping Workshop (IM@Hopkins)”  
 Lead organizer; chair of SOC; presented opening and closing remarks;  
 First author of “LIM 2017 Status Report”, an overview of the field following two LIM workshops.
  - Conference, “Cosmological Signals from Cosmic Dawn to the Present”, Aspen, CO Feb. 2018  
 Invited overview talk: “Line-Intensity Mapping: (Bird’s-Eye) Theory Review”  
 Member of the Scientific Organizing Committee.
  - Workshop, “Structure formation beyond WIMPs”, Technion, Haifa, Israel May. 2018  
 Invited Talk: “The Dark Matter Interpretation of the Anomalous EDGES 21cm Absorption Signal”
  - Conference, PASCOS 2018, CWRU, Cleveland, US Jun. 2018  
 Invited Talk: “The Primordial-Black-Hole Dark Matter Scenario”
  - Workshop, Princeton University, Princeton, NJ Sep. 2018  
 “Princeton CMB-S4 Collaboration Workshop”  
 FireSlide: “Tightly Coupled Dark Matter: Killing Two Birds with One Stone”
  - Conference, “Beyond Standard Model: Where do we go from here?”, GGI Florence, Italy Oct. 2018  
 Invited Talk: “New cosmological probes of the lightest and heaviest dark matter”
  - Workshop, Center for Computational Astrophysics, Flatiron Institute, New York, NY Feb. 2019  
 “Cosmology and Astrophysics with Intensity Mapping” (invited participant)

# List of Publications

1. N. Itzhaki and **E. D. Kovetz** 2007  
“Inflection Point Inflation and Time Dependent Potentials in String Theory”  
JHEP **0710**, 054 (2007) [arXiv:0708.2798 [hep-th]].
2. N. Itzhaki and **E. D. Kovetz** 2009  
“A Phase Transition between Small and Large Field Models of Inflation”  
Class. Quant. Grav. **26**, 135007 (2009) [arXiv:0810.4299 [hep-th]].
3. A. Fialkov, N. Itzhaki and **E. D. Kovetz** 2010  
“Cosmological Imprints of Pre-Inflationary Particles”  
JCAP **1002**, 004 (2010) [arXiv:0911.2100 [astro-ph.CO]].
4. **E. D. Kovetz**, A. Ben-David and N. Itzhaki 2010  
“Giant Rings in the CMB”  
Astrophys. J. **724**, 374, (2010) [arXiv:1005.3923 [astro-ph.CO]].
5. A. Ben-David, **E. D. Kovetz** and N. Itzhaki 2012  
“Parity in the CMB: Space Oddity”  
Astrophys. J. **748**, 39 (2012) [arXiv:1108.1702 [astro-ph.CO]].
6. A. Dey, **E. D. Kovetz** and S. Paban 2012  
“Non-Gaussianity in the Cosmological Perturbation Spectrum due to Primordial Anisotropy II”  
JCAP **1210**, 055 (2012) [arXiv:1205.2758 [hep-th]].
7. D. Carney, W. Fischler, **E. D. Kovetz**, D. Lorshbough and S. Paban 2012  
“Rapid Field Excursions and the Inflationary Tensor Spectrum”  
JHEP **1211**, 042 (2012) [arXiv:1209.3848 [hep-th]].
8. **E. D. Kovetz** and M. Kamionkowski 2013  
“Galaxy-Cluster Masses via 21st-Century Measurements of Lensing of 21-cm Fluctuations”  
Phys. Rev. D **87**, 063516 (2013) [arXiv:1210.3041 [astro-ph.CO]].
9. **E. D. Kovetz** and M. Kamionkowski 2013  
“21-cm Lensing and the Cold Spot in the Cosmic Microwave Background”  
Phys. Rev. Lett. **110**, 171301 (2013) [arXiv:1211.4610 [astro-ph.CO]].

10. B. Rathaus, **E. D. Kovetz** and N. Itzhaki 2013  
“Studying the Peculiar Velocity Bulk Flow in a Sparse Survey of Type-Ia SNe”  
Mon. Not. Roy. Astron. Soc. **431**, 3678 (2013) [arXiv:1301.7710 [astro-ph.CO]].
11. A. Dey, **E. D. Kovetz** and S. Paban 2014  
“Power Spectrum and Non-Gaussianities in Anisotropic Inflation”  
JCAP **1406**, 025 (2014) [arXiv:1311.5606 [hep-th]].
12. A. Ben-David and **E. D. Kovetz** 2014  
“A Close Examination of CMB Mirror-Parity after Planck”  
Mon. Not. Roy. Astron. Soc. **445**, 2116 (2014) [arXiv:1403.2104 [astro-ph.CO]].
13. P. C. Breysse, **E. D. Kovetz** and M. Kamionkowski 2014  
“Carbon Monoxide Intensity Mapping at Moderate Redshifts”  
Mon. Not. Roy. Astron. Soc. **443**, 3506 (2014) [arXiv:1405.0489 [astro-ph.CO]].
14. B. Rathaus and **E. D. Kovetz** 2014  
“The CMB Derivatives of Planck’s Beam Asymmetry”  
Mon. Not. Roy. Astron. Soc. **443**, 750 (2014) [arXiv:1405.1609 [astro-ph.CO]].
15. M. Kamionkowski and **E. D. Kovetz** 2014  
“Statistical Diagnostics to Identify Galactic Foregrounds in B-mode Maps”  
Phys. Rev. Lett. **113**, 191303 (2014) [arXiv:1408.4125 [astro-ph.CO]].  
(featured as a Physics Synopsis and a PRL Editors’ Suggestion).
16. **E. D. Kovetz** and M. Kamionkowski 2015  
“Cosmic Bandits: Exploration versus Exploitation in CMB B-Mode Experiments”  
New Astron. **43** 26 (2015) [arXiv:1308.1404 [astro-ph.IM]].
17. **E. D. Kovetz** and M. Kamionkowski 2015  
“Strategy to Minimize Dust Foregrounds in *B*-mode Searches”  
Phys. Rev. D **91**, 081303 (2015) [arXiv:1502.00625 [astro-ph.CO]].
18. P. C. Breysse, **E. D. Kovetz** and M. Kamionkowski 2015  
“Masking Line Foregrounds in Intensity Mapping Surveys”  
Mon. Not. Roy. Astron. Soc. **452**, 3408 (2015) [arXiv:1503.05202 [astro-ph.CO]].

19. J. Muñoz, **E. D. Kovetz** and Yacine Ali-Haïmoud 2015  
“Heating of Baryons due to Scattering with Dark Matter During the Dark Ages”  
Phys. Rev. D. **92**, 083528 (2015) [arXiv:1509.00029 [astro-ph.CO]].
20. A. Raccanelli, **E. D. Kovetz**, L. Dai and M. Kamionkowski 2016  
“Detecting the Integrated Sachs-Wolfe Effect with High-Redshift 21-cm Surveys”  
Phys. Rev. D **93**, 083512 (2016) [arXiv:1502.03107 [astro-ph.CO]].
21. M. Kamionkowski and **E. D. Kovetz** 2016  
“The Quest for B Modes from Inflationary Gravitational Waves”  
Ann. Rev. Astron. Astrophys. **54**, 227-269 (2016) [arXiv:1510.06042 [astro-ph.CO]].
22. P. C. Breysse, **E. D. Kovetz** and M. Kamionkowski 2016  
“The High Redshift Star-Formation History from Carbon-Monoxide Intensity Maps”  
Mon. Not. Roy. Astron. Soc. **457**, L127 (2016) [arXiv:1507.06304 [astro-ph.CO]].
23. L. Dai, M. Kamionkowski, **E. D. Kovetz**, A. Raccanelli and M. Shiraishi 2016  
“Antisymmetric Galaxy Cross-Correlations as a Cosmological Probe”  
Phys. Rev. D. **93**, 023507 (2016) [arXiv:1507.05618 [astro-ph.CO]].
24. Y. Ali-Haïmoud, **E. D. Kovetz** and J. Silk 2016  
“Flaring of tidally compressed dark-matter clumps”  
Phys. Rev. D. **93**, 043508 (2016) [arXiv:1511.02232 [astro-ph.HE]].
25. J. B. Muñoz, D. Grin, L. Dai, M. Kamionkowski, and **E. D. Kovetz** 2016  
“Search for Compensated Isocurvature Perturbations with Planck Power Spectra”  
Phys. Rev. D. **93**, 043008 (2016) [arXiv:1511.04441 [astro-ph.CO]].
26. S. Bird, I. Cholis, J. B. Muñoz, Y. Ali-Haïmoud, M. Kamionkowski, **E. D. Kovetz**, A. Raccanelli and A. G. Riess 2016  
“Did LIGO Detect Dark Matter?”  
Phys. Rev. Lett. **116**, 201301 (2016) [arXiv:1603.00464 [astro-ph.CO]].  
**(featured as a Physics Synopsis).**
27. A. Raccanelli, **E. D. Kovetz**, S. Bird, I. Cholis and J. B. Muñoz 2016  
“Determining the Progenitors of Merging Black Hole Binaries”  
Phys. Rev. D. **94**, 023516 (2016) [arXiv:1605.01405 [astro-ph.CO]].

28. J. B. Muñoz, **E. D. Kovetz**, L. Dai and M. Kamionkowski 2016  
“Lensing of Fast Radio Bursts as a Probe of Compact Dark Matter”  
Phys. Rev. Lett. **117**, 091301 (2016) [arXiv:1605.00008 [astro-ph.CO]]  
(PRL Editors’ Suggestion).
29. I. Cholis, **E. D. Kovetz**, Y. Ali-Haïmoud, S. Bird, J. B. Muñoz,  
M. Kamionkowski, A. Raccanelli 2016  
“Orbital Eccentricities in Primordial Black Hole Binaries”  
Phys. Rev. D. **94**, 084013 (2016) [arXiv:1606.07437 [astro-ph.HE]].
30. D. N. Pfeffer, **E. D. Kovetz** and M. Kamionkowski 2017  
“Ultra-High-Energy-Cosmic-Ray Hot Spots from Tidal Disruption Events”  
Mon. Not. Roy. Astron. Soc. **466**, 2922 (2017) [arXiv:1512.04959 [astro-ph.HE]].
31. **E. D. Kovetz**, A. Raccanelli and M. Rahman 2017  
“Cosmological Constraints with Clustering-Based Redshifts”  
Mon. Not. Roy. Astron. Soc. **468**, 3650 (2017) [arXiv:1606.07434 [astro-ph.CO]].
32. P. C. Breysse, **E. D. Kovetz**, P. S. Behroozi, L. Dai and M. Kamionkowski 2017  
“Insights from Probability Distribution Functions of Intensity Maps”  
Mon. Not. Roy. Astron. Soc. **467**, 2996 (2017) [arXiv:1609.01728 [astro-ph.GA]].
33. **E. D. Kovetz**, I. Cholis, P. C. Breysse and M. Kamionkowski 2017  
“The Black Hole Mass Function from Gravitational Wave Measurements”  
Phys. Rev. D. **95**, 103010 (2017) [arXiv:1611.01157 [astro-ph.CO]].
34. J. B. Muñoz, **E. D. Kovetz**, A. Raccanelli, M. Kamionkowski and J. Silk 2017  
“Towards a measurement of the spectral runnings”  
JCAP **1705**, 032 (2017) [arXiv:1611.05883 [astro-ph.CO]].
35. **E. D. Kovetz** 2017  
“Probing Primordial-Black-Hole Dark Matter with Gravitational Waves”  
Phys. Rev. Lett. **119**, 131301 (2017) [arXiv:1705.09182 [astro-ph.CO]].
36. Y. Ali-Haïmoud, **E. D. Kovetz** and M. Kamionkowski 2017  
“The merger rate of primordial-black-hole binaries”  
Phys. Rev. D. **96**, 123523 (2017) [arXiv:1709.06576 [astro-ph.CO]].
37. F. Finelli et al. (total of 95 contributing authors, including **E. D. Kovetz**) 2018  
“Exploring Cosmic Origins with CORE: Inflation”  
JCAP **1804**, 016 (2018) [arXiv:1612.08270 [astro-ph.CO]].

38. **E. D. Kovetz**, I. Cholis, M. Kamionkowski and J. Silk 2018  
“Limits on Runaway Growth of Intermediate Mass Black Holes from Advanced LIGO”  
Phys. Rev. D. **97**, 123003 (2018), [arXiv:1803.00568 [astro-ph.HE]].
39. **E. D. Kovetz**, V. Poulin, V. Gluscevic, K. K. Boddy, R. Barkana and M. Kamionkowski 2018  
“Tighter Limits on Dark Matter Explanations of the Anomalous EDGES 21cm Signal”  
Phys. Rev. D. **98**, 103529 (2018), [arXiv:1807.11482 [astro-ph.CO]].
40. K. K. Boddy, V. Gluscevic, V. Poulin, **E. D. Kovetz**, M. Kamionkowski and R. Barkana 2018  
“A Critical Assessment of CMB Limits on Dark Matter-Baryon Scattering:  
New Treatment of the Relative Bulk Velocity”  
Phys. Rev. D. **98**, 123506 (2018), [arXiv:1808.00001 [astro-ph.CO]].
41. K. W. K. Wong, **E. D. Kovetz**, C. Cutler and E. Berti 2018  
“Expanding the LISA Horizon from the Ground”  
Phys. Rev. Lett. **121**, 251102 (2018), [arXiv:1808.08247 [astro-ph.CO]].
42. L. Ji, **E. D. Kovetz** and Marc Kamionkowski 2018  
“Strong Lensing of Gamma Ray Bursts as a Probe of Compact Dark Matter”  
Phys. Rev. D **98**, 123523 (2018), [arXiv:1809.09627 [astro-ph.CO]].
43. H. Nishikawa, **E. D. Kovetz**, M. Kamionkowski and J. Silk 2019  
“Primordial-black-hole mergers in dark-matter spikes”  
Phys. Rev. D **99**, 043533 (2019), arXiv:1708.08449 [astro-ph.CO].
44. **E. D. Kovetz**, I Cholis and D. E. Kaplan 2019  
“Bounds on Ultra-Light Hidden-Photon Dark Matter from 21cm at Cosmic Dawn”  
Accepted for publication in PRD (2018), arXiv:1809.01139 [astro-ph.CO].
45. J. L. Bernal, A. Raccanelli, **E. D. Kovetz**, D. Parkinson, R. P. Norris,  
G. Danforth and C. Schmitt 2019  
“Probing  $\Lambda$ CDM cosmology with the Evolutionary Map of the Universe survey”  
JCAP 02 **2019**, 030 (2019), arXiv:1810.06672 [astro-ph.CO].
46. C. Zeng, **E. D. Kovetz**, X. Chen, J. B. Muñoz and Marc Kamionkowski 2019  
“Searching for Oscillations in the Primordial Power Spectrum with CMB and LSS Data”  
Phys. Rev. D **99**, 043517 (2019), arXiv:1812.05105 [astro-ph.CO].

SUBMITTED

47. **E. D. Kovetz**, M. Viero, A. Lidz, L. Newburgh, M. Rahman, E. Switzer et al. (total of 48 contributing authors)  
“Line Intensity Mapping: 2017 Status Report”  
Submitted to Physics Reports (2017), arXiv:1709.09066 [astro-ph.CO].
48. C. Creque-Sarbinowski, L. Ji, **E. D. Kovetz**, and M. Kamionkowski  
“Direct millicharged dark matter cannot explain EDGES”  
Submitted for publication in PRD, arXiv:1903.09154 [astro-ph.CO].
49. G. Sato-Polito, **E. D. Kovetz** and M. Kamionkowski  
“Constraints on the primordial curvature power spectrum from primordial black holes”  
Submitted for publication in PRD, arXiv:1904.10971 [astro-ph.CO].

PREPRINTS

50. N. Abazajian et al. (total of 86 contributing authors, including **E. D. Kovetz**)  
“CMB-S4 Science Book, First Edition” [arXiv:1610.02743 [astro-ph.CO]].
51. **E. D. Kovetz**, Patrick C. Breysse, Adam Lidz et al.,  
“Astro2020 white paper: Astrophysics and Cosmology with Line-Intensity Mapping”, arXiv:1903.04496.

*Last updated: May 19, 2019*