

Ely D. Kovetz

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OFFICE ADDRESS
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Building 54, Office 209
Be'er Sheva 84105, Israel

PERSONAL DETAILS
Citizenship: Israeli and American
Married +3

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

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

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

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

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

Other Work Experience

Algorithm Developer, Applied Materials Inc., Rehovot, Israel 2004 - 2007
Received Mask Inspection Division Award for outstanding work.

Team Leader, Mathematical Research, Israeli Defense Force 2000 - 2003

AWARDS
Wolf Foundation's Krill Prize for Excellence in Scientific Research 2022
Toronto Prize for Excellence in Research 2021
Azrieli Foundation Faculty Fellowship 2019
Balzan Prize Foundation Young Reseacher Visiting Grant at JHU 2013
Getty Foundation Prize for Excellence in Teaching 2010
Yossef Dothan Prize for Excellence in Research 2010
Abraham and Dvora Cohen Prize for Excellence in Teaching 2008
Amos de-Shalit Foundation Undergraduate Scholarship 2003

PROFESSIONAL
ACTIVITIES

Senior Member of the CMB-S4 Collaboration
Core Member of the ET Observational Science Board
Member of the LISA Consortium
Member of the TIM (STARFIRE) Collaboration
Member of the Australian SKA Pathfinder (ASKAP) Cosmology group
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
External Expert Reviewer for European Research Council (ERC)
Proposal Reviewer for National Science Foundation (NSF)
Proposal Reviewer for Swiss National Science Foundation (SNSF)
Proposal Reviewer for French National Research Foundation (ANR)
Panel Reviewer for NASA Astrophysics Theory Program (ATP)
Peer Reviewer for Astro and HEP Journals including: PRL, PRD, ApJ, MNRAS, JCAP, A&A

TEACHING	<i>Tutorials</i> , Tel-Aviv University	2006 - 2011
	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	
	<i>Courses</i> , Ben-Gurion University	2019 - 2021
	Analytical Mechanics, 2019/2020, 2020/2021	
	Introduction to Cosmology (Graduate Level), 2019/2020	
	The Dynamical Universe (Graduate Level), 2021/2022	
MENTORING	<i>Co-Supervising students</i> , U. of Texas at Austin and Johns Hopkins University	2012 - 2019
	Cyril-Creque-Sarbinowski, Lingyuan Ji and Gabriela Sato-Polito, current JHU grad students	
	Courtney Schmitt, George Danforth and Chenxiao Zeng, former JHU undergraduates	
	Kaze Wong, former JHU graduate student (now postdoc at Flatiron CCA, NY)	
	Patrick C. Bryesse, former JHU graduate student (now postdoc at CITA)	

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

Daniel Carney, former UT Austin graduate student (now postdoc at UBC)

Anindya Dey, former UT Austin graduate student (now postdoc at Rutgers)

Supervising students and postdocs, Ben-Gurion University 2019 - current

Debanjan Sarkar, Postdoctoral fellow, started Jan. 2020

Caner Unal, Postdoctoral fellow, winner of IASH CHE fellowship, started Dec. 2020

Tal Abadi, PhD student, winner of BGU Negev Scholarship, started Oct. 2020

Yarden Flitter, PhD student, winner of BGU Negev Ongoing Scholarship, started Oct. 2020

Tanya Shevchut, M.Sc. student, started Oct. 2020

Gali Shmueli and Hovav Lazare, winners of Dkalim M.Sc. Scholarship, started Oct. 2021

Tal Abadi and Yarden Flitter, External Advisor to MSc. Theses in Tel-Aviv University, 2019

Keren Krochek, undergraduate student, submitted project paper for publication, 2021

INVITED
SEMINARS

- HEP, Joint Israeli High-Energy Theory seminar, Neve Shalom, Israel 2008
- Astrophysics seminar, Oxford University, Oxford, UK 2011
- High-Energy Physics seminar, Texas A&M University, College Station, TX 2012
- High-Energy Physics seminar, Texas A&M University, College Station, TX 2013
- Joint IAS/Princeton cosmology seminar, Princeton University, Princeton, NJ 2013
- Astrophysics (CAS) seminar, Johns Hopkins University, Baltimore, MD 2013
- Theory seminar, Case Western Reserve University, Cleveland, OH 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 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 2013
- ITC seminar, Harvard University, Cambridge, MA 2013

- Astrophysics Journal Club, Institut d'Astrophysique de Paris, Paris, France 2015
- Particle Physics and Astrophysics seminar, Weizmann Institute, Rehovot, Israel 2015
- Joint Astrophysics and High-Energy Physics seminar, Tel-Aviv University, Israel 2015
- Astrophysics seminar, Hebrew University of Jerusalem, Jerusalem, Israel 2015
- High-Energy Physics seminar, Harvard University, Cambridge, MA 2016
- Physics Colloquium, Washington University, St. Louis, MO 2016
- High-Energy Physics seminar, Ben-Gurion University, Beer Sheva, Israel 2016
- Astrophysics seminar, Tel-Aviv University, Tel-Aviv, Israel 2016
- Astrophysics seminar, Ben-Gurion University, Beer Sheva, Israel 2016
- High-Energy Physics seminar, Tel-Aviv University, Tel-Aviv, Israel 2016
- Physics Colloquium, University of Washington, Seattle, WA 2017
- High-Energy Physics seminar, Syracuse University, Syracuse, NY 2017
- High-Energy Physics seminar, University of Minnesota, Minneapolis, MN 2017
- Astrophysics seminar, University of Pennsylvania, Philadelphia, PA 2017
- Physics Colloquium, University of Southern California, Los Angeles, CA 2018
- Astrophysics (CAS) seminar, Johns Hopkins University, Baltimore, MD 2018
- High-Energy Physics seminar, University of Maryland, College Park, MD 2018
- Astrophysics seminar, Technion, Haifa, Israel 2019
- Joint Israeli Particle-Physics seminar, Weizmann Institute, Rehovot, Israel 2019
- Astrophysics seminar, New York University, New York, NY 2019
- Astrophysics seminar, Hebrew University of Jerusalem, Jerusalem, Israel 2019
- Particle Physics seminar, Harvard University, Boston, MA 2019
- High-Energy Physics seminar, Tel-Aviv University, Tel-Aviv, Israel 2019
- Physics Colloquium, Ben-Gurion University, Beer-Sheva, Israel 2019
- Faculty Fellow Seminar, Azrieli Foundation, Tel-Aviv, Israel 2020
- HEP seminar, Joint Israeli High-Energy Theory seminar, Neve Shalom, Israel 2020
- Physics Colloquium, Albert Einstein Institute, Hannover, Germany 2020
- Colloquium, Padova Cosmology Series, University of Padova, Padova, Italy 2021
- Physics Colloquium, University of Manchester, Manchester, United Kingdom 2021
- Theoretical Particle Physics & Cosmology Seminar, King's College London, United Kingdom 2021
- Gentner Physics Colloquium, Max-Planck-Institute für Kernphysik, Heidelberg, Germany 2022

CONFERENCES,
WORKSHOPS

- PITP School, “Strings and Phenomenology,” IAS, Princeton, NJ Jul. 2008
Talk: “Time-dependent inflation potentials in String Theory and the overshoot problem”
- International School of Subnuclear Physics at Erice, Italy Aug. 2009
Talk: “Imprints of pre-inflationary particles”
(won P.A.M Dirac best student diploma)
- 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)
- Conference, “31st Rencontres de Blois - Particle Physics and Cosmology”, Blois, France Jun. 2019
Invited Talk: “Dark matter and the 21cm global signal at cosmic dawn”
- Conference, “L2S2: Lines in the Large Scale Structure” (invited), Marseille, France Jul. 2019
Talk: “Cosmic Expansion History from Line-Intensity Mapping”
- Conference, “7th LISA Cosmology Working Group Workshop”, Padova, Italy Sep. 2019
Invited Talk: “LISA and the Ground: the Multi-Band Promise”
- The 37th Advanced School in Theoretical Physics, Hebrew University of Jerusalem, Israel Jan. 2020
Invited Talk Series: “Cosmology beyond LCDM”
- Workshop, University of Chicago, Chicago, IL (Remote) Aug. 2020
“UChicago-2020: Cosmology with CMB-S4”
- ICTS School, “Less Travelled Path of Dark Matter”, Tata Institute, India Nov. 2020
Invited Talk Series: “Introduction to Primordial Black Hole Dark Matter”
- Workshop, “Primordial Black Holes Confront GW data”, Sapienza University of Rome Feb. 2021
Invited Panel Leader: “Discussion: Prospects of the PBH Scenario”
- Conference, CMB-S4 Collaboration Meeting, (Remote) Mar. 2021
“CMB-S4 Spring 2021 Collaboration Meeting”
- Workshop, “KICP Line-Intensity Mapping Workshop”, University of Chicago, Illinois Jul. 2021
Invited overview talk: “Science Goals of Line-Intensity Mapping”
- Conference, CMB-S4 Collaboration Meeting, (Remote) Aug. 2021
“CMB-S4 Summer 2021 Collaboration Meeting”

List of Publications

PEER-REVIEWED

1. N. Itzhaki and **E. D. Kovetz** 2007
“Inflection Point Inflation and Time Dependent Potentials in String Theory”
JHEP **0710**, 054 (2007)
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)
3. A. Fialkov, N. Itzhaki and **E. D. Kovetz** 2010
“Cosmological Imprints of Pre-Inflationary Particles”
JCAP **1002**, 004 (2010)
4. **E. D. Kovetz**, A. Ben-David and N. Itzhaki 2010
“Giant Rings in the CMB”
Astrophys. J. **724**, 374, (2010)
5. A. Ben-David, **E. D. Kovetz** and N. Itzhaki 2012
“Parity in the CMB: Space Oddity”
Astrophys. J. **748**, 39 (2012)
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)
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)
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)
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)
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)

11. A. Dey, **E. D. Kovetz** and S. Paban 2014
“Power Spectrum and Non-Gaussianities in Anisotropic Inflation”
JCAP **1406**, 025 (2014)
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)
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)
14. B. Rathaus and **E. D. Kovetz** 2014
“The CMB Derivatives of Planck’s Beam Asymmetry”
Mon. Not. Roy. Astron. Soc. **443**, 750 (2014)
15. M. Kamionkowski and **E. D. Kovetz** 2014
“Statistical Diagnostics to Identify Galactic Foregrounds in B-mode Maps”
Phys. Rev. Lett. **113**, 191303 (2014)
(featured as a Physics Synopsis and a PRL Editors’ Suggestion).
16. **E. D. Kovetz** and M. Kamionkowski 2015
“Strategy to Minimize Dust Foregrounds in *B*-mode Searches”
Phys. Rev. D **91**, 081303 (2015)
[Citations: 10].
17. 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)
18. 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)
19. 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)
20. 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)

21. 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)
22. **E. D. Kovetz** and M. Kamionkowski 2016
“Cosmic Bandits: Exploration versus Exploitation in CMB B-Mode Experiments”
New Astron. **43** 26 (2016)
23. Y. Ali-Haïmoud, **E. D. Kovetz** and J. Silk 2016
“Flaring of tidally compressed dark-matter clumps”
Phys. Rev. D. **93**, 043508 (2016)
24. 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)
25. 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)
(featured as a **Physics Synopsis**).
26. 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)
27. 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)
(featured as a **Physics Synopsis** and a **PRL Editors’ Suggestion**).
28. M. Kamionkowski and **E. D. Kovetz** 2016
“The Quest for B Modes from Inflationary Gravitational Waves”
Ann. Rev. Astron. Astrophys. **54**, 227-269 (2016)
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)
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)

31. **E. D. Kovetz**, A. Raccanelli and M. Rahman 2017
“Cosmological Constraints with Clustering-Based Redshifts”
Mon. Not. Roy. Astron. Soc. **468**, 3650 (2017)
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)
33. **E. D. Kovetz**, I. Cholis, P. C. Breysse and M. Kamionkowski 2017
“Black Hole Mass Function from Gravitational Wave Measurements”
Phys. Rev. D. **95**, 103010 (2017)
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)
35. **E. D. Kovetz** 2017
“Probing Primordial-Black-Hole Dark Matter with Gravitational Waves”
Phys. Rev. Lett. **119**, 131301 (2017)
36. Y. Ali-Haïmoud, **E. D. Kovetz** and M. Kamionkowski 2017
“Merger rate of primordial-black-hole binaries”
Phys. Rev. D. **96**, 123523 (2017)
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)
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)
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)
40. K. K. Boddy, V. Gluscevic, V. Poulin, **E. D. Kovetz**, M. Kamionkowski and R. Barkana 2018
“Critical Assessment of CMB Limits on Dark Matter-Baryon Scattering:
New Treatment of the Relative Bulk Velocity”
Phys. Rev. D. **98**, 123506 (2018)
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)

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)
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)
44. **E. D. Kovetz**, I Cholis and D. E. Kaplan 2019
“Bounds on Ultra-Light Hidden-Photon Dark Matter from 21cm at Cosmic Dawn”
Phys. Rev. D **99**, 123511 (2019)
45. J. L. Bernal, A. Raccanelli, **E. D. Kovetz**, D. Parkinson, R. P. Norris,
G. Danforth and C. Schmitt 2019
“Probing Λ CDM cosmology with the Evolutionary Map of the Universe survey”
JCAP 02 **2019**, 030 (2019)
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)
47. C. Creque-Sarbinowski, L. Ji, **E. D. Kovetz**, and M. Kamionkowski 2019
“Direct millicharged dark matter cannot explain EDGES”
Phys. Rev. D **100**, 023528 (2019)
48. G. Sato-Polito, **E. D. Kovetz** and M. Kamionkowski 2019
“Constraints on the primordial curvature power spectrum from primordial black holes”
Phys. Rev. D **100**, 063521 (2019)
49. J. L. Bernal, P. C. Breysse and **E. D. Kovetz** 2019
“Cosmic Expansion History from Line-Intensity Mapping”
Phys. Rev. Lett. **123**, 251301 (2019)
50. J. L. Bernal, P. C. Breysse, H. Gil-Marín and **E. D. Kovetz** 2019
“User’s Guide to Extracting Cosmological Information from Line-Intensity Maps”
Phys. Rev. D **100**, 123522 (2019)
51. G. Sato-Polito, J. L. Bernal, **E. D. Kovetz** and M. Kamionkowski 2020
“Antisymmetric cross-correlation of line-intensity maps as a probe of reionization”
Phys. Rev. D **102**, 043519 (2020)
52. C. Unal, **E. D. Kovetz** and S. Patil 2021
“Multi-messenger Probes of Inflationary Fluctuations and Primordial Black Holes”
Phys. Rev. D **103**, 063519 (2021)

53. T. Abadi and **E. D. Kovetz** 2021
 “Can Conformally Coupled Modified Gravity Solve The Hubble Tension?”
 Phys. Rev. D, **103**, 023530 (2021)
54. J. Flitter, J. B. Muñoz and **E. D. Kovetz** 2021
 “Outliers in the LIGO Black Hole Mass Function from Coagulation in Dense Clusters”
 Mon. Not. Roy. Astron. Soc. **507**, 743 (2021)
55. T. Abadi and **E. D. Kovetz** 2021
 “Probing Gravitational Slip with Strong Lensing of Fast Radio Bursts”
 Phys. Rev. D, **104**, 103515 (2021)

PREPRINTS

56. K. Krochek and **E. D. Kovetz** 2021
 “Constraining Primordial Black Hole Dark Matter with CHIME Fast Radio Bursts”
 Submitted to Phys. Rev. D, arXiv:2112.03721 (2021)
57. D. Sarkar, J. Flitter and **E. D. Kovetz** 2022
 “Exploring delaying and heating effects on the 21-cm signature of fuzzy dark matter”
 Submitted to Phys. Rev. D, 2201.03355 (2022)

SELECTED REPORTS

- 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]].
- N. Abazajian et al. (total of 86 contributing authors, including **E. D. Kovetz**)
 “CMB-S4: Forecasting Constraints on Primordial Gravitational Waves” [arXiv:2008.12619 [astro-ph.CO]].
- J. Vieira et al. (including **E. D. Kovetz**),
 “The Terahertz Intensity Mapper: a Next-Generation Experiment for Galaxy Evolution Studies”
 30th International Symposium on Space THz Technology (ISSTT2019), Gothenburg, Sweden
 (2020) arXiv:2009.14340 [astro-ph.IM].
- **E. D. Kovetz**, M. Viero, A. Lidz, L. Newburgh, M. Rahman,
 E. Switzer et al. (total of 48 contributing authors)
 “Line Intensity Mapping: Status Report”
 Invited by Physics Reports following 2017 LIM workshop at JHU, arXiv:1709.09066 [astro-ph.CO].
- **E. D. Kovetz**, P. C. Breysse, A. Lidz, J. Bock, C. M. Bradford, T. C. Chang et al.,
 “Astro2020: Astrophysics and Cosmology with Line-Intensity Mapping”, arXiv:1903.04496.
- M. B. Silva, **E. D. Kovetz**, G. K. Keating, A. M. Dizgah, M. Bethermin, P. Breysse et al.,
 “ESA Voyage 2050: Mapping Large-Scale-Structure Evolution over Cosmic Time”, arXiv:1908.07533.

Last updated: April 5, 2022