


# Curriculum Vitae - Ely D. Kovetz

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## Personal information

**Name** Ely D. Kovetz  <https://orcid.org/0000-0001-9256-1144>  
**Web site** <https://physics.bgu.ac.il/~kovetz/>  
**Google Scholar** <https://scholar.google.com/citations?user=q4G16RIAAAAJ&hl=en>

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## Education

- 2006–2012** **Ph.D. in High-Energy Physics**, *Tel-Aviv University*, Tel-Aviv, Israel.  
Admitted to direct PhD 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"
- 2003–2006** **B.Sc. in Physics and Mathematics**, *Tel-Aviv University*, Tel-Aviv, Israel.  
Both majors Magna Cum Laude

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## Current and previous positions

- 2024–present** **Visiting Professor**, *University of Texas at Austin*, Austin, TX, United States.  
Weinberg Institute, Department of Physics
- 2024–present** **Associate Professor**, *Ben-Gurion University*, Beer-Sheva, Israel.  
Department of Physics
- 2019–2024** **Senior Lecturer**, *Ben-Gurion University*, Beer-Sheva, Israel.  
Department of Physics
- 2019–2024** **Visiting Scholar**, *Johns Hopkins University*, Baltimore, MD, USA.  
Department of Physics and Astronomy
- 2014–2018** **Postdoctoral Fellow**, *Johns Hopkins University*, Baltimore, MD, USA.  
Department of Physics and Astronomy
- 2011–2014** **Postdoctoral Fellow**, *University of Texas at Austin*, Austin, TX, USA.  
Weinberg Theory Group, Department of Physics and Texas Cosmology Center

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## Awards and Honors

- 2024** **Jacob Bekenstein Prize in Theoretical Physics**, *Israel Physical Society (IPS)*.
- 2022** **Krill Prize for Excellence in Scientific Research**, *Wolf Foundation*.
- 2021** **Toronto Prize for Excellence in Research**, *Ben-Gurion University*.
- 2019** **Early-Career Faculty Fellowship**, *Azrieli Foundation*.
- 2013** **Young Researcher Visiting Grant at JHU**, *Balzan Foundation*.
- 2010** **Yossef Dothan Prize for Excellence in Research**, *Tel-Aviv University*.
- 2010** **Getty Foundation Prizes for Excellence in Teaching**, *Tel-Aviv University*.
- 2008** **Abraham and Dvora Cohen Prize for Excellence in Teaching**, *Tel-Aviv University*.
- 2003** **Amos de-Shalit Foundation Undergraduate Scholarship**, *Weizmann Institute of Science*.

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## Grant Awards

- 2023-2026** **PI**, *Israel Science Foundation Personal Research Grant*, \$258,600.  
joint ISF-NSFC grant with X. Chen at NAOC, China; total funds \$610,300.
- 2023-2026** **PI**, *Binational Science Foundation Personal Research Grant*, \$165,189.  
joint BSF-NSF grant with J. Muñoz at UT Austin, USA; total funds \$638,690.
- 2019-2023** **PI**, *Azrieli Foundation Faculty Fellow Personal Research Grant*, \$210,000.

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## Supervision of graduate students and postdoctoral fellows

- 2020–2026** **Current and former Postdocs**, *Ben-Gurion University*, Beer-Sheva, Israel.  
Sarah Libanore (2023-2026), Azrieli International Postdoctoral Fellowship  
Caner Unal (2021-2024), Israel Academy of Science Prize Fellowship  
Debanjan Sarkar (2020-2023), Now TSI Prize Fellow at McGill University, Canada
- 2020-2024** **Current and former PhD students**, *Ben-Gurion University*, Beer-Sheva, Israel.  
Hovav Lazare (recipient of BGU Kreitman Negev Scholarship)  
Karin Finish (recipient of BGU Kreitman Lachish Scholarship)  
Jordan Flitter (2020-2024), won BGU Dean and Rector prizes (now postdoc at SNS Pisa)  
Tal Adi (2020-2024), won Kreitman and BGU Dean's prizes (now postdoc at USC)
- 2021-2024** **Current and former M.Sc. students**, *Ben-Gurion University*, Beer-Sheva, Israel.  
Gali Shmueli (Israel Academy of Sciences scholarship), Hovav Lazare (BGU Dkalim excellence scholarship), Keren Krocheck; Graduated in 2023: Tatyana Shevchuk, Lilian Saig
- 2014-2022** **Mentoring at Johns Hopkins University**, PhD students.  
P. Breysse (Now faculty at SMU), J. Muñoz (Now faculty at UT Austin), L. Ji (Now at UC Berkeley), C. Sarbinowski (Now at CCA, NY) and G. Sato-Polito (Now at IAS, Princeton)

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## Teaching activities

- 2019-2024** **Analytical Mechanics (Undergraduate Level)**, *Lecturer*, Ben-Gurion University.
- 2022, 2024** **The Dynamical Universe (Graduate Level)**, *Lecturer*, Ben-Gurion University.
- 2023** **Data-Mining and Machine Learning for Physicists (Graduate Level)**, *Lecturer*, BGU.
- 2020** **Introduction to Cosmology (Graduate Level)**, *Lecturer*, Ben-Gurion University.

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## Organisation of Scientific Meetings

- 2024** **Member of the Scientific Organising Committee**, "*Line-Intensity Mapping 2024*", University of Illinois Urbana-Champaign, Urbana, IL, USA.
- 2023** **Member of the Scientific Organising Committee**, "*Present and Future of Line-Intensity Mapping*", Max Planck Institute for Astrophysics, Garching, Germany.
- 2022** **Member of the Local Organising Committee**, *Israel Physics Society 2022 Meeting*, Israel Physics Society, Ben-Gurion University, Beer-Sheva, Israel.
- 2018** **Member of the Scientific Organising Committee**, "*Cosmological Signals from Cosmic Dawn to the Present*", Aspen Center of Physics, Aspen, CO, USA.
- 2017** **Lead organiser and Chair of the Scientific Organising Committee**, "*2nd Annual Intensity Mapping Workshop (IM@Hopkins)*", Johns Hopkins University, Baltimore, MD, USA.

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## Service to the scientific community

- 2016-2023** **Proposal Reviewer**, *NSF, NASA ANR, SNSF, URF, ISF, ERC Starting and Consolidator*.
- 2020-2024** **PhD Thesis Referee**, Refereed 6 theses at BGU, 4 more in Israel and 4 more in Europe.
- 2011-2024** **Journal Peer Reviewer**, *PRL, PRD, ApJ, MNRAS, JHEP, JCAP, A&A*.

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## Major collaborations

**Senior Member**, *CMB-S4 collaboration*.

**Core Member**, *Einstein Telescope Observational Science Board*.

**Member**, *ULTRASAT Collaboration*.

**Member**, *LISA Consortium*.

**Member**, *Terahertz Intensity Mapping (TIM) collaboration*.

**Member**, *Australian Square Kilometer Array (ASKAP) cosmology group*.

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## Invited Talks at Workshops and Conferences

- 2012** **“Inflationary Theory and Confrontation with Planck”**, Conference, Aspen, CO.  
Invited talk: “Pre-inflationary relics and CMB anomalies”
- 2012** **“Inflation”**, University of Cambridge/Texas A&M Workshop, Cook’s Branch, TX.  
Invited talk: “Probes of pre-inflationary relics: from theory to data analysis”
- 2012** **“Gravitation and Cosmology”**, Workshop, University of Kyoto, Kyoto, Japan.  
Invited talk: “Probing structures using 21st-century measurements of 21-cm lensing”
- 2013** **“Cosmology Beyond the Power Spectrum”**, BCCP Workshop, Berkeley, CA.  
Invited talk: “Probing structures using measurements of 21-cm lensing”
- 2016** **“Simplicity II Theory Workshop”**, Fermilab Workshop, Batavia, IL.  
Invited Talk: “The LIGO Discovery and Massive Compact Dark Matter”
- 2016** **“Joint JHU / NASA Goddard Annual Interaction Workshop”**, NASA, Goddard, MD.  
Invited Talk: “The LIGO Discovery and Primordial Black Holes as Dark Matter”
- 2017** **“Gravitational Waves and Compact Objects”**, Focus Session, Washington DC.  
Invited Talk: “The LIGO Discovery and Massive Compact Dark Matter”
- 2017** **“2nd Annual Intensity Mapping Workshop (IM@Hopkins)”**, Workshop, Baltimore MD.  
Lead organizer; chair of SOC; presented opening and closing remarks;  
First author of “LIM 2017: Status Report”, the first overview of the field.
- 2018** **“Cosmological Signals from Cosmic Dawn to the Present”**, Conference, Aspen, CO.  
Invited overview talk: “Line-Intensity Mapping: (Bird’s-Eye) Theory Review”
- 2018** **PASCOS 2018**, Conference, CWRU, Cleveland, OH.  
Invited Talk: “The Primordial-Black-Hole Dark Matter Scenario”
- 2018** **“Beyond Standard Model: Where do we go from here?”**, Conference, GGI, Italy.  
Invited Talk: “New cosmological probes of the lightest and heaviest dark matter”
- 2019** **“31st Rencontres de Blois - Particle Physics and Cosmology”**, Conference, Blois, France.  
Invited Talk: “Dark matter and the 21cm global signal at cosmic dawn”
- 2019** **“7th LISA Cosmology Working Group Workshop”**, Conference, Padova, Italy.  
Invited Talk: “LISA and the Ground: the Multi-Band Promise”
- 2020** **The 37th Advanced School in Theoretical Physics**, HUJI School, HUJI, Israel.  
Invited Talk Series: “Cosmology beyond LCDM”
- 2020** **“Less Travelled Path of Dark Matter”**, ICTS School, Tata Institute, India.  
Invited Talk Series: “Introduction to Primordial Black Hole Dark Matter” (Remote)
- 2021** **“Primordial Black Holes Confront GW data”**, Conference, Sapienza, Rome, Italy.  
Invited Panel Leader: “Discussion: Prospects of the PBH Scenario” (Remote)
- 2021** **“KICP Line-Intensity Mapping Workshop”**, Workshop, University of Chicago, Illinois.  
Invited overview talk: “Science Goals of Line-Intensity Mapping” (Remote)

- 2022 **“Black Hole Dynamics”**, Niels Bohr Institute Workshop, Copenhagen, Denmark.  
Invited Talk: “Unique Features of the PBH Channel”
- 2022 **“Gravitational Waves and Primordial Black Holes”**, Workshop, Padova, Italy.  
Invited Keynote Talk: “Unique Features of the PBH Channel”
- 2023 **“HI as a Cosmological Probe Across Cosmic Time”**, Conference, Nazareth, Israel.  
Invited Talk: “Line-Intensity Mapping: Review and Outlook”
- 2023 **“21cm Cosmology - IFPU Focus Week”**, Conference, SISSA, Trieste, Italy.  
Invited Talk: “LIM: a first-class probe of physics beyond LambdaCDM”
- 2024 **“ALPS-Dark matter”**, Workshop, Obergurgl, Austria.  
Invited Talk: “21cmFirstCLASS: probing dark matter in the dark ages and cosmic dawn”
- 2024 **“Texas TACOS”**, Workshop, Austin, TX.  
Invited Talk: “Cosmological LIMits from Line-Intensity Mapping”

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### Invited Seminars

- 2008 **Joint Israeli High-Energy Theory seminar**, Newe Shalom, Israel.
- 2011 **Astrophysics seminar**, Oxford University, Oxford, UK.
- 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 seminar**, New York University, New York City, NY.
- 2013 **High-Energy Physics seminar**, Texas A&M University, College Station, TX.
- 2013 **Astrophysics seminar**, Columbia University, New York City, NY.
- 2013 **Astrophysics seminar**, CITA, Toronto, Canada.
- 2013 **OBSCOS seminar**, California Institute of Technology, Pasadena, CA.
- 2013 **ITC seminar**, Harvard University, Cambridge, MA.
- 2015 **Astrophysics seminar**, Institut d’Astrophysique de Paris, Paris, France.
- 2015 **Particle Physics and Astrophysics seminar**, Weizmann Institute, Rehovot, Israel.
- 2016 **High-Energy Physics seminar**, Harvard University, Cambridge, MA.
- 2016 **Physics Colloquium**, Washington University, St. Louis, MO.
- 2016 **High-Energy Physics and Astrophysics seminars**, Ben-Gurion University, Israel.
- 2016 **High-Energy Physics seminar**, Tel-Aviv University, Tel-Aviv, Israel.
- 2017 **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.

- 2018 **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.
- 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, Cambridge, MA.
- 2019 **High-Energy Physics seminar**, Tel-Aviv University, Tel-Aviv, Israel.
- 2019 **Physics Colloquium**, Ben-Gurion University, Beer-Sheva, Israel.
- 2019 **Astrophysics seminar**, Hebrew University of Jerusalem, Jerusalem, Israel.
- 2020 **Physics Colloquium**, Ariel University, Ariel, Israel.
- 2020 **Faculty Fellow Seminar**, Azrieli Foundation, Tel-Aviv, Israel.
- 2020 **Joint Israeli High-Energy Theory seminar**, Neve Shalom, Israel.
- 2020 **Physics Colloquium**, Albert Einstein Institute, Hannover, Germany.
- 2021 **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, UK.
- 2022 **Gentner Physics Colloquium**, Max-Planck-Institute für Kernphysik, Heidelberg, Germany.
- 2023 **ARCO Astrophysics Seminar**, Open University, Raanana, Israel.
- 2023 **Astrophysics Seminar**, Tel-Aviv University, Tel-Aviv, Israel.
- 2024 **Physics Colloquium**, Scuola Normale Superiore, Pisa, Italy.
- 2024 **Physics Colloquium**, Tel-Aviv University, Tel-Aviv, Israel.
- 2024 **Weinberg Institute Brown Bag Seminar**, University of Texas at Austin, Austin, Texas.
- 2024 **Astrophysics Seminar**, University of Texas at Austin, Austin, Texas.

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### Detailed List of Publications

- 2007 1) **N. Itzhaki and E. D. Kovetz**,  
“Inflection Point Inflation and Time Dependent Potentials in String Theory”  
JHEP **0710**, 054 (2007).
- 2009 2) **N. Itzhaki and E. D. Kovetz**,  
“A Phase Transition between Small and Large Field Models of Inflation”  
Class. Quant. Grav. **26**, 135007 (2009).
- 2010 3) **A. Fialkov, N. Itzhaki and E. D. Kovetz**,  
“Cosmological Imprints of Pre-Inflationary Particles”  
JCAP **1002**, 004 (2010).

- 2010 4) E. D. Kovetz, A. Ben-David and N. Itzhaki,**  
 “Giant Rings in the CMB”  
 Astrophys. J. **724**, 374, (2010).
- 2012 5) A. Ben-David, E. D. Kovetz and N. Itzhaki,**  
 “Parity in the CMB: Space Oddity”  
 Astrophys. J. **748**, 39 (2012).
- 2012 6) A. Dey, E. D. Kovetz and S. Paban,**  
 “Non-Gaussianity in the Cosmological Perturbation Spectrum due to Primordial Anisotropy”  
 JCAP **1210**, 055 (2012).
- 2012 7) D. Carney, W. Fischler, E. D. Kovetz, D. Lorshbough and S. Paban,**  
 “Rapid Field Excursions and the Inflationary Tensor Spectrum”  
 JHEP **1211**, 042 (2012).
- 2013 8) E. D. Kovetz and M. Kamionkowski ,**  
 “Galaxy-Cluster Masses via 21st-Century Measurements of Lensing of 21-cm Fluctuations”  
 Phys. Rev. D **87**, 063516 (2013).
- 2013 9) E. D. Kovetz and M. Kamionkowski,**  
 “21-cm Lensing and the Cold Spot in the Cosmic Microwave Background”  
 Phys. Rev. Lett. **110**, 171301 (2013).
- 2013 10) B. Rathaus, E. D. Kovetz and N. Itzhaki,**  
 “Studying the Peculiar Velocity Bulk Flow in a Sparse Survey of Type-Ia SNe”  
 Mon. Not. Roy. Astron. Soc. **431**, 3678 (2013).
- 2014 11) A. Dey, E. D. Kovetz and S. Paban,**  
 “Power Spectrum and Non-Gaussianities in Anisotropic Inflation”  
 JCAP **1406**, 025 (2014).
- 2014 12) A. Ben-David and E. D. Kovetz,**  
 “A Close Examination of CMB Mirror-Parity after Planck”  
 Mon. Not. Roy. Astron. Soc. **445**, 2116 (2014).
- 2014 13) P. C. Breysse, E. D. Kovetz and M. Kamionkowski,**  
 “Carbon Monoxide Intensity Mapping at Moderate Redshifts”  
 Mon. Not. Roy. Astron. Soc. **443**, 3506 (2014).
- 2014 14) B. Rathaus and E. D. Kovetz,**  
 “The CMB Derivatives of Planck’s Beam Asymmetry”  
 Mon. Not. Roy. Astron. Soc. **443**, 750 (2014).
- 2014 15) M. Kamionkowski and E. D. Kovetz,**  
 “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.
- 2015 16) E. D. Kovetz and M. Kamionkowski ,**  
 “Strategy to Minimize Dust Foregrounds in *B*-mode Searches”  
 Phys. Rev. D **91**, 081303 (2015).
- 2015 17) P. C. Breysse, E. D. Kovetz and M. Kamionkowski,**  
 “Masking Line Foregrounds in Intensity Mapping Surveys”  
 Mon. Not. Roy. Astron. Soc. **452**, 3408 (2015).
- 2015 18) J. Muñoz, E. D. Kovetz and Yacine Ali-Haïmoud,**  
 “Heating of Baryons due to Scattering with Dark Matter During the Dark Ages”  
 Phys. Rev. D. **92**, 083528 (2015).

- 2016 19) A. Raccanelli, E. D. Kovetz, L. Dai and M. Kamionkowski,**  
 “Detecting the Integrated Sachs-Wolfe Effect with High-Redshift 21-cm Surveys”  
 Phys. Rev. D **93**, 083512 (2016).
- 2016 20) P. C. Breysse, E. D. Kovetz and M. Kamionkowski,**  
 “The High Redshift Star-Formation History from Carbon-Monoxide Intensity Maps”  
 Mon. Not. Roy. Astron. Soc. **457**, L127 (2016).
- 2016 21) L. Dai, M. Kamionkowski, E. D. Kovetz, A. Raccanelli and M. Shiraishi,**  
 “Antisymmetric Galaxy Cross-Correlations as a Cosmological Probe”  
 Phys. Rev. D. **93**, 023507 (2016).
- 2016 22) E. D. Kovetz and M. Kamionkowski,**  
 “Cosmic Bandits: Exploration versus Exploitation in CMB B-Mode Experiments”  
 New Astron. **43** 26 (2016).
- 2016 23) Y. Ali-Haïmoud, E. D. Kovetz and J. Silk,**  
 “Flaring of tidally compressed dark-matter clumps”  
 Phys. Rev. D. **93**, 043508 (2016).
- 2016 24) J. B. Muñoz, D. Grin, L. Dai, M. Kamionkowski, and E. D. Kovetz,**  
 “Search for Compensated Isocurvature Perturbations with Planck Power Spectra”  
 Phys. Rev. D. **93**, 043008 (2016).
- 2016 25) S. Bird, I. Cholis, J. B. Muñoz, Y. Ali-Haïmoud, M. Kamionkowski,**  
**E. D. Kovetz, A. Raccanelli and A. G. Riess,**  
 “Did LIGO Detect Dark Matter?”  
 Phys. Rev. Lett. **116**, 201301 (2016)  
 Featured as a Physics Synopsis.
- 2016 26) A. Raccanelli, E. D. Kovetz, S. Bird, I. Cholis and J. B. Muñoz,**  
 “Determining the Progenitors of Merging Black Hole Binaries”  
 Phys. Rev. D. **94**, 023516 (2016).
- 2016 27) J. B. Muñoz, E. D. Kovetz, L. Dai and M. Kamionkowski,**  
 “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.
- 2016 28) M. Kamionkowski and E. D. Kovetz,**  
 “The Quest for B Modes from Inflationary Gravitational Waves”  
 Ann. Rev. Astron. Astrophys. **54**, 227-269 (2016).
- 2016 29) I. Cholis, E. D. Kovetz, Y. Ali-Haïmoud, S. Bird, J. B. Muñoz,**  
**M. Kamionkowski, A. Raccanelli,**  
 “Orbital Eccentricities in Primordial Black Hole Binaries”  
 Phys. Rev. D. **94**, 084013 (2016).
- 2017 30) D. N. Pfeffer, E. D. Kovetz and M. Kamionkowski,**  
 “Ultra-High-Energy-Cosmic-Ray Hot Spots from Tidal Disruption Events”  
 Mon. Not. Roy. Astron. Soc. **466**, 2922 (2017).
- 2017 31) E. D. Kovetz, A. Raccanelli and M. Rahman,**  
 “Cosmological Constraints with Clustering-Based Redshifts”  
 Mon. Not. Roy. Astron. Soc. **468**, 3650 (2017).
- 2017 32) P. C. Breysse, E. D. Kovetz, P. S. Behroozi, L. Dai and M. Kamionkowski,**  
 “Insights from Probability Distribution Functions of Intensity Maps”  
 Mon. Not. Roy. Astron. Soc. **467**, 2996 (2017).

- 2017 33) E. D. Kovetz, I. Cholis, P. C. Breysse and M. Kamionkowski,**  
 “Black Hole Mass Function from Gravitational Wave Measurements”  
 Phys. Rev. D. **95**, 103010 (2017).
- 2017 34) J. B. Muñoz, E. D. Kovetz, A. Raccanelli, M. Kamionkowski and J. Silk,**  
 “Towards a measurement of the spectral runnings”  
 JCAP **1705**, 032 (2017).
- 2017 35) E. D. Kovetz,**  
 “Probing Primordial-Black-Hole Dark Matter with Gravitational Waves”  
 Phys. Rev. Lett. **119**, 131301 (2017).
- 2017 36) Y. Ali-Haïmoud, E. D. Kovetz and M. Kamionkowski,**  
 “Merger rate of primordial-black-hole binaries”  
 Phys. Rev. D. **96**, 123523 (2017).
- 2018 37) F. Finelli et al. (total of 95 contributing authors, including E. D. Kovetz),**  
 “Exploring Cosmic Origins with CORE: Inflation”  
 JCAP **1804**, 016 (2018).
- 2018 38) E. D. Kovetz, I. Cholis, M. Kamionkowski and J. Silk,**  
 “Limits on Runaway Growth of Intermediate Mass Black Holes from Advanced LIGO”  
 Phys. Rev. D. **97**, 123003 (2018).
- 2018 39) E. D. Kovetz, V. Poulin, V. Gluscevic, K. K. Boddy, R. Barkana and M. Kamionkowski,**  
 “Tighter Limits on Dark Matter Explanations of the Anomalous EDGES 21cm Signal”  
 Phys. Rev. D. **98**, 103529 (2018).
- 2018 40) K. K. Boddy, V. Gluscevic, V. Poulin, E. D. Kovetz, M. Kamionkowski and R. Barkana,**  
 “Critical Assessment of CMB Limits on Dark Matter-Baryon Scattering”  
 Phys. Rev. D. **98**, 123506 (2018).
- 2018 41) K. W. K. Wong, E. D. Kovetz, C. Cutler and E. Berti,**  
 “Expanding the LISA Horizon from the Ground”  
 Phys. Rev. Lett. **121**, 251102 (2018).
- 2018 42) L. Ji, E. D. Kovetz and Marc Kamionkowski,**  
 “Strong Lensing of Gamma Ray Bursts as a Probe of Compact Dark Matter”  
 Phys. Rev. D **98**, 123523 (2018).
- 2019 43) H. Nishikawa, E. D. Kovetz, M. Kamionkowski and J. Silk,**  
 “Primordial-black-hole mergers in dark-matter spikes”  
 Phys. Rev. D **99**, 043533 (2019).
- 2019 44) E. D. Kovetz, I Cholis and D. E. Kaplan,**  
 “Bounds on Ultra-Light Hidden-Photon Dark Matter from 21cm at Cosmic Dawn”  
 Phys. Rev. D **99**, 123511 (2019).
- 2019 45) J. L. Bernal, A. Raccanelli, E. D. Kovetz, D. Parkinson, R. P. Norris, G. Danforth and C. Schmitt,**  
 “Probing  $\Lambda$ CDM cosmology with the Evolutionary Map of the Universe survey”  
 JCAP **02 2019**, 030 (2019).
- 2019 46) C. Zeng, E. D. Kovetz, X. Chen, J. B. Muñoz and Marc Kamionkowski,**  
 “Searching for Oscillations in the Primordial Power Spectrum with CMB and LSS Data”  
 Phys. Rev. D **99**, 043517 (2019).
- 2019 47) C. Creque-Sarbinowski, L. Ji, E. D. Kovetz, and M. Kamionkowski,**  
 “Direct millicharged dark matter cannot explain EDGES”  
 Phys. Rev. D **100**, 023528 (2019).



- 2019 48) G. Sato-Polito, E. D. Kovetz and M. Kamionkowski,**  
 "Constraints on the primordial curvature power spectrum from primordial black holes"  
 Phys. Rev. D **100**, 063521 (2019).
- 2019 49) J. L. Bernal, P. C. Breysse and E. D. Kovetz,**  
 "Cosmic Expansion History from Line-Intensity Mapping"  
 Phys. Rev. Lett. **123**, 251301 (2019).
- 2019 50) J. L. Bernal, P. C. Breysse, H. Gil-Marín and E. D. Kovetz,**  
 "User's Guide to Extracting Cosmological Information from Line-Intensity Maps"  
 Phys. Rev. D **100**, 123522 (2019).
- 2020 51) G. Sato-Polito, J. L. Bernal, E. D. Kovetz and M. Kamionkowski,**  
 "Antisymmetric cross-correlation of line-intensity maps as a probe of reionization"  
 Phys. Rev. D **102**, 043519 (2020).
- 2021 52) C. Unal, E. D. Kovetz and S. Patil,**  
 "Multi-messenger Probes of Inflationary Fluctuations and Primordial Black Holes"  
 Phys. Rev. D **103**, 063519 (2021).
- 2021 53) N. Abazajian et al. (total of 86 contributing authors, including E. D. Kovetz),**  
 "CMB-S4: Forecasting Constraints on Primordial Gravitational Waves"  
 Astrophys. J. **926** 1, 54 (2022).
- 2021 54) T. Abadi and E. D. Kovetz,**  
 "Can Conformally Coupled Modified Gravity Solve The Hubble Tension?"  
 Phys. Rev. D, **103**, 023530 (2021).
- 2021 55) J. Flitter, J. B. Muñoz and E. D. Kovetz,**  
 "Outliers in the LIGO Black Hole Mass Function from Coagulation in Dense Clusters"  
 Mon. Not. Roy. Astron. Soc. **507**, 743 (2021).
- 2021 56) T. Abadi and E. D. Kovetz,**  
 "Probing Gravitational Slip with Strong Lensing of Fast Radio Bursts"  
 Phys. Rev. D, **104**, 103515 (2021).
- 2022 57) K. Krochek and E. D. Kovetz,**  
 "Constraining Primordial Black Hole Dark Matter with CHIME Fast Radio Bursts"  
 Phys. Rev. D, **105**, 103528 (2022).
- 2022 58) D. Sarkar, J. Flitter and E. D. Kovetz,**  
 "Exploring delaying and heating effects on the 21-cm signature of fuzzy dark matter"  
 Phys. Rev. D, **105**, 103529 (2022).
- 2022 59) J. Flitter and E. D. Kovetz,**  
 "Closing the window on fuzzy dark matter with the 21-cm signal"  
 Phys. Rev. D, **106**, 063504 (2022).
- 2022 60) J. L. Bernal and E. D. Kovetz,**  
 "Line-Intensity Mapping: Theory Review with a focus i=on star-formation lines"  
 Astron. Astrophys. Rev., **30**, id.5 (2022).
- 2022 61) S. Libanore, C. Unal, D. Sarkar and E. D. Kovetz,**  
 "Unveiling cosmological information on small scales with line intensity mapping"  
 Phys. Rev. D, **106**, 123512 (2022).
- 2022 62) D. Sarkar and E. D. Kovetz,**  
 "Measuring the cosmic expansion rate using 21-cm velocity acoustic oscillations"  
 Phys. Rev. D, **107**, 023524 (2022).

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