

# Marc Kamionkowski

William R. Kenan Jr. Professor  
Johns Hopkins University  
Department of Physics and Astronomy  
Bloomberg 439  
3400 North Charles Street  
Baltimore, MD 21218

Phone: (410) 516-0373  
Fax: (410) 516-7239  
Email: [kamion@jhu.edu](mailto:kamion@jhu.edu)  
Homepage: <http://kamion.pha.jhu.edu/Home.html>

## Personal

Born on 27 July 1965, Cleveland, Ohio  
United States Citizen

## Education

B.A. (*summa cum laude*) Physics, Washington University in St. Louis, 1987  
Ph.D. Physics, University of Chicago, 1991

## Professional History

William R. Kenan, Jr. Professor of Physics and Astronomy, Johns Hopkins University, 2016–  
Professor of Physics and Astronomy, Johns Hopkins University, 2011–2015  
Robinson Professor of Theoretical Physics and Astrophysics, California Institute of Technology, 2006–  
2012  
Miller Visiting Research Professor, Department of Physics, University of California, Berkeley, Fall 2010  
Founding Director, Moore Center for Theoretical Cosmology and Physics, Caltech, 2006–2011  
Professor of Theoretical Physics and Astrophysics, California Institute of Technology, 1999–2006  
Associate Professor, Department of Physics, Columbia University, 1998–1999  
Assistant Professor, Department of Physics, Columbia University, 1994–1998  
Long-Term Member, Institute for Advanced Study, 1994  
Member, Institute for Advanced Study, 1991–1994

## Awards and Honors

Guggenheim Fellow, 2024  
Watson Lecturer, University of Illinois, Urbana-Champaign, 2023  
Gruber Cosmology Prize, 2021  
Legacy Fellow, American Astronomical Society, 2020

Member, US National Academy of Sciences, 2019  
Halley Lecturer, Oxford University, 2019  
Discovery Award, Johns Hopkins University, 2018  
Fellow, American Association for the Advancement of Science, 2017  
Hans Jensen Lecturer, University of Heidelberg, October 2017  
Finalist, Krieger School of Arts and Sciences Excellence in Teaching Award (for Graduate Teaching and Mentoring), 2017  
Fellow, International Society of General Relativity and Gravitation, 2016  
Dannie Heineman Prize for Astrophysics, AAS/AIP, 2015  
Distinguished Fellow, Kosciuszko Foundation Collegium of Eminent Scientists, 2014  
Simons Foundation Investigator, 2014–2024  
Rosenblum Lecturer, Hebrew University, March 2014  
Member, American Academy of Arts and Sciences, 2013  
Shaker Heights High School Hall of Fame, Elected 2013  
Fellow, American Physical Society, 2008  
DoE Ernest O. Lawrence Award (High Energy and Nuclear Physics), 2006  
DoE Outstanding Junior Investigator, 1998–1999  
Helen B. Warner Prize, American Astronomical Society, 1998  
Alfred P. Sloan Foundation Fellow, 1996–1998  
SSC National Fellow, 1991–1993  
NASA GSRP Fellow, July 1989–Sept 1991  
Phi Beta Kappa, May 1986  
National Merit Scholar, 1983–1987

## Professional Societies

US National Academy of Sciences  
American Academy of Arts and Sciences  
International Astronomical Union  
Astronomical Society of the Pacific  
American Association for the Advancement of Science  
American Physical Society  
American Astronomical Society  
International Society of General Relativity and Gravitation  
Sigma Xi

## Professional Service

Editor in Chief, *Physics Reports*, 2008–present

Astrophysics and Cosmology Editor, *Physics Reports*, 1998–present

Chair, Henry Draper Medal Selection Committee, National Academy of Sciences, 2024

Member, NAS Astronomy nominating committee, 2023

Member, Johns Hopkins University Provost Search Committee, Spring 2023

Henry Draper Medal Selection Committee, National Academy of Sciences, 2020

E. O. Lawrence Award Selection Committee, Department of Energy, 2020

Member, National Academies Astro2020 Steering Committee, 2019–2022

Member, National Academies Astro2020 Panel on Cosmology, 2019–2022

Member, KSAS Dean's Faculty Advisory Committee, 2012–2021

Co-organizer, Vera Rubin Symposium, Georgetown University, 24–26 June 2019

Advisory Board, *Universe* (an MDPI open access journal), 2019–

Nominating Committee for the Executive Committee of the APS Division of Astrophysics, 2018

Honorary Member, Aspen Center for Physics, 2018–

Chair, External Review Committee, Washington University Physics Department, September 2017

Advisor, Simons Foundation Origins of the Universe initiative, 2017

Member, HST Fundamental Physics Working Group, 2017

Member, Local Organizing Committee, Second Annual Intensity Mapping Workshop, Johns Hopkins University, 12–14 June 2017

External Review Committee, Brown University Department of Physics, April 2017

Five-Year Expert Panel Review Committee, Canadian Institute for Advanced Research “Cosmology & Gravity” program, 2016

APS Hans A. Bethe Prize Selection Committee, 2017–2018

CERN-TH Advisory Committee on Cosmology, 2016

NSF/DoE Nuclear Science Advisory Committee Subcommittee on Neutrino-less Double Beta Decay, 2015

Member-at-Large, Division of Astrophysics Executive Committee of the American Physical Society, 2015–2017

Trustee, Aspen Center for Physics, 2010–2016

Search Committee Member for Director, Oskar Klein Centre, Stockholm University, 2015

DoE HEP INSPIRE Review Panel, 2015

Member, NSF MPS AC Subcommittee on NSF Response to the P5 Strategic Plan, 2014–2015

Member, Nominations Committee for arXiv Scientific Advisory Board, 2014

Member, Advisory Board, The Buchalter Cosmology Prize, 2014–

Advisor, Simons Foundation Physics Programs, 2011–2012

Member, Nominating Committee, Division of Astrophysics, American Physical Society, 2009

Member, Particle Astrophysics Scientific Assessment Group (PASAG), 2009

Member, Cosmology and Fundamental Physics Panel of Astro2010 (Astronomy and Astrophysics Decadal Survey), 2009–2010

Co-organizer, “New Horizons for Modern Cosmology,” a workshop at the Galileo Galilei Institute for Theoretical Physics, Florence, January–March 2009

Co-organizer, “Understanding the Dark Sector: Dark Matter and Dark Energy,” Aspen Winter Workshop, January 2009

Co-organizer, Aspen Winter Workshop on the CMB, January 2008

Fermilab Research Alliance Visiting Committee, 2008–2011

Member, Advisory Board, *Journal of Cosmology and Astroparticle Physics*, 2005–

Scientific Secretary (2009) and Assistant Scientific Secretary (2008), Aspen Center for Physics

Member, Aspen Center for Physics, 2004–2018

Annual Program Review Committee, Fermilab, 2007

Receiving Editor, *Journal of Cosmology and Astroparticle Physics*, 2002–2005

Receiving Editor, *Journal of High Energy Physics*, 1997–2003

External Advisory Committee, Physics Division, Lawrence Berkeley Laboratory, 2004–2005

Member, Dark Energy Task Force, 2005–2006

External Advisory Committee, VERITAS, 2003–2004

Advisory Committee, NSF Center for Cosmological Physics (University of Chicago), 2002–2004.

Particle Physics Project Prioritization Panel (P5), 2002–2004.

Co-organizer, 15th Annual Beckman U.S. Frontiers of Science Symposium, November 2003, Irvine, CA

Co-convenor, Working Group P4 on Astro/Cosmo/Particle Physics for the workshop, Snowmass 2001: The Future of Particle Physics

Referee for the reports of the Committee on Physics of the Universe, 2000, 2002

Theory and Computation Panel, NAS Astronomy and Astrophysics Survey Committee, 1998–2000

Internal Referee for the report of the Astronomy and Astrophysics Survey Committee, 1999–2000

NASA/NSF/DoE Cosmic Genesis and Fundamental Physics Working Group, 1999–2000

NASA Structure and Evolution of the Universe Subcommittee, 1998–2002

NASA Science Working Group and Facilities Science Team for the Gamma Ray Large Area Space Telescope, 1996–1999

NASA Ad Hoc Committee on Future Cosmic Microwave Background Missions 1998–1999

Co-organizers, “Theoretical Astrophysics in Southern California (TASC),” a workshop held at Caltech, October 26, 2001

Coordinator, “The New Cosmology Confronts Observation: The Cosmic Microwave Background, Dark Matter, Dark Energy, and Brane Worlds,” an ITP (Santa Barbara) workshop held August–December 2002

Coordinator, “Probing the Universe with the Cosmic Microwave Background,” an ITP (Santa Barbara) mini-workshop, July 2000.

Co-organizer, Aspen workshop on “The Dark Side of the Universe,” Aspen, CO, June 2000.

Co-organizer, “Energy Densities in the Universe,” Les Arcs, France, January 2000.

Super-convenor for “Origin of the Universe” session of the Workshop on Cosmic Genesis and Fundamental Physics, Sonoma State University, October 28–30, 1999.

## Advising

### *Ph.D. Students*

#### **Current Students**

Hector Cruz (Ph.D. 2025)

Neha Anil Kumar (Ph.D. 2025)

Mesut Çalışkan (Ph.D. 2025)

Keduse Worku (Ph.D. 2026)

#### **Past Students**

Gabriela Sato-Polito, Ph.D. 2023 (postdoc, Institute for Advanced Study, Princeton)

Lingyuan Ji, Ph.D. 2022 (Postdoc, UC Berkeley)

Cyril Creque-Sarbinowski, Ph.D. 2022 (Postdoc, CCA)

Tanvi Karwal, Ph.D. 2019 (Postdoc, U. Chicago)

Daniel Pfeffer, Ph.D. 2019

Patrick Breyse, Ph.D. 2017 (assistant professor, Southern Methodist U.)

Julian Muñoz, Ph.D. 2017 (assistant professor, UT Austin)

Liang Dai, Ph.D. 2015 (assistant professor, UC Berkeley)

Vera Gluscevic, Ph.D. 2013 (assistant professor, USC)

Samuel Lee, Ph.D. 2012 (Computational Scientist, MIT/Harvard Broad Institute)

Laura Book, Ph.D. 2012 (Software engineer, Google)  
Anthony Pullen, Ph.D. 2011 (associate professor, New York University)  
Daniel Grin, Ph.D. 2010 (assistant professor, Haverford College)  
Adrienne Erickcek, Ph.D. 2009 (associate professor, U. of North Carolina)  
Tristan L. Smith, Ph.D. 2008 (associate professor, Swarthmore College)  
Jonathan Pritchard, Ph.D. 2007 (reader, Imperial College)  
Kris R. Sigurdson, Ph.D. 2005 (associate professor, University of British Columbia)  
Nevin N. Weinberg, Ph.D. 2005 (associate professor, UT Arlington)  
Michael H. Kesden, Ph.D. 2005 (associate professor, UT Dallas)  
Michael R. Santos, Ph.D. 2004 (vice president, Foundation for the NIH)  
Alexandre Refregier, Ph.D. 1997 (Professor, Zurich)  
Catherine Cress, Ph.D. 1998 (Professor, University of the Western Cape, South Africa)  
Xuelei Chen, Ph.D. 1999 (Professor, National Astronomical Observatories, China)  
Ari Buchalter, Ph.D. 1999 (CEO, Intersection)

### *Postdocs*

#### **Current Postdocs**

Thomas Edwards, 2022–  
Nashwan Sabti, 2022–  
Keisuke Inomata, 2023–  
Laura Herold, 2023–

#### **Past Postdocs**

Bei Zhou, 2020–2023 (postdoc, Fermilab)  
Selim Hotinli, 2020–2023 (postdoc, Perimeter Institute)  
Jose Luis Bernal, 2019–2022 (junior faculty, U. of Cantabria)  
Kim Boddy, 2017–2020 (assistant professor, U. Texas, Austin)  
Tommi Tenkanen, 2018–2020 (Boston Consulting Group)  
Ely Kovetz 2014–2019 (assistant professor, Ben Gurion University)  
Vivian Poulin, 2017–2018 (Research scientist, CNRS Montpellier)  
Ilias Cholis, 2015–2018 (assistant professor, Oakland University)  
Tomohiro Nakama, 2016–2018 (postdoc, HKUST)

Simeon Bird, 2015–2017 (assistant professor, UC Riverside)  
Yacine Ali-Haïmoud, 2014–2017 (associate professor, NYU)  
Alvise Raccanelli, 2014–2016 (associate professor, Padova)  
Jennifer Siegal-Gaskins, 2011–2014 (data scientist, Vistaprint)  
Jens Chluba, 2012–2014 (Professor, Manchester)  
Donghui Jeong, 2010–2014 (associate professor, Penn State)  
Josef Pradler, 2012–2014 (associate professor, Vienna)  
Matthew Kistler, 2010–2011 (postdoc, Stanford)  
Fabian Schmidt, 2009–2012 (faculty, Max Planck Institute Garching)  
Shin'ichiro Ando, 2006–2011 (associate professor, U. of Amsterdam)  
Daniel Babich, 2006–2008 (Hayman Capital Management)  
Annika Peter, 2007–2010 (professor, Ohio State U.)  
Daisuke Nagai, 2005–2008 (professor, Yale University)  
Stefano Profumo, 2005–2007 (professor, University of California, Santa Cruz)  
Nicole Bell, 2004–2006 (professor, University of Melbourne)  
Elena Pierpaoli, 2004–2006 (professor, University of Southern California)  
Steven Furlanetto 2003–2006 (professor, UCLA)  
Eric Agol, 2000–2003 (professor, University of Washington)  
Andriy Kurylov, 2002–2004 (JP Morgan Chase)  
Lara Arielle Phillips, 2002–2005 (associate professor, Notre Dame University)  
Milos Milosavljevic, 2002–2006 (associate professor, University of Texas, Austin)  
Asantha Cooray, 2001–2004 (professor, UC Irvine)  
Andrew Benson, 2000–2003 (Scientist, Carnegie Observatories)  
Paolo Catelan, 2000–2001  
Siang-Peng Oh, 2000–2003 (professor, UC Santa Barbara)  
Kenneth Nollett, 2000–2002 (professor, San Diego State)  
Limin Wang, 1998–2000 (Blackstone)  
Piero Ullio, 1999–2000 (professor, SISSA, Trieste)  
Frank J. Summers, July 1996–March 1998 (scientist, Space Telescope Science Institute)

## Classroom Teaching

*General Physics for Physics and Sciences Majors*, Spring 2024. The E&M semester of freshman physics.

*Quantum Field Theory*, 2017–2018, 2018–2019, 2019–2020, 2020–2021, 2021–2022, 2022–2023 A full-year graduate-level class.

*Astrophysics of Compact Objects*, Fall 2011. A graduate-level class.

*Major Open Questions in Physics*, Winter 2004. A seminar-type class for undergraduates.

*Quantum Mechanics of the Universe*, Spring 2011. A one-semester seminar course on for undergraduate students on current research topics in cosmology and particle astrophysics.

*Advanced Quantum Mechanics*, Spring 2003. An honors-level class for upper-level undergraduates,

*Waves, Quantum Mechanics, and Statistical Physics*, Fall 2009. A class for nonmajor sophomores.

*Interstellar Medium*, Winter 2011. A one-quarter class for graduate students in astronomy.

*High-energy astrophysics*, Spring 2009. A one-quarter class for graduate students in astronomy.

*Stellar Structure and Evolution*, Fall 2003, 2004, 2005. A one-quarter class for graduate students in astronomy.

*The Physics of Stars*, Fall 2002. A one-quarter class for advanced undergraduates.

*Extragalactic Astronomy and Cosmology*, Spring 2000, 2004, 2005, 2008, 2010. A one-quarter class on cosmology for first-year graduate students in astronomy.

*Particle Astrophysics and Cosmology*, 2000–2001, Fall 2012, Spring 2017. An advanced graduate seminar on the early Universe, physical cosmology, and particle astrophysics. Taught for a full year at Caltech and as a one-semester class at Johns Hopkins.

*Radiative Processes*, Fall 2001, 2007, 2023. A one-quarter/semester class on radiative processes for first-year graduate students.

*Quantum Mechanics*, Spring 2002, 2006. The third quarter of a one-year quantum mechanics sequence for juniors.

*Graduate Quantum Mechanics*, 1998–1999, 2013–2014, 2014–2015, Fall 2016 A quantum mechanics course for first-year graduate students.

*General Relativity*, Spring 1998, 2004–2005, 2006–2007. A graduate level course on general relativity (one semester at Columbia University and a full-year class at Caltech).

*Cosmology*, Fall 1997. A graduate level class on cosmology. Topics included classical cosmology, large-scale structure and the cosmic microwave background, physics of the early Universe, and dark matter.

*Mathematical Methods for Physicists*, Fall 1995, 1996. A class on mathematical methods and asymptotic techniques for advanced undergraduates and beginning graduate students.

*Advanced Mechanics*, Spring 1995, 1996, 1997. A class on Lagrangian and Hamiltonian dynamics (with some applications to galactic dynamics) for advanced undergraduates and beginning graduate students.



## Publications

### *Submitted Articles*

6. **“Linear polarization of the stochastic gravitational-wave background with pulsar timing arrays,”** N. Anil Kumar, M. Çalışkan, G. Sato-Polito, M. Kamionkowski and L. Ji, [arXiv:2312.03056 [astro-ph.CO]]. Submitted to Phys. Rev. D.
5. **“Reconstructing patchy helium reionization using the cosmic microwave background and large-scale structure,”** M. Çalışkan, N. Anil Kumar, S. C. Hotinli and M. Kamionkowski, [arXiv:2312.00118 [astro-ph.CO]]. Submitted to Phys. Rev. D.
4. **“All the Pretty Overlap Reduction Functions,”** N. Anil Kumar and M. Kamionkowski, [arXiv:2311.14159 [astro-ph.CO]]. Submitted to Phys. Rev. Lett.
3. **“Hints of tensions in the cosmic microwave background temperature and polarization quadrupoles,”** J. J. Givans and M. Kamionkowski, [arXiv:2311.06196 [astro-ph.CO]]. Submitted to Phys. Rev. D.
2. **“Exploring the spectrum of stochastic gravitational-wave anisotropies with pulsar timing arrays,”** G. Sato-Polito and M. Kamionkowski, [arXiv:2305.05690 [astro-ph.CO]]. Submitted to Phys. Rev. D.
1. **“High-energy neutrinos from choked-jet supernovae: searches and implications,”** P. W. Chang, B. Zhou, K. Murase and M. Kamionkowski, [arXiv:2210.03088 [astro-ph.HE]]. Submitted to Phys. Rev. D.

### *Refereed Journal Articles*

290. **“Phenomenology of a vector-field-induced (and possibly parity breaking) compensated isocurvature perturbation,”** E. Vanzan, M. Kamionkowski and S. Hotinli, [arXiv:2311.18121 [astro-ph.CO]]. To appear in Phys. Rev. D.
289. **“21-cm fluctuations from primordial magnetic fields,”** H. A. G. Cruz, T. Adi, J. Flitter, M. Kamionkowski and E. D. Kovetz, Phys. Rev. D **109**, 023518 (2024) [arXiv:2308.04483 [astro-ph.CO]].
288. **“Probing wave-optics effects and dark-matter subhalos with lensing of gravitational waves from massive black holes,”** M. Çalışkan, N. Anil Kumar, L. Ji, J. M. Ezquiaga, R. Cotesta, E. Berti and M. Kamionkowski, Phys. Rev. D **108**, no. 12, 123543 (2023) [arXiv:2307.06990 [astro-ph.CO]].
287. **“Unveiling Neutrino Halos with CMB Lensing,”** S. C. Hotinli, N. Sabti, J. North and M. Kamionkowski, Phys. Rev. D **108**, 103504 (2023) [arXiv:2306.15715 [astro-ph.CO]].
286. **“Parity-Violating Trispectrum from Chern-Simons Gravity,”** C. Creque-Sarbinowski, S. Alexander, M. Kamionkowski and O. Philcox, JCAP **11**, 029 (2023) [arXiv:2303.04815 [astro-ph.CO]].
285. **“Insights from HST into Ultra-Massive Galaxies and Early-Universe Cosmology,”** N. Sabti, J. B. Muñoz and M. Kamionkowski, Phys. Rev. Lett. **132**, no. 6, 061002 (2024) [arXiv:2305.07049 [astro-ph.CO]].
284. **“Spectra of axions emitted from main sequence stars,”** N. H. Nguyen, E. H. Tanin and M. Kamionkowski, JCAP **11**, 091 (2023) [arXiv:2307.11216 [hep-ph]].
283. **“Subtracting Compact Binary Foregrounds to Search for Subdominant Gravitational-Wave Backgrounds in Next-Generation Ground-Based Observatories,”** B. Zhou, L. Reali, E. Berti, M. Çalışkan, C. Creque-Sarbinowski, M. Kamionkowski and B. S. Sathyaprakash, Phys. Rev. D **108**, 064040 (2023) [arXiv:2209.01310 [gr-qc]].

282. **"Primordial Density Perturbations from Magnetic Fields,"** T. Adi, H. Cruz and M. Kamionkowski, Phys. Rev. D **108**, 023521 (2023) [arXiv:2306.11319 [astro-ph.CO]].
281. **"Probing helium reionization with kinetic Sunyaev Zel'dovich tomography,"** S. C. Hotinli, S. Ferraro, G. P. Holder, M. C. Johnson, M. Kamionkowski and P. La Plante, Phys. Rev. D **107**, no. 10, 103517 (2023) [arXiv:2207.07660 [astro-ph.CO]].
280. **"High-Energy Astrophysical Neutrinos from Cosmic Strings,"** C. Creque-Sarbinowski, J. Hyde and M. Kamionkowski, Phys. Rev. D. **107**, 123019 (2023) [arXiv:2206.06377 [hep-ph]].
279. **"The Sigma-8 Tension is a Drag,"** V. Poulin, J. L. Bernal, E. Kovetz and M. Kamionkowski, Phys. Rev. D **107**, no.12, 123538 (2023) [arXiv:2209.06217 [astro-ph.CO]].
278. **"Cross-correlation of the Polarizations of the 21-cm and Cosmic Microwave Backgrounds,"** L. Ji, S. C. Hotinli and M. Kamionkowski, Phys. Rev. D **107**, no.12, 123533 (2023) [arXiv:2110.01619 [astro-ph.CO]].
277. **"Magnetic Fields from Compensated Isocurvature Perturbations,"** J. Flitter, C. Creque-Sarbinowski, M. Kamionkowski and L. Dai, Phys. Rev. D **107**, no. 10 103536 (2023) [arXiv:2304.03299 [astro-ph.CO]].
276. **"Seeking dark matter with  $\gamma$ -ray attenuation,"** J. L. Bernal, A. Caputo, G. Sato-Polito, J. Mirocha and M. Kamionkowski, Phys. Rev. D **107**, no. 10, 103046 (2023) [arXiv:2208.13794 [astro-ph.CO]].
275. **"Uncorrelated Compensated Isocurvature Perturbations from kSZ Tomography,"** N. A. Kumar, S. C. Hotinli and M. Kamionkowski, Phys. Rev. D **107**, no. 4, 043504 (2023) [arXiv:2208.02829 [astro-ph.CO]].
274. **"Observability of lensing of gravitational waves from massive black hole binaries with LISA,"** M. Çalışkan, L. Ji, R. Cotesta, E. Berti, M. Kamionkowski and S. Marsat, Phys. Rev. D **107**, no.4, 043029 (2023) [arXiv:2206.02803 [astro-ph.CO]].
273. **"AGN variability in the age of VRO,"** C. Creque-Sarbinowski, M. Kamionkowski and B. Zhou, Astrophys. J. **941**, 41 (2022) [arXiv:2110.13149 [astro-ph.GA]].
272. **"Probing Cosmic Birefringence with Polarized Sunyaev Zel'dovich Tomography,"** N. Lee, S. C. Hotinli and M. Kamionkowski, Phys. Rev. D **106**, no. 8 083518 (2022) [arXiv:2207.05687 [astro-ph.CO]].
271. **"Cosmological perturbations: non-cold relics without the Boltzmann hierarchy,"** L. Ji, M. Kamionkowski and J. L. Bernal, Phys. Rev. D **106**, no. 10, 103531 (2022), [arXiv:2201.11129 [astro-ph.CO]].
270. **"The cosmic optical background excess, dark matter, and line-intensity mapping,"** J. L. Bernal, G. Sato-Polito and M. Kamionkowski, Phys. Rev. Lett. **129**, no. 23, 231301 (2022) [arXiv:2203.11236 [astro-ph.CO]].
269. **"Cosmology from the kinetic polarized Sunyaev Zel'dovich effect,"** S. C. Hotinli, G. P. Holder, M. C. Johnson and M. Kamionkowski, JCAP **10**, 026 (2022) [arXiv:2204.12503 [astro-ph.CO]].
268. **"Primordial trispectrum from kSZ tomography,"** N. A. Kumar, G. Sato-Polito, M. Kamionkowski and S. C. Hotinli, Phys. Rev. D **106**, no.6, 063533 (2022) [arXiv:2205.03423 [astro-ph.CO]].
267. **"Probing ultra-light axions with the 21-cm Signal during Cosmic Dawn,"** S. C. Hotinli, D. J. E. Marsh and M. Kamionkowski, Phys. Rev. D **106**, no. 4, 043259 (2022) [arXiv:2112.06943 [astro-ph.CO]].
266. **"Pulsar-timing measurement of the circular polarization of the stochastic gravitational-wave background,"** G. Sato-Polito and M. Kamionkowski, Phys. Rev. D **106**, no. 8, 023004 (2022) [arXiv:2111.05867 [astro-ph.CO]].

265. **“Seeking Neutrino Emission from AGN through Temporal and Spatial Cross Correlation,”** C. Creque-Sarbinowski, M. Kamionkowski and B. Zhou, *Phys. Rev. D* **105**, no. 12, 123035 (2022) [arXiv:2111.08012 [astro-ph.HE]].
264. **“Cosmology with the moving lens effect,”** S. C. Hotinli, K. M. Smith, M. S. Madhavacheril and M. Kamionkowski, *Phys. Rev. D* **104**, 083529 (2021) [arXiv:2108.02207 [astro-ph.CO]].
263. **“Probing Compensated Isocurvature with the 21-cm Signal during Cosmic Dawn,”** S. C. Hotinli, T. Binne, J. B. Muñoz, B. R. Dinda and M. Kamionkowski, *Phys. Rev. D* **104**, 063536 (2021) [arXiv:2106.11979 [astro-ph.CO]].
262. **“Detecting the radiative decay of the cosmic neutrino background with line-intensity mapping,”** J. L. Bernal, A. Caputo, F. Villaescusa-Navarro and M. Kamionkowski, *Phys. Rev. Lett.* **127**, 131102 (2021) [arXiv:2103.12099 [hep-ph]].
261. **“Cosmological perturbations without the Boltzmann hierarchy,”** M. Kamionkowski, *Phys. Rev. D* **104**, 063512 (2021) [arXiv:2105.02887 [astro-ph.CO]].
260. **“Early dark energy is not excluded by current large-scale structure data,”** T. L. Smith, V. Poulin, J. L. Bernal, K. K. Boddy, M. Kamionkowski and R. Murgia, *Phys. Rev. D* **103**, 123542 (2021) [arXiv:2009.10740 [astro-ph.CO]].
259. **“Search for High-Energy Neutrino Emission from Radio-Bright AGN,”** B. Zhou, M. Kamionkowski and Y. F. Liang, *Phys. Rev. D* **103**, 123018 (2021) [arXiv:2103.12813 [astro-ph.HE]].
258. **“The trouble beyond  $H_0$  and the new cosmic triangles,”** J. L. Bernal, L. Verde, R. Jimenez, M. Kamionkowski, D. Valcin and B. D. Wandelt, *Phys. Rev. D* **103**, 103533 (2021) [arXiv:2102.05066 [astro-ph.CO]].
257. **“Kinetic Sunyaev-Zel’dovich tomography with line-intensity mapping,”** G. Sato-Polito, J. L. Bernal, K. K. Boddy and M. Kamionkowski, *Phys. Rev. D* **103**, 083519 (2021) [arXiv:2011.08193 [astro-ph.CO]].
256. **“Clustering and Halo Abundances in Early Dark Energy Cosmological Models,”** A. Klypin, V. Poulin, F. Prada, J. Primack, M. Kamionkowski, V. Avila-Reese, A. Rodriguez-Puebla, P. Behroozi, D. Hellinger and T. L. Smith, *Mon. Not. R. Astron.* **504**, 769 (2021) [arXiv:2006.14910 [astro-ph.CO]]. Soc.
255. **“Strategies to Detect Dark-Matter Decays with Line-Intensity Mapping,”** J. L. Bernal, A. Caputo and M. Kamionkowski, *Phys. Rev. D* **103**, 063523 (2021) [arXiv:2012.00771 [astro-ph.CO]].
254. **“Subluminal stochastic gravitational waves in pulsar-timing arrays and astrometry,”** W. Qin, K. K. Boddy and M. Kamionkowski, *Phys. Rev. D* **103**, 024045 (2021) [arXiv:2007.11009 [gr-qc]].
253. **“Resonant Neutrino Self-Interactions,”** C. Creque-Sarbinowski, J. Hyde and M. Kamionkowski, *Phys. Rev. D* **103**, 023527 (2021). [arXiv:2005.05332 [hep-ph]].
252. **“Standard Model Prediction for Cosmological 21cm Circular Polarization,”** L. Ji, M. Kamionkowski and K. Inomata, *Phys. Rev. D* **103**, 023516 (2021) [arXiv:2005.10250 [astro-ph.CO]].
251. **“Robustness of baryon acoustic oscillations constraints to beyond- $\Lambda$ CDM cosmologies,”** J. L. Bernal, T. L. Smith, K. K. Boddy and M. Kamionkowski, *Phys. Rev. D* **102**, 123515 (2020) [arXiv:2004.07263 [astro-ph.CO]].
250. **“Lensing anomaly as a fingerprint of alternative scenarios to inflation,”** G. Doménech, X. Chen, M. Kamionkowski and A. Loeb, *JCAP* **10**, 005 (2020) [arXiv:2005.08998 [astro-ph.CO]].

249. **“Antisymmetric cross-correlation of line-intensity maps as a probe of reionization,”** G. Sato-Polito, J. L. Bernal, E. D. Kovetz and M. Kamionkowski, *Phys. Rev. D.* **102**, 043519 (2020) [arXiv:2005.08977 [astro-ph.CO]].
248. **“Chirality of the gravitational-wave background and pulsar-timing arrays,”** E. Belgacem and M. Kamionkowski, *Phys. Rev. D* **102**, 023004 (2020) [arXiv:2004.05480 [astro-ph.CO]].
247. **“Gravitational waves, CMB polarization, and the Hubble tension,”** D. Jeong and M. Kamionkowski, *Phys. Rev. Lett.* **124**, 041301 (2020) [arXiv:1908.06100 [astro-ph.CO]].
246. **“Probing correlated compensated isocurvature perturbations using scale-dependent galaxy bias,”** S. C. Hotinli, J. B. Mertens, M. C. Johnson and M. Kamionkowski, *Phys. Rev. D* **100**, 103528 (2019) [arXiv:1908.08953 [astro-ph.CO]].
245. **“Lensing anomaly and oscillations in the primordial power spectrum,”** G. Domenech and M. Kamionkowski, *JCAP* **11**, 040040 (2019) [arXiv:1905.04323 [astro-ph.CO]].
244. **“The search for anisotropy in the gravitational-wave background with pulsar-timing arrays and astrometry,”** S. C. Hotinli, M. Kamionkowski and A. H. Jaffe, *Open J. Astrophys.* (2019) [arXiv:1904.05348 [astro-ph.CO]].
243. **“Constraints on the primordial curvature power spectrum from primordial black holes,”** G. Sato-Polito, E. D. Kovetz and M. Kamionkowski *Phys. Rev. D* **100**, 063521 (2019) [arXiv:1904.10971 [astro-ph.CO]].
242. **“Reheating constraints to WIMP inflation,”** L. Ji and M. Kamionkowski. *Phys. Rev. D* **100**, no. 8, 083519 (2019) [arXiv:1905.05770 [astro-ph.CO]].
241. **“Cosmic Time Slip: Testing Gravity on Supergalactic Scales with Strong-Lensing Time Delays,”** D. Jyoti, J. B. Munoz, R. R. Caldwell and M. Kamionkowski, *Phys. Rev. D* **100**, 043031 (2019) [arXiv:1906.06324 [astro-ph.CO]].
240. **“Chiral photons from chiral gravitational waves,”** K. Inomata and M. Kamionkowski, *Phys. Rev. Lett.* **123**, 031305 (2019) [arXiv:1811.04959 [astro-ph.CO]].
239. **“Direct millicharged dark matter cannot explain EDGES,”** C. Creque-Sarbinowski, L. Ji, E. D. Kovetz and M. Kamionkowski, *Phys. Rev. D* **100**, 023528 (2019) [arXiv:1903.09154 [astro-ph.CO]].
238. **“Early Dark Energy Can Resolve The Hubble Tension,”** V. Poulin, T. L. Smith, T. Karwal and M. Kamionkowski, *Phys. Rev. Lett.* **122**, no. 22, 221301 (2019) (featured as an Editor’s Suggestion and *Physics Synopsis*) [arXiv:1811.04083 [astro-ph.CO]].
237. **“Pulsar-timing arrays, astrometry, and gravitational waves,”** W. Qin, K. K. Boddy, M. Kamionkowski and L. Dai, *Phys. Rev. D* **99**, 063002 (2019) [arXiv:1810.02369 [astro-ph.CO]].
236. **“Searching for Oscillations in the Primordial Power Spectrum with CMB and LSS Data,”** C. Zeng, E. D. Kovetz, X. Chen, J. B. Muñoz and M. Kamionkowski, *Phys. Rev. D* **99**, 043517 (2019) [arXiv:1812.05105 [astro-ph.CO]].
235. **“Primordial-black-hole mergers in dark-matter spikes,”** H. Nishikawa, E. D. Kovetz, M. Kamionkowski and J. Silk, *Phys. Rev. D* **99**, 043533 (2019) [arXiv:1708.08449 [astro-ph.CO]].
234. **“Circular polarization of the cosmic microwave background from vector and tensor perturbations,”** K. Inomata and M. Kamionkowski, *Phys. Rev. D* **99**, no. 4, 043501 (2019) [arXiv:1811.04957 [astro-ph.CO]].

233. **“A Critical Assessment of CMB Limits on Dark Matter-Baryon Scattering: New Treatment of the Relative Bulk Velocity,”** K. K. Boddy, V. Gluscevic, V. Poulin, E. D. Kovetz, M. Kamionkowski and R. Barkana, *Phys. Rev. D* **98**, no. 12, 123506 (2018) [arXiv:1808.00001 [astro-ph.CO]].
232. **“Where do the AMS-02 anti-helium events come from?”** V. Poulin, P. Salati, I. Cholis, M. Kamionkowski and J. Silk, *Phys. Rev. D* **99**, no. 2, 023016 (2019) [arXiv:1808.08961 [astro-ph.HE]].
231. **“Cross-correlations between scalar perturbations and magnetic fields in bouncing universes,”** D. Chowdhury, L. Sriramkumar and M. Kamionkowski, *JCAP* **01**, 048 (2019) [arXiv:1807.05530 [astro-ph.CO]].
230. **“Strong Lensing of Gamma Ray Bursts as a Probe of Compact Dark Matter,”** L. Ji, E. D. Kovetz and M. Kamionkowski, *Phys. Rev. D* **98**, 123523, no. 12 (2018) [arXiv:1809.09627 [astro-ph.CO]].
229. **“Tighter Limits on Dark Matter Explanations of the Anomalous EDGES 21cm Signal,”** E. D. Kovetz, V. Poulin, V. Gluscevic, K. K. Boddy, R. Barkana and M. Kamionkowski, *Phys. Rev. D* **98**, no. 10, 103529 (2018) [arXiv:1807.11482 [astro-ph.CO]].
228. **“Enhancing the cross-correlations between magnetic fields and scalar perturbations through parity violation,”** D. Chowdhury, L. Sriramkumar and M. Kamionkowski, *JCAP* **10**, 031 (2018) [arXiv:1807.07477 [astro-ph.CO]].
227. **“Cosmological implications of ultra-light axion-like fields,”** V. Poulin, T. L. Smith, D. Grin, T. Karwal and M. Kamionkowski, *Phys. Rev. D* **98**, no. 8, 083525 (2018) [arXiv:1806.10608 [astro-ph.CO]].
226. **“Searching for Decaying and Annihilating Dark Matter with Line Intensity Mapping,”** C. Creque-Sarbinowski and M. Kamionkowski, *Phys. Rev. D* **98**, no. 6, 063524 (2018) [arXiv:1806.11119 [astro-ph.CO]].
225. **“Studying the Milky Way Pulsar Population with Cosmic-Ray Leptons,”** I. Cholis, T. Karwal and M. Kamionkowski, *Phys. Rev. D* **98**, no. 6, 063008 (2018) [arXiv:1807.05230 [astro-ph.HE]].
224. **“Circular polarization in a spherical basis,”** M. Kamionkowski, *Phys. Rev. D* **97**, 123529 (2018) [arXiv:1804.06412 [astro-ph.CO]].
223. **“The implications of an extended dark energy cosmology with massive neutrinos for cosmological tensions,”** V. Poulin, K. K. Boddy, S. Bird and M. Kamionkowski, *Phys. Rev. D* **97**, 123504 (2018) [arXiv:1803.02474 [astro-ph.CO]].
222. **“Limits on Runaway Growth of Intermediate Mass Black Holes from Advanced LIGO,”** E. D. Kovetz, I. Cholis, M. Kamionkowski and J. Silk, *Phys. Rev. D* **97**, 123003 (2018) [arXiv:1803.00568 [astro-ph.HE]].
221. **“Features in the Spectrum of Cosmic-Ray Positrons from Pulsars,”** I. Cholis, T. Karwal and M. Kamionkowski, *Phys. Rev. D* **97**, 123011 (2018) [arXiv:1712.00011 [astro-ph.HE]].
220. **“The merger rate of primordial-black-hole binaries,”** Y. Ali-Haïmoud, E. D. Kovetz and M. Kamionkowski, *Phys. Rev. D* **96**, 123523 (2017) [arXiv:1709.06576 [astro-ph.CO]].
219. **“Large-Distance Lens Uncertainties and Time-Delay Measurements of  $H_0$ ,”** J. B. Muñoz and M. Kamionkowski, *Phys. Rev. D* **96**, 103537 (2017) [arXiv:1708.08454 [astro-ph.CO]].
218. **“Shedding light on the small-scale crisis with CMB spectral distortions,”** T. Nakama, J. Chluba and M. Kamionkowski, *Phys. Rev. D* **95**, 121302(R) (2017) (Editor’s suggestion, and featured as a *Physics Synopsis*) [arXiv:1703.10559 [astro-ph.CO]].

217. **“Black Hole Mass Function from Gravitational Wave Measurements,”** E. D. Kovetz, I. Cholis, P. C. Breysse and M. Kamionkowski, *Phys. Rev. D.* **95**, 103010 (2017) [arXiv:1611.01157 [astro-ph.CO]].
216. **“Towards a measurement of the spectral runnings,”** J. B. Muñoz, E. D. Kovetz, A. Raccanelli, M. Kamionkowski and J. Silk, *JCAP* **1705**, 032 (2017) [arXiv:1611.05883 [astro-ph.CO]].
215. **“Dust polarization and ISM turbulence,”** R. R. Caldwell, C. Hirata and M. Kamionkowski, *Astrophys. J.* **839**, 91 (2017) [arXiv:1608.08138 [astro-ph.GA]].
214. **“Cosmic microwave background limits on accreting primordial black holes,”** Y. Ali-Haïmoud and M. Kamionkowski, *Phys. Rev. D* **95**, no. 4, 043534 (2017) (Editor’s Suggestion) [arXiv:1612.05644 [astro-ph.CO]].
213. **“Stochastic gravitational waves associated with the formation of primordial black holes,”** T. Nakama, J. Silk and M. Kamionkowski, *Phys. Rev. D.* **95**, no. 4, 043511 (2017) [arXiv:1612.06264 [astro-ph.CO]].
212. **“Insights from probability distribution functions of intensity maps,”** P. C. Breysse, E. D. Kovetz, P. S. Behroozi, L. Dai and M. Kamionkowski, *Mon. Not. R. Astron. Soc.* **467**, 2996 [arXiv:1609.01728 [astro-ph.CO]].
211. **“Ultra-high-energy-cosmic-ray hot spots from tidal disruption events,”** D. N. Pfeffer, E. D. Kovetz and M. Kamionkowski, *Mon. Not. R. Astron. Soc.* **466**, 2922 (2017) [arXiv:1512.04959 [astro-ph.HE]].
210. **“Evolution of CMB spectral distortion anisotropies and tests of primordial non-Gaussianity,”** J. Chluba, E. Dimastrogiovanni, M. A. Amin and M. Kamionkowski, *Mon. Not. R. Astron. Soc.* **466**, 2390 (2017) [arXiv:1610.08711 [astro-ph.CO]].
209. **“Early dark energy, the Hubble-parameter tension, and the string axiverse,”** T. Karwal and M. Kamionkowski, *Phys. Rev. D* **94**, no. 10, 103523 (2016) [arXiv:1608.01309 [astro-ph.CO]].
208. **“Orbital eccentricities in primordial black holes binaries,”** I. Cholis, E. D. Kovetz, Y. Ali-Haïmoud, S. Bird, M. Kamionkowski, J. B. Muñoz and A. Raccanelli, *Phys. Rev. D* **94**, no. 8, 084013 (2016) [arXiv:1606.07437 [astro-ph.HE]].
207. **“Cross-correlation between thermal Sunyaev-Zeldovich effect and the integrated Sachs-Wolfe effect,”** C. Creque-Sarbinowski, S. Bird and M. Kamionkowski, *Phys. Rev. D* **94**, 063519 [arXiv:1606.00839 [astro-ph.CO]].
206. **“Lensing of Fast Radio Bursts as a Probe of Compact Dark Matter,”** J. B. Muñoz, E. D. Kovetz, L. Dai and M. Kamionkowski, *Phys. Rev. Lett.* **117**, 091301 (2016) (Editor’s Suggestion) [arXiv:1605.00008 [astro-ph.CO]].
205. **“Curvature constraints from Large Scale Structure,”** E. Di Dio, F. Montanari, A. Raccanelli, R. Durrer, M. Kamionkowski and J. Lesgourgues, *JCAP* **1606**, no. 06, 013 (2016) [arXiv:1603.09073 [astro-ph.CO]].
204. **“Violation of statistical isotropy and homogeneity in the 21-cm power spectrum,”** M. Shiraishi, J. B. Muñoz, M. Kamionkowski and A. Raccanelli, *Phys. Rev. D* **93**, no. 10, 103506 (2016) [arXiv:1603.01206 [astro-ph.CO]].
203. **“Did LIGO detect dark matter?”** S. Bird, I. Cholis, J. B. Muñoz, Y. Ali-Haïmoud, M. Kamionkowski, E. D. Kovetz, A. Raccanelli and A. G. Riess, *Phys. Rev. Lett.* **116**, 201301 (2016) (Featured as a *Physics* Synopsis) [arXiv:1603.00464 [astro-ph.CO]].
202. **“Cosmological tests of an axiverse-inspired quintessence field,”** R. Emami, D. Grin, J. Pradler, A. Raccanelli and M. Kamionkowski, *Phys. Rev. D* **93**, no. 12, 123005 (2016) [arXiv:1603.04851 [astro-ph.CO]]. (Mar 15, 2016)

201. **"Search for Compensated Isocurvature Perturbations with Planck Power Spectra,"** J. B. Muñoz, D. Grin, L. Dai, M. Kamionkowski and E. D. Kovetz, *Phys. Rev. D* **93**, 043008 (2016) [arXiv:1511.04441 [astro-ph.CO]].
200. **"The high redshift star-formation history from carbon-monoxide intensity maps,"** P. C. Breysse, E. D. Kovetz and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **457**, L127 (2016) [arXiv:1507.06304 [astro-ph.CO]].
199. **"Antisymmetric galaxy cross-correlations as a cosmological probe,"** L. Dai, M. Kamionkowski, E. D. Kovetz, A. Raccanelli and M. Shiraishi, *Phys. Rev. D* **93**, 023507 (2016) [arXiv:1507.05618 [astro-ph.CO]].
198. **"Constraints on Dark Matter Interactions with Standard Model Particles from Cosmic Microwave Background Spectral Distortions,"** Y. Ali-Haïmoud, J. Chluba and M. Kamionkowski, *Phys. Rev. Lett.* **115**, 071304 (2015) [arXiv:1506.04745 [astro-ph.CO]].
197. **"Primordial non-gaussianity from the bispectrum of 21-cm fluctuations in the dark ages,"** J. B. Muñoz, Y. Ali-Haïmoud and M. Kamionkowski, *Phys. Rev. D* **92**, 083508 (2015) (Editor's Suggestion) [arXiv:1506.04152 [astro-ph.CO]].
196. **"Imprints of Massive Primordial Fields on Large-Scale Structure,"** E. Dimastrogiovanni, M. Fasiello and M. Kamionkowski, *JCAP* **1602**, 017 (2016) [arXiv:1504.05993 [astro-ph.CO]].
195. **"Probing the scale dependence of non-Gaussianity with spectral distortions of the cosmic microwave background,"** R. Emami, E. Dimastrogiovanni, J. Chluba and M. Kamionkowski, *Phys. Rev. D* **91**, 123531 (2015) [arXiv:1504.00675 [astro-ph.CO]].
194. **"Masking line foregrounds in intensity mapping surveys,"** P. C. Breysse, E. D. Kovetz and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **452**, 3408 (2015) [arXiv:1503.05202 [astro-ph.CO]].
193. **"Detecting the integrated Sachs-Wolfe effect with high-redshift 21-cm surveys,"** A. Raccanelli, E. Kovetz, L. Dai and M. Kamionkowski, *Phys. Rev. D* **93**, 083512 (2016) [arXiv:1502.03107 [astro-ph.CO]].
192. **"Strategy to minimize dust foregrounds in B-mode searches,"** E. D. Kovetz and M. Kamionkowski, *Phys. Rev. D* **91**, 081303 (2015) [arXiv:1502.00625 [astro-ph.CO]].
191. **"An Ultimate Target for Dark Matter Searches,"** K. Blum, Y. Cui and M. Kamionkowski, *Phys. Rev. D* **92**, 023528 (2015) [arXiv:1412.3463 [hep-ph]].
190. **"Equation-of-State Parameter for Reheating,"** J. B. Muñoz and M. Kamionkowski, *Phys. Rev. D* **91**, 043521 (2015) [arXiv:1412.0656 [astro-ph.CO]].
189. **"Dark energy from the string axiverse,"** M. Kamionkowski, J. Pradler and D. G. E. Walker, *Phys. Rev. Lett.* **113**, 251302 (2014) [arXiv:1409.0549 [hep-ph]].
188. **"The redshift-space galaxy two-point correlation function and baryon acoustic oscillations,"** D. Jeong, L. Dai, M. Kamionkowski and A. S. Szalay, *Mon. Not. Roy. Astron. Soc.* **449**, 3312 (2015) [arXiv:1408.4648 [astro-ph.CO]].
187. **"Statistical diagnostics to identify Galactic foregrounds in B-mode maps,"** M. Kamionkowski and E. D. Kovetz, *Phys. Rev. Lett.* **113**, 191303 (2014) (Featured as a *Physics Synopsis*) [arXiv:1408.4125 [astro-ph.CO]].
186. **"Inflationary tensor fossils in large-scale structure,"** E. Dimastrogiovanni, M. Fasiello, D. Jeong and M. Kamionkowski, *JCAP* **1412**, 050 (2014) [arXiv:1407.8204 [astro-ph.CO]].

185. **"Spectral distortions from the dissipation of tensor perturbations,"** J. Chluba, L. Dai, D. Grin, M. Amin and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **446**, 2871 (2015) [arXiv:1407.3653 [astro-ph.CO]].
184. **"Carbon Monoxide Intensity Mapping at Moderate Redshifts,"** P. C. Breysse, E. D. Kovetz and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **443**, 3506 (2014) [arXiv:1405.0489 [astro-ph.CO]].
183. **"Reheating constraints to inflationary models,"** L. Dai, M. Kamionkowski and J. Wang, *Phys. Rev. Lett.* **113**, 041302 (2014) [arXiv:1404.6704 [astro-ph.CO]].
182. **"Tensor-induced B modes with no temperature fluctuations,"** M. Kamionkowski, L. Dai and D. Jeong, *Phys. Rev. D* **89**, 107302 (2014) [arXiv:1404.3730 [astro-ph.CO]].
181. **"Linking the BICEP2 result and the hemispherical power asymmetry through spatial variation of  $r$ ,"** J. Chluba, L. Dai, D. Jeong, M. Kamionkowski and A. Yoho, *Mon. Not. Roy. Astron. Soc.* **442**, 670 (2014) [arXiv:1404.2798 [astro-ph.CO]].
180. **"Silk damping at a redshift of a billion: a new limit on small-scale adiabatic perturbations,"** D. Jeong, J. Pradler, J. Chluba and M. Kamionkowski, *Phys. Rev. Lett.* **113**, 061301 (2014) [arXiv:1403.3697 [astro-ph.CO]].
179. **"Constraining Dark Matter-Baryon Scattering with Linear Cosmology,"** C. Dvorkin, K. Blum and M. Kamionkowski, *Phys. Rev. D* **89**, 023519 (2014) [arXiv:1311.2937 [astro-ph.CO]].
178. **"The effect of aberration on partial-sky measurements of the cosmic microwave background temperature power spectrum,"** D. Jeong, J. Chluba, L. Dai, M. Kamionkowski and X. Wang, *Phys. Rev. D* **89**, 023003 (2014) [arXiv:1309.2285 [astro-ph.CO]].
177. **"Multiple scattering Sunyaev-Zeldovich signal I: lowest order effect,"** J. Chluba, L. Dai and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **437**, 67 (2014) [arXiv:1308.5969 [astro-ph.CO]].
176. **"Cosmic Bandits: Exploration versus Exploitation in CMB B-Mode Experiments,"** E. D. Kovetz and M. Kamionkowski, *New Astron.* **43**, 26 (2016) [arXiv:1308.1404 [astro-ph.IM]].
175. **"Baryons do trace dark matter 380,000 years after the big bang: Search for compensated isocurvature perturbations with WMAP 9-year data,"** D. Grin, D. Hanson, G. P. Holder, O. Doré and M. Kamionkowski, *Phys. Rev. D* **89**, 023006 (2014) [arXiv:1306.4319 [astro-ph.CO]].
174. **"Anisotropic imprint of long-wavelength tensor perturbations on cosmic structure,"** L. Dai, D. Jeong and M. Kamionkowski, *Phys. Rev. D* **88**, 043507 (2013) [arXiv:1306.3985 [astro-ph.CO]].
173. **"Oscillations and stability of polytropic filaments,"** P. C. Breysse, M. Kamionkowski and A. Benson, *Mon. Not. Roy. Astron. Soc.* **437**, 2675 (2014) [arXiv:1305.2198 [astro-ph.CO]].
172. **"The Pesky Power Asymmetry,"** L. Dai, D. Jeong, M. Kamionkowski and J. Chluba, *Phys. Rev. D* **87**, 123005 (2013) [arXiv:1303.6949 [astro-ph.CO]].
171. **"Seeking Inflation Fossils in the Cosmic Microwave Background,"** L. Dai, D. Jeong and M. Kamionkowski, *Phys. Rev. D* **87**, 103006 (2013) [arXiv:1302.1868 [astro-ph.CO]].
170. **"What if Planck's Universe isn't flat?"** P. Bull and M. Kamionkowski, *Phys. Rev. D* **87**, 081301 (2013), Erratum: [*Phys. Rev. D* **87**, 129901 (2013)] [arXiv:1302.1617 [astro-ph.CO]].
169. **"Wigner-Eckart theorem in cosmology: Bispectra for total-angular-momentum waves,"** L. Dai, D. Jeong and M. Kamionkowski, *Phys. Rev. D* **87**, 043504 (2013) [arXiv:1211.6110 [astro-ph.CO]].



168. **"21-cm Lensing and the Cold Spot in the Cosmic Microwave Background,"** E. D. Kovetz and M. Kamionkowski, *Phys. Rev. Lett.* **110**, 171301 (2013) [arXiv:1211.4610 [astro-ph.CO]].
167. **"Improved estimator for non-Gaussianity in cosmic microwave background observations,"** T. L. Smith, D. Grin and M. Kamionkowski, *Phys. Rev. D* **87**, 063003 (2013) [arXiv:1211.3417 [astro-ph.CO]].
166. **"Patchy Screening of the Cosmic Microwave Background by Inhomogeneous Reionization,"** V. Gluscevic, M. Kamionkowski and D. Hanson, *Phys. Rev. D* **87**, 047303 (2013) [arXiv:1210.5507 [astro-ph.CO]].
165. **"Galaxy-Cluster Masses via 21st-Century Measurements of Lensing of 21-cm Fluctuations,"** E. D. Kovetz and M. Kamionkowski, *Phys. Rev. D* **87**, 063516 (2013) [arXiv:1210.3041 [astro-ph.CO]].
164. **"Total Angular Momentum Waves for Scalar, Vector, and Tensor Fields,"** L. Dai, M. Kamionkowski and D. Jeong, *Phys. Rev. D* **86**, 125013 (2012) [arXiv:1209.0761 [astro-ph.CO]].
163. **"Vacuum Instability in Chern-Simons Gravity,"** S. Dyda, E. E. Flanagan and M. Kamionkowski, *Phys. Rev. D* **86**, 124031 (2012) [arXiv:1208.4871 [gr-qc]].
162. **"First CMB Constraints on Direction-Dependent Cosmological Birefringence from WMAP-7,"** V. Gluscevic, D. Hanson, M. Kamionkowski and C. M. Hirata, *Phys. Rev. D* **86**, 103529 (2012) [arXiv:1206.5546 [astro-ph.CO]].
161. **"The probability distribution for non-Gaussianity estimators constructed from the CMB trispectrum,"** T. L. Smith and M. Kamionkowski, *Phys. Rev. D* **86**, 063009 (2012) [arXiv:1203.6654 [astro-ph.CO]].
160. **"Clustering Fossils from the Early Universe,"** D. Jeong and M. Kamionkowski, *Phys. Rev. Lett.* **108**, 251301 (2012) [arXiv:1203.0302 [astro-ph.CO]].
159. **"Dark Matter Detection with Polarized Detectors,"** C. T. Chiang, M. Kamionkowski and G. Z. Krnjaic, *Phys. Dark Univ.* **1**, 109 (2012) [arXiv:1202.1807 [astro-ph.CO]].
158. **"Improved constraints on the expansion rate of the Universe up to  $z$  1.1 from the spectroscopic evolution of cosmic chronometers,"** M. Moresco *et al.*, *JCAP* **1208**, 006 (2012) [arXiv:1201.3609 [astro-ph.CO]].
157. **"Lensing of 21-cm Fluctuations by Primordial Gravitational Waves,"** L. Book, M. Kamionkowski and F. Schmidt, *Phys. Rev. Lett.* **108**, 211301 (2012) [arXiv:1112.0567 [astro-ph.CO]].
156. **"Charged Particle Decay at Finite Temperature,"** A. Czarnecki, M. Kamionkowski, S. K. Lee and K. Melnikov, *Phys. Rev. D* **85**, 025018 (2012) [arXiv:1110.2171 [hep-ph]].
155. **"Correlation of inflation-produced magnetic fields with scalar fluctuations,"** R. R. Caldwell, L. Motta and M. Kamionkowski, *Phys. Rev. D* **84**, 123525 (2011) [arXiv:1109.4415 [astro-ph.CO]].
154. **"Odd-Parity Bipolar Spherical Harmonics,"** L. G. Book, M. Kamionkowski and T. Souradeep, *Phys. Rev. D* **85**, 023010 (2012) [arXiv:1109.2910 [astro-ph.CO]].
153. **"Compensated Isocurvature Perturbations and the Cosmic Microwave Background,"** D. Grin, O. Dore and M. Kamionkowski, *Phys. Rev. D* **84**, 123003 (2011) [arXiv:1107.5047 [astro-ph.CO]].
152. **"Do baryons trace dark matter in the early universe?"** D. Grin, O. Dore and M. Kamionkowski, *Phys. Rev. Lett.* **107**, 261301 (2011) [arXiv:1107.1716 [astro-ph.CO]].
151. **"Cross-Correlation of Cosmological Birefringence with CMB Temperature,"** R. R. Caldwell, V. Gluscevic and M. Kamionkowski, *Phys. Rev. D* **84**, 043504 (2011) [arXiv:1104.1634 [astro-ph.CO]].

150. **"The Probability Distribution for Non-Gaussianity Estimators,"** T. L. Smith, M. Kamionkowski and B. D. Wandelt, *Phys. Rev. D* **84**, 063013 (2011) [arXiv:1104.0930 [astro-ph.CO]].
149. **"Metals at the surface of last scatter,"** Y. Ali-Haïmoud, C. M. Hirata and M. Kamionkowski, *Phys. Rev. D* **83**, 083508 (2011) [arXiv:1102.0004 [astro-ph.CO]].
148. **"The Odd-Parity CMB Bispectrum,"** M. Kamionkowski and T. Souradeep, *Phys. Rev. D* **83**, 027301 (2011) [arXiv:1010.4304 [astro-ph.CO]].
147. **"The CMB Bispectrum, Trispectrum, non-Gaussianity, and the Cramer-Rao Bound,"** M. Kamionkowski, T. L. Smith and A. Heavens, *Phys. Rev. D* **83**, 023007 (2011) [arXiv:1010.0251 [astro-ph.CO]].
146. **"Halo Clustering with Non-Local Non-Gaussianity,"** F. Schmidt and M. Kamionkowski, *Phys. Rev. D* **82**, 103002 (2010) [arXiv:1008.0638 [astro-ph.CO]].
145. **"Light Gravitinos at Colliders and Implications for Cosmology,"** J. L. Feng, M. Kamionkowski and S. K. Lee, *Phys. Rev. D* **82**, 015012 (2010) [arXiv:1004.4213 [hep-ph]].
144. **"Non-Uniform Cosmological Birefringence and Active Galactic Nuclei,"** M. Kamionkowski, *Phys. Rev. D* **82**, 047302 (2010) [arXiv:1004.3544 [astro-ph.CO]].
143. **"Non-Gaussianity from Self-Ordering Scalar Fields,"** D. G. Figueroa, R. R. Caldwell and M. Kamionkowski, *Phys. Rev. D* **81**, 123504 (2010) [arXiv:1003.0672 [astro-ph.CO]].
142. **"Dark-Matter Decays and Self-Gravitating Halos,"** A. H. G. Peter, C. E. Moody and M. Kamionkowski, *Phys. Rev. D* **81**, 103501 (2010) [arXiv:1003.0419 [astro-ph.CO]].
141. **"Testing Parity-Violating Mechanisms with Cosmic Microwave Background Experiments,"** V. Gluscevic and M. Kamionkowski, *Phys. Rev. D* **81**, 123529 (2010) [arXiv:1002.1308 [astro-ph.CO]].
140. **"Galactic Substructure and Dark Matter Annihilation in the Milky Way Halo,"** M. Kamionkowski, S. M. Koushiappas and M. Kuhlen, *Phys. Rev. D* **81**, 043532 (2010) [arXiv:1001.3144 [astro-ph.GA]].
139. **"Neutrino Oscillations, Lorentz/CPT Violation, and Dark Energy,"** S. Ando, M. Kamionkowski and I. Mocioiu, *Phys. Rev. D* **80**, 123522 (2009) [arXiv:0910.4391 [hep-ph]].
138. **"Galactic Substructure and Energetic Neutrinos from the Sun and the Earth,"** S. M. Koushiappas and M. Kamionkowski, *Phys. Rev. Lett.* **103**, 121301 (2009) [arXiv:0907.4778 [astro-ph.CO]].
137. **"Cosmic Chronometers: Constraining the Equation of State of Dark Energy. II. A Spectroscopic Catalog of Red Galaxies in Galaxy Clusters,"** D. Stern, R. Jimenez, L. Verde, S. A. Stanford and M. Kamionkowski, *Astrophys. J. Suppl.* **188**, 280 (2010) [arXiv:0907.3152 [astro-ph.CO]].
136. **"Cosmic Chronometers: Constraining the Equation of State of Dark Energy. I: H(z) Measurements,"** D. Stern, R. Jimenez, L. Verde, M. Kamionkowski and S. A. Stanford, *JCAP* **1002**, 008 (2010) [arXiv:0907.3149 [astro-ph.CO]].
135. **"A Scale-Dependent Power Asymmetry from Isocurvature Perturbations,"** A. L. Erickcek, C. M. Hirata and M. Kamionkowski, *Phys. Rev. D* **80**, 083507 (2009) [arXiv:0907.0705 [astro-ph.CO]].
134. **"De-Rotation of the Cosmic Microwave Background Polarization: Full-Sky Formalism,"** V. Gluscevic, M. Kamionkowski and A. Cooray, *Phys. Rev. D* **80**, 023510 (2009) [arXiv:0905.1687 [astro-ph.CO]].
133. **"Dark Matter and Dark Radiation,"** L. Ackerman, M. R. Buckley, S. M. Carroll and M. Kamionkowski, *Phys. Rev. D* **79**, 023519 (2009) [arXiv:0810.5126 [hep-ph]].

132. **“Early Annihilation and Diffuse Backgrounds in Models of Weakly Interacting Massive Particles in Which the Cross Section for Pair Annihilation Is Enhanced by  $1/v$ ,”** M. Kamionkowski and S. Profumo, *Phys. Rev. Lett.* **101**, 261301 (2008) [arXiv:0810.3233 [astro-ph]].
131. **“How to De-Rotate the Cosmic Microwave Background Polarization,”** M. Kamionkowski, *Phys. Rev. Lett.* **102**, 111302 (2009) [arXiv:0810.1286 [astro-ph]].
130. **“The Gamma-Ray-Flux Probability Distribution Function from Galactic Halo Substructure,”** S. K. Lee, S. Ando and M. Kamionkowski, *JCAP* **0907**, 007 (2009) [arXiv:0810.1284 [astro-ph]].
129. **“Can proper motions of dark-matter subhalos be detected?”** S. Ando, M. Kamionkowski, S. K. Lee and S. M. Koushiappas, *Phys. Rev. D* **78**, 101301 (2008) [arXiv:0809.0886 [astro-ph]].
128. **“The Void Abundance with Non-Gaussian Primordial Perturbations,”** M. Kamionkowski, L. Verde and R. Jimenez, *JCAP* **0901**, 010 (2009) [arXiv:0809.0506 [astro-ph]].
127. **“The New DAMA Dark-Matter Window and Energetic-Neutrino Searches,”** D. Hooper, F. Petriello, K. M. Zurek and M. Kamionkowski, *Phys. Rev. D* **79**, 015010 (2009) [arXiv:0808.2464 [hep-ph]].
126. **“Superhorizon Perturbations and the Cosmic Microwave Background,”** A. L. Erickcek, S. M. Carroll and M. Kamionkowski, *Phys. Rev. D* **78**, 083012 (2008) [arXiv:0808.1570 [astro-ph]].
125. **“Oscillations in the inflaton potential?”** C. Pahud, M. Kamionkowski and A. R. Liddle, *Phys. Rev. D* **79**, 083503 (2009) [arXiv:0807.0322 [astro-ph]].
124. **“A Hemispherical Power Asymmetry from Inflation,”** A. L. Erickcek, M. Kamionkowski and S. M. Carroll, *Phys. Rev. D* **78**, 123520 (2008) [arXiv:0806.0377 [astro-ph]].
123. **“Very Broad [O III]4959,5007 Emission from the NGC 4472 Globular Cluster RZ2109 and Implications for the Mass of Its Black Hole X-ray Source,”** S. E. Zepf *et al.*, *Astrophys. J.* **683**, L139 (2008) [arXiv:0805.2952 [astro-ph]].
122. **“Dynamical and Gravitational Instability of Oscillating-Field Dark Energy and Dark Matter,”** M. C. Johnson and M. Kamionkowski, *Phys. Rev. D* **78**, 063010 (2008) [arXiv:0805.1748 [astro-ph]].
121. **“The inflationary gravitational-wave background and measurements of the scalar spectral index,”** T. L. Smith, M. Kamionkowski and A. Cooray, *Phys. Rev. D* **78**, 083525 (2008) [arXiv:0802.1530 [astro-ph]].
120. **“Galactic substructure and direct detection of dark matter,”** M. Kamionkowski and S. M. Koushiappas, *Phys. Rev. D* **77**, 103509 (2008) [arXiv:0801.3269 [astro-ph]].
119. **“Axion constraints in non-standard thermal histories,”** D. Grin, T. L. Smith and M. Kamionkowski, *Phys. Rev. D* **77**, 085020 (2008) [arXiv:0711.1352 [astro-ph]].
118. **“Nonlinear Evolution of Anisotropic Cosmological Power,”** S. Ando and M. Kamionkowski, *Phys. Rev. Lett.* **100**, 071301 (2008) [arXiv:0711.0779 [astro-ph]].
117. **“Cosmic Microwave Background Statistics for a Direction-Dependent Primordial Power Spectrum,”** A. R. Pullen and M. Kamionkowski, *Phys. Rev. D* **76**, 103529 (2007) [arXiv:0709.1144 [astro-ph]].
116. **“The Effects of Chern-Simons gravity on bodies orbiting the Earth,”** T. L. Smith, A. L. Erickcek, R. R. Caldwell and M. Kamionkowski, *Phys. Rev. D* **77**, 024015 (2008) [arXiv:0708.0001 [astro-ph]].
115. **“Red Density Perturbations and Inflationary Gravitational Waves,”** L. Pagano, A. Cooray, A. Melchiorri and M. Kamionkowski, *JCAP* **0804**, 009 (2008) [arXiv:0707.2560 [astro-ph]].

114. **"Constraints on radiative dark-matter decay from the cosmic microwave background,"** L. Zhang, X. Chen, M. Kamionkowski, Z. g. Si and Z. Zheng, *Phys. Rev. D* **76**, 061301 (2007) [arXiv:0704.2444 [astro-ph]].
113. **"A Telescope Search for Decaying Relic Axions,"** D. Grin, G. Covone, J. P. Kneib, M. Kamionkowski, A. Blain and E. Jullo, *Phys. Rev. D* **75**, 105018 (2007) [arXiv:astro-ph/0611502].
112. **"Solar System tests do rule out  $1/R$  gravity,"** A. L. Erickcek, T. L. Smith and M. Kamionkowski, *Phys. Rev. D* **74**, 121501 (2006) [arXiv:astro-ph/0610483].
111. **"Search with EGRET for a Gamma Ray Line from the Galactic Center,"** A. R. Pullen, R. R. Chary and M. Kamionkowski, *Phys. Rev. D* **76**, 063006 (2007), Erratum: [*Phys. Rev. D* **83**, 029904 (2011)] [arXiv:astro-ph/0610295].
110. **"Tidal Tails Test the Equivalence Principle in the Dark Sector,"** M. Kesden and M. Kamionkowski, *Phys. Rev. D* **74**, 083007 (2006) [arXiv:astro-ph/0608095].
109. **"Galilean Equivalence for Galactic Dark Matter,"** M. Kesden and M. Kamionkowski, *Phys. Rev. Lett.* **97**, 131303 (2006) [arXiv:astro-ph/0606566].
108. **"Cosmological bounds on dark matter-neutrino interactions,"** G. Mangano, A. Melchiorri, P. Serra, A. Cooray and M. Kamionkowski, *Phys. Rev. D* **74**, 043517 (2006) [arXiv:astro-ph/0606190].
107. **"Galaxy surveys, inhomogeneous reionization, and dark energy,"** J. R. Pritchard, S. R. Furlanetto and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **374**, 159 (2007) [arXiv:astro-ph/0604358].
106. **"Supermassive Black Hole Merger Rates: Uncertainties from Halo Merger Theory,"** A. L. Erickcek, M. Kamionkowski and A. J. Benson, *Mon. Not. Roy. Astron. Soc.* **371**, 1992 (2006) [arXiv:astro-ph/0604281].
105. **"What mass are the smallest protohalos?"** S. Profumo, K. Sigurdson and M. Kamionkowski, *Phys. Rev. Lett.* **97**, 031301 (2006) [arXiv:astro-ph/0603373].
104. **"A new cosmic microwave background constraint to primordial gravitational waves,"** T. L. Smith, E. Pierpaoli and M. Kamionkowski, *Phys. Rev. Lett.* **97**, 021301 (2006) [arXiv:astro-ph/0603144].
103. **"Dark matter and the cactus gamma-ray excess from Draco,"** S. Profumo and M. Kamionkowski, *JCAP* **0603**, 003 (2006) [arXiv:astro-ph/0601249].
102. **"Cluster magnetic fields from large-scale-structure and galaxy-cluster shocks,"** M. V. Medvedev, L. O. Silva and M. Kamionkowski, *Astrophys. J.* **642**, L1 (2006) [arXiv:astro-ph/0512079].
101. **"Pair correlations and merger bias,"** S. R. Furlanetto and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **366**, 529 (2006) [arXiv:astro-ph/0507650].
100. **"Dynamical friction and cooling flows in galaxy clusters,"** W. T. Kim, A. A. El-Zant and M. Kamionkowski, *Astrophys. J.* **632**, 157 (2005) [arXiv:astro-ph/0506579].
99. **"Direct detection of the inflationary gravitational wave background,"** T. L. Smith, M. Kamionkowski and A. Cooray, *Phys. Rev. D* **73**, 023504 (2006) [arXiv:astro-ph/0506422].
98. **"Cosmic shear of the microwave background: The Curl diagnostic,"** A. Cooray, M. Kamionkowski and R. R. Caldwell, *Phys. Rev. D* **71**, 123527 (2005) [arXiv:astro-ph/0503002].
97. **"Cosmic microwave background fluctuations from gravitational waves: An Analytic approach,"** J. R. Pritchard and M. Kamionkowski, *Annals Phys.* **318**, 2 (2005) [arXiv:astro-ph/0412581].

96. **"Highly-ionized oxygen absorbers in the intergalactic medium,"** S. Furlanetto, L. A. Phillips and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **359**, 295 (2005) [arXiv:astro-ph/0412351].
95. **"Gravitational-wave signature of an inspiral into a supermassive horizonless object,"** M. Kesden, J. Gair and M. Kamionkowski, *Phys. Rev. D* **71**, 044015 (2005) [arXiv:astro-ph/0411478].
94. **"A Running spectral index in supersymmetric dark-matter models with quasi-stable charged particles,"** S. Profumo, K. Sigurdson, P. Ullio and M. Kamionkowski, *Phys. Rev. D* **71**, 023518 (2005) [arXiv:astro-ph/0410714].
93. **"Self-consistent theory of halo mergers,"** A. J. Benson, M. Kamionkowski and S. H. Hassani, *Mon. Not. Roy. Astron. Soc.* **357**, 847 (2005) [arXiv:astro-ph/0407136].
92. **"Dark-matter electric and magnetic dipole moments,"** K. Sigurdson, M. Doran, A. Kurylov, R. R. Caldwell and M. Kamionkowski, *Phys. Rev. D* **70**, 083501 (2004), Erratum: [*Phys. Rev. D* **73**, 089903 (2006)] [arXiv:astro-ph/0406355].
91. **"Dynamical - friction galaxy - gas coupling and cluster cooling flows,"** A. A. El-Zant, W. T. Kim and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **354**, 169 (2004) [arXiv:astro-ph/0403696].
90. **"Expansion, geometry, and gravity,"** R. R. Caldwell and M. Kamionkowski, *JCAP* **0409**, 009 (2004) [arXiv:astro-ph/0403003].
89. **"Charged - particle decay and suppression of small - scale power,"** K. Sigurdson and M. Kamionkowski, *Phys. Rev. Lett.* **92**, 171302 (2004) [arXiv:astro-ph/0311486].
88. **"Particle decays during the cosmic dark ages,"** X. L. Chen and M. Kamionkowski, *Phys. Rev. D* **70**, 043502 (2004) [arXiv:astro-ph/0310473].
87. **"New contribution to wimp-nucleus scattering,"** G. Prezeau, A. Kurylov, M. Kamionkowski and P. Vogel, *Phys. Rev. Lett.* **91**, 231301 (2003) [arXiv:astro-ph/0309115].
86. **"Generalized analysis of weakly interacting massive particle searches,"** A. Kurylov and M. Kamionkowski, *Phys. Rev. D* **69**, 063503 (2004) [arXiv:hep-ph/0307185].
85. **"Can cosmic shear shed light on low cosmic microwave background multipoles?"** M. H. Kesden, M. Kamionkowski and A. Cooray, *Phys. Rev. Lett.* **91**, 221302 (2003) [arXiv:astro-ph/0306597].
84. **"Spatial variation of the fine - structure parameter and the cosmic microwave background,"** K. Sigurdson, A. Kurylov and M. Kamionkowski, *Phys. Rev. D* **68**, 103509 (2003) [arXiv:astro-ph/0306372].
83. **"Sunyaev-Zeldovich fluctuations from the first stars?"** S. P. Oh, A. Cooray and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **342**, L20 (2003) [arXiv:astro-ph/0303007].
82. **"Lensing reconstruction with CMB temperature and polarization,"** M. H. Kesden, A. Cooray and M. Kamionkowski, *Phys. Rev. D* **67**, 123507 (2003) [arXiv:astro-ph/0302536].
81. **"Phantom energy and cosmic doomsday,"** R. R. Caldwell, M. Kamionkowski and N. N. Weinberg, *Phys. Rev. Lett.* **91**, 071301 (2003) [arXiv:astro-ph/0302506].
80. **"Aspects of the cosmic microwave background dipole,"** M. Kamionkowski and L. Knox, *Phys. Rev. D* **67**, 063001 (2003) [arXiv:astro-ph/0210165].
79. **"Constraining dark energy from the abundance of weak gravitational lenses,"** N. N. Weinberg and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **341**, 251 (2003) [arXiv:astro-ph/0210134].
78. **"Small - scale cosmic microwave background polarization from reionization,"** D. Baumann, A. Cooray and M. Kamionkowski, *New Astron.* **8**, 565 (2003) [arXiv:astro-ph/0208511].

77. **"Weak lensing of the CMB: Cumulants of the probability distribution function,"** M. H. Kesden, A. Cooray and M. Kamionkowski, *Phys. Rev. D* **66**, 083007 (2002) [arXiv:astro-ph/0208325].
76. **"Finding black holes with microlensing,"** E. Agol, M. Kamionkowski, L. V. E. Koopmans and R. D. Blandford, *Astrophys. J.* **576**, L131 (2002) [arXiv:astro-ph/0203257].
75. **"Weak gravitational lensing by dark clusters,"** N. N. Weinberg and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **337**, 1269 (2002) [arXiv:astro-ph/0203061].
74. **"The Contribution of the first stars to the cosmic infrared background,"** M. R. Santos, V. Bromm and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **336**, 1082 (2002) [arXiv:astro-ph/0111467].
73. **"Separation of gravitational wave and cosmic shear contributions to cosmic microwave background polarization,"** M. Kesden, A. Cooray and M. Kamionkowski, *Phys. Rev. Lett.* **89**, 011304 (2002) [arXiv:astro-ph/0202434].
72. **"Statistics of Sunyaev-Zeldovich cluster surveys,"** A. J. Benson, C. Reichardt and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **331**, 71 (2002) [arXiv:astro-ph/0110299].
71. **"X-rays from isolated black holes in the Milky Way,"** E. Agol and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **334**, 553 (2002) [arXiv:astro-ph/0109539].
70. **"Theoretical estimates of intrinsic galaxy alignment,"** J. Mackey, M. J. White and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **332**, 788 (2002) [arXiv:astro-ph/0106364].
69. **"A Novel antimatter detector based on x-ray deexcitation of exotic atoms,"** K. Mori, C. J. Hailey, E. A. Baltz, W. W. Craig, M. Kamionkowski, W. T. Serber and P. Ullio, *Astrophys. J.* **566**, 604 (2002) [arXiv:astro-ph/0109463].
68. **"Spintessence! New models for dark matter and dark energy,"** L. A. Boyle, R. R. Caldwell and M. Kamionkowski, *Phys. Lett. B* **545**, 17 (2002) [arXiv:astro-ph/0105318].
67. **"Galactosynthesis predictions at high redshift,"** A. Buchalter, R. Jimenez and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **328**, 520 (2001) [arXiv:astro-ph/0102025].
66. **"Kinetic decoupling of neutralino dark matter,"** X. l. Chen, M. Kamionkowski and X. m. Zhang, *Phys. Rev. D* **64**, 021302 (2001) [arXiv:astro-ph/0103452].
65. **"A Dark matter spike at the galactic center?"** P. Ullio, H. Zhao and M. Kamionkowski, *Phys. Rev. D* **64**, 043504 (2001) [arXiv:astro-ph/0101481].
64. **"Tests for primordial nonGaussianity,"** L. Verde, R. Jimenez, M. Kamionkowski and S. Matarrese, *Mon. Not. Roy. Astron. Soc.* **325**, 412 (2001) [arXiv:astro-ph/0011180].
63. **"On galaxy-cluster sizes and temperatures,"** L. Verde, M. Kamionkowski, J. J. Mohr and A. J. Benson, *Mon. Not. Roy. Astron. Soc.* **321**, L7 (2001) [arXiv:astro-ph/0007426].
62. **"Galactosynthesis: halo histories, star formation, and disks,"** A. Buchalter, R. Jimenez and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **322**, 43 (2001) [arXiv:astro-ph/0006032].
61. **"Two ways of biasing galaxy formation,"** P. Catelan, C. Porciani and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **318**, 39 (2000) [arXiv:astro-ph/0005544].
60. **"Intrinsic and extrinsic galaxy alignment,"** P. Catelan, M. Kamionkowski and R. D. Blandford, *Mon. Not. Roy. Astron. Soc.* **320**, L7 (2001) [arXiv:astro-ph/0005470].
59. **"Spin dependent WIMPs in DAMA?"** P. Ullio, M. Kamionkowski and P. Vogel, *JHEP* **0107**, 044 (2001) [arXiv:hep-ph/0010036].

58. **“Velocity distributions and annual modulation signatures of weakly interacting massive particles,”** P. Ullio and M. Kamionkowski, *JHEP* **0103**, 049 (2001) [arXiv:hep-ph/0006183].
57. **“Polarization pursuers’ guide,”** A. H. Jaffe, M. Kamionkowski and L. M. Wang, *Phys. Rev. D* **61**, 083501 (2000) [arXiv:astro-ph/9909281].
56. **“Testing linear-theory predictions of galaxy formation,”** B. Sugerman, F. J. Summers and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **311**, 762 (2000) [arXiv:astro-ph/9909266].
55. **“The Dearth of halo dwarf galaxies: Is there power on short scales?”** M. Kamionkowski and A. R. Liddle, *Phys. Rev. Lett.* **84**, 4525 (2000) [arXiv:astro-ph/9911103].
54. **“The Cosmic microwave background bispectrum and inflation,”** L. M. Wang and M. Kamionkowski, *Phys. Rev. D* **61**, 063504 (2000) [arXiv:astro-ph/9907431].
53. **“Large scale structure, the cosmic microwave background, and primordial non-gaussianity,”** L. Verde, L. M. Wang, A. Heavens and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **313**, L141 (2000) [arXiv:astro-ph/9906301].
52. **“Cosmic microwave background temperature and polarization anisotropy in Brans-Dicke cosmology,”** X. I. Chen and M. Kamionkowski, *Phys. Rev. D* **60**, 104036 (1999) [arXiv:astro-ph/9905368].
51. **“The angular three-point correlation function in the quasilinear regime,”** A. Buchalter, M. Kamionkowski and A. H. Jaffe, *Astrophys. J.* **530**, 36 (2000) [arXiv:astro-ph/9903486].
50. **“The power spectrum, bias evolution, and the spatial three-point correlation function,”** A. Buchalter and M. Kamionkowski, *Astrophys. J.* **521**, 1 (1999) [arXiv:astro-ph/9903462].
49. **“Interpreting the clustering of radio sources,”** C. M. Cress and M. Kamionkowski, *Mon. Not. Roy. Astron. Soc.* **297**, 486 (1998) [arXiv:astro-ph/9801284].
48. **“Cosmological signature of new parity violating interactions,”** A. Lue, L. M. Wang and M. Kamionkowski, *Phys. Rev. Lett.* **83**, 1506 (1999) [arXiv:astro-ph/9812088].
47. **“Weakly nonlinear clustering for arbitrary expansion histories,”** M. Kamionkowski and A. Buchalter, *Astrophys. J.* **514**, 7 (1999) [arXiv:astro-ph/9807211].
46. **“A New constraint to open cold dark matter models,”** A. Kinkhabwala and M. Kamionkowski, *Phys. Rev. Lett.* **82**, 4172 (1999) [arXiv:astro-ph/9808320].
45. **“The First space based gravitational wave detectors,”** R. R. Caldwell, M. Kamionkowski and L. Wadley, *Phys. Rev. D* **59**, 027101 (1999) [arXiv:astro-ph/9807319].
44. **“Three body annihilation of neutralinos below two-body thresholds,”** X. I. Chen and M. Kamionkowski, *JHEP* **9807**, 001 (1998) [arXiv:hep-ph/9805383].
43. **“Calculation of the Ostriker-Vishniac effect in cold dark matter models,”** A. H. Jaffe and M. Kamionkowski, *Phys. Rev. D* **58**, 043001 (1998) [arXiv:astro-ph/9801022].
42. **“Theory and statistics of weak lensing from large scale mass inhomogeneities,”** M. Kamionkowski, A. Babul, C. M. Cress and A. Refregier, *Mon. Not. Roy. Astron. Soc.* **301**, 1064 (1998) [arXiv:astro-ph/9712030].
41. **“Galactic halo models and particle dark matter detection,”** M. Kamionkowski and A. Kinkhabwala, *Phys. Rev. D* **57**, 3256 (1998) [arXiv:hep-ph/9710337].
40. **“The Proton proton reaction, solar neutrinos, and a relativistic field theoretic model of the deuteron,”** J. N. Bahcall and M. Kamionkowski, *Nucl. Phys. A* **625**, 893 (1997) [arXiv:astro-ph/9707320].

39. **"Detectability of inflationary gravitational waves with microwave background polarization,"** M. Kamionkowski and A. Kosowsky, Phys. Rev. D **57**, 685 (1998) [arXiv:astro-ph/9705219].
38. **"Getting around cosmic variance,"** M. Kamionkowski and A. Loeb, Phys. Rev. D **56**, 4511 (1997) [arXiv:astro-ph/9703118].
37. **"Astrophysical neutrino detection with angular and energy resolution,"** L. Bergstrom, J. Edsjo and M. Kamionkowski, Astropart. Phys. **7**, 147 (1997) [arXiv:astro-ph/9702037].
36. **"On the instability of the one texture universe,"** M. Hindmarsh, A. R. Liddle, X. I. Chen and M. Kamionkowski, Phys. Rev. D **56**, 2051 (1997) [arXiv:astro-ph/9702006].
35. **"The Electron screening correction for the proton proton reaction,"** J. N. Bahcall, X. I. Chen and M. Kamionkowski, Phys. Rev. C **57**, 2756 (1998) [arXiv:astro-ph/9612209].
34. **"Statistics of cosmic microwave background polarization,"** M. Kamionkowski, A. Kosowsky and A. Stebbins, Phys. Rev. D **55**, 7368 (1997) [arXiv:astro-ph/9611125].
33. **"A Probe of primordial gravity waves and vorticity,"** M. Kamionkowski, A. Kosowsky and A. Stebbins, Phys. Rev. Lett. **78**, 2058 (1997) [arXiv:astro-ph/9609132].
32. **"Indirect detection of a light Higgsino motivated by collider data,"** K. Freese and M. Kamionkowski, Phys. Rev. D **55**, 1771 (1997) [arXiv:hep-ph/9609370].
31. **"Comment on 'The Dispersion velocity of galactic dark matter particles,'"** E. Gates, M. Kamionkowski and M. S. Turner, Phys. Rev. Lett. **78**, 2261 (1997) [arXiv:astro-ph/9606132].
30. **"Rates for parallax shifted microlensing events from ground based observations of the galactic bulge,"** A. Buchalter and M. Kamionkowski, Astrophys. J. **482**, 782 (1997) [arXiv:astro-ph/9604144].
29. **"Matter microwave correlations in an open universe,"** M. Kamionkowski, Phys. Rev. D **54**, 4169 (1996) [arXiv:astro-ph/9602150].
28. **"A Low density closed universe,"** M. Kamionkowski and N. Toumbas, Phys. Rev. Lett. **77**, 587 (1996) [arXiv:astro-ph/9601147].
27. **"Cosmological parameter determination with microwave background maps,"** G. Jungman, M. Kamionkowski, A. Kosowsky and D. N. Spergel, Phys. Rev. D **54**, 1332 (1996) [arXiv:astro-ph/9512139].
26. **"Rates for color shifted microlensing events,"** A. Buchalter, M. Kamionkowski and R. M. Rich, Astrophys. J. **469**, 676 (1996) [arXiv:astro-ph/9511034].
25. **"Weighing the universe with the cosmic microwave background,"** G. Jungman, M. Kamionkowski, A. Kosowsky and D. N. Spergel, Phys. Rev. Lett. **76**, 1007 (1996) [arXiv:astro-ph/9507080].
24. **"Solar neutrinos: Radiative corrections in neutrino - electron scattering experiments,"** J. N. Bahcall, M. Kamionkowski and A. Sirlin, Phys. Rev. D **51**, 6146 (1995) [arXiv:astro-ph/9502003].
23. **"Gamma-rays from neutralino annihilation,"** G. Jungman and M. Kamionkowski, Phys. Rev. D **51**, 3121 (1995) [arXiv:hep-ph/9501365].
22. **"Model independent comparison of direct versus indirect detection of supersymmetric dark matter,"** M. Kamionkowski, K. Griest, G. Jungman and B. Sadoulet, Phys. Rev. Lett. **74**, 5174 (1995) [arXiv:hep-ph/9412213].
21. **"Microlensing by stars,"** M. Kamionkowski, Astrophys. J. **442**, L9 (1995) [arXiv:astro-ph/9410062].



20. **"Neutrinos from particle decay in the sun and earth,"** G. Jungman and M. Kamionkowski, Phys. Rev. D **51**, 328 (1995) [arXiv:hep-ph/9407351].
19. **"CBR anisotropy in an open inflation, CDM cosmogony,"** M. Kamionkowski, B. Ratra, D. N. Spergel and N. Sugiyama, Astrophys. J. **434**, L1 (1994) [arXiv:astro-ph/9406069].
18. **"Small scale cosmic microwave background anisotropies as a probe of the geometry of the universe,"** M. Kamionkowski, D. N. Spergel and N. Sugiyama, Astrophys. J. **426**, L57 (1994) [arXiv:astro-ph/9401003].
17. **"Large angle cosmic microwave background anisotropies in an open universe,"** M. Kamionkowski and D. N. Spergel, Astrophys. J. **432**, 7 (1994) [arXiv:astro-ph/9312017].
16. **"Cosmic ray anti-protons from neutralino annihilation into gluons,"** G. Jungman and M. Kamionkowski, Phys. Rev. D **49**, 2316 (1994) [arXiv:astro-ph/9310032].
15. **"Gravitational radiation from first order phase transitions,"** M. Kamionkowski, A. Kosowsky and M. S. Turner, Phys. Rev. D **49**, 2837 (1994) [arXiv:astro-ph/9310044].
14. **"Neutralino annihilation into gluons,"** M. Drees, G. Jungman, M. Kamionkowski and M. M. Nojiri, Phys. Rev. D **49**, 636 (1994) [arXiv:hep-ph/9306325].
13. **"Vacuum polarization corrections to solar fusion rates,"** M. Kamionkowski and J. N. Bahcall, Phys. Rev. C **49**, 545 (1994) [arXiv:astro-ph/9306024].
12. **"The Rate of the proton proton reaction,"** M. Kamionkowski and J. N. Bahcall, Astrophys. J. **420**, 884 (1994) [arXiv:astro-ph/9305020].
11. **"Instability and subsequent evolution of electroweak bubbles,"** M. Kamionkowski and K. Freese, Phys. Rev. Lett. **69**, 2743 (1992) [arXiv:hep-ph/9208202].
10. **"Planck scale physics and the Peccei-Quinn mechanism,"** M. Kamionkowski and J. March-Russell, Phys. Lett. B **282**, 137 (1992) [arXiv:hep-th/9202003].
9. **"Are textures natural?"** M. Kamionkowski and J. March-Russell, Phys. Rev. Lett. **69**, 1485 (1992) [arXiv:hep-th/9201063].
8. **"Signatures of dark matter in underground detectors,"** F. Halzen, T. Stelzer and M. Kamionkowski, Phys. Rev. D **45**, 4439 (1992).
7. **"Energetic neutrinos from heavy neutralino annihilation in the Sun,"** M. Kamionkowski, Phys. Rev. D **44**, 3021 (1991).
6. **"A Distinctive positron feature from heavy WIMP annihilations in the galactic halo,"** M. Kamionkowski and M. S. Turner, Phys. Rev. D **43**, 1774 (1991).
5. **"Thermal Relics: Do We Know Their Abundances?"** M. Kamionkowski and M. S. Turner, Phys. Rev. D **42**, 3310 (1990).
4. **"Supersymmetric Dark Matter Above the W Mass,"** K. Griest, M. Kamionkowski and M. S. Turner, Phys. Rev. D **41**, 3565 (1990).
3. **"Unitarity Limits on the Mass and Radius of Dark Matter Particles,"** K. Griest and M. Kamionkowski, Phys. Rev. Lett. **64**, 615 (1990).
2. **"Searching for CP Violation in 'Charge Blind' Jets,"** M. P. Kamionkowski, Phys. Rev. D **41**, 1672 (1990).

1. **“Cosmic-Ray Energy Spectra between 10 and Several Hundred GeV per Atomic Mass Unit for Elements from  $^{18}\text{Ar}$  to  $^{28}\text{Ni}$ : Results from HEAO 3,”** W. R. Binns, T. L. Garrard, M. H. Israel, M. D. Jones, M. P. Kamionkowski, J. Klarmann, E. C. Stone, and C. J. Waddington, *Astrophys. J.* **324**, 1106–1117 (1988).

## Review Articles

10. **“The Hubble Tension and Early Dark Energy,”** M. Kamionkowski and A. G. Riess, *Ann. Rev. Nucl. Part. Sci.* **73**, 153–180 (2023) [arXiv:2211.04492 [astro-ph.CO]].
9. **“Fundamental Physics with the Hubble Space Telescope,”** N. Dalal, C. Dvorkin, J. Heyl, B. Jain, M. Kamionkowski, P. Marshall and D. Weinberg, arXiv:1712.04928 [astro-ph.CO].
8. **“Line-Intensity Mapping: 2017 Status Report,”** E. D. Kovetz, M. P. Viero, A. Lidz, L. Newburgh, M. Rahman, E. Switzer, M. Kamionkowski, *et al.*, arXiv:1709.09066 [astro-ph.CO]. Submitted to *Phys. Rep.*
7. **“The Quest for B Modes from Inflationary Gravitational Waves,”** M. Kamionkowski and E. D. Kovetz, *Ann. Rev. Astron. Astrophys.* **54**, 227–269 (2016) [arXiv:1510.06042 [astro-ph.CO]].
6. **“Dark Matter Astrophysics,”** G. D’Amico, M. Kamionkowski and K. Sigurdson, arXiv:0907.1912 [astro-ph.CO]. Prepared for “Dark Matter and Dark Energy: A New Challenge for the 21st Century,” proceedings of the Villa Olmo School, 14–18 May 2007, Como, Italy, edited by V. Gorini, S. Matarrese and U. Moschella.
5. **“The Physics of Cosmic Acceleration,”** R. R. Caldwell and M. Kamionkowski, *Ann. Rev. Nucl. Part. Sci.* **59**, 397 (2009) [arXiv:0903.0866 [astro-ph.CO]].
4. **“Dark Matter and Dark Energy,”** M. Kamionkowski, in “Visions of Discovery: New Light on Physics, Cosmology, and Consciousness,” edited by R. Y. Chiao, M. L. Cohen, A. J. Leggett, W. D. Phillips, and C. L. Harper, Jr. (Cambridge University Press, Cambridge, 2011), p. 247–293 [arXiv:0706.2986 [astro-ph]].
3. **“The Cosmic microwave background and particle physics,”** M. Kamionkowski and A. Kosowsky, *Ann. Rev. Nucl. Part. Sci.* **49**, 77 (1999) [arXiv:astro-ph/9904108].
2. **“Solar fusion cross-sections,”** E. G. Adelberger *et al.*, *Rev. Mod. Phys.* **70**, 1265 (1998) [arXiv:astro-ph/9805121].
1. **“Supersymmetric dark matter,”** G. Jungman, M. Kamionkowski and K. Griest, *Phys. Rept.* **267**, 195 (1996) [arXiv:hep-ph/9506380].

## Conference Proceedings and other unrefereed publications

35. **“Compact Binary Foreground Subtraction in Next-Generation Ground-Based Observatories,”** B. Zhou, L. Reali, E. Berti, M. Çalıřkan, C. Creque-Sarbinowski, M. Kamionkowski and B. S. Sathyaprakash, [arXiv:2209.01221 [gr-qc]].
34. **“Constraints on Decaying Dark Matter,”** A. H. G. Peter, C. E. Moody, A. J. Benson, and M. Kamionkowski, in the proceedings of the 8th International Workshop on the Identification of Dark Matter, Montpel-lier (France, 26-40 July 2010), p. 84 (2011). [arXiv:1011.4970 [astro-ph.CO]].

33. **“Energetic neutrinos from the Sun and Earth and Dark Matter Substructure,”** Savvas M. Koushiappas and Marc Kamionkowski, arXiv:0912.1573. Prepared for the AIP Proceedings of the CCAPP Symposium, Columbus, Ohio, October 11–14, 2009.
32. **“Thermal Axion Constraints in Non-standard Thermal Histories,”** Daniel Grin, Tristan S. Smith, and Marc Kamionkowski, AIP Conf. Proc. **1274**, 78 (2010) [arXiv:0812.4721 [astro-ph]].
31. **“Generalized analysis of WIMP Searches,”** Marc Kamionkowski and Andriy Kurylov, in “Sources and Detection of Dark Matter and Dark Energy in the Universe,” proceedings of the conference, Marina del Rey, CA, February 18–20, edited by D. B. Cline [*New Astronomy Reviews* **49**, 241–244 (2005)].
30. **“Theory of Cosmic Microwave Background Polarization,”** Paolo Cabella and Marc Kamionkowski, [arXiv:astro-ph/0403392]. Lectures given at the 2003 Villa Mondragone School of Gravitation and Cosmology: “The Polarization of the Cosmic Microwave Background,” Rome, Italy, September 6–11, 2003 and at the 9th Paris Cosmology Colloquium, “Physics of the Early Universe Confronts Observations,” June 30–July 2, 2005. Prepared for the proceedings of the latter conference.
29. **“Cosmology and Dark Matter,”** Marc Kamionkowski, in proceedings of ICHEP02, 31st International Conference on High Energy Physics, Amsterdam, July 24–31, 2002, [*Nuclear Physics B* **117**, 335–352 (2003)].
28. **“New Views of Cosmology and the Microworld,”** Marc Kamionkowski, in “Secrets of the B meson,” proceedings of the XXXth SLAC Summer Institute, August 5–16, 2002 (SSl02), edited by J. Hewett, J. Jaros, T. Kamae, and C. Prescott, eConf **Co20805**, TF04 (2002) [arXiv:hep-ph/0210370].
27. **“Inflation at the Edge,”** Marc Kamionkowski, in “Galaxy Evolution: Theory and Observations,” proceedings of the conference, Cozumel, Mexico, April 8–12, 2002, edited by V. Avila-Reese, C. Firmani, C. Frenk, and C. Allen, *Revista Mexicana de Astronomia y Astrofisica* **17**, 1–8 (2003) [arXiv:astro-ph/0209273].
26. **“The Polatron: A Millimeter-Wave Cosmic Microwave Background Polarimeter for the OVRO 5.5 m Telescope,”** B. J. Philhour, B. G. Keating, P. A. R. Ade, R. S. Bhatia, J. J. Bock, S. E. Church, J. Glenn, J. R. Hinderks, V. V. Hristov, W. C. Jones, M. Kamionkowski, D. E. Kumar, A. E. Lange, J. R. Leong, D. P. Marrone, B. S. Mason, P. V. Mason, M. M. Shuman, and G. I. Sirbi, arXiv:astro-ph/0106543.
25. **“Detection of Gravitational Waves from Inflation,”** Marc Kamionkowski and Andrew H. Jaffe, in “DPF2000, the Meeting of the Division of Particles and Fields of the American Physical Society,” proceedings, Columbus, Ohio, August 9–12, 2000, edited by K. K. Gan and R. Kass (World Scientific, Singapore, 2001) [*Int. J. Mod. Phys. A* **16S1A**, 116–128 (2001)]; in “Gravitational Waves: A Challenge to Theoretical Astrophysics,” proceedings, Trieste, June 5–9, 2000, edited by V. Ferrari, J. C. Miller, and L. Rezzolla (ICTP, Trieste, 2001), p. 415–430; in the proceedings of Particles, Strings, and Cosmology 2001, Chapel Hill, NC, April 10–15, 2001, edited by P. Frampton and J. Ng (Rinton Press, Princeton, 2001), p. 23–36; and in “The Dark Universe: Matter, Energy, and Gravity,” proceedings of the symposium, Baltimore, MD, April 2–5, 2001 [arXiv:astro-ph/0011329].
24. **“The Second Peak: The Dark-Energy Density and the Cosmic Microwave Background,”** Marc Kamionkowski and Ari Buchalter, in “Sources and Detection of Dark Matter and Dark Energy in the Universe,” proceedings of the conference, February 23–25, 2000, Marina del Rey, CA, edited by D. B. Cline (Springer, Berlin, 2001), p. 119–127 [arXiv:astro-ph/0001045].
23. **“Supersymmetric Dark Matter,”** Kim Griest and Marc Kamionkowski, in *David Schramm’s Universe*, edited by G. Brown, M. Kamionkowski, and M. S. Turner (North-Holland, Amsterdam, 2000), p. 167 [*Physic Reports* **333**].

22. **"Indirect Detection of Neutralino Annihilation from Three-body Channels,"** Xuelei Chen and Marc Kamionkowski, in "COSMO-98, (AIP Conference Proceedings, Vol 478)" proceedings of the workshop, November 15–20, 1998, Monterey, CA, edited by D. O. Caldwell (American Institute of Physics, Woodbury, 1999) [arXiv:hep-ph/9901435].
21. **"The Cosmic Microwave Background: Beyond the Power Spectrum,"** Marc Kamionkowski, in "Evolution of Large-Scale Structure: from Recombination to Garching," proceedings of the MPA/ESO workshop, August 2–7, 1998, Garching, Germany, edited by A. J. Banday, R. K. Sheth, and L. N. da Costa (ESO, Garching, 1999) [arXiv:astro-ph/9809320].
20. **"Possible Relics from New Physics in the Early Universe: Inflation, The Cosmic Microwave Background, and Particle Dark Matter,"** Marc Kamionkowski CU-TP-917, CAL-669, arXiv:astro-ph/9809320. Prepared for *The Early and Future Universe*, proceedings of the CCAST Workshop, Beijing, China, June 22–27, 1998, edited by Minghan Ye (Gordon Breach, New York, 1998).
19. **"Weak Lensing by Large-Scale Structure with the FIRST Radio Survey,"** Alexandre Refregier, Scott T. Brown, Marc Kamionkowski et al., in "Wide Field Surveys in Cosmology," proceedings of the XIVth IAP Meeting, Paris, France, May 26–30, 1998 (Editions Frontieres, Paris, 1998) [arXiv:astro-ph/9810025].
18. **"New Tests of Inflation,"** Marc Kamionkowski, *Particles, Strings, and Cosmology (PASCOS '99)*, proceedings of the Sixth International Symposium, Boston, MA, March 22–29, 1998, edited by P. Nath (World Scientific, Singapore, 1999), p. 19–26. Also in *Heidelberg 1998, Dark matter in astrophysics and particle physics*, proceedings of the Second International Conference on Dark Matter in Astro and Particle Physics (DARK98) Heidelberg, Germany, July 20–25, 1998, edited by H.V. Klapdor-Kleingrothaus (IOP, Bristol, 1999), p. 131 [arXiv:astro-ph/9808004].
17. **"Cosmological-Parameter Determination With Cosmic Microwave Background Temperature Anisotropies and Polarization,"** Marc Kamionkowski, in *Fundamental Parameters in Cosmology*, proceedings of the XXXIIIrd Rencontres de Moriond, Les Arcs, France, 17–24 January 1998, edited by J. Tran Thanh Van, Y. Giraud-Hereux, F. Bouchet, T. Damour, and Y. Mellier (Edition Frontieres, Paris, 1998) [arXiv:astro-ph/9803168].
16. **"Cosmic Microwave Background Tests of Inflation,"** Marc Kamionkowski, in *Topics in Astroparticle and Underground Physics '97*, proceedings of the conference, Gran Sasso, Italy, September 7–11, 1997, edited by A. Bottino, A. di Credico, and P. Monacelli (North-Holland, Amsterdam, 1998) [*Nuclear Physics B (Proc. Suppl.)* **70**, 529] [arXiv:astro-ph/9712215].
15. **"Supersymmetric Dark Matter,"** in *Heidelberg 1998, Dark matter in astrophysics and particle physics*, proceedings of the Second International Conference on Dark Matter in Astro and Particle Physics (DARK98) Heidelberg, Germany, July 20–25, 1998, edited by H. V. Klapdor-Kleingrothaus (IOP, Bristol, 1999), p. 461.
14. **"WIMP and Axion Dark Matter,"** Marc Kamionkowski, in *High Energy Physics and Cosmology*, proceedings of the 1997 Summer School, International Center for Theoretical Physics, Trieste, Italy, June 2–July 4, 1997, edited by E. Gava, A. Masiero, K. S. Narain, S. Randjbar-Daemi, G. Senjanovic, A. Smirnov, and Q. Shafi (World Scientific, Singapore, 1997) [arXiv:hep-ph/9710467].
13. **"Particle Dark Matter,"** Marc Kamionkowski, in *Neutrinos, Dark Matter, and the Universe*, proceedings of the VIIIth Rencontres de Blois, June 8–13, 1996, Blois, France, edited by T. Stolarczyk, J. Tran Thanh Van, and F. Vannucci (Editions Frontieres, Gif-sur-Yvette, 1997), p. 237–248 [arXiv:hep-ph/9609531].
12. **"Do We Know the Geometry of the Universe?"** Marc Kamionkowski and Nicolaos Toumbas, in *Microwave Background Anisotropies*, proceedings of the 31st Moriond Astrophysics Meeting, Les Arcs, France, March 16–23, 1996, edited by F. R. Bouchet, R. Gispert, B. Guiderdoni, and J. Tran Thanh Van (Editions Frontieres, Gif-sur-Yvette, 1997), p. 221–226 [arXiv:astro-ph/9605100].

11. **“Determining Cosmological Parameters from the Microwave Background,”** Arthur Kosowsky, Marc Kamionkowski, Gerard Jungman, and David N. Spergel, in *Dark Matter in the Universe*, proceedings of the International Symposium on Sources and Detection of Dark Matter in the Universe, Santa Monica, CA, February 14–16, 1996, edited by D. B. Cline (North Holland, Amsterdam, 1996) [*Nuclear Physics B (Proc. Suppl.)* **51B**, 49–53 (1996)] [arXiv:arXiv:astro-ph/9605147].
10. **“Future Cosmic Microwave Background Constraints to the Baryon Density,”** Marc Kamionkowski, Gerard Jungman, Arthur Kosowsky, and David N. Spergel, in *Cosmic Abundances*, proceedings of the Conference, College Park, MD, October 9–11, 1995, edited by S. S. Holt and G. Sonneborn (ASP, San Francisco, 1996), p. 74–77 [arXiv:arXiv:astro-ph/9601027].
9. **“Cosmic Microwave Background Anisotropies and the Geometry of the Universe,”** Marc Kamionkowski, in *CMB Anisotropies Two Years After COBE: Observations, Theory, and the Future*, proceedings of the 1994 CWRU workshop, April 22–24, 1994, Cleveland, OH, edited by L. M. Krauss (World Scientific, Singapore, 1994), p. 141–148 [arXiv:arXiv:astro-ph/9407062].
8. **“Indirect Detection of WIMPs,”** Marc Kamionkowski, in *Particle Astrophysics, Atomic Physics, and Gravitation*, proceedings of the XXIXth Rencontre de Moriond, Villars sur Ollon, Switzerland, January 22–29, 1994, edited by J. Tran Thanh Van, G. Fontaine, and E. Hinds (Editions Frontieres, Gif-sur-Yvette, 1994), p. 169–177 [arXiv:hep-ph/9403357].
7. **“Diffuse Cosmic Gamma Rays from WIMP Decay and Annihilation,”** Marc Kamionkowski, in *The Gamma-Ray Sky with Compton GRO and SIGMA*, proceedings of the NATO Advanced Study Institute, Les Houches, France, January 25–February 4, 1994, edited by M. Signore, P. Salati, and G. Vedrenne (Kluwer Academic, Dordrecht, 1995), p. 113–134 [arXiv:arXiv:astro-ph/9404079].
6. **“Implications of Recent Nucleon Spin Structure Measurements for Neutralino Dark Matter Detection,”** Marc Kamionkowski, Lawrence Krauss, and M. Ted Ressel, IASSNS-HEP-94/14, hep-ph/9402353.
5. **“Microwave Background Fluctuations in an Open Universe,”** David N. Spergel, Ue-Li Pen, Marc Kamionkowski, and Naoshi Sugiyama, in proceedings of the Nishinomiya Yukawa Memorial Symposium, Nishinomiya, Japan, October, 1994, edited by M. Sasaki (University Academic Press, Tokyo, 1994). [arXiv:arXiv:astro-ph/9402060].
4. **“Evolution of Electroweak Bubbles,”** Marc Kamionkowski and Katherine Freese, in *The Fermilab Meeting, DPF '92*, edited by C. H. Albright, P. H. Kasper, R. Raja, and J. Yoh (World Scientific, Singapore, 1993), p. 1409–1411.
3. **“Supersymmetric Dark Matter,”** Marc Kamionkowski, in *High Energy Neutrino Astrophysics*, edited by V. J. Stenger, J. G. Learned, S. Pakvasa, and X. Tata (World Scientific, Singapore, 1992), p. 157–172.
2. **“Indirect Detection of Heavy Supersymmetric Dark Matter,”** Marc Kamionkowski, *Trends in Astroparticle Physics*, edited by D. B. Cline and R. Peccei (World Scientific, Singapore, 1992), p. 58–62.
1. **“Cosmic-Ray Energy Spectra between Ten and Several Hundred GeV/amu for Elements from  $^{18}\text{Ar}$  to  $^{28}\text{Ni}$ : Results from HEAO-3,”** M. H. Israel, M. Jones, M. P. Kamionkowski, J. Klarmann, E. C. Stone, C. J. Waddington, W. R. Binns, and T. L. Garrard, in Proceedings of the 20th International Cosmic-Ray Conference **1**, OG-4.1-4 (1987).

### Committee Reports and White Papers

7. **“Pathways to Discovery in Astronomy and Astrophysics for the 2020s,”** F. Harrison, R. C. Kennicutt *et al.* (National Academy of Sciences, Washington, 2021).
6. **“Novel Probes of Gravity and Dark Energy,”** B. Jain *et al.*. arXiv:1309.5389 [astro-ph.CO].
5. **“Neutrino Physics from the Cosmic Microwave Background and Large Scale Structure,”** K. N. Abazajian *et al.*, *Astropart. Phys.* **63**, 66 (2015) [arXiv:1309.5383 [astro-ph.CO]].
4. **“Inflation Physics from the Cosmic Microwave Background and Large Scale Structure,”** K. N. Abazajian *et al.*, *Astropart. Phys.* **63**, 55 (2015) [arXiv:1309.5381 [astro-ph.CO]].
3. **“Report of the Dark Energy Task Force”** A. Albrecht *et al.*, arXiv:astro-ph/0609591
2. **“Particle Astrophysics and Cosmology: Cosmic Laboratories for New Physics (Summary of the Snowmass 2001 P4 Working Group),”** D. S. Akerib, S. M. Carroll, M. Kamionkowski, and S. Ritz, in *“Snowmass 2001: The Future of Particle Physics,”* edited by N. Graf, SLAC eConf **C010630**, P4001 (2002) [arXiv:hep-ph/0201178].
1. **“Cosmic Microwave Background Observations in the Post-Planck Era,”** J. B. Peterson *et al.*, arXiv:arXiv:astro-ph/9907276. Report of the NASA *Ad Hoc* Committee on Future Cosmic Microwave Background Missions.

### Books

3. *Memorial Volume in Honor of Gerald E. Brown*, edited by Marc Kamionkowski, Michael Ramsey-Musolf, Sanjay Reddy, and Achim Schwenk (Elsevier, Amsterdam, 2016) [*Physics Reports* **621**].
2. *GGI–Dark Matter and Dark Energy 2009, new horizons for modern cosmology*, proceedings of the Galileo Galilei Institute Conferences on Dark Matter and Dark Energy, Florence, Italy, 19th January – 13th March 2009, “New Horizons For Modern Cosmology,” 19 January–13 March 2009, Arcetri, Florence, Italy, edited by M. Kamionkowski, C. Martins, A. Melchiorri, A. Polosa and L. Verde.
1. *David Schramm’s Universe*, edited by Gerald E. Brown, Marc Kamionkowski, and Michael S. Turner (North-Holland, Amsterdam, 2000) [*Physics Reports* **333**].

### Popular Articles, Comments, and Book Reviews

11. **“Andrew E. Lange (1957-2010),”** a National Academy of Sciences biographical memoir, <http://www.nasonline.org/publications/biographical-memoirs>.
10. **“Commentary: BICEP2’s B modes: Big Bang or Dust?”** Mario Livio and Marc Kamionkowski, *Physics Today* **67**, 8 (2014).
9. **“Viewpoint: Is the Lopsided Universe an Open Universe?”** M. Kamionkowski, *APS Physics* **6**, 98 (2013).
8. **“Gravity Ripples Chased,”** Marc Kamionkowski, *Nature* **460**, 964–965 (2009).
7. **“Dark Matter and Dark Energy,”** Robert Caldwell and Marc Kamionkowski, *Nature* **458**, 587–589 (2009).
6. **“A Hawking-Eye View of the Universe,”** review of Stephen Hawking’s *The Universe in a Nutshell*, Marc Kamionkowski, *Science* **296**, 267 (2002).

5. **"Weird notions that drive science"** (review of *Strange Matters: Undiscovered Ideas at the Frontiers of Space and Time* by Tom Siegfried), Marc Kamionkowski, *Nature* **420**, 362–363 (2002).
4. **"A New Window to the Early Universe,"** Eric Hivon and Marc Kamionkowski, *Science* **298**, 1349–1350 (2002) [arXiv:arXiv:astro-ph/0211553].
3. **"Gravitational Echoes from the Big Bang,"** Robert R. Caldwell and Marc Kamionkowski, *Scientific American* January 2001, 38–43 (2001). Updated and reprinted in a "The Once and Future Cosmos," a special edition of *Scientific American*, October 2002.
2. **"New Troubles for Inflation?"** Marc Kamionkowski and Andrew Jaffe, *Nature* **395**, 639–641 (1998).
1. **"The Case of the Curved Universe: Open, Closed, or Flat,"** Marc Kamionkowski, *Science* **280**, 1397–1398 (1998) [arXiv:astro-ph/9806347].

## Popular Talks, Interviews, and Public Outreach

"The 'least crazy' idea: Early dark energy could solve a cosmological conundrum," interview in *Knowledge Magazine*, 28 September 2023.

"Cosmologists Cope With Tensions, Crises & Anxieties," *Into the Impossible* podcast, 22 April 2023.

"Astrophysics with Gravitational Lensing," talk at QuarkNet 2022, Johns Hopkins University, 26 July 2022.

"New Eyes, New Skies," talk at "Teleskopia: the cosmic view across science and the humanities," Johns Hopkins University, 22 April 2022.

Panelist, "Telepresence: BioArt and Space Poetry," Parkway Theatre, Johns Hopkins, 16 March 2022

Panelist, "NSF: Dark matter/dark energy," AwesomeCon, Washington, DC, August 22, 2021

"Hubble trouble," talk at Quarknet 2021, Johns Hopkins University, July 30, 2021.

"Hubble trouble," talk at the 17th annual Astronomy and Space Exploration Society (U. of Toronto) Symposium: "Mysteries of the Universe," February 15, 2021 (delivered remotely).

"The Hubble tension," talk at Quarknet 2020, Johns Hopkins University, August 4, 2020.

"Is dark matter made of black holes?" Halley Lecture, Oxford University, 8 May 2019.

"Cosmic ripples from black holes and the big bang," public lecture at the Space Telescope Science Institute, 4 December 2018.

Zelicoff Dinner Speaker, Krieger School of Arts and Sciences, November 8, 2018.

Honorary speaker at science honors societies induction ceremony at Hereford High School, Parkton, MD, October 10, 2018.

"The quest for cosmic B modes," talk at Quarknet 2018, Johns Hopkins University, July 23, 2018.

"Black holes and dark Matter," talk at Quarknet 2017, Johns Hopkins University, July 27, 2017.

"Cosmic Ripples from Black Holes and the Big Bang," public lecture at the Vienna Natural History Museum, Vienna, Austria, 1 December 2016.

"Did LIGO Detect Dark Matter?" talk at Quarknet 2016, Johns Hopkins University, July 26, 2016.

Interviewed on Voice of America's "Press Conference US," 8 July 2016, about black holes and dark matter.

Interviewed about LIGO on ABC2 News "In Focus," 23 February 2016.

"Secrets from the Early Universe," interview on *StarSpot* podcast, 19 April 2015.

"A Telegram from the Early Universe?" public lecture at the Origins Institute, McMaster University, Hamilton, Ontario, 2 December 2014.

"A Telegram from the Early Universe?" public lecture at the Cleveland Museum of Natural History, 14 November 2014.

"Dark matter and the equivalence principle," a discussion for physics students at Shaker Heights High School, 14 November 2014.

"A Telegram from the Early Universe?" public lecture at the Space Telescope Science Institute, 11 November 2014.

"A Telegram from the Early Universe?" invited talk at *New Horizons in Science*, sponsored by the Council for the Advancement of Science Writing, Columbus, OH, 20 October 2014.

Interviewed for NHK Japan TV documentary series, "Cosmic Front," episode to be aired 27 November 2014.

Interviewed about inflation for Russian TV channel LIFENEWS, 22 August 2014.

"Unraveling the Early Universe with the Cosmic Microwave Background," talk at Quarknet 2014, Johns Hopkins University, July 30, 2014.

Distinguished Outside Expert for Harvard-Smithsonian Center for Astrophysics press conference announcing new results from the BICEP2 collaboration, 17 March 2014.

"Beauty and Blemishes in the Universe," Aspen Center for Physics public lecture, 22 Aug 2013, Aspen, CO.

Interviewed for Aspen Physics Previews, Grassroots TV, Aspen, CO, 14 Aug 2013.

Guest on Kathleen Dunn show, Wisconsin Public Radio, 30 April 2013.

Distinguished Outside Expert for NASA's news teleconference on Planck cosmology findings, 21 March 2013.

Interviewed for Euronews TV special, "Planck Maps the Dawn of Time," released 21 March 2013.

"Dark Matter, the Equivalence Principle, and the Sagittarius Dwarf Galaxy," talk at Quarknet 2012, Johns Hopkins University, August 2, 2012.

"Dark Matter and the Equivalence Principle," lunch talk at the law firm of Munger, Tolles, and Olson, Los Angeles, CA, May 16, 2011.

"The Big Rip: A New Fate for the Universe?" IUCAA, Pune, India, July 31, 2008.

"Apocalypse: The Big Rip," talk at Categorically Not!, Santa Monica, CA, September 24, 2006.

"Weird Gravity: Phantom Energy and the Big Rip," talk for the Southern California Association of Physics Teachers, October 25, 2003.



“Weird Gravity?” An Update for Members of the Legal Profession,” lunch talk at the law firm of Munger, Tolles, and Olson, Los Angeles, CA, April 14, 2003.

“What’s New in Cosmology? An Update for Members of the Legal Profession,” lunch talk at the law firm of Munger, Tolles, and Olson, Los Angeles, CA, August 27, 2001.

“Birth of the Universe,” LIGO popular talk, Richland, WA, August 12, 2001.

“Birth of the Universe,” invited talk at the Jack R. Howard Science Reporting Institute (for journalists), Caltech, June 29, 2001.

“Birth of the Universe,” Caltech Seminar Day (popular talk for Caltech alumni), May 19, 2001.

“Cosmology and Astrophysics,” invited talk at the Jack R. Howard Science Reporting Institute (for journalists), Caltech, August 18, 2000.

Panelist for “Origins of the Universe,” a Bard Center Panel Discussion, New York City, April 24, 1998.

## Selected Media Coverage

Work on high-redshift JWST galaxies discussed in “Did the James Webb telescope ‘break the universe’? Maybe not” *Science News* **205**, No. 6, 4 March 2024.

Quoted in “ ‘Best view ever’: observatory will map Big Bang’s afterglow in new detail” *Nature*, 22 March 2024.

Work on high-redshift JWST galaxies discussed in “JWST sees more galaxies than expected,” *Physics* **17**, 23, 9 February 2024.

Quoted in “Clashing cosmic numbers challenge our best theory of the Universe,” *Quanta Magazine*, 19 January 2024.

Quoted in “The universe’s puzzlingly fast expansion may defy explanation, cosmologists fret,” *Science*, 2 November 2023.

Quoted in “Scientists have finally ‘heard’ the chorus of gravitational waves that ripple through the universe,” Associated Press, 29 June 2023.

Work on cosmic-optical-background excess discussed in “Could axion decay underlie excess cosmic optical background,” *phys.org*, 14 December 2022.

Work on cosmological parity breaking discussed in “Asymmetry detected in the distribution of galaxies,” *Quanta Magazine*, 5 December 2022.

Quoted in “Physicists Argue That Black Holes From the Big Bang Could Be the Dark Matter,” *Quanta Magazine*, 23 September 2020.

Quoted in “The hidden magnetic universe begins to come into view,” *Quanta Magazine*, 2 July 2020.

Quoted in “What might be speeding up the Universe,” *Quanta Magazine*, 27 April 2020.

Quoted in “The Universe is expanding faster than it should, scientists say: Here’s why,” *Tech Times*, 3 May 2020.

Quoted in “Five years after BICEP,” *Physics Today*, 26 March 2019.

Interviewed for Austrian news <https://science.orf.at/stories/2998426/>

Hubble-tension work discussed in New York Times article, "Have dark forces been messing with the Cosmos?" 25 February 2019, and also in Physicsworld.com (21 November 2018), Gizmodo (27 November 2018), and BBC Mundo (3 March 2019).

Black-hole dark-matter worked discussed in "Controversy Continues over Black Holes as Dark Matter," *Physics* **11**, 99, 1 October 2018

Quoted in LiveScience article on newly black-hole dark matter, 6 April 2018

Quoted in Associated Press article on newly reported dark-matter-free galaxies, 28 March 2018

Quoted in Associated Press article on newly reported signature of the first stars, 1 March 2018

Quoted in *Los Angeles Times* article on LIGO discovery of second black hole, 15 June 2016

"LIGO, forse un solo Nobel non basta," article on black-hole dark matter, Media INAF (Italy) 18 May 2016

"Some astrophysicists think LIGO may have spotted a dark matter signal," *Motherboard* article on black-hole dark matter, 18 May 2016.

"Physicists hunt for the big bang's triangles," *Quanta* article on work on primordial non-Gaussianities, 19 April 2016.

"Did LIGO detect dark matter? Black holes that produced gravitational waves may also be key to the missing mass mystery," *Daily Mail* article on work on black holes and LIGO, 24 March 2016.

"LIGO could catch dark matter made of black holes," *New Scientist* article on work on black holes and LIGO, 22 March 2016.

Quoted in *Science* article, "Woohoo! email stokes rumor that gravitational waves have been detected," 5 February 2016, and several other news sources after the LIGO announcement.

Quoted in *Scientific American* article, "Not all gravitational waves are created equal," 14 January 2016.

"Stringy fields may make the Universe swell faster," *New Scientist* article on work on dark energy, 12 September 2014.

Quoted in major news sources around the world following the 17 March 2014 announcement from BICEP2. This includes the *New York Times* Quotation of the Day 18 March 2014 and quotation on "Wait Wait Don't Tell Me," the NPR news quiz show, 22 March 2014.

"In Lopsided Map of the Universe, a Glimmer of Its Origins," *Quanta Magazine* article on work on power asymmetry (reprinted in wired.com), 14 June 2013.

Quoted in major news sources around the world following the 21 March 2013 announcement of results from the Planck Satellite.

"How to Survive the End of the Universe," *Discover* magazine article on the Big Rip, December 2011.

"New Theories May Shed Light on Dark Matter," *Scientific American* article on work on dark matter and dark radiation, 10 November 2008.

"Hints of Structure Beyond the Visible Universe," *New Scientist* article on work on the power asymmetry, 10 June 2008.

"From Space, a New View of Doomsday," *New York Times* article on the Big Rip, 17 February 2004.

"No Extra Gravity for Dark Matter," *Science Magazine* article on work on the equivalence principle, 3 October 2006.

"Universal Migraine," *Los Angeles Times* editorial on the Big Rip, 29 March 2003.

"Will the Universe End in a Big Rip," *NBC News Today* article on the Big Rip, 4 March 2003.

Last updated: April 17, 2024  
<http://kamion.pha.jhu.edu/CV.pdf>