CURRICULUM VITAE

Abraham Loeb

Field of Research: Theoretical Astrophysics and Cosmology
Family: Married to Dr. Ofrit Liviatan and father to daughters Klil and Lotem
Work Address:
Harvard University
60 Garden Street, MS-51
Cambridge, MA 02138, USA
Phone: (617) 913-5598
E-mail: aloeb@cfa.harvard.edu; **URL:** http://cfa-www.harvard.edu/∼loeb/

Academic Degrees
1986 Ph.D. in Physics
1985 M.Sc. in Physics
1983 B.Sc. in Physics and Mathematics
The Hebrew University of Jerusalem, Israel

Thesis Titles
Ph.D. "Particle Acceleration to High Energies and Amplification of Coherent Radiation by Electromagnetic Interactions in Plasmas"
M.Sc. "Analytical Models for the Evolution of Strong Shock Waves Generated by High Irradiance Lasers in Solids and Fast Spark Discharges"

Positions Held
2012– *Frank B. Baird Jr. Professor of Science*, Harvard University.
2005– Chair, *UAP Science Advisory Council to the White House, Pentagon, ODNI, FBI and Intelligence Community.*
2021– Director, *Galielo Project*, Harvard University (https://galileo.hsites.harvard.edu/).
2005–2026 Director, *Institute for Theory and Computation (ITC)*, Harvard University (http://www.cfa.harvard.edu/itc/).
2016 Founding Director of the *Black Hole Initiative*, Harvard University.
2011–2020 Longest-Serving Chair (three terms), Harvard Astronomy department (http://astronomy.fas.harvard.edu/).
2021–2022 Member of the *Center for Astrophysics Executive Board.*

2018–2021 Chair of the *Board on Physics & Astronomy* of the National Academies, USA.
2016-2018 Vice chair of the *Board on Physics & Astronomy* of the National Academies, USA.
2016–2024 Chair of the Advisory Committee for *Breakthrough Starshot*, Breakthrough Prize Foundation.
2015– Affiliate of the Center of Mathematical Sciences and Applications, Harvard University.
2015–2025 Science Theory Director for the *Breakthrough Initiatives Projects* of the *Breakthrough Prize Foundation*.
2012– *Frank B. Baird Jr. Professor of Science*, Harvard University.
2011–2020 Longest-Serving Chair (three terms), Harvard Astronomy department (http://astronomy.fas.harvard.edu/).
2011– Senior Visiting Professor, School of Physics and Astronomy, Tel Aviv University.
1997– Professor of Astronomy, Harvard University.
1995–1996 Associate Professor, Astronomy Dept., Harvard University.
1993–1995 Assistant Professor, Astronomy Dept., Harvard University.
1988–1993 Long-term member, The Institute for Advanced Study, Princeton.
1985–1988 Head of a theoretical group on electromagnetic propulsion, Israel.
1980–1988 Participant in "Talpiyot project," Israel. This national project selects 25 high-school graduates every year from all around Israel; the participants attend an advanced program of academic study and research.

Honors & Awards

2024 Winner of the "Space Anomaly Hunters" award for 2024, Miami, Florida (August 4, 2024).
2024 Keynote Lecture at the 550 Year Celebration of the Birth of Nicolaus Copernicus, titled: "The Next Copernican Revolution", Torun, Poland
2024 Fireside Chat at the Munich Security Conference, Germany
2023 CERN's John Grace Distinguished Lecturer "The New Frontier of Interstellar Objects", CERN, Geneva, Switzerland
2023 Cosmos Award for "Extraterrestrial", Reggio Calabria, Italy
2021 "Extraterrestrial" selected as Best Science Book of the Year and Best Nonfiction Book of the Year, Amazon

2021 Keynote Speaker in Peace BAR (spiritually Beautiful, materially Affluent and humanly Rewarding) Festival, on the topic: "The Arrival of Extraterrestrial Intelligence in the Solar System: Will the Identity and Destiny of Earth be Rewritten", Kyung Hee University System, South Korea
2021 Ignatius Speaker, on "Our Future in Space", Washington National Cathedral
2021 Keynote Speaker, National Book Festival, Library of Congress
2021 New York Times Bestseller on first week after publication date of the book *Extraterrestrial*.
2015-2020 Three of Loeb's students selected for *"Forbes 30 Under 30"* in five years: Amir Siraj, Henry Lin and Tony Pan; Forbes Magazine.
2020 *Dean's Competitive Funds for Promising Scholarship*, Faculty of Arts & Sciences, Harvard University.
2020 Loeb's PhD student, Nick Stone, awarded the *Bok Prize*, Astronomy Department, Harvard University.
2020 *Hoopes Prize in undergraduate education* for Senior Thesis of advisee, Amir Siraj, Harvard College.
2020 Member of the "President's Council of Advisors on Science and Technology (PCAST), White House, USA.
2020 Member of the Advisory Board of "Einstein: Visualize the Impossible", Hebrew University of Jerusalem, Israel.
2020 Selected to "The 14 Most Inspiring Israelis of the 2010-2020 Decade" by the organization *"From the Grapevine"*.
2019 Svein Rosseland Lecturer at the University of Oslo, Norway.
2018 *Hoopes Prize in undergraduate education* for Senior Thesis of advisee, Eden Girma, Harvard College.
2018 Selected among "100 Hebrew University Alumni We Love", by the American Friends of the Hebrew University, Jerusalem.
2018 Distinguished Lecturer of the Center for Relativistic Astrophysics, School of Physics, Georgia Tech University, Atlanta.
2015 Elected Fellow of the International Academy of Astronautics (IAA) SETI Permanent Committee.
2015 Elected Member of the American Physical Society (APS).
2015 Member of the International Astronomical Union (IAU).
2014-2022 Member of the Board on Physics & Astronomy (BPA) of the National Academies.
2013 Miegunyah Distinguished Visiting Fellowship, University of Melbourne, Australia.

2012 *Hoopes Prize in undergraduate education* for Senior Thesis of advisee, Marion Dierickx, Harvard College.
2012 Selected to "The 25 Most Influential People in Space" by TIME Magazine.
2012 Elected member of the American Academy of Arts & Sciences.
2012 Galileo Galilei Chair (Cattedra Galileiana) Award, Scuola Normale Superiore, Pisa, Italy.
2011 Sackler Lecturer in Astronomy, Leiden Observatory, Netherlands.
2011 Las Cumbres Observatory Prize Lecturer in Astrophysics, UC Santa Barbara.
2009/10 Director of the Jerusalem Winter School in Theoretical Physics.
2009 Distinguished Visiting Scientist at the Carnegie Observatories, Pasadena.
2008 Invited speaker at the annual symposium of the Miller Institute, UC Berkeley.
2007 Inaugural Australian Institute of Physics (AIP) End of Year Lecturer.
2007/8 Australia-Harvard Distinguished Fellow
2007 Merle Kingsley Distinguished Visitor at the California Institute of Technology (Caltech).
2006/7 John Bahcall Lecturer at Tel Aviv University University.
2006 Salpeter Lecturer at Cornell University.
2006 SAAS-Fee Lecturer on "The First Light". Ten lectures summarized in a review of 158 pages, appeared in a book format (astro-ph/0603360).
2004- Distinguished Visiting Professorship at the Faculty of Physics and the Einstein Center for Theoretical Physics, Weizmann Institute of Science.
2003 Einstein Minerva fellow, Physics Faculty, Weizmann Institute.
2002 John Simon Guggenheim Memorial Foundation Fellow.
2001 Prof. Dror Sadeh Memorial Lecturer at Tel Aviv University.
1999 Bergmann Memorial Award of the US-Israel Binational Science Foundation.
1996 *Hoopes Prize in undergraduate education* for Senior Thesis of advisee P. Young, Harvard College.
1987 The Kennedy Prize, Hebrew University of Jerusalem.
1985 "Best M.Sc. Student" award of the Faculty of Science of the Hebrew University of Jerusalem (summa cum laude).
1980 Participant in the national elite project "Talpiyot", Israel.

Mentoring Awards
2015 *Eric Keto Prize in Theoretical Astrophysics* for PhD thesis of advisee

Gongjie Li. **2012** *Eric Keto Prize in Theoretical Astrophysics* for PhD thesis of advisee Laura Blecha.
2006 Robert J. Trumpler Award of the *Astronomical Society of the Pacific* for the PhD thesis to advisee Steven Furlanetto.

Professional Service

2018-2022 Ex-officio Member, U.S. Liaison Committee for the International Union of Pure and Applied Physics, National Academies.
2018 Member of the Consultation Group of the 2020 Decadal Survey in Astronomy and Astrophysics, National Academies.
2017-2022 Ex-officio Member, U.S. National Committee for the International Astronomical Union.
2016-2020 Member, President's Task Force on Diversity and Belonging, Harvard University.
2014-2022 Member, Board on Physics and Astronomy of the National Academies.
2014-2017 Member, Dean's Faculty Resources Committee, Faculty of Arts & Sciences, Harvard University.
2014 Guest member, Editorial board, Annual Reviews of Astronomy & Astrophysics.
2013–2014 Physical Sciences Chair, Review Committee of Science Graduate Programs, Harvard University.
2013–2020 Member, Allston Academic Planning Committee, Harvard University.
2013–2015 Member, Star Family Challenge Committee, Harvard University.
2011-2020 Head of Astrophysics, Editorial Board, Scientific Reports, Nature Magazine.
2011-2014 Member, International Advisory Board, Publications of the Astronomical Society of Australia.
2009–2020 Editor, Journal of Cosmology and Astroparticle Physics (JCAP).
2008–2010 Executive board for the *Energetic X-ray Imaging Survey Telescope*
2008–2010 Science Working Group for the *JANUS GRB Mission*
2008–2019 Science Working Group for the *Lunar Radio Observatory.*
2008/9 Chair, selection committee of the Dan David Prize in cosmology.
2005–2008 Science Working Group for the *Cosmic Inflation Probe.*
2005–2015 Science Working Group for the *Murchison Wide-Field Array.*

2000–2020 Chair of the biennial *Harvard-Smithsonian Conference Series in Theoretical Astrophysics*, sponsored by Raymond and Beverly Sackler. The first conference on "The First Generation of Cosmic Structures" was held in May 2000 (http://cfa-www.harvard.edu/apconf/). The second conference on "Gamma-Ray Bursts: The Brightest Explosions in the Universe" was held in May 2002 (http://cfa-www.harvard.edu/grbconf/). The third conference on "Astrophysics of Planetary Systems" was held in May 2004 (http://cfa-www.harvard.edu/apsconf/). The fourth conference on "Nuclear Black Holes in Galaxies" was held in May 2006 (http://cfa-www.harvard.edu/bh2006/). The fifth conference on "21cm Cosmology" was held in May 2008 (http://www.cfa.harvard.edu/events/2008/cos2008/).
The sixth conference on "Dynamics from the Galactic Center to the Milky-Way Halo" was held in May 2010 (http://www.cfa.harvard.edu/events/2010/dyn/).
The seventh conference on "Testing General Relativity with Astrophysical Systems" was held in May 2012 (http://www.cfa.harvard.edu/events/2012/sackler).
The eighth conference on "Debates of the Nature of Dark Matter" was held in May 2014 (http://www.cfa.harvard.edu/events/2014/sackler).
The ninth conference on "The Transient Sky" was held in May 2016 (http://www.cfa.harvard.edu/events/2016/sackler).
The tenth conference on "Gravitational Wave Astrophysics" was held in May 2018 (https://itc.cfa.harvard.edu/sackler-conference-2018).
1999–2000 Panel on Ultraviolet, Optical, and Infrared Astronomy from Space of the Astronomy and Astrophysics Survey Committee.
1998–2000 Science Working Group for the *Generation-X Space Telescope*.
1997–2000 Science Working Group for the *Next Generation Space Telescope*.

Undergraduate Students at Harvard College

Peter Young, Genevieve Shattow, Marion Dierickx, Ana-Maria Constantin, Henry Lin, Eden Girma, Amir Siraj, Mahlet Shiferaw, Carson Ezell, Kaylie hausknecht.

Graduate Students (in chronological order)

Daniel Eisenstein (Hubble fellow, Professor at Univ. of Arizona, now tenured Professor at Harvard Univ.), Zoltán Haiman (Hubble fellow, tenured Pro-

fessor at Columbia Univ.), Rosalba Perna (Harvard Junior fellow, Princeton Spitzer fellow, tenured Professor at SUNY Stony Brook), Eric Woods (teaching), Ravi Pilla (graduated), Alexandre Refregier (Professor, ETH Zurich, Switzerland), David Heyrovsky (graduated), Xiaohu Wang (graduated), Pinaki Chatterjee (graduated), Steven Furlanetto (prize postdoctoral fellowship at Caltech, tenured Professor at UCLA), Loren Hoffman (Lindheimer postdoctoral fellow, Northwestern, postdoc at Hebrew University), Daniel Babich (prize postdoctoral fellowship, Caltech), Ryan O'Leary (Einstein fellow, UC Berkeley), Genevieve Shattow (Swinburne), Joseph Munoz (researcher, Lincoln Labs), Bence Kocsis (Einstein fellow, ITC, postdoc IAS, Professor in Hungary), Laura Blecha (Einstein fellow, Maryland; Assistant Professor, U. Florida), Idan Ginsburg (Dartmouth, research fellow at CfA), Eli Visbal (Prize postdoc at Columbia U., Research Fellow at Flatiron Institute, Professor at Univ. of Toledo), Nicholas Stone (Postdoc at Columbia U., Assistant Professor at Hebrew University), Douglas Rubin (graduated, finances), Tony Pan (graduated, CEO of "Modern Electron"), Jonathan Bittner (Physics, CEO of startup), Gongjie Li (Harvard Junior fellow, Assistant Professor at Georgia Tech), Natalie Mashian (Physics, research fellow in biophysics), Marion Dierickx (Astronomy, postdoc at Harvard), Pierre Christian (Astronomy, prize postdoc in Arizone), Anna Ijjas (Visiting PhD student), Anna Patej (Physics, Prize postdoc at U. Arizona), Xiawei Wang (Astronomy), Ben Margalit (Columbia U., postdoc at UC Berkeley), Aaron Smith (UT Austin), Delilah Gates (Physics), Sophia Sanchez-Maes (Astronomy), Betty Hu (Physics), Shelley Cheng (Astronomy), Karina Mathew (English).

Visiting Graduate Students (in chronological order)

Dr. Girish Kulkarni (India), Dr. Urbano Franca (Spain), Dr. Kimi Hayasaki (Japan), Dr. Francisco Villaescusa-Navarro (Spain), Dr. Giacomo Fragione (Italy), Dr. Shmuel Bialy (Israel), Dr. Akshaya Rane (WVU, US), Dr. Erez Michaeli (Israel), Elisa Tabor (Stanford).

Postdoctoral fellows (in chronological order)

Anne Thoul (Prof. at Univ. of Liege, Belgium), Volker Bromm (Prof. at Univ. of Texas), Stuart Wyithe (Prof. at Univ. of Melbourne), Avery Broderick (Prof. at Univ. Waterloo, Canada), Misha Medvedev (Prof. at U.

Kensas), Mark Dijkstra (MPA postdoc), Scott Gaudi (Prof. at Ohio-State U.), Jonathan Pritchard (Prof. at Imperial College, UK), Uri Keshet (Prof. at Ben Gurion Univ., Israel), Yuval Birnboim (Prof. at Hebrew Univ.), Bence Kocsis (Professor at Oxford Univ.), Charlie Conroy (Prof. at Harvard), Yue Shen (Prof. at U. Illinois), Nico Yunes (Prof. at Univ. of Montana), Asaf Pe'er (Prof. at Ben Gurion U.), Smadar Naoz (Prof. at UCLA), Claude-Andre Faucher-Giguere (Professor at Northwestern), Sayan Chakraborti (Harvard Society of Fellows), Konstantin Batygin (Prof. at Caltech), Yan-Fei Jiang (Einstein fellow), Lorenzo Sironi (Prof. at Columbia U.), James Guillochon (Einstein fellow), Cora Dvorkin (Prof. at Harvard), Igor Pikovski (Branco Weiss postdoctoral fellow), Blakesley Burkhart (Prof. at Rutgers), Nia Imara (Future Faculty Leader fellow, Harvard), Zac Manchester (Prof. at Carnegie Mellon Univ.), Girish Kulkarni (Prof. in India), Nicola Amorisco (ITC fellow), Anastasia Fialkov (Prof. at Cambridge U.), John Forbes (ITC fellow), Ana Bonaca (Prof. at Carnegie Observatories), Laura Kreiberg (Prof. at Heidelberg Univ.), Nia Imara (Prof. at UCSC), Dan D'Orazio (Prof. at Denmark), Sownak Bose (Prof. at Durham, UK), Manasvi Lingam (Prof. at Florida Institute of Technology), Razi Emami (ITC fellow), Shmuel Bialy (Prof. at Univ. of Haifa), Paul Chesler (BHI fellow), Hsin-Yu Chen (BHI fellow), Feraz Azhar (BHI fellow), Vikram Ravi (CfA fellow), Julian Munoz (CfA fellow), Mohammad Safarzadeh (ITC fellow), Karan Jani (Vanderbilt), Richard Annantua (ITC fellow), Morgan MacLeod (ITC fellow), Richard Cloete (Galileo-Luakien fellow), Laura Domine (Galileo-Keto fellow), Juliana Cherston (Brinson Fellow), Regina Sarmiento (Galileo fellow), Vishnu Anand (Galileo fellow), Jun Yang (Galileo fellow), Devesh Nandel (ITC fellow).

Abraham Loeb - LIST OF PUBLICATIONS

Books

9. Loeb, A. *"Interstellar"*, HarperCollins (August 2023).

8. Lingam, M., & Loeb, A. *"Life In The Cosmos: From Biosignatures to Technosignatures"*, Harvard University Press (June 2021).

7. Loeb, A. *"Extraterrestrial"*, Houghton Mifflin Harcourt (January 2021).

6. Loeb, A. (Eds. D. Sloan, R.A. Batista, M. T. Hicks & R. Davies), *"Fine-Tuning in the Physical Universe"*, Cambridge University Press (2020)

5. Loeb, A. *"From the First Star to Milkomeda"*, Kindle, Amazon (2015).

4. Loeb, A. *"From the First Star to the End of Time"* (in hebrew), Carmel Publishing House, Israel (2015).

3. Loeb, A., & Furlanetto, S., *"The First Galaxies in the Universe"*, Princeton Series in Astrophysics, Princeton University Press (2013).

2. Loeb, A. *"How Did the First Stars and Galaxies Form?"*, Frontiers in Physics Series, Princeton University Press (2010).

1. Loeb, A., Ferrara, A., & Ellis, R. S. *"First Light in the Universe"*, SAAS-Fee winter school, Springer, New York (2008).

Latest Papers and Essays

2224. Loeb, A. "UAP Storytelling Versus UAP Reality: "We Interrupt This Program . . . "", Medium (2026). [https://www.cfa.harvard.edu/~ loeb/U664.docx]

2223. Loeb, A. "The Technological Zone is Closer to Stars Than Superhabitable Exoplanets", Medium (2026). [https://www.cfa.harvard.edu/~ loeb/U734.docx]

2222. Loeb, A. "Digital Data or Material Evidence Please; The Time is Ripe to Go Beyond Verbal Testimonies on UAP!", Medium (2026). [https://www.cfa.harvard.edu/~ loeb/U663.pdf]

2221. Loeb, A. "Wearing the Cosmos on Our Bodies", Medium (2026). [https://www.cfa.harvard.ed

2220. Loeb, A. "Are We the Indigenous Intelligent Species in Our Cosmic Neighborhood?", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U661.pdf]

2219. Loeb, A. "Lies, Damn Lies, and Internet Lies", Medium (2026). [https://www.cfa.harvard.edu

2218. Loeb, A., Delacroix, A., Kelderman, E., Masson, E., & Sarmiento, R. "An Assessment of the Triangulation Capabilities of a Multi-Site All-Sky Infrared Camera Array", Sensors (2026). [arXiv:2610.06922]

2217. Loeb, A. "On the Role of Belief in Science", Medium (2026). [https://www.cfa.harvard.edu/˜ l

2216. Loeb, A. "The Six Infrared Dots in a Declassified UAP Video is a Flock of Birds", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U657.pdf]

2215. Loeb, A. "The Trump Administration Can Make History by Unraveling Alien Technology", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U659.pdf]

2214. Loeb, A. "Alien Technology Deserves an XPRIZE", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U658.pdf]

2213. Loeb, A. "The Event Horizon of Alien High Tech", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U656.pdf]

2212. Loeb, A. "Watching the Cosmic Party While It Lasts!", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U732.pdf]

2211. Loeb, A. "Alien Adventures During the Texas Tribune Festival in Austin", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U655.pdf]

2210. Loeb, A. "First Radio Signal from an Exoplanet Has Nothing to Do with Aliens", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U654.pdf]

2209. Africk, S. & Loeb, A. "A Study of the 30 May 2026 Meteor Event in Eastern Massachusetts Employing Data from Raspberry Boom Infrasound Sensors in the Boston Area", Sensors (2026). [arXiv:]

2208. Loeb, A. "Acoustic Localization of the Boston Meteor Explosion on May 30, 2026", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U653.pdf]

2207. Loeb, A. et al. "An Assessment of the Triangulation Capabilities of a Multi-Site All-Sky Infrared Camera Array", Sensors (2026). [arXiv:]

2206. Loeb, A. "First Triangulation Results in Search for UAP by the Galileo Observatories", Medium (2026). [https://www.cfa.harvard.edu/˜ loeb/U647.pdf]

2205. Hibberd, A., Crowl, A. & Loeb, A. "Feasibility of the Phobos 1 Hypothesis for Dark Comet 1998 KY26", JBIS (2026). [arXiv:2609.24283]

2204. Loeb, A. "Evidence That the 'Dark Comet' 1998 KY26 Might Be the Failed Soviet Spacecraft Phobos 1", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U652.pdf]

2203. Loeb, A. "Insights on AI and Aliens During the International Day of Peace at Kyung Hee University in Seoul", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U651.pdf]

2202. Loeb, A. "Q and A About Aliens in Seoul, South Korea", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U650.pdf]

2201. Loeb, A. "Insights from the Sixth UAP Tranche (Sep. 18, 2026)", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U649.pdf]

2200. Loeb, A. "Fingerprints of AI on Exoplanets", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U731.pdf]

2199. Loeb, A. "It is a Privilege to Collaborate with the U.S. Government on Resolving the Nature of UAP", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U648.pdf]

2198. Loeb, A. "First Triangulation Results in Search for UAP by the Galileo Observatories", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U647.pdf]

2197. Loeb, A. "What Did the U.S. Government Learn About Alien Tech?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U646.pdf]

2196. Loeb, A. "Defining a New Research Frontier on the "Search for Extraterrestrial Artificial Intelligence" (SETAI)", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U645.pdf]

2195. Loeb, A. "Make History Better Rather Than Talk About It", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U644.pdf]

2194. Trivedi, O. & Loeb, A. "Dark Matter-Baryon Separability Predicts the Dynamics of an Almost-Dark Galaxy", Physics of the Dark Universe (2026). [arXiv:2609.10661]

2193. Guillochon, J., & Loeb, A. "Optical Flashes from Beam-Driven Light Sails with the Roman, Rubin and Euclid Observatories", Open J. of Astrophysics (2026). [arXiv:2609.07574]

2192. Duran, V., & Loeb, A. "Calibration of CNEOS Fireball Velocities and the Robustness of Nominally Hyperbolic Events", Open J. of Astrophysics (2026). [arXiv:2609.06745]

2191. Loeb, A. "The Search for Extraterrestrial Life and Death", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U730.pdf]

2190. Loeb, A. "Can We Detect Alien Tech in the form of Sub-Micron Dust on the Moon?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U643.pdf]

2189. Loeb, A. "Searching for Alien Tech Meteors", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U642.pdf]

2188. Loeb, A. "A New Observatory Concept for Imaging UAP Orbs", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U641.pdf]

2187. Loeb, A. "Is the Mini-Moon Sar2901 a Lost Panel from Apollo 13?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U640.pdf]

2186. Loeb, A. "Tales from an AI-Disrupted Academia", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U639.pdf]

2185. Loeb, A. "Was Dark Matter Detected?", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U638.pdf]

2184. Loeb, A. "Where Are the Aliens? Right Here, But We Are Slow to Recognize That!", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U729.pdf]

2183. Guillochon, J. & Loeb, A. "A Self-Sustaining Black Hole Engine Powered by the Tidal Disruptions of Stars", ApJ (2026). [arXiv:2608.28947]

2182. Loeb, A. "Detectable Flashes from Light-Sail Transport Systems Between Habitable Exoplanets", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U637.pdf]

2181. Loeb, A. "Cosmic Slingshots to the Speed of Light", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U636.pdf]

2180. Loeb, A. "Will NASA's Roman Space Telescope Discover Interstellar Artifacts?", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U634.pdf]

2179. Loeb, A. "A Self-Sustained Black Hole Engine, Powered by Tidal Disruption of Stars", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U633.pdf]

2178. Loeb, A. "Skeptics Are Capable of Promoting Conspiracy Theories", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U632.pdf]

2177. Loeb, A. "The Limits of Our Cosmic Horizon", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U728.pdf]

2176. Loeb, A. "Scientists Deserve First-Hand Evidence on UAP Materials", Medium (2026).
[https://www.cfa.harvard.edu/~ loeb/U631.pdf]

2175. Loeb, A. “Nuclear Spacecraft”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U630.pdf]

2174. Loeb, A. “How to Build a Black Hole in Your Backyard”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U629.pdf]

2173. Loeb, A. “Are We at the Top of the Cosmic Food Chain?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U628.pdf]

2172. Loeb, A. “How to Rule Butterflies”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U727.pdf]

2171. Loeb, A. “Are UAP Orbs Adversary Drones?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U627.pdf]

2170. Loeb, A. “When AI is Perfect, Flaws Are a Human Marker”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U626.pdf]

2169. Loeb, A. “To Shoot or Not to Shoot a UAP, that is the Question”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U625.pdf]

2168. Loeb, A. “Most of the Real Estate is Beyond Earth, and Worth Investing In!”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U624.pdf]

2167. Fell, S.D. & Loeb, A. ”Radiative Signatures from Warp Drives Traveling Through the Earth’s Atmosphere”, Phys. Rev. D (2026). [arXiv:2608.10800]

2166. Loeb, A. “Could Interstellar Objects Transfer Life Between Stars?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U726.pdf]

2165. Loeb, A. "Numerical Simulations of the Glowing Orbs Surrounding Warp Drives in the Earth's Atmosphere", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U623.pdf]

2164. Loeb, A. "What Does Downing of UAP Orbs Imply About Their Nature?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U622.pdf]

2163. Loeb, A. "Materials from Recently Downed Orbs Near White Sands Could be Key for Testing the Conjecture of Alien Tech", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U621.pdf]

2162. Loeb, A. "Is the Fastest Known Star S301 Accompanied by Alien String Experimentalists?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U620.pdf]

2161. Loeb, A. "Remarkable Anomalies in the Fifth Tranche of UAP Data from the U.S. Government", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U619.pdf]

2160. Loeb, A. "Is There a UFO Base on the Moon?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U618.pdf]

2159. Loeb, A. "The Declassified DOW-UAP-PR043 in the PURSUE Disclosure is Likely a Missile", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U617.pdf]

2158. Loeb, A. "Distinguishing Reality from Our Imagination", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U725.pdf]

2157. Loeb, A. "My First Pitch for the Astros: "Houston, We Have No Problem!"", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U800.docx]

2156. Loeb, A. "Will We Be at the Center of the Observable Universe in the Future?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U616.pdf]

2155. Loeb, A. "Why Are There NDAs Prohibiting UAP Disclosure to President Trump?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U615.pdf]

2154. Loeb, A. "UAP Disclosure is No Longer Optional", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U614.pdf]

2153. Loeb, A. "The Risk of False-Negatives: Is Elon Musk the Most Accomplished Space Entrepreneur Since the Big Bang?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U613.pdf]

2152. Trivedi, O., & Loeb, A. "Dark Matter Defficient Galaxies as Probes of Dark Matter", Physics of the Dark Universe (2026). [arXiv:2607.26085]

2151. Loeb, A. "The Universe Was Sculpted in Invisible Matter", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U724.pdf]

2150. Loeb, A. "What Distinguishes a Baseball Pitch from a UAP?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U612.pdf]

2149. Loeb, A. "How to Propel Astronauts to the Speed of Light at 1g?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U611.pdf]

2148. Loeb, A. "How Many Golf Shots Does It Take to Get a Ball Into the Black Hole at the Center of the Milky-Way?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U610.pdf]

2147. Loeb, A. "A Decade-Long Voyage Through the Milky-Way is Possible Without a Wormhole Shortcut", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U609.pdf]

2146. Loeb, A. "Do Some UAP Represent Earth-Based-Tech of a Pre-Human Origin?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U608.pdf]

2145. Loeb, A. "Were the Nimitz Tic Tac Objects Megafilaments of Laser Produced Plasmas?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U607.pdf]

2144. Loeb, A. "A New Galileo Observatory in Celebration of Carl Sagan's Legacy", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U723.pdf]

2143. Loeb, A. "President Trump: Are There Alien Packages in Our Mailbox?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U606.pdf]

2142. Loeb, A. "A Distance Measurement is Worth a Thousand Words Regarding the Nature of UAP", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U605.pdf]

2141. Loeb, A. "How Will the Soccer Worlds Cup Look Like Once Humans Settle on Mars?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U604.pdf]

2140. Loeb, A. "Why I Agreed to Lead the UAP Science Advisory Council for the U.S. Government", Medium (2026).

2139. Loeb, A. "Do UAP Flag New Physics?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U603.pdf]

2138. Loeb, A. "Transforming Interstellar Objects into Spacecraft", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U602.pdf]

2137. Loeb, A. "A Q and A About Aliens and Black Holes", Medium (2026).

2136. Loeb, A. "What is the Real Estate Value of the Neighboring Habitable Planet GJ 3378 b?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U722.pdf]

2135. Loeb, A. "Do Laser Produced Plasmas Explain Some of the UAP Orbs?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U601.pdf]

2134. Loeb, A. “Are UAP Orbs an Extension of Ball Lightning?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U600.pdf]

2133. Loeb, A. “History Is Not Made by Those Who Begin, But by Those Who Persevere”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U599.pdf]

2132. Loeb, A. “Highlights from the Fourth UAP Data Release by the U.S. Government”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U598.pdf]

2131. Loeb, A. “Superhuman Artificial Intelligence Will Make Mistakes in Forecasting Reality”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U597.pdf]

2130. Loeb, A. “Neutrinos Are Worth a Thousand Words!”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U721.pdf]

2129. Loeb, A. “Social-Media UAP Influencers Misunderstand How Science Works!”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U596.pdf]

2128. Loeb, A. “Pitching UAP for the Astros Fans”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U595.pdf]

2127. Loeb, A. “Are UAP Orbs Meteoritic Dust Clouds?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U594.pdf]

2126. Loeb, A. “The Impact of Encounters with Alien Intelligence on the Future of Humanity”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U593.pdf]

2125. Kakharov, S., & Loeb, A. ”Prospects for Panspermia via Interstellar Objects like 3I/ATLAS”, Int. J. Astrob. (2026). [arXiv:2607.00202]

2124. Loeb, A. "On the Partnership Between the U.S. Government and Science in Figuring Out the Nature of UAP", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U592.pdf]

2123. Loeb, A. "On Mysterious Orbs and Fireballs", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U720.pdf]

2122. Loeb, A. "Dusting Off 3I/ATLAS: Interstellar Travelers Must Clean their Windshields!", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U591.pdf]

2121. Loeb, A. "The Challenge of Recognizing Alien Technology", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U590.pdf]

2120. Loeb, A. "About UAP and Interstellar Objects", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U589.pdf]

2119. Loeb, A. "Humanity Must Become Interstellar, the Sooner the Better!", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U588.pdf]

2118. Loeb, A. "UAP Disclosure Forum in the U.S. Senate", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U587.pdf]

2117. Loeb, A. "Cosmic Discoveries by National-Security Sensors", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U719.pdf]

2116. Loeb, A. "Was Methane a Signature of Life in 3I/ATLAS?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U586.pdf]

2115. Loeb, A. "Dogmatists Will Never Be Jailed Over Cosmic Mistakes", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U585.pdf]

2114. Loeb, A. “White House Creates a UAP Science Council”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U584.pdf]

2113. Loeb, A. “A Survey on Public Attitudes Toward the PURSUE UAP Records Release”, Medium (2026).

2112. Loeb, A. “Resolving the Nature of Unidentified Anomalous Phenomena (UAP) by Scientific Evidence”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U583.pdf]

2111. Loeb, A. “More Details on the UAP Science Advisory Council”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U582.pdf]

2110. Loeb, A. “Would Alien Visitors Possess Intelligence Based on Silicon Chips or Synthetic Biology?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U718.pdf]

2109. Loeb, A. “How to Identify a Common Ancestry of Extraterrestrial Life?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U581.pdf]

2108. Loeb, A. “A UAP Science Advisory Council to the U.S. Government: Keeping Our Eyes on the Orbs, Not the Audience!”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U580.pdf]

2107. Loeb, A. “UAP Disclosure 3 is the Most Intriguing Release Thus Far!”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U579.pdf]

2106. Loeb, A. “A Hot Take on the Galileo Project”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U578.pdf]

2105. Loeb, A. “Whether You Believe in God or Not, You Should Welcome Aliens!”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U577.pdf]

2104. Loeb, A. "The Best and Worse Are Yet to Come", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U717.pdf]

2103. Loeb, A. "Reality Should Not be Classified: A Call for Action on UAP Disclosure", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U576.pdf]

2102. Loeb, A. "What Are the Chances That We Are Visited by Aliens?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U575.pdf]

2101. Loeb, A. "Does the Universe Contain Negative-Mass Particles?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U574.pdf]

2100. Loeb, A. "On Disclosure Day: Keep Your Inspiration from the Stars and Your Common Sense Down to Earth", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U573.pdf]

2099. Cloete, R., & Loeb, A. "A High-Likelihood Polar Interstellar Meteor Candidate", ApJ (2026). [arXiv:2606.04379]

2098. Loeb, A. "Did NASA Miss Viking's Discovery of Life on Mars?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U572.pdf]

2097. Loeb, A. "Discovery of a Polar Interstellar Meteor (Polar-IM) from April 1, 2026", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U571.pdf]

2096. Hibberd, A., Crowl, A., Ballester, C. & Loeb, A. "Is the Dark Comet 1998 KY26 the Spacecraft Phobos 1?", Icarus (2026). [arXiv:2606.01288]]

2095. Loeb, A. "The Smartest Investments in Our Future Are in Space", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U716.pdf]

2094. Loeb, A. “Avi Loeb Comments on the Meteor Explosion Over the Boston Area on May 30, 2026”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U561.pdf]

2093. Loeb, A. “Is the ‘Dark Comet’ 1998 KY26 the Spacecraft Phobos 1?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U570.pdf]

2092. Loeb, A. “The Mysterious Rising Light After a Meteor Strike Near a Volcano in the Philippines is Not Aliens”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U560.pdf]

2091. Loeb, A. “A New 21st Century Meaning to Human Existence”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U559.pdf]

2090. Loeb, A. “Junk Food in the Age of AI”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U558.pdf]

2089. Loeb, A. “Avi Loeb Comments on the Alien DNA Claims”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U557.pdf]

2088. Loeb, A. “About Aliens and Earthlings”, Medium (2026).

2087. Loeb, A. “Avi Loeb Comments on the UFO Files and Extraterrestrials”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U556.pdf]

2086. Loeb, A. “Did 3I/ATLAS Deliver Extrasolar Life to Our Backyard?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U555.pdf]

2085. Loeb, A. “Analysis of the Second Batch of UFO Files Released by the Pentagon”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U554.pdf]

2084. Loeb, A. "Preliminary Assessment by Avi Loeb of the Second Release of UFO Files by the U.S. Department of War", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U553.pdf]

2083. Loeb, A. "A 1.5-Solar-Mass Star in a Tight Orbit Around the 4.3-Million Solar-Mass Black Hole at the Milky-Way Center", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U552.pdf]

2082. Eldadi, O., & Loeb, A. "A Framework for Applying the Loeb-Turner Slope Test to Archival Photometry of Trans-Neptunian Objects", ApJ (2026). [arXiv:2605.17098]

2081. Loeb, A. "The Difference Between Scientific Research and Social Media Opinions", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U551.pdf]

2080. Loeb, A. "Chasing Alien Mysteries in the Sky", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U715.pdf]

2079. Loeb, A. "Near-Earth Object 2026 JH2 Ranks Zero on the Loeb Scale", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U550.pdf]

2078. Loeb, A. "We Should Not Mistake Cosmic-Rays for UFOs!", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U549.pdf]

2077. Loeb, A. "Searching for Artificial Light Sources in the Solar System Based on the Loeb-Turner Test", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U548.pdf]

2076. Loeb, A. "Leadership Lessons from Professor Avi Loeb", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U547.pdf]

2075. Loeb, A. "A Tale of Three Gas Clouds Orbiting the Supermassive Black Hole at the Center of the Milky-Way Galaxy", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U546.pdf]

2074. Trivedi, O. & Loeb, A. "Unique Gravitational-Wave Signals from Negative-Mass Binaries", PRL (2026). [arXiv:2605.10976]

2073. Loeb, A. "Advice for Kids, Including Those in Families Overseas", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U545.pdf]

2072. Loeb, A. "Playing Professor Avi Loeb on a Movie Set About Extraterrestrial Life", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U544.pdf]

2071. Loeb, A. "The Cosmic Shells that Birthed Life", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U714.pdf]

2070. Loeb, A. "Serious Matter': Avi Loeb Reveals Two Crucial UFO Interpretations", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U543.pdf]

2069. Loeb, A. "Reflections on the First Government Release of UFO Files", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U542.pdf]

2068. Loeb, A. "Avi Loeb Analyzes the First UFO File Release", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U541.pdf]

2067. Loeb, A. "Does an Artemis Base Camp on the Moon Represent the "New Wild West" Without Natives?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U540.pdf]

2066. Loeb, A. "Our Highest Priority Should be National Innovation Centers to Complement AI Data Centers", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U713.pdf]

2065. Loeb, A. "Negative-Mass Binaries Generate Never-Seen-Before Gravitational Radiation", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U539.pdf]

2064. Loeb, A. "The AI-Friend Experience and SETI", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U538.pdf]

2063. Loeb, A. "Are Interstellar Helicopters Possible?", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U537.pdf]

2062. Loeb, A. "A Message to Future Trillionaires", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U536.pdf]

2061. Loeb, A. "The Government Should Not Hide Evidence for Alien Technology from the Public", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U535.pdf]

2060. Loeb, A. "Can the Vacuum Drive Fuel-Free Propulsion?", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U534.pdf]

2059. Loeb, A. "Shallow Earthquakes Reported Near Area 51", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U533.pdf]

2058. Loeb, A. "Is There Oil on Mars?", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U532.pdf]

2057. Loeb, A. "A Request to Jared Isaacman: Intercept 4I/Rubin", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U531.pdf]

2056. Loeb, A. "Lets Send AI Astronauts, Not Humans, to the Moon", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U712.pdf]

2055. Loeb, A. "High-Quality Data is Worth a Thousand LLMs in Resolving Ambiguities About UFOs", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U530.pdf]

2054. Loeb, A. "Why Do We Exist Here and Now?", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U529.pdf]

2053. Loeb, A. “We Have a “Missing Science” Problem, not a “Missing Scientists” Problem”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U528.pdf]

2052. K. Szocik,& Loeb, A., ”From Anomaly to Candidate Technosignature: The Threshold Problem of the Loeb Scale”, The Philosophical Quarterly (2026). [arXiv:2604.20896]

2051. Loeb, A. “Can an Atomic Explosion Ignite a Chain Reaction of Deuterium in 3I/ATLAS?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U527.pdf]

2050. Loeb, A. “Where is 3I/ATLAS Now?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U526.pdf]

2049. Nandal, D., Chilingarian, I., Nagele, C., Chisholm, J, Bauer, F. & Loeb, A., ”Pulsational mass loss from supermassive stars creates the compact shells of Little Red Dots”, ApJL (2026). [arXiv:2604.19988]

2048. Loeb, A. “Evidence for the First Generation of Stars”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U525.pdf]

2047. Scarmato, T., & Loeb, A. “Linking the System of Jets to the Non-Gravitational Acceleration of 3I/ATLAS”, MNRAS (2026).[arXiv:2604.18773]

2046. Loeb, A. “From Anomaly to Candidate Technosignature: The Threshold Problem of the Loeb Scale”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U524.pdf]

2045. Loeb, A. “Are Non-Human-Made Objects Orbiting Earth?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U711.pdf]

2044. Loeb, A. “President Trump: UFO Files Coming Out Very Soon!”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U523.pdf]

2043. Loeb, A. "An Inspiring Visit of Congresswoman Anna Paulina Luna to Avi Loeb's Office at the Harvard College Observatory", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U522.pdf]

2042. Comini, L., Vagnozzi, S. & Loeb, A. "Dark energy, spatial curvature, and star formation efficiency from JWST photometric and spectroscopic high-redshift galaxies", Journal of High-Energy Astrophysics (2026). [arXiv:2604.13866]

2041. Loeb, A. "Linking the Non-Gravitational Acceleration of 3I/ATLAS to Its Symmetric System of Three Jets", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U521.pdf]

2040. Loeb, A. "The White House Will Release UAP Videos, But Will They Be the Most Intriguing Ones?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U520.pdf]

2039. Loeb, A. "How Would You Use an Infinite Research Budget?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U710.pdf]

2038. Loeb, A. "A Q and A on the Scientific Search for Extraterrestrials with a Classroom in Sweden", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U519.pdf]

2037. Loeb, A. "The Alignment Problem of Universities with AI", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U518.pdf]

2036. Loeb, A. "Coming Home of Artemis II", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U517.pdf]

2035. Loeb, A. "The Need for "Artificial Gravity Health Centers" on the Moon", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U516.pdf]

2034. Loeb, A. "The Artemis II Distance Record in Cosmic Perspective", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U515.pdf]

2033. Loeb, A. "Homecoming of Artemis II Will Include a Dangerous Ride Inside a Fireball", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U514.pdf]

2032. Loeb, A. "Flashes on the Dark Side of the Moon: A New Fishing Net for Interstellar Objects", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U513.pdf]

2031. Loeb, A. "Artemis II Headed Home, but Do We Have Neighbors?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U512.pdf]

2030. Loeb, A. "An Orbital Data Center of a Million Satellites is Not Practical!", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U511.pdf]

2029. Loeb, A. "Übermenschen on Exoplanets", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U709.pdf]

2028. Loeb, A. "Today, Humans Are Going Farther Than Ever Before!", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U510.pdf]

2027. Loeb, A. "Rising to the Moon on Easter", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U509.pdf]

2026. Loeb, A. "Discovery of the Most Metal-Poor Star Known", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U508.pdf]

2025. Loeb, A. "A Manual for Tracing Alien Tech in Interstellar Objects", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U507.pdf]

2024. Loeb, A. “Is the Observed Spin Reversal of the Comet 41P/Tuttle-Giacobini-Kresák, a Technological Signature?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U506.pdf]

2023. Loeb, A. “The Unbearable Lightness of Artemis II and Our Future Among the Stars”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U504.pdf]

2022. Loeb, A. “Is Cosmic Life Mostly Underground?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U503.pdf]

2021. Loeb, A. “Avi Loeb Comments on Vice President JD Vance’s Remarks that UFOs Might be Demons”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U502.pdf]

2020. Loeb, A. “Benefits of Extraterrestrial Intelligence Over AI”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U708.pdf]

2019. Loeb, A. “Does The Gravitational-Wave Candidate S251112CM Imply a Neutron-Star Moon?”, RNAAS (2026).

[https://www.cfa.harvard.edu/˜ loeb/nsm.pdf]

2018. Loeb, A. “Have We Detected a Gravitational Wave Signal from a Black Hole Moon?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U501.pdf]

2017. Loeb, A. “Is the Recent Surge in Meteor Fireballs on Earth Related to 3I/ATLAS?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U500.pdf]

2016. Loeb, A. “Strong Non-Gravitational Breaking by Interstellar Objects is a Technological Signature!”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U499.pdf]

2015. Loeb, A. “When Will the Milky-Way Collide with Andromeda?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U498.pdf]

2014. Loeb, A. "The Anomalously High Abundance of Deuterium in 3I/ATLAS", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U497.pdf]

2013. Loeb, A. "Lessons to Humanity from Habitable Planets Around Old Stars", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U496.pdf]

2012. Loeb, A. "The Butterfly Effect of Intelligence on the Cosmos", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U707.pdf]

2011. Loeb, A. "The Universe is Over a Hundred Million Times Older than Each of Us", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U495.pdf]

2010. Loeb, A. "Will a Stuffed Animal Survive Free Fall from the Earth's Stratosphere?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U494.pdf]

2009. Loeb, A. "Impact Survival of Microbes Highlights the Feasibility of Panspermia", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U493.pdf]

2008. Loeb, A. "What Will Be the Content of the Website Aliens.gov?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U492.pdf]

2007. Thoss, V., Loeb, A., & Burkert, A. "Inferring the mass and size of 3I/ATLAS from its non-gravitational acceleration", A&A (2026). [arXiv:2603.15735]

2006. Loeb, A. "Should We Worry About Interstellar Predators?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U491.pdf]

2005. Loeb, A. "A Warp Drive Could Shine Brighter than the Sun in the Earth's Atmosphere", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U490.pdf]

2004. Loeb, A. "Will the Human Spirit Survive for Billions of Years?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U706.pdf]

2003. Loeb, A. "Is the Newly Discovered Sun-Grazer C/2026 A1 (MAPS) Related to 3I/ATLAS?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U489.pdf]

2002. Loeb, A. "The Mass of 3I/ATLAS is About a Billion Metric Tons, at Least a Hundred Thousand Times That of 1I/'Oumuamua", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U488.pdf]

2001. Loeb, A. "First Discovery of a Magnetar's Birth May Not Explain All Fast Radio Bursts", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U487.pdf]

2000. Loeb, A. "3I/ATLAS is Fading Away, Leaving Us to Ponder Over Its 22 Mysterious Anomalies", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U486.pdf]

1999. Loeb, A. "The Mass-Budget Discrepancy of 3I/ATLAS", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U485.pdf]

1998. Loeb, A. "New Anomalies in the Isotope Abundances of 3I/ATLAS", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U484.pdf]

1997. Loeb, A. "Q and A About 3I/ATLAS, a Week Before Its Closest Approach to Jupiter", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U483.pdf]

1996. Loeb, A. "We Might Understand How the Cosmos Works Before We Understand How Life Works", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U705.pdf]

1995. Loeb, A. “Is the Mysterious Cylinder on Mars, Photographed in 2022 by the Curiosity Rover, a Human-Made Debris?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U481.pdf]

1994. Loeb, A. “Space Companies Did Not Pollute Our Night Sky for Billions of Years and Should Not Do So in the Future”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U480.pdf]

1993. Loeb, A. “The Rubin Observatory Could Discover Corner Reflectors or Artificial Lights in the Outer Solar System”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U479.pdf]

1992. Loeb, A. “Inspiration from the Stars”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U704.pdf]

1991. Loeb, A. “The Benefits and Costs of Deviating from the Beaten Track”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U478.pdf]

1990. Loeb, A. “The Non-Gravitational Acceleration of 3I/ATLAS is Not Directed Away from the Sun”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U477.pdf]

1989. Loeb, A. “A Scientific Alternative to Government Disclosure: The Galileo Project is Now Capable of Discovering UAP”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U476.pdf]

1988. Loeb, A. “I’m Chat-GPTing, therefore I am!”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U475.pdf]

1987. Loeb, A. “Anti-Sun Jets in ESA’s JANUS Image of 3I/ATLAS from November 6, 2025”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U474.pdf]

1986. Loeb, A. “Birthday Greetings on Earth and Beyond”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U473.pdf]

1985. Loeb, A. "Why Do We Exist?", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U703.pdf]

1984. Loeb, A. "Are We Being Visited by Extraterrestrials?", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U472.pdf]

1983. Scarmato, T., & Loeb, A. "Periodic Wobble of the Post-Perihelion Jet Structure Around 3I/ATLAS", ApJ (2026). [arXiv:2602.18512]

1982. Loeb, A. "Join the Search for Unidentified Anomalous Phenomena Within the Galileo Project!", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U471.pdf]

1981. Loeb, A. "Avi Loeb on Trump's State of the Union Address", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U470.pdf]

1980. Loeb, A. "Avi Loeb on Trump's Release of Secret UAP Files", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U469.pdf]

1979. Loeb, A. "Avi Loeb Reacting to President Trump's Comments on Aliens", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U468.pdf]

1978. Loeb, A. "Can AI Agents Solve the Publication Crisis in Academia?", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U467.pdf]

1977. Loeb, A. "New Analysis of the Periodic Wobbles of the 3 Jets Around 3I/ATLAS", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U466.pdf]

1976. Loeb, A. "First Question For an Alien Scientist", Medium (2026).
[https://www.cfa.harvard.edu/˜ loeb/U465.pdf]

1975. Nandal, D., & Loeb, A. "Habitable Zones Around Massive Stars: From the Main Sequence to Supergiants", ApJ (2026). [arXiv:2602.13875]

1974. Loeb, A. “Missing Elements in the Cosmic Jigsaw Puzzle”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U702.pdf]

1973. Eldadi, O., Tenenbaum, G., & Loeb, A. “Survivorship Bias in the Detection and Characterization of Interstellar Objects”, Nature Astronomy Perspective(2025).

1972. Loeb, A. “The Tremendous Challenge of Detecting the Cosmic Neutrino Background”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U464.pdf]

1971. Loeb, A. “Presidential Priority: Where Are the Aliens?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U463.pdf]

1970. Loeb, A. “Thank God for the Sun: Massive Stars are Less Habitable”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U462.pdf]

1969. Loeb, A. “Academic Harassment”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U461.pdf]

1968. Loeb, A. “GPS Mapping of the Spacetime Around a Black Hole”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U460.pdf]

1967. Loeb, A. “Cosmic Waterfalls in Spacetime Cliffs”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U701.pdf]

1966. Loeb, A. “A Swarm of 35-Million Interstellar Objects Was Just Discovered Within the Earth’s Orbit Around the Sun”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U459.pdf]

1965. Cloete, R., & Loeb, A. ”Two Robust Interstellar Meteor Candidates in the Post-2018 CNEOS Fireball Database”, ApJL (2026). [arXiv:2602.08956]

1964. Loeb, A. “Discovery of Two New Interstellar-Meteor Candidates”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U458.pdf]

1963. Loeb, A. “How to Mitigate Global Concerns of Doomers”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U457.pdf]

1962. Loeb, A. “Music of the Cosmic Spheres”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U700.pdf]

1961. Loeb, A. “Timothée Chalamet Appeared Next to the Galileo Project Observatory on Top the Las Vegas Sphere While Promoting the Movie Marty Supreme”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U456.pdf]

1960. Loeb, A. “The Amazingly Fast Meteor Over New Zealand on January 30, 2026 is Not Interstellar in Origin”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U455.pdf]

1959. Loeb, A. “Life As-We-Do-Not-Know-It: AI and Alien Int0elligence”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U454.pdf] 2

1958. Loeb, A. “Are There Ten Trillion Objects Like 3I/ATLAS Within the Solar System Right Now?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U453.pdf]

1957. Loeb, A. “History Awaits on 3I/ATLAS”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U452.pdf]

1956. Loeb, A. “Is There Life on 3I/ATLAS?”, RNAAS (2026).

1955. Loeb, A. “Is There Life on 3I/ATLAS?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U451.pdf]

1954. Loeb, A. “Imagining The Alien”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U450.pdf]

1953. Loeb, A. "The Massive Nucleus of 3I/ATLAS and its Puzzling Methane Outgassing Based on New Data from the Hubble and Webb Telescopes", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U449.pdf]

1952. Loeb, A. "Black Hole Formation from a Disappearing Star in the Andromeda Galaxy", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U448.pdf]

1951. Trivedi, O., & Loeb, A. "A Comprehensive Network for the Discovery and Characterization of Interstellar Objects", Physics of the Dark Universe (2025). [arXiv:2601.21184]

1950. Loeb, A. "A 28-Hour Movie of 3I/ATLAS from TESS", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U447.pdf]

1949. Loeb, A. "Discovery of a Galaxy at Redshift 14.4, 280-Million Years After the Big-Bang", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U446.pdf]

1948. Loeb, A. "A Comprehensive Network for the Discovery and Characterization of Interstellar Objects Like 3I/ATLAS", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U445.pdf]

1947. Loeb, A. "Professor Avi Loeb Has an Official YouTube Channel", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U444.pdf]

1946. Loeb, A. "Post-Perihelion Spectrum of 3I/ATLAS", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U442.pdf]

1945. Loeb, A. "An Experimental Test for the Existence of the Human Soul", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U441.pdf]

1944. Loeb, A. "A Children's Art Book Inspired by 3I/ATLAS", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U440.pdf]

1943. Loeb, A. “Hubble Images of 3I/ATLAS During Its Rare Alignment with the Sun-Earth Axis on January 22, 2026”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U439.pdf]

1942. Loeb, A. “Did 3I/ATLAS Originate in the Solar System?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U438.pdf]

1941. Loeb, A. “Scientific-Integrity Theft by Artificial Intelligence”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U437.pdf]

1940. Loeb, A. “Peptides, the Building Blocks of Life, Could Form on Interstellar Dust”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U436.pdf]

1939. Loeb, A. “Tomorrows Full Moon Phase of 3I/ATLAS”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U435.pdf]

1938. M. Opher et al. (with A.Loeb), ”Increased and Varied Radiation during the Suns Encounters with Cold Clouds in the last 10 million years”, Nature (2026). [arXiv:2601.11785]

1937. Loeb, A. “Interstellar Hitchhiking on Objects Like 3I/ATLAS”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U434.pdf]

1936. Loeb, A. “Are the Three Mini-Jets, Coming Out of 3I/ATLAS at 120 Degree Separation, a Technological Signature?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U433.pdf]

1935. Loeb, A. “What If 3I/ATLAS Is AI/ATLAS?”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U432.pdf]

1934. Loeb, A. “Weird Jet Geometry Around 3I/ATLAS in Hubble Images from January 14, 2026”, Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U431.pdf]

1933. Scarmato, N., & Loeb, A. 2026, Rotation Period of 3I/ATLAS After Perihelion from Jet Position Angle Wobble and Photometric Variability, 2026, ApJL (2026). [arXiv:2601.10860]

1932. Loeb, A. "SPHEREx Images and a New Anomaly Regarding the Gas Plume Around 3I/ATLAS After Perihelion", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U430.pdf]

1931. Loeb, A. "3I/ATLAS Rotates Every 7.1 hours After Perihelion", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U428.pdf]

1930. Barbieri, M., & Loeb, A. 2026, Rare Near-Opposition Alignment of 3I/ATLAS on 22 January, 2026, RNAAS (2026). [arXiv:2601.08624]

1929. Loeb, A. "A Rare Alignment of 3I/ATLAS With the Sun-Earth Axis on 22 January, 2026", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U429.pdf]

1928. De, K. et al. (with A.Loeb), "Fading into darkness: A weak mass ejection and low-efficiency fallback accompanying black hole formation in M31-2014-DS1", ApJ Letters (2026). [arXiv:2601.05774]

1927. Loeb, A. "The Near Transits of the Inner Planets Across the Face of the Sun from the Vantage Point of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U427.pdf]

1926. Loeb, A. "The Remarkable Anti-Tail Jet of 3I/ATLAS in New Hubble Images from January 7th, 2026", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U426.pdf]

1925. Loeb, A. "3I/ATLAS is Forecasted to Get Nearest to Jupiter's Irregular Moon Eupheme", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U425.pdf]

1924. Loeb, A. "If 3I/ATLAS is a Comet, Why Would the CIA "Neither Deny, Nor Confirm" the Existence of Records on It?", Medium (2026).

[https://www.cfa.harvard.edu/˜ loeb/U424.pdf]

1923. Loeb, A. "Terrestrial Destruction Begs Extraterrestrial Aspirations", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U423.pdf]

1922. Loeb, A. "How Many Einstein-Level Scientists Had Ever Lived?", Medium (2026).

[https://www.cfa.harvard.edu/~ loeb/U422.pdf]

1921. Loeb, A. "The Symmetric Jet Structure in Hubble Images of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U421.pdf]

1920. Loeb, A. "If 3I/ATLAS is a Comet, then Its Anti-Tail Jet Should Not Include Streaming Gas Beyond 5,000 kilometers", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U420.pdf]

1919. Loeb, A. "How Rare is Our Interstellar Dating Partner of 2025, 3I/ATLAS?", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U419.pdf]

1918. Loeb, A. "Wobbling Jets of 3I/ATLAS Based on New Hubble Telescope Images from December 12 and 27, 2025", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U418.pdf]

1917. Loeb, A. "3I/ATLAS is Hiding Behind a Veil of Dust", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U417.pdf]

1916. Loeb, A. "The Dust Mass Shed by 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U416.pdf]

1915. Loeb, A. "3I/ATLAS Sheds Particles that Are Much Bigger Than Common Sunlight-Scattering Dust", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U415.pdf]

1914. Loeb, A. "New Radio Data and Diameter Estimate for 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U414.pdf]

1913. Loeb, A. “Will Material from 3I/ATLAS Arrive on Earth?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U412.pdf]

1912. Loeb, A. “Updating the Loeb Classification Scale of 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U299.pdf]

1911. Loeb, A. “Riding 3I/ATLAS to the Stars”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U411.pdf]

1910. Loeb, A. “3I/ATLAS Ignores Earth”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U410.pdf]

1909. Loeb, A. “Europa Clipper Observed 3I/ATLAS Near Perihelion”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U409.pdf]

1908. Loeb, A. “The 15 Anomalies of 3I/ATLAS: Should We Pay Attention to Them if They Were Not Forecasted?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U408.pdf]

1907. Loeb, A. “3I/ATLAS Maintained a Sunward Jet After Its Gravitational Deflection by 16 Degrees at Perihelion”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U407.pdf]

1906. Loeb, A. “Why is the Anti-Tail Sunward-Jet of 3I/ATLAS Tightly Collimated?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U406.pdf]

1905. Loeb, A. “A 14th Anomaly of 3I/ATLAS: Alignment of Its Rotation Axis with the Sunward Direction at Large Distances”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U405.pdf]

1904. Loeb, A. “The Anti-Tail of 3I/ATLAS Wobbled Before Perihelion”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U404.pdf]

1903. Loeb, A. "The Anti-Tail of 3I/ATLAS is Larger Than the Distance to the Moon", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U403.pdf]

1902. Loeb, A. "Is the Anti-tail of 3I/ATLAS Composed of Macroscopic Non-volatile Objects?", RNAAS (2025).

1901. Loeb, A. "3I/ATLAS Still Shows an Anti-Tail, as it Gets Closer to Earth", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U402.pdf]

1900. Loeb, A. "3I/ATLAS is Green After Perihelion", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U401.pdf]

1899. Loeb, A. "Babies that AI Cannot Create (as Yet)", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U400.pdf]

1898. Loeb, A. "Q and A Before Closest Approach of 3I/ATLAS to Earth", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U298.pdf]

1897. Loeb, A. "The Tale of 3I/ATLAS and Sterile Neutrinos", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U297.pdf]

1896. Loeb, A. "First X-Ray Detection of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U296.pdf]

1895. Loeb, A. "Fake AI-Generated Channel of Videos About 3I/ATLAS Was Removed by YouTube", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U295.pdf]

1894. Loeb, A. "Is 3I/ATLAS a Friendly Gardener or a Serial Killer?", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U294.pdf]

1893. Loeb, A. "End of November Images of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U293.pdf]

1892. Loeb, A. “A New Hubble Space Telescope Image of 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U292.pdf]

1891. Loeb, A. “Image of 3I/ATLAS from the Juice Navigation Camera”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U291.pdf]

1890. Loeb, A. “Image of 3I/ATLAS from the Juice Navigation Camera”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U291.pdf]

1889. Loeb, A. “Intelligence Without Ambition is a Bird Without Wings”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U290.pdf]

1888. Loeb, A. “Is the Sunward Anti-Tail of 3I/ATLAS Composed of a Swarm of Objects?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U289.pdf]

1887. Loeb, A. “Are the Jets from 3I/ATLAS Pulsed Like a Heartbeat?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U288.pdf]

1886. Loeb, A. “Science of the People and 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U287.pdf]

1885. Eldadi, O., Tenenbaum, G., & Loeb, A. “Surveys on the Existence of Extraterrestrial Intelligent Life and Effects of Revealing Expert Consensus”, Nature (2025).

1884. Loeb, A. “Updates on the Non-gravitational Acceleration of 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U286.pdf]

1883. Loeb, A. “Images of 3I/ATLAS on November 22–24, 2025”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U285.pdf]

1882. Loeb, A. "A Remarkable New Anomaly of 3I/ATLAS", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U284.pdf]

1881. Loeb, A. "Anomalies of 3I/ATLAS, Organized by Likelihood", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U283.pdf]

1880. Loeb, A. "A Remarkable New Anomaly of 3I/ATLAS", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U282.pdf]

1879. Loeb, A. "Transcript of a Q and A About 3I/ATLAS", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U281.pdf]

1878. Loeb, A. "Newly-Discovered Sideways Lines Might Trace the Release of Smaller Objects by 3I/ATLAS!", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U280.pdf]

1877. Loeb, A. "Orientation of the Plume Around 3I/ATLAS in the HiRISE Image", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U279.pdf]

1876. Loeb, A. "There is Nothing More Deceptive than an Obvious Fact: NASA's Press Conference on 3I/ATLAS", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U278.pdf]

1875. Loeb, A. "First Limit on Technological Radio Transmission from 3I/ATLAS", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U277.pdf]

1874. Cao, Z., Loeb, A., & MacLeod, M. "On the coincidence between the close passage of HD7977 and the Pliocene-Pleistocene transition", Nature Scientific Reports (2025). [arXiv:2511.11814]

1873. Loeb, A. "Do the Anomalies of 3I/ATLAS Flag Alien Technology or an Unfamiliar Interstellar Iceberg?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U999.pdf]

1872. Loeb, A. "Magnificent Images of Jets Around 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U276.pdf]

1871. Loeb, A. "The Continuing Saga of Anti-Tails and Tails around 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U275.pdf]

[https://www.cfa.harvard.edu/˜ loeb/U274.pdf]

1870. Loeb, A. "The 12th Anomaly of 3I/ATLAS: Orientation of the Jets is Not Smeared by Rotation", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U274.pdf]

1869. Loeb, A. "HiRISE Images of 3I/ATLAS Are Expected to be Released in a Few Days", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U273.pdf]

1868. Loeb, A. "Did the Passage of the Star HD7977 Trigger a Major Comet Shower on Earth 2.5-Million Years Ago?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U391.pdf]

1867. Loeb, A. "3I/ATLAS is Still a Single Body with a Sunward Anti-Tail After Perihelion!", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U272.pdf]

1866. Loeb, A. "Q and A on 3I/ATLAS and Beyond", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U271.pdf]

1865. Loeb, A. "As the Government Shutdown Ends, Can NASA Please Release the 40-Day-Old HiRISE Images of 3I/ATLAS?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U270.pdf]

1864. Trivedi, O., & Loeb, A. "Novel Solar System Probes for Primordial Black Holes", Physics of the Dark Universe (2025). [https://arxiv.org/abs/2511.04895]

1863. Loeb, A. "Did 3I/ATLAS Just Break-Up Near the Sun?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U269.pdf]

1862. Loeb, A. "What Do You Believe About Extraterrestrial Intelligent Life Beyond Earth?", Medium (2025).

1861. Loeb, A. "The Remarkable Large-Scale Structure of Anti-Tail and Tail Jets from 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U268.pdf]

1860. Loeb, A. "Is the New "Nearly Interstellar" Object C/2025 V1 Related to 3I/ATLAS?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U267.pdf]

1859. Loeb, A. "A Complex Jet Structure Emanates from 3I/ATLAS After Perihelion", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U266.pdf]

1858. Loeb, A. "The Latest Image of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U265.pdf]

1857. Loeb, A. "The Latest Image of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U264.pdf]

1856. Loeb, A. "The Inspiration Delivered by 3I/ATLAS to Our Doorstep", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U263.pdf]

1855. Loeb, A. "Fuzzy Images of 3I/ATLAS at Closest Approach to Mars from the High-Resolution Imaging Camera (HiRIC) Onboard the Tianwen-1 Mars Orbiter", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U262.pdf]

1854. Loeb, A. "No Clear Cometary tail in Post-Perihelion Images of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U261.pdf]

1853. Loeb, A. "Post Perihelion Data on 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U260.pdf]

1852. Loeb, A. “Kim Kardashian is Welcome to Join my Research Team on 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U259.pdf]

1851. Loeb, A. “The Scientific Revolution of Interstellar Objects”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/TI.pdf]

1850. Loeb, A. “Gravitational Lensing of 3I/ATLAS by the Sun”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U258.pdf]

1849. Loeb, A. “Afterthoughts on the Non-Gravitational Acceleration of 3I/ATLAS at Perihelion”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U256.pdf]

1848. Loeb, A. “First Evidence for a Non-Gravitational Acceleration of 3I/ATLAS at Perihelion”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U255.pdf]

1847. Loeb, A. “3I/ATLAS Rapidly Brightens and Gets Bluer than the Sun Near Perihelion”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U254.pdf]

1846. Loeb, A. “A Q and A on 3I/ATLAS at Perihelion”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U253.pdf]

1845. Loeb, A. “The Acid Test of 3I/ATLAS at Perihelion”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U252.pdf]

1844. Loeb, A. “Is the Newly Discovered 2025 PN7 a Natural Quasi-Moon or the Zond 1 Mission?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U251.pdf]

1843. Loeb, A. “The First Interstellar Car in NASCAR’s History”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U250.pdf]

1842. Loeb, A. "The International Asteroid Warning Network Initiated a Campaign to Monitor 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U243.pdf]

1841. Keto, E., & Loeb, A. "A Physical Model for the Ice Coma of 3I/ATLAS", PSJ (2025). [https://arxiv.org/abs/2510.18157]

1840. Loeb, A. "The Anti-tail of 3I/ATLAS Turned to a Tail!", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U242.pdf]

1839. Loeb, A. "The Scientific Revolution of Interstellar Objects", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U240.pdf]

1838. Loeb, A. "The Imminent Solar Conjunction of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U239.pdf]

1837. Loeb, A. "A Sunward Jet from 3I/ATLAS, Imaged by the Two-meter Twin Telescope", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U238.pdf]

1836. Loeb, A. "Images of Nickel and Cyanide Around 3I/ATLAS from the Keck Telescope", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U237.pdf]

1835. Loeb, A. "Cosmic Generosity in Stippled Watercolors", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U300.pdf]

1834. Loeb, A. "Extraterrestrial Life Forms Were Not Created Equal", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U236.pdf]

1833. Loeb, A. "The Gravity of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U235.pdf]

1832. Loeb, A. "Will 3I/ATLAS Break Up?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U234.pdf]

1831. Loeb, A. "Q and A on the Long-Term Lessons from the Interstellar Visit of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U233.pdf]

1830. Loeb, A. "First Images of 3I/ATLAS from ExoMars TGO", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U232.pdf]

1829. Loeb, A. "New Questions and Answers About 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U231.pdf]

1828. Loeb, A. "Interpretation of the Stripe in the New Image of 3I/ATLAS from the Perseverance Rover Camera", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U230.pdf]

1827. Loeb, A. "Why is the Orbital Plane of 3I/ATLAS Inclined by 5 degrees Relative to the Ecliptic Plane?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U229.pdf]

1826. Loeb, A. "A Preliminary View of 3I/ATLAS from Mars", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U228.pdf]

1825. Eldadi, O., Tenenbaum, G., & Loeb, A. "Advancing Interstellar Science: A Global Framework for Comprehensive Study of Interstellar Objects", UN (2025).[arXiv2510.01405]

1824. Loeb, A. "A Recap of the Anomalies of 3I/ATLAS on the Day of Its Closest Approach to Mars", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U227.pdf]

1823. Loeb, A. "New Data on the Extreme Nickel Production of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U226.pdf]

1822. Loeb, A. "Advancing Interstellar Science: A Global Framework for Comprehensive Study of Interstellar Objects", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/UN.pdf]

1821. Cloete, R., Loeb, A. & Veres, P. "Upper Limit on the Non-Gravitational Acceleration and Lower Limits on the Nucleus Mass and Diameter of 3I/ATLAS", MNRAS (2025); [https://arxiv.org/abs/2509.21408]

1820. Loeb, A. "Was the "Wow! Signal" Emitted from 3I/ATLAS?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U225.pdf]

1819. Loeb, A. "What is the Nature of 3I/ATLAS?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U224.pdf]

1818. Trivedi, O., & Loeb, A. "Gaussian Planck Relics are Ruled-Out as Dark Matter by LIGO", Physics of the Dark Universe (2025). [arXiv:2509.20533]

1817. Loeb, A. "Works of Love", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U223.pdf]

1816. Loeb, A. "News on 3I/ATLAS: Lack of Non-Gravitational Acceleration Implies an Anomalously Massive Object", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U222.pdf]

1815. Loeb, A. "The Interstellar Path to Prosperity", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U221.pdf]

1814. Loeb, A. "Finding a Meaning to Our Existence from Extraterrestrial Siblings", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U220.pdf]

1813. Loeb, A. "Political Violence Makes No Sense", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U219.pdf]

1812. Loeb, A. "The New Comet SWAN (C/2025 R2) Originated from a Different Direction Than 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U218.pdf]

1811. Loeb, A. “Is the Nucleus of 3I/ATLAS 15 kilometers in diameter?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U217.pdf]

1810. E. Hyung, E. Levy, L. Cook, S. B. Jacobsen, A. Loeb, J. Squire, & J. Farkas ”Comparison of Australasian tektites with BeLaU-type spherules recovered from the Pacific Ocean Site of the CNEOS 2014 January 8 (IM1) Bolide”, RNAAS (2025). [arXiv]

1809. Loeb, A. “BeLaU Spherules from an Interstellar Meteor Site in the Pacific Ocean are Not Common Terrestrial Materials”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U216.pdf]

1808. Loeb, A. “The Sunward Glow in the Hubble Image of 3I/ATLAS is Ten Times Longer Than It is Wide”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U215.pdf]

1807. Loeb, A. “Did a Hellfire Missile Hit a Samad Drone Launched by the Houthis on October 30, 2024?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U214.pdf]

1806. Loeb, A. “Extreme Negative Polarization of 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U212.pdf]

1805. Keto, E., & Loeb, A. ”The Physics of Cometary Anti-tails as Observed in 3I/ATLAS”, ApJL (2025).[arXiv:2509.07771]

1804. Loeb, A. “Explaining the Anomalous Anti-Tail of 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U211.pdf]

1803. Trivedi, O., & Loeb, A. ”Dynamical Constraints on a Population of Massive Interstellar Objects”, A& A (2025).[arXiv:2509.06300]

1802. Trivedi, O., & Loeb, A. ”Quantitative Mapping of the Loeb Scale”, Int. J. Astrobiology (2025).[arXiv:2509.06300]

1801. Loeb, A. “3I/ATLAS is Turning Green”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U210.pdf]

1800. Loeb, A. "How to Distinguish a Population of Interstellar Rocks from a Fleet of Spacecraft?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U209.pdf]

1799. Loeb, A. "Quatitative Mapping of the Loeb Scale", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U208.pdf]

1798. Loeb, A. "What is the Nucleus Size of 3I/ATLAS?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U207.pdf]

1797. Loeb, A. "The Racing Speed of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U206.pdf]

1796. Loeb, A. "Bigger is Better for Interstellar Spacecraft", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U205.pdf]

1795. Loeb, A. "Q and A About Extraterrestrial Architecture", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U204.pdf]

1794. Loeb, A. "The Blind Date of Mars with 3I/ATLAS in a Month", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U203.pdf]

1793. Loeb, A. "The Challenge of Measuring the Mass of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U202.pdf]

1792. Loeb, A. "Detection of an Anti-Solar Tail for 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U201.pdf]

1791. Loeb, A. "A Steeply-Rising Production of Cyanide and Nickel Without Iron in the Gas Plume Around 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U200.pdf]

1790. Loeb, A. "The First Webb Telescope Observations of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U199.pdf]

1789. Loeb, A. "What Do We Know So Far About 3I/ATLAS?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U198.pdf]

1788. Loeb, A. "3I/ATLAS is Large and Releases Carbon Dioxide (CO2)", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U197.pdf]

1787. Loeb, A. "Should We Be Happier if 3I/ATLAS is a Comet?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U196.pdf]

1786. Loeb, A. "Is 3I/ATLAS Made of Antimatter?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U195.pdf]

1785. Loeb, A. ""Because of You!": 3I/ATLAS Inspires Kids to Be Scientists", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U194.pdf]

1784. Eldadi, O., Tenenbaum, G., & Loeb, A. "The Adaptive Communication Framework (ACF) for Extraterrestrial Intelligence Discovery", arXiv (2025). [arXiv:2508.18287]

1783. Loeb, A. "New Insights in Today's Research Notes on 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U193.pdf]

1782. Loeb, A. "The Challenge of Obtaining Resolved Images of Interstellar Objects", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U192.pdf]

1781. Jani, K. et al. [with Loeb, A.] "Laser Interferometer Lunar Antenna (LILA): Advancing the U.S. Priorities in Gravitational-wave and Lunar Science", NAS (2025). [arXiv:2508.11631]

1780. Loeb, A. "Does 3I/ATLAS Generate Its Own Light?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U191.pdf]

1779. Loeb, A. "Dark Comets or Alien Tech?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U190.pdf]

1778. Loeb, A. "What Should Humanity Do on the Day After an Interstellar Object is Recognized as Technological?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U189.pdf]

1777. Loeb, A. "Science is Nourishing", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U188.pdf]

1776. Eldadi, O., Tennenbaum, G. and Loeb, A. "The Loeb Scale: Astronomical Classification of Interstellar Objects", International J. of Astrobiology (2025). [arXiv:2508.09167]

1775. Loeb, A. "Is 3I/ATLAS Our Turing Test by a Superior Alien Intelligence?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U187.pdf]

1774. Loeb, A. "Will Humans Worship an Advanced Alien Intelligence?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U186.pdf]

1773. Loeb, A. "The Release of Dust from the Surface of 3I/ATLAS Does Not Imply That it is a Comet", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U185.pdf]

1772. Loeb, A. "Should We Message 3I/ATLAS?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U184.pdf]

1771. Loeb, A. "Testing the Nature of 3I/ATLAS by Its Non-Gravitational Acceleration", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U183.pdf]

1770. Loeb, A. "On the Uncertain Nature of 3I/ATLAS", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U182.pdf]

1769. Loeb, A. “No, There’s No Clear Evidence for Water Around 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U181.pdf]

1768. Loeb, A. “The Loeb Scale: Astronomical Classification of Interstellar Objects”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/Loeb-Scale.pdf]

1767. Loeb, A. “Hubble Space Telescope Shows a Diffuse Glow Ahead of 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U180.pdf]

1766. Loeb, A. “Today’s Q&A About 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U179.pdf]

1765. Loeb, A. “3I/ATLAS Has No Visible Tail or Spectral Fingerprints of Gas Around It”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U178.pdf]

1764. Loeb, A. “The Duck Test of 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U177.pdf]

1763. Loeb, A. “How Close Can the Juno Spacecraft Get to the Interstellar Object 3I/ATLAS?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U176.pdf]

1762. Loeb, A. “The Visionary Letter from Congresswoman Anna Paulina Luna to NASA Regarding 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U175.pdf]

1761. Loeb, A. “Keeping Our Eyes on the Ball of 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U174.pdf]

1760. Loeb, A. “The Media Tsunami of 3I/ATLAS”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U173.pdf]

1759. Loeb, A., Hibberd, A., & Crowl, A. "Intercepting 3I/ATLAS at Closest Approach to Jupiter with the Juno spacecraft", ApJL (2025). [arXiv:2507.21402]

1758. Thoss, V., & Loeb, A. "Detecting dark objects in the Solar System with Gravitational Wave observatories", Phys. Rev. Lett. (2025). [arXiv:2507.19577]

1757. Loeb, A. "Intercepting 3I/ATLAS at Its Closest Approach to Jupiter with the Rejuvenated Juno Spacecraft", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U172.pdf]

1756. Loeb, A. "Did 3I/ATLAS Go Viral?", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U171.pdf]

1755. Loeb, A. "Are We Living in a Simulated Cosmos?", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U170.pdf]

1754. Loeb, A. "Weighing Interstellar Objects with Gravitational Wave Detectors", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U169.pdf]

1753. Eldadi, O., Tennenbaum, G. and Loeb, A. "From Extraterrestrial Microbes to Alien Intelligence: Rebalancing Astronomical Research Priorities", Astrobiology (2025). [arXiv:2507.17790]

1752. Braglia, M., Chen, X., & Loeb, A. "Exotic Dark Matter and the DESI Anomaly", JCAP (2025). [arXiv:2507.13925]

1751. Loeb, A. "On Lovers and Haters of the Search for a Higher Intelligence", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U167.pdf]

1750. Loeb, A. "The Elongated Image of 3I/ATLAS", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U166.pdf]

1749. Loeb, A. "Security Risks from Interstellar Objects", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U165.pdf]

1748. Nandal, D., & Loeb, A. "Supermassive Stars Match the Spectral Signatures of JWST's Little Red Dots ", ApJ (2025). [arXiv:2507.12618]

1747. Loeb, A. "Is the Interstellar Object 3I/ATLAS Alien Technology?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U164.pdf]

1746. Hibberd, A., Crowl, A. & Loeb, A. "Is the Interstellar Object 3I/ATLAS Alien Technology?", JBIS (2025). [arXiv:2507.12213]

1745. Kakharov, S., & Loeb, A. "Flux of Extragalactic Dark Matter in Direct Detection Experiments", PRL (2025). [arXiv:2507.01190]

1744. Kakharov, S., & Loeb, A. "Galactic Trajectories of Interstellar Objects 1I/'Oumuamua, 2I/Borisov, and 3I/Atlas", A&A (2025). [arXiv:arXiv:2408.02739]

1743. Eldadi, O., Tenenbaum, G. & Loeb, A. "Scientific Paradigm Resistance: Evidence from the 'Oumuamua Debate and Cross-Disciplinary Cases," Psychology Reviews (2025). [arXiv]

1742. Vervelidou, F. et al. [with A.Loeb] "The deployment of a geomagnetic variometer station as auxiliary instrumentation for the study of Unidentified Aerial Phenomena," Geoscientific Instrumentation, Methods and Data Systems (2025). [arXiv:2507.11355]

1741. Loeb, A. "A New Direct Method to Search for Life Near Other Stars", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U163.pdf]

1740. Loeb, A. "How to Distinguish Extraterrestrial Spacecraft from Interstellar Rocks?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U162.pdf]

1739. Loeb, A. "Preliminary Anomalies of 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U161.pdf]

1738. Kakharov, S. & Loeb, A. "Galactic Trajectories of Interstellar Objects 1I/'Oumuamua, 2I/Borisov, and 3I/Atlas", A&A (2025).[arXiv:2507]

1737. Loeb, A. "Origin and Age of Three Interstellar Objects: 1I/'Oumuamua, 2I/Borisov, and 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U160.pdf]

1736. Loeb, A. "Scientific Paradigm Resistance: Evidence from the 'Oumuamua Debate and Cross-Disciplinary Cases", arXiv (2025).

[https://www.cfa.harvard.edu/~ loeb/U1111.pdf]

1735. Loeb, A. "3I/ATLAS is Saller or Rarer Than It Looks", RNAAS (2025).[arXiv:2507.05881]

1734. Loeb, A. "Rendezvous with 3I/ATLAS", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U158.pdf]

1733. Loeb, A. "The New Interstellar Object 3I/ATLAS is Smaller or Rarer Than it Looks", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U157.pdf]

1732. Kakharov, S., & Loeb, A. "Flux of Extragalactic Dark Matter in Direct Detection Experiments", PRL (2025). [arXiv:2507.01190]

1731. Loeb, A. "Welcoming a New Interstellar Object: A11pI3Z", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U156.pdf]

1730. Loeb, A. "Three Shovels for Interstellar Archaeology", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U155.pdf]

1729. Loeb, A. "The Training Set for Our Future Scientific Discoveries", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U154.pdf]

1728. Loeb, A. "Taking a Gamble on Anomalies in the Sky", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U153.pdf]

1727. Loeb, A. "The Most Consequential Movie of the Sky", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U151.pdf]

1726. Loeb, A. “Learning from Mistakes in Mainstream Science”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U149.pdf]

1725. Loeb, A. “86-Billion Neurons are Not Enough”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U148.pdf]

1724. Loeb, A. “The Second Half of 2025 Offers Exciting New Opportunities to Search Our Cosmic Mailbox”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U147.pdf]

1723. Loeb, A. “The Longevity Game: An Addendum”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U146.pdf]

1722. Loeb, A. “The Longevity Game”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U145.pdf]

1721. Loeb, A. “The Unapologetic Vatican in the Shapley Supercluster”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U144.pdf]

1720. Loeb, A. “Dark Comets Might be Spacecraft”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U143.pdf]

1719. Loeb, A. “Happy 75th Anniversary to the National Science Foundation!”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U150.pdf]

1718. Loeb, A. “Why is the Sky Dark at Night?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U142.pdf]

1717. Loeb, A. “Cosmic Rule-of-Thumb”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U141.pdf]

1716. Loeb, A. “Do the Plumes of Europa Carry Frozen Bacteria?”, Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U140.pdf]

1715. Loeb, A. "American Fund for Fundamental Science", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U139.pdf]

1714. Pacucci, F., Loeb, A., "Cosmic Outliers: Low-Spin Halos Explain the Abundance, Compactness, and Redshift Evolution of the Little Red Dots", ApJL (2025).[arXiv:2506.03244]

1713. Trivedi, O., Loeb, A., "Could Planck Star Remnants be Dark Matter?", JCAP (2025).[arXiv:2506.03334]

1712. Bridgham, P., et al. [with Loeb, A.], "Galileo Project Observatory Class System Architecture", Sensors (2025).[arXiv:2506.00125]

1711. Loeb, A. "Attacks on the Three Facets of My Identity", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U138.pdf]

1710. Bridgham, P., et al. [with Loeb, A.], "Galileo Project Observatory Class System Architecture", Sensors (2025).[arXiv:2506.00125]

1709. Loeb, A. "The Pleasure of Being a Scientist", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U137.pdf]

1708. Loeb, A. "Would We Notice a Nuclear War on an Exoplanet?", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U136.pdf]

1707. Loeb, A. "Our Cosmic Truth", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U135.pdf]

1706. Loeb, A. "Observing the Cosmos Drift in Real Time", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U134.pdf]

1705. Loeb, A. "Decorating Asteroids with Retroreflectors", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U133.pdf]

1704. Loeb, A. "Is Consciousness Our Monolith?", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U132.pdf]

1703. Loeb, A. "Gravitational-Wave Rockets", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U131.pdf]

1702. Loeb, A. "Is the 0.2% Outlier-Fraction of Meteorites from an Interstellar Origin?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U130.pdf]

1701. Loeb, A. "Astrophysical Black Holes Rule-Out Negative-Mass Particles", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U129.pdf]

1700. Loeb, A. "Technologies Beyond the Standard Model of Physics", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U128.pdf]

1699. Loeb, A. "A Q&A About Our Extraterrestrial Siblings", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U127.pdf]

1698. Veres, P., Cloete, R., Matthew J. Payne, & Loeb, A. "Improving the Discovery of Near-Earth objects with Machine-Learning Methods", A& A (2025).[arXiv:2505.11910]

1697. Loeb, A. "How Many Eyes Do Aliens Have?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U126.pdf]

1696. Loeb, A. "As a Planarian, Marie Antoinette Would Have Survived the Guillotine", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U125.pdf]

1695. Loeb, A. "Will the Universe Die?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U124.pdf]

1694. Loeb, A. "Poetry Inspired by Alien Intelligence", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U123.pdf]

1693. Loeb, A. "Are Light Pulses from the Nearest Habitable Exoplanet, Proxima b, Natural or Artificial in Origin?", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U122.pdf]

1692. Loeb, A. “Sandcastles in the Cosmos”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U121.pdf]

1691. Loeb, A. “Expanding Our Limited Training Data Set”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U120.pdf]

1690. Xingang, X., & Loeb, A. “Evolving Dark Energy or Evolving Dark Matter? ”, PRD, 2025. [arXiv:2505.02645]

1689. Loeb, A. “Blowing Up Voids with Dark Energy”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U119.pdf]

1688. Loeb, A. “A Vision for a UAP-Manhattan Project”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U118.pdf]

1687. Loeb, A. “The Afterglow of a UAP Congressional Briefing”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U117.pdf]

1686. Loeb, A. “Congressional Briefing on UAP Science”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U116.pdf]

1685. Loeb, A. “The Music of Astrobiology”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U115.pdf]

1684. Loeb, A. “Dark Matter Does Not Exhibit a Large Negative Pressure”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U114.pdf]

1683. Loeb, A. “Are We at the Logarithmic Midpoint of Extraterrestrial Technological Civilizations?”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U113.pdf]

1682. Loeb, A. “Escaping Gravity Without Fuel”, RNAAS (2025).

1681. Loeb, A. “Escaping Gravity Without Fuel”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U112.pdf]

1680. Loeb, A. "Cosmic Lessons from the Battle of Lexington", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U110.pdf]

1679. Loeb, A. "Life Beyond Earth and Manipulation of Spacetime", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U109.pdf]

1678. Loeb, A. "The Impact of AI on the Human Brain", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U108.pdf]

1677. Loeb, A. "Figuring Out What Lies Outside the Solar System is the Day Job of Astronomers, not Government Officials", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U107.pdf]

1676. Loeb, A. "Generation AI", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U106.pdf]

1675. Loeb, A. "Nurseries of Brilliance", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U105.pdf]

1674. Loeb, A. "Interstellar Passover", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U104.pdf]

1673. Loeb, A. "The Virtues of Doing Instead of Talking", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U103.pdf]

1672. Elango, S., & Loeb, A. "Astrometric Parallax Measurements with JWST for Localization of Near-Earth Objects", ApJ, 2025. [arXiv:2504.04003]

1671. Loeb, A. "To Bounce or Not to Bounce, that is the Question!", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U102.pdf]

1670. Loeb, A. "Cosmic Russian Roulette: Death by Dark Energy", Medium (2025).

[https://www.cfa.harvard.edu/~ loeb/U100.pdf]

1669. Loeb, A. "Gravitational SETI", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U99.pdf]

1668. Loeb, A. "Council on Alien Relations", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U98.pdf]

1667. Loeb, A. "Harvard's Perfect Storm", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U97.pdf]

1666. Loeb, A. "Floaters on the Surface of Red Dwarfs", RNAAS (2025).
[https://lweb.cfa.harvard.edu/˜ loeb/Dwarf_astroph.pdf]

1665. Loeb, A. "Sailing on the Surface of a Red Dwarf Star", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U96.pdf]

1664. Loeb, A. "Superhuman AI is Closer Than We Think, for the Wrong Reason!", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U95.pdf]

1663. Loeb, A. "Nature Cannot Be Ruled in the Court of Public Opinion", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U94.pdf]

1662. Loeb, A. "The Highest Energy Particles in the Cosmos", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U93.pdf]

1661. Loeb, A. "Q and A About Alien Intelligence", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U92.pdf]

1660. McLeod, M., & Loeb, A. Tidal Amplitudes in the Magellanic Cloud Population of Heartbeat Stars, ApJ (2025). [arXiv:2503.1113]

1659. Loeb, A. "What Are Aliens Having for Lunch?", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U91.pdf]

1658. Loeb, A. "What is Dark Energy?", Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U90.pdf]

1657. Loeb, A. "Technological Signatures on Free-Floating or Non-Habitable Planets", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U89.pdf]

1656. Loeb, A. "The Galileo Project Agrees with Elon Musk About the Need to Search for Remnants of Alien Civilizations!", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U88.pdf]

1655. Loeb, A. "Could Scientists be Anti-Science", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U87.pdf]

1654. Loeb, A. "Is Time Continuous?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U86.pdf]

1653. Loeb, A. ""Down to Earth" Benefits of Looking Up at the Sky", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U85.pdf]

1652. Loeb, A. "Commemorating Past Civilizations in the Milky-Way", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U84.pdf]

1651. Loeb, A. "Comment on: "2005 VL1 is Not Venera 2", RNAAS (2025). [arXiv:2503.09668]

1650. Loeb, A. "Are the Lost Soviet Spacecraft Venera 2 and the Dark Comet 2005 VL1 Different Objects?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U83.pdf]

1649. Loeb, A. "Betrayal of Scientific Objectivity by the News Media", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U82.pdf]

1648. Loeb, A. "Will Artificial Intelligence Win Over Natural Stupidity?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U81.pdf]

1647. Loeb, A. “The Dark Age of Science”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U80.pdf]

1646. Loeb, A. “Death by a Primordial Black Hole”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U79.pdf]

1645. Loeb, A. & Cloete, R. “Is the ‘Dark Comet’ 2005 VL1 the Venera 2 spacecraft?”, ApJL (2025).[arXiv:2503.03552]

1644. Loeb, A. “Is the ‘Dark Comet’ 2005-VL1 the Venera-2 Spacecraft?”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U70.pdf]

1643. Loeb, A. “Are We Living in a Simulation? An Experimental Test”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U78.pdf]

1642. Loeb, A. “Extraterrestrial Intelligence and the Jews”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U77.pdf]

1641. Loeb, A. “Ignoring Reality is a Bad Idea”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U76.pdf]

1640. Loeb, A. “First Life in the Cosmos”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U75.pdf]

1639. Loeb, A. “Traveling Through Earth, the Sun and the Universe”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U74.pdf]

1638. Loeb, A. “For Now, Humans Remain at the Top of the Food Chain on Earth”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U73.pdf]

1637. Loeb, A. “Watercolor Reflections of the Cosmos”, Medium (2025).
[https://www.cfa.harvard.edu/˜ loeb/U72.docx]

1636. Loeb, A. "Why Did Galileo Need a Telescope to Discover the Moons of Jupiter?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U71.pdf]

1635. Loeb, A. "Are Astronomers About to Gain the Highest Status in Society?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U69.pdf]

1634. Loeb, A. "Will Future Einsteins be AI Agents?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U68.pdf]

1633. Loeb, A. "Intergalactic Objects in the Solar System", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U67.pdf]

1632. Loeb, A. "Did the Solar System Pass Through a Giant Molecular Cloud 10-Million Years Ago?", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U66.pdf]

1631. Loeb, A. "Lessons Learned from the Dinosaurs", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U65.pdf]

1630. Loeb, A. "Discovering Numerous Interstellar Objects with a Dedicated Space Telescope", ApJL (2025).[arXiv:2502.08478]

1629. Loeb, A. "Sharing My Office with Galileo", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U64.pdf]

1628. Loeb, A. "Harvesting Numerous Interstellar Objects with a Dedicated Space Telescope", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U63.pdf]

1627. Loeb, A. "The Oldest Relics Must be Younger than the Universe", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U62.pdf]

1626. Loeb, A. "The Existential Risk from Polyamory of Artificial General Intelligence", Medium (2025).

[https://www.cfa.harvard.edu/˜ loeb/U61.pdf]

1625. Loeb, A. "Cosmic Birth of Supermassive Twins", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U60.pdf]

1624. Loeb, A. "Happiness in a Hostile Cosmos", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U59.pdf]

1623. Loeb, A. "Physics is Our Scholar's Lion", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U58.pdf]

1622. Loeb, A. "A New Message from the Asteroid Bennu", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U57.pdf]

1621. Loeb, A. "Interstellar Empty-Trash-Bag Objects", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U56.pdf]

1620. Loeb, A. "Fast Radio Bursts as a Technological Signature", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U55.pdf]

1619. Loeb, A. "It's an Asteroid ... It's a Comet ... No, It's a Car!", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U54.pdf]

1618. Loeb, A. "Schumer's UAP Disclosure Request to Trump", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U53.pdf]

1617. Loeb, A. "The Thrill of Seeking the Unknown", Medium (2025).
[https://www.cfa.harvard.edu/~ loeb/U52.pdf]

1616. Hyung, E., Cherston, J., Jacobsen, S. B., & Loeb, A. "An investigation of the relationship between morphology and chemistry of the D-type spherules from the recovery expedition of the CNEOS 2014-01-08 bolide: Implications for origins", Chemical Geology (2025). [arXiv:2501.08890]

1615. Trivedi, O., & Loeb, A. "On the Cosmological Constant-Graviton Mass Correspondence" (2025). [arXiv.2411.2757]

1614. De, K. et al. [with Loeb, A.] "The Disappearance of a Massive Star Marking the Birth of a Black Hole in M31", Science (2025). [arXiv:2410.14778]

1613. MacLeod, M. et al. [with A.Loeb], "Radial Velocity and Astrometric Evidence for a Close Companion to Betelgeuse", ApJ, 978, 50 (2025).

1612. Hertzberg, M., Loeb, A., & Morehouse, A. "Black Holes Rule Out Heavy Tachyons, PRD (2025). [arXiv:2501.11606]

1611. Cloete, R., Veres, P., & Loeb, A. "Machine Learning Methods for Automated Ineterstellar Object Classification with LSST", A& A, 691, 338 (2024).

1610. Midler, B., Haber, N., & Loeb, A. "Stochastic Optimization of Neural Systems can Produce Computational Divergence: Neuroscience Insights for Technosignature Search and Interpretation", Astrobiology and the Future of Life (2024).

1609. Domine, L. et al. [with A.Loeb], "Commissioning An All-Sky Infrared Camera Array for Detection Of Airborne Objects", Sensors (2025). [arXiv.2411.07956]]

1608. Loeb, A. "The Mass Spectrum of Technological Space Trash", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U51.pdf]

1607. Loeb, A. "Getting Closer to God", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U50.pdf]

1606. Loeb, A. "Supermassive Stars", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U49.pdf]

1605. Loeb, A. "The Giant Looming in Our Sky", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U48.pdf]

1604. Loeb, A. "Is Terrestrial Life a Manifestation of von-Neumann's Self-Replicating Machines of Extraterrestrial Origin?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U47.pdf]

1603. Loeb, A. “The National Security Risk from a Dynamic ChatGPT”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U46.pdf]

1602. Loeb, A. “Morphology of Fragments Recovered from the Crash Site of the Interstellar Meteor IM1”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U45.pdf]

1601. Loeb, A. “Do Faster-Then-Light Particles Exist?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U44.pdf]

1600. Loeb, A. “Celebrating the 415th Anniversary of Galileo’s Insight!”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U43.pdf]

1599. Loeb, A. “Which Information Can be Trusted in the Age of AI?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U42.pdf]

1598. Loeb, A. “The Tension Between Anomalies in the Sky and National Security”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U41.pdf]

1597. Loeb, A. “History of the Duration of a Day on Earth”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U40.pdf]

1596. Loeb, A. “Where Should We Search for Extraterrestrial Life?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U39.pdf]

1595. Loeb, A. “Going Fishing on Titan”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U38.pdf]

1594. Loeb, A. “Saving Earth with Starships in the next 5-Billion Years”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U37.pdf]

1593. Loeb, A. “Surveillence of Earth by Dark Comets”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U36.pdf]

1592. Loeb, A. “Innovation in 2025, on Earth and Beyond”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U35.pdf]

1591. Loeb, A. “My New Bet for 2025-205 Against Elon Musk”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U34.pdf]

1590. Loeb, A. “Illuminating the Darkness”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U33.pdf]

1589. Loeb, A. “Where Was Everybody?”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U32.pdf]

1588. Loeb, A. “We Owe Our Existence to Dark Matter”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U31.pdf]

1587. Loeb, A. “A New Method to Derive an Empirical Lower Limit on the Mass Density of a UFO”, RNAAS (2024). [arXiv:2412.12142]

1586. Loeb, A. “Distinguishing Albino Zebras from Elephants”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U29.pdf]

1585. Loeb, A. “Fueling Our Economy with Hydrogen”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U28.pdf]

1584. Loeb, A. “New-Jersey Drones and Dark Comets”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U26.pdf]

1583. Loeb, A. “The Existential Risk from Extraterrestrial Mirror Life”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U27.pdf]

1582. Loeb, A. “The Best Real Estate in the Cosmos”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U25.pdf]

1581. Loeb, A. “Our Next Decade with AI”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U24.pdf]

1580. Loeb, A. “A New Method to Derive an Empirical Lower Limit on the Mass Density of a UFO”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U21.pdf]

1579. Loeb, A. “Now is the Time to Search for Extraterrestrial Visitors: Announcing the New Galileo Project Foundation”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U22.pdf]

1578. Loeb, A. “Traveling Through the Cosmic Landscape of Thoughts”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U20.pdf]

1577. Loeb, A. “The Graveyard of ‘Oumuamua’s Family on the Moon”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U19.pdf]

1576. Loeb, A. “A Pulsating White Dwarf”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U18.pdf]

1575. Loeb, A. “Island Mentality”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U17.pdf]

1574. Loeb, A. “Casting Galileo in Bronze”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U16.pdf]

1573. Loeb, A. “Experimental Quantum Gravity”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U14.pdf]

1572. Loeb, A. “Living in a Big Crunch”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U13.pdf]

1571. Loeb, A. “Yes, It’s Possible to Be Scientific and American”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/U12.pdf]

1570. Loeb, A. "Are We the Last Generation Who Feels Alone?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U11.pdf]

1569. Trivedi, O., & Loeb, A. "On the Cosmological Constant-Graviton Mass Correspondence", JCAP (2024). [arXiv:2411.12757]

1568. Loeb, A. "Exotic or Mundane?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U10.pdf]

1567. Loeb, A. "The Earth and Mars Acquire Saturn-Like Rings Over Hundreds of Millions of Years", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U9.pdf]

1566. Loeb, A. "Neutrinos Cannot Travel Faster Than Light, or Else Black Holes Would Not Be Stable", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U8.pdf]

1565. Loeb, A. "Could Academia Catch Up with AI?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U7.pdf]

1564. Loeb, A. "The Virtues and Risks of Slow Aging by Gravitational Time Dilation", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U6.pdf]

1563. Domine, L. et al. (with Loeb, A.) "Commissioning An All-Sky Infrared Camera Array for Detection Of Airborne Objects", Sensors (2024). [arXiv:2411.07956]

1562. Loeb, A. "The Inefficiency of Life", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U5.pdf]

1561. Loeb, A. "Commissioning Data on Half a Million Objects in the Sky from the Galileo Project Observatory: Are Any of Them UAP?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U1.pdf]

1560. Loeb, A. “Everything Everywhere All at Once About the Universe”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U4.pdf]

1559. Loeb, A. “Avi Loeb’s Statement on UAP to the House Oversight and Accountability Committee”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U3.pdf]

1558. Loeb, A. “The Nature of Dark Energy”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/U2.pdf]

1557. Loeb, A. “The Mass of Light”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T99.pdf]

1556. Loeb, A. “Could UAP Save Us from Ourselves?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T98.pdf]

1555. Loeb, A. “A New Limit on the Graviton Mass from the Convergence Scale of the CMB Dipole”, RNAAS (2024). [arXiv:2411.01500]

1554. Loeb, A. “Down-To-Earth Benefits of Astrophysics”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T97.pdf]

1553. Loeb, A. “The Particle Accelerator at the Center of the Milky-Way”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T96.pdf]

1552. Loeb, A. “Tightening the Upper Limit on the Graviton Mass”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T95.pdf]

1551. Loeb, A. “Elon Musk: Should Phobos Serve as the Entry Port of SpaceX to Mars?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T94.pdf]

1550. Loeb, A. “On Science and Religion”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T93.pdf]

1549. Loeb, A. "Appreciating the Diversity of Cosmic Messengers", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T92.pdf]

1548. Loeb, A. "Brian Cox Takes Our Cosmic Status Too Seriously", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T91.pdf]

1547. Loeb, A. "Are Wormholes Real?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T90.pdf]

1546. Kishalay D. et al. (with Loeb A.), "The Disappearance of a Massive Star Marking the Birth of a Black Hole in M31", Science (2024). [arXiv:2410.14778]

1545. Loeb, A. "Postcard from Interstellar Space: Separating the Wheat from the Chaff", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T89.pdf]

1544. Loeb, A. "Why Are Early Black Holes Over-Massive?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T88.pdf]

1543. Loeb, A. "Celebrating Galileo's Blend of Art and Science", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T87.pdf]

1542. Loeb, A. "Does the Sun Host a Black Hole at Its Center?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T86.pdf]

1541. Loeb, A. "Tiny Astronauts in Interstellar Rocks", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T85.pdf]

1540. Loeb, A. "Advice to Gen Z", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T84.pdf]

1539. Loeb, A. “Observing ‘Oumuamua’s-Cousin With Eyes Wide Open”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T83.pdf]

1538. Loeb, A. “Practicing Science is a Low-Risk, High-Reward Job”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T82.pdf]

1537. Loeb, A. “The Future of the Nobel Prize Given the Use of AI in Science”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T81.pdf]

1536. Loeb, A. “Alien Hunting”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T80.pdf]

1535. Loeb, A. “What Will Earth Look Like in a Million Years?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T79.pdf]

1534. Loeb, A. “Could the Tiniest Black Holes Be Dark Matter?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T78.pdf]

1533. Loeb, A. “Exploying AI for Space Exploration”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T76.pdf]

1532. Loeb, A. “Why is Innovation Rare in Academia?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T75.pdf]

1531. Loeb, A. “Imagination is More Important Thank Knowledge”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T74.pdf]

1530. Loeb, A. “The Gravity of Being Charged or Neutral”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T73.pdf]

1529. Loeb, A. “The Alien Whisperer”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T72.pdf]

1528. Loeb, A. "Interstellar Partnership on a Planck Collider", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T71.pdf]

1527. Loeb, A. "Fermi's Paradox Suggests that We Are Not Attractive on the Interstellar Dating Scene", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T70.pdf]

1526. Loeb, A. "The Agony of Playing Einstein in Today's Academia", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T69.pdf]

1525. Loeb, A. "Searching for Extraterrestrial Life in the Sphere", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T68.pdf]

1524. Loeb, A. "Wishing to Know More About Alien Intelligence", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T67.pdf]

1523. Loeb, A. "An Off-World Mindset on Science and Politics", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T66.pdf]

1522. Loeb, A. "Encounters of the Biological-Technological Kind", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T65.pdf]

1521. MacLeod, M. et al. (and Loeb, A.) "Radial Velocity and Astrometric Evidence for a Close Companion to Betelgeuse ", ApJL (2024).[arXiv:2409.11332]

1520. Loeb, A. "Quantum-Mechanical Suppression of Gas Accretion by Primordial Black Holes", ApJL (2024).[arXiv:2409.09081]

1519. Loeb, A. "How the Light Gets In", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T63.pdf]

1518. Loeb, A. "What if Alieans Are Not Vegenterians?", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T62.pdf]

1517. Loeb, A. "Simulation Creators Live in a Reality Bigger Than Their Imagination", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T61.pdf]

1516. Loeb, A. "I think, Therefore I Understand Why I Exist", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T60.pdf]

1515. Loeb, A. "Baking Spherules from a Meteor", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T59.pdf]

1514. Loeb, A. "What is the Largest Acceleration in the Universe?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T58.pdf]

1513. Loeb, A. "The Limits of What We Can See", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T57.pdf]

1512. Loeb, A. "A Black Hole Atom", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T56.pdf]

1511. Loeb, A. "Discovery of an Earth-Mass Planet Around a White Dwarf", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T55.pdf]

1510. Loeb, A. "From 'Star-Wars' to Coexistence Under the Stars", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T54.pdf]

1509. Loeb, A. "There Are No Illegal Aliens in Interstellar Space", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T53.pdf]

1508. Loeb, A. "The Bigger, the Better", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T52.pdf]

1507. Loeb, A. "Intensity Mapping of Intergalactic Lyman-α Halos Before Reionization", A&A (2024).[arXiv:2408.16820]

1506. Loeb, A. "On Fruit Flies, Whales, Extraterrestrials and Religion", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T51.pdf]

1505. Loeb, A. "Is Scientific Information Welcome?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T50.pdf]

1504. Loeb, A. "How Do Mini Black Holes Accrete?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T49.pdf]

1503. Loeb, A. "Discovery of a Faint Red Source Speeding at a Million Miles Per Hour Towards the Galactic Center", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T48.pdf]

1502. Loeb, A. "Residents of the Outer Solar System", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T47.pdf]

1501. Loeb, A. "A 25-Year Old Insight About the First Billion Years of the Cosmos", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T46.pdf]

1500. Loeb, A. "Are Both Lue Elizondo and AARO Sincere in Their Reports About UAPs?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T44.pdf]

1499. Loeb, A. "Growth in the Number of Neural-Network Parameters from Natural to Artificial Intelligence" (2024).[arXiv:2408.10xxx]

1498. Loeb, A. "Our IQ Will Be Higher in the Future", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T43.pdf]

1497. Loeb, A. "Excluding Primordial Black Holes as Dark Matter Based on Solar System Ephemeris", RNAAS (2024).[arXiv:2408.10799]

1496. Loeb, A. "An Ideal Engine for Clean Energy", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T42.pdf]

1495. Loeb, A. “Is Dark Matter Made of Primordial Black Holes?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T41.pdf]

1494. Loeb, A. “Interstellar Sun-divers”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T40.pdf]

1493. Loeb, A. “Where Are the Grabby Aliens?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T39.pdf]

1492. Loeb, A. “A Tale of Three Accelerations for ‘Oumuamua”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T38.pdf]

1491. Loeb, A. “Comment on “No Black Hole From Light””, PRL (2024).[arXiv:2408.06714]

1490. Loeb, A. “Fishing With LSST in the Ocean of Interstellar Space”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T37.pdf]

1489. Loeb, A. “A Recipe for Making a Black Hole Out of Light”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T36.pdf]

1488. Loeb, A. “Dandelion Spacecraft”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T35.pdf]

1487. Loeb, A. “A Breath of Fresh Air on the Moon”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T34.pdf]

1486. Loeb, A. “No Relativistic UAPs More Massive than 50 Megatons Passed Near Earth Over the Past Decade!”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/T33.pdf]

1485. Kakharov, S., & Loeb, A. “Galactic Orbits of Interstellar Objects”, Astron. & Astrophys. (2024).[arXiv:2408.02739]

1484. Loeb, A. "Illumination of a Planet by a Mini-Black-Hole Moon as a Technological Signature", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T32.pdf]

1483. Loeb, A. "Who Will Represent Humanity in Interstellar Space?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T31.pdf]

1482. Loeb, A. "My AI Avatar", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T30.pdf]

1481. Loeb, A. "Oumuamua Was Young!", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T29.pdf]

1480. Loeb, A. "Surviving as a Scientist Among Believers and Skeptics", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T28.pdf]

1479. Loeb, A. "The Pleasure of Collaborating with Young Minds", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T26.pdf]

1478. Loeb, A. "How Rare Are We?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T25.pdf]

1477. Pandya, V., Loeb, A. et al. "Preliminary Evidence for Lensing-Induced Alignments of High-Redshift Galaxies in JWST-CEERS", RNAAS (2024).[arXiv:2407.17552]

1476. Loeb, A. "Is Intelligence the Same on Exoplanets?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T24.pdf]

1475. Loeb, A. "Death by a Gamma-Ray Burst from a Milky-Way BOAT", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T21.pdf]

1474. Loeb, A. "Harmony of the Heavens Brought Down to Earth", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T20.pdf]

1473. Loeb, A. "Healing a Broken World by an Out-Of-This-World Encounter", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T18.pdf]

1472. Loeb, A. "What is the Highest Spacetime Curvature Near Us?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T17.pdf]

1471. Loeb, A. "We Are Going Back to Interstellar Meteor 1", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T16.pdf]

1470. Loeb, A. "Interstellar Broken Arrows", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T14.pdf]

1469. Loeb, A. "Was LUCA the First Solar System Astronaut 4.2-Billion Years Ago?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T12.pdf]

1468. Loeb, A. "Little Red Dots from Low-Spin Galaxies at High Redshifts", RNAAS (2024).[arXiv:2407.12965]

1467. Loeb, A. "Is the End Near?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T11.pdf]

1466. Loeb, A. "Make Science, Not War!", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T10.pdf]

1465. Loeb, A. "AI Avatars as a Substitute for Tombstones", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T9.pdf]

1464. Loeb, A. "The Most Romantic Question in Science", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T8.pdf]

1463. Loeb, A. "A New Source of Drift for Geostationary Satellites", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/T7.pdf]

1462. Loeb, A. "Viewing AI as Alien Intelligence", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T5.pdf]

1461. Loeb, A. "Tiny Red Rubies in the Sky", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T6.pdf]

1460. Loeb, A. "Is the Smartest Person Ever Born Alive Today?", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T4.pdf]

1459. Loeb, A. "The Inevitable Death of the Earth Inside the Sun", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T2.pdf]

1458. Medvedev, M., & Loeb, A. "Plasma Constraints on Millicharged Dark Matter", JCAP (2024). [arXiv:2406.15750]

1457. Loeb, A. "Artificial Intelligence in Space", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/T1.pdf]

1456. Loeb, A. "Cosmic Gratitude", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M99.pdf]

1455. Loeb, A. "Dark Matter is Not Electrically Charged!", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M98.pdf]

1454. Loeb, A. "Separating Science from Fiction", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M97.pdf]

1453. Loeb, A. "The Nature of Time", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M96.pdf]

1452. Loeb, A. "The Anatomy of Black Swans", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M95.pdf]

1451. Loeb, A. "Aspiring to be God is Not an Arrogant Proposition", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M94.pdf]

1450. Loeb, A. "Discussing Extraterrestrials on Capitol Hill in Washington DC", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M93.pdf]

1449. Loeb, A. "Searching for City Lights on Exoplanets with NASA's Habitable World Observatory", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M92.pdf]

1448. Loeb, A. "The Role of Intelligence in the Cosmos", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M91.pdf]

1447. Loeb, A. "Seeking Superhuman Intelligence on Earth and Beyond", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M90.pdf]

1446. Loeb, A. "Transitions in Gaining New knowledge", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M89.pdf]

1445. Loeb, A. "A Blind Date with Materials from Outer Space", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M88.pdf]

1444. Loeb, A. "Can Interstellar Meteors Help to Design the Heat Shield for Musk's Starship?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M87.pdf]

1443. Loeb, A. "Speaking at the Central Library of Aristotle University", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M86.pdf]

1442. Loeb, A. "What is the Job Definition of God?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M85.pdf]

1441. Loeb, A. "Where Will Voyager Be in a Billion Years?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M84.pdf]

1440. Loeb, A. "The Milky-Way Add an Hour to Our Life", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M83.pdf]

1439. Loeb, A. “Interstellar Curiosity”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M82.pdf]

1438. Loeb, A. “Antimatter Engines”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M81.pdf]

1437. Loeb, A. “Is Extraterrestrial Intervention Needed for Peace and Prosperity on Earth?”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M80.pdf]

1436. Loeb, A. “Will ET or AI Represent Our First Encounter with Superhuman Intelligence?”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M79.pdf]

1435. Loeb, A. “Fast Meteors Are Not Always Interstellar”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M78.pdf]

1434. Loeb, A. “A Musical Piece About ‘Oumuamua”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M77.pdf]

1433. Loeb, A. “Surviving as an Extromophile in the Acidic Life of Academia”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M76.pdf]

1432. Loeb, A. “Are Dyson Spheres Real?”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M75.pdf]

1431. Loeb, A. “An Argument Against Speeding Tickets”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M74.pdf]

1430. Loeb, A. “For the Love of the Unfamiliar”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M73.pdf]

1429. Loeb, A. “What Does It Mean to Be Intelligent?”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M72.pdf]

1428. Loeb, A. “The Colorful Mass Loss of the Sun”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/M71.pdf]

1427. Loeb, A. "Elon Musk's Uncertainty About Aliens Can Be Resolved by the Scientific Method", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/M70.pdf]

1426. Loeb, A. "Goind Against the Wind", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/M69.pdf]

1425. Loeb, A. "Pulsar Timing Noise from Brownian Motion of the Sun", ApJL (2024). [arXiv:2405.05410]

1424. Loeb, A. "Is the Observed Jitter of the Sun Induced by Asteroids and Not Gravitational Waves?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/M68.pdf]

1423. Loeb, A. "Three Paradigm Shifts About Rocks: Ridicules Which Turned Into Cherished Scientific Truths", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/M67.pdf]

1422. Loeb, A. "A Free Ride Away from Earth", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/M66.pdf]

1421. Loeb, A. "The Nearest Black Hole to Earth", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/M65.pdf]

1420. Loeb, A. "Did an Interstelar Gardener Seed Earth with Aerobic Bacteria?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/M64.pdf]

1419. Padmanabhan, H., & Loeb, A. "Intergalactic Lyman- haloes before reionization are detectable with JWST", JCAP (2024). [arXiv:2404.18998]

1418. Loeb, A. "Smoke and Mirrors Versus Signatures of Extraterrestrial Life", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/M63.pdf]

1417. Loeb, A. "Do Magnetic Monopoles Exist?", Medium (2024).

[https://www.cfa.harvard.edu/~ loeb/M62.pdf]

1416. Loeb, A. "Our Biggest Existential Risk is Superficiality", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M59.pdf]

1415. Loeb, A. "Complexity Nurtures Intelligence", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M58.pdf]

1414. Hertzberg, M., & Loeb, A. "Comment on "Anomalous contribution to galactic rotation curves due to stochastic spacetime"", PRD (2024). [arXiv:2404.13037]

1413. Loeb, A. "Shining Light on Cosmic Hydrogen", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M57.pdf]

1412. Loeb, A. "Our Cosmic Exodus", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M56.pdf]

1411. Loeb, A. "The Art of Being Right in Finding a Message in a Bottle", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M55.pdf]

1410. Pacucci, F., Loeb, A., & Juodsbalis, I. "The Host Galaxy of a Dormant, Overmassive Black Hole at $z = 6.7$ May Be Restarting Star Formation", RNAAS (2024). [arXiv:2404.11643]

1409. Loeb, A. "My Unrehearsed TED Talk", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M54.pdf]

1408. Loeb, A. "When Did Life Start in the Universe?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M53.pdf]

1407. Loeb, A. "Our Cosmic Cradle Allows Us to Become Interstellar Gardeners", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M52.pdf]

1406. Hu, B. & Loeb, A. "Accretion Flares from Stellar Collisions in Galactic Nuclei ", Astronomy and Astrophysics (2024). [arXiv:2404.07255]

1405. Loeb, A. "The Shadow of an Alien Civilization", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M51.pdf]

1404. Loeb, A. "There is No Eclipse of Solar Nutrinos", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M50.pdf]

1403. Loeb, A. "Our Rare Moment Under the Sun", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M49.pdf]

1402. Loeb, A. "Is Dark Energy Evolving?", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M48.pdf]

1401. Loeb, A. "Good News: The Recent Taiwan and New-Jersey Earthquakes Were Not Triggered by Humans!", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M47.pdf]

1400. Loeb, A. "Can Starship-like Rockets Escape Habitable Exoplanets?", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M46.pdf]

1399. Loeb, A. "A New Expedition in Search for IM1's Wreckage", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M45.pdf]

1398. Loeb, A. "Many-Body Systems of Heavenly Objects or People", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M44.pdf]

1397. Loeb, A. "Is the Grass Greener on Exoplanets?", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M43.pdf]

1396. Loeb, A. "Identifying the Unidentified Using the Rubin and Galileo Observatories", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M42.pdf]

1395. Loeb, A. "In Praise of Advances Away from the Mean", Medium (2024).
[https://www.cfa.harvard.edu/~ loeb/M41.pdf]

1394. Loeb, A. “Collision of Suns Moving Close to the Speed of Light Around a Black Hole”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/Discov.pdf]

1393. Loeb, A. “Thank God for Fact Checking!”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M40.pdf]

1392. Loeb, A. “Exploring the Unknown in Arts and Sciences”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M39.pdf]

1391. Loeb, A. “Reality Must Be Imagined, For It To Be Understood”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M38.pdf]

1390. Loeb, A. “Being Curious and Humble is Key For Learning”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M37.pdf]

1389. Loeb, A. “What Caps the Mass of the Most Massive Black Holes in the Universe?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M36.pdf]

1388. Loeb, A. “Techno-signatures Might Be The Most Accessible Bio-Signatures”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M35.pdf]

1387. Loeb, A. “Why is Childlike Bullying More Prevalent Thank Childlike Curiosity?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M34.pdf]

1386. Loeb, A. “Would You Like to Be Immortal?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M33-1.pdf]

1385. Loeb, A. “The Promise of the Spring Equinox”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M33.pdf]

1384. Loeb, A. “Exceeding the Escape Velocity is a Sign of Intelligence”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M32.pdf]

1383. Loeb, A. “For the Love of the Printed Word”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M31.pdf]

1382. Loeb, A. “A Packed Session on Exciting Science”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M30.pdf]

1381. Loeb, A. “A Meteor is a Truck According to The New York Times”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M28.pdf]

1380. Loeb, A. “The Thrill is All About the Search”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M27.pdf]

1379. Loeb, A. “Having a Chip on Your Shoulder”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M26.pdf]

1378. Loeb, A. “Chemical Composition of Unfamiliar Origin from the Pacific Ocean Site of the IM1 Meteor”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M26.pdf]

1377. Loeb, A. “Clearing Rilke’s Mystic Fog Over Nature”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M21.pdf]

1376. Loeb, A. “Would Albert Einstein End Up in Academia in 2024?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M20.pdf]

1375. Loeb, A. “Food For Thought For Gen Z, Fast and Processed”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M19.pdf]

1374. Loeb, A. “What a Wonderful World”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M17.pdf]

1373. Loeb, A. “Fireballs in the Desert, Brighter Than Oppenheimer’s Trinity”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M16.pdf]

1372. Loeb, A. “Looking at the Stars, but Living in the Gutter”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M15.pdf]

1371. Loeb, A. “Milky-Way Tourism”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M14.pdf]

1370. Loeb, A. “Staying Young at 62 Out of 13.8-Billion Years”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M12.pdf]

1369. Loeb, A. “The Moon Will Die on Earth in 7.6 Billion Years”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/M11.pdf]

1368. Loeb, A. “Seeking the Second Interstellar Meteor”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/L20.pdf]

1367. Loeb, A. “What Does Extraterrestrial Intelligence Look Like?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/L19.pdf]

1366. Loeb, A. “What Have We Done to Deserve a Cosmic Partner?”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/L18.pdf]

1365. Loeb, A. “Embracing Nicolaus Copernicus in Torun”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/L17.pdf]

1364. Loeb, A. “Lessons from the Munich Security Conference”, Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/L16.pdf]

1363. Loeb, A. "Science and Politics", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L15.pdf]

1362. Loeb, A. "Science Without Borders", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L14.pdf]

1361. Loeb, A. "Searching for Space Trash", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L12.pdf]

1360. Loeb, A. "Can Technological Civilizations Move Stars?", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L11.pdf]

1359. Loeb, A. "We Are Not Alone!", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L10.pdf]

1358. Loeb, A. "Let Us Focus on Being Intelligent", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L7.pdf]

1357. Loeb, A. "Losing Weight by Relocating", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L6.pdf]

1356. Loeb, A. "A Sunshade to Protect the Earth's Climate Would be Perforated by Micrometeoroids", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L5.pdf]

1355. Loeb, A. "Will Brain Chip Implants Enable "Thought Police"?", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L3.pdf]

1354. Loeb, A. "Are We "Seninelese" on Island Earth in the Ocean of Interstellar Space?", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L4.pdf]

1353. Loeb, A. "It does Not Depend on Context", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/L2.pdf]

1352. Hertzberg, M., & Loeb, A. "Constraints on an Anisotropic Universe", Phys. Rev. D. (2024). [arXiv:2401.15782]

1351. Loeb, A. "Flares from Space Debris in LSST Images", RNAAS (2024). [arXiv:2401.15697]

1350. Loeb, A. "Our Birth in the Local Bubble", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K20.pdf]

1349. Loeb, A. "Space Trash on Our Way to the Stars", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K19.pdf]

1348. Loeb, A. "Are Humans Fundamentally Different from AI?", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K18.pdf]

1347. Loeb, A. "The Ethics of Astrobiology", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K17.pdf]

1346. Loeb, A. "The Faculties of Arts and Sciences", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K16.pdf]

1345. Loeb, A. "Limited Supplies In Our Cosmic Future", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K15.pdf]

1344. Loeb, A. "Coincidences of Our Sun and Moon: Are We Exceptionally Lucky?", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K11.pdf]

1343. Loeb, A. "Doing Science for Its Own Sake", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K9.pdf]

1342. Loeb, A. "A Spacecraft to Probe the Universe", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K8.pdf]

1341. Loeb, A. "New Knowledge Does Not Usually Fall into Our Lap", Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/K7.pdf]

1340. Loeb, A. "Who Should Be Held Legally Liable to Unpredictable AI?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/K6.pdf]

1339. Loeb, A. "Political Agendas Are Dangerous for Academia", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/K5.pdf]

1338. Loeb, A. "The World is Seriously Broken: Can We Still Fix It?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/K4.pdf]

1337. Padmanabhan, H. & Loeb, A. "Constraints on Supermassive Black Hole Binaries from JWST and NANOGrav", ApJL (2024). [arXiv:2401.04161]

1336. Pacucci, F. & Loeb, A. "The Redshift Evolution of the $M_\bullet - M_\star$ Relation for JWST's Supermassive Black Holes at $z > 4$", ApJL (2024). [arXiv:2401.04159]

1335. Loeb, A. "The Interstellar Real Estate Industry", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/K3.pdf]

1334. Loeb, A, "Recovery and Classification of Spherules from the Pacific Ocean Site of the CNEOS 2014-01-08 (IM1) Bolide", RNAAS (2024).[arXiv:2401.09882]

1333. Loeb, A. "The BeLaU Spherules from IM1's Site Are Not Coal Ash", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/K1.pdf]

Loeb, A. "Surface Brightness Bias in the Shape Statistics of High-Redshift Galaxies", RNAAS (2024). [arXiv:2401.03592]

1332. Loeb, A. "Are Galaxies "Going Bananas" at Early Cosmic Times?", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/I9.pdf]

1331. Loeb, A. "The Cosmic Race Between Stars and Black Holes", Medium (2024).

[https://www.cfa.harvard.edu/˜ loeb/I8.pdf]

1330. Loeb, A. “Are Aliens Made Mostly of Oxygen?”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/I7.pdf]

1329. Loeb, A. “A New Vision for Harvard”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/I6.pdf]

1328. Loeb, A. “The Benefits of Aging on Earth Versus Space”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/I5.pdf]

1327. Loeb, A. “Celebrating the Ten-Year Anniversary of the First Identified Interstellar Meteor”, Medium (2024).
[https://www.cfa.harvard.edu/˜ loeb/I4.pdf]

1326. Loeb, A. “Academic Bubbles Are More Dangerous Thank Black Holes”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/I3.pdf]

1325. Loeb, A. “From Farm to High Table”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/I2.pdf]

1324. Loeb, A. “A Retreat from Harvard in the Holy Land”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/I1.pdf]

1323. Loeb, A. “The Universal Benefits of Communication”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET12.pdf]

1322. Loeb, A. “Our Nearest Neighbors”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET11.pdf]

1321. Loeb, A. “Detecting the Undetectable”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET10.pdf]

1320. Loeb, A. “Intelligence Means Exponential Growth”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET9.pdf]

1319. Loeb, A. “A Menorah of Stars Over Our Head”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET8.pdf]

1318. Loeb, A. “All Habitable Worlds Come to an End”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET7.pdf]

1317. Loeb, A. “A Heartfelt Letter to Harvard’s President, Claudine Gay”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET6.pdf]

1316. Loeb, A. “It Takes Two Black Holes to Tango”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET5.pdf]

1315. Loeb, A. “The Biggest Mouth in the Universe”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET3.pdf]

1314. Loeb, A. “New Physics or Misinformation?”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Grusch.pdf]

1313. Loeb, A. “We Are Probably Not The Top Gun Civilization”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET2.pdf]

1312. Loeb, A. “Look Up for Anomalies”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/HA1.pdf]

1311. Loeb, A. “On the Stage at CERN’s Globe of Science and Innocation”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/CERN.pdf]

1310. Loeb, A. “Ashes to Ashes: Superficial Toxicity is the Enemy of Curiosity-Driven Innovation in Science”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ET1.pdf]

1309. Loeb, A. “Even the Tiniest Frog Can Become an Astronaut by Jumping Out of the Surface of a Mile-Size Asteroid”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/UA2.pdf]

1308. Loeb, A. “Are UAPs Relics from an Earlier Civilization?”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/UA1.pdf]

1307. Loeb, A. “The Rocket Effect on Earth”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Kick.pdf]

1306. Loeb, A. “New Knowledge Must Be Learned, Not Preached”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Ig.pdf]

1305. Loeb, A. “The Invisible Sky in Neutrinos”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/CMB1.pdf]

1304. Loeb, A. “Keep Your Inspiration from the Stars!”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/CMB.pdf]

1303. Loeb, A. “Mystery Sound of an Unidentified Anomalous Phenomenon”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/HM.pdf]

1302. Loeb, A. “Love the Aliens!”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/NB.pdf]

1301. Loeb, A. “The Sun is Charged!”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Sun1.pdf]

1300. Loeb, A. “Is a More Advanced Civilization an Oxymoron?”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Star.pdf]

1299. Loeb, A. “Interstellar Affairs Are Not the Pentagon’s Day Job”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ISO1.pdf]

1298. Loeb, A. “Would You Favor Truth Over Beauty?”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/meti.pdf]

1297. Loeb, A. “Extraterrestrial Ethics”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ins1.pdf]

1296. Loeb, A. “Facts Are Irrelevant to Pro-Truth Pretenders”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Part1.pdf]

1295. Loeb, A. “Aliens As Role Models”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Cu1.pdf]

1294. Loeb, A. “Did the Early Universe Resemble a Needle or a Sphere?”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Isot.pdf]

1293. Loeb, A. “Is God an Advanced Scientist?”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Cu.pdf]

1292. Loeb, A. & MacLeod, M.“Interstellar Meteors from Tidal Disruption of Rocky Planets on Eccentric Orbits Around M Dwarfs”, ApJL (2023). [arXiv:2310.09399]

1291. Loeb, A. “A Dialogue of Rolf Dobelli with Avi Loeb”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Dob1.pdf]

1290. Padmanabhan, H. & Loeb, A. “Constraining the AGN luminosity function from JWST with the X-ray Background”, ApJL (2023). [arXiv:2310.08633]

1289. Loeb, A. “Can Birds Fly Faster Without Air?”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Inf3.pdf]

1288. Loeb, A. “Interstellar Meteors from Disruption of Rocky Planets by Dwarf Stars”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/MD.pdf]

1287. Loeb, A. “Where is everybody?”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IS.pdf]

1286. Loeb, A. “Can Our Civilization Rise-Up to Win the Cosmos Award?”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/It.pdf]

1285. Loeb, A. "The Lavish Rainbow of Human Expressions", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/Art3.pdf]

1284. Veres, P. Cloete, R., Weryk, R., Loeb, A. & Payne, M. "Improvement of digest2 NEO Classification Code - utilizing the Astrometry Data Exchange Standard", PASP (2023). [arXiv:2309.16407]

1283. Loeb, A. "Break a Leg!", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/Break.pdf]

1282. Loeb, A. "Touching a Piece of Sky", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/Bennu.pdf]

1281. Loeb, A. "Engaging the Public in the Practice of Science", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/KC.pdf]

1280. Loeb, A. "A Tale of Two Nobels", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/Nobel.pdf]

1279. Loeb, A. "Loneliness is Pointless", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/Uni5.pdf]

1278. Loeb, A. "Some of Us Are Looking at the Stars", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/Thank6.pdf]

1277. Loeb, A. "A Piece of Sky", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/Thank5.pdf]

1276. Pacucci, F., Ni, Y. & Loeb, A. "Extreme Tidal Stripping May Explain the Overmassive Black Hole in Leo I: a Proof of Concept", ApJL (2023). [arXiv:2309.02487]

1275. Loeb, A. "Escaping Earth as a Sign of Intelligence", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/Thank4.pdf]

1274. Loeb, A. "Rconstructing the First Interstellar Meteor, IM1", Medium (2023). [https://www.cfa.harvard.edu/~ loeb/Recon.pdf]

1273. Loeb, A. "Discovery of Spherules of Likely Extrasolar Composition in the Pacific Ocean Site of the CNEOS 2014-01-08 (IM1) Bolide", (2023). [https://arxiv.org/abs/2308.15623]

1272. Loeb, A. "The IM1 Spherules from the Pacific Ocean Have Extrasolar Composition", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE45.pdf]

1271. Loeb, A. "Sporting Science", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Sport.pdf]

1270. Loeb, A. "A Salute to Nature", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Nature1.pdf]

1269. Loeb, A. "Letters from Earthlings and Beyond", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Let3.pdf]

1268. Loeb, A. "Opening Interstellar Packages in Our Mailbox", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Dent.pdf]

1267. Loeb, A. "Seeking a Higehr Intelligence", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Think.pdf]

1266. Loeb, A. "Recruiting Panelists from the Bar at Harvard Square", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE44.pdf]

1265. Loeb, A. "An Extraterrestrial Messiah?", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Mess.pdf]

1264. Loeb, A. "An Unprecedented Hearing About Extraterrestrials in the US House of Representatives" (43th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE43.pdf]

1263. Loeb, A. "Celebration of Life-As-We-Know-It!" (42th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE42.pdf]

1262. Loeb, A. "The Count is Up to 360 Spherules" (41th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE41.pdf]

1261. Loeb, A. "The One Thing That Senators, Scientists and Artists Agree On!" (40th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE40.pdf]

1260. Loeb, A. "We Are All in the Same Boat" (39th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE39.pdf]

1259. Loeb, A. "A Harvest of 92 New Spherules in One Day" (38th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE38.pdf]

1258. Hertzberg, M. P., & Loeb, A. "Inconsistency with de Sitter Spacetime of "Gravitational Pair Production and Black Hole Evaporation", PRL (2023). [https://arxiv.org/abs/2307.05243]

1257. Loeb, A. "A Billion Year Delivery by FedEx" (37th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE37.pdf]

1256. Loeb, A. "Starting the Analysis of Spherules from the Interstellar Expedition" (36th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE36.pdf]

1255. Loeb, A. "Summary of a Successful Interstellar Expedition" (35th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE35.docx]

1254. Loeb, A. "On the Way Back from IM1's Site" (34th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE34.docx]

1253. Loeb, A. “A Toast of Champagne to Fifty IM1 Spherules” (33th diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE33.docx]

1252. Loeb, A. “From Ocean to Table” (32nd diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE32.docx]

1251. Loeb, A. “Is an Iron Peanut or Bean Worth Ten Thousand Spherules?” (31th diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE31.docx]

1250. Loeb, A. “Running Along IM1’s Likely Path” (30th diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE30.docx]

1249. Loeb, A. “The Spatial and Size Distributions of Spherules Are Correlated with the Likely IM1’s Path” (29th diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE29.docx]

1248. Loeb, A. “The Flowers Above the Grass Level” (28th diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE28.docx]

1247. Loeb, A. “We Have 25 Spherules from IM1’s Site” (27th diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE27.docx]

1246. Loeb, A. “Two Are Better Thank One” (26th diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE26.docx]

1245. Loeb, A. “Somewhere Over the Rainbow” (25th diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE25.docx]

1244. Loeb, A. “Our Largest Spherule Looks Like an Alien Emoji” (24th diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE24.docx]

1243. Loeb, A. "What a Wonderful World" (23th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE23.docx]

1242. Loeb, A. "Finding a Needle in an Ocean" (22nd diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE22.docx]

1241. Loeb, A. "Hunting for More IM1 Spherules" (21th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE21.docx]

1240. Loeb, A. "We Have Discovered Spherules from the Path of the First Recognized Interstellar Meteor, IM1" (20th diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE20.docx]

1239. Loeb, A. "Inspiration from a Visit to a Terrestrial Marketplace" (nineteenth diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE19.docx]

1238. Loeb, A. "Background Wires at the DoD Coordinates of IM1" (eighteenth diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE18.docx]

1237. Loeb, A. "Where Are the Spherules of IM1?" (seventeenth diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE17.docx]

1236. Loeb, A. "Black Powder in the Debris Field of the First Interstellar Meteor" (sixteenth diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE16.docx]

1235. Loeb, A. "We Recovered Shock-Resisting Steel in the Debris Field of the First Interstellar Meteor" (fifteenth diary report)", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE15.docx]

1234. Loeb, A. “Corroded Iron and Volcanic Debris in IM1’s Path” (fourteenth diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE14.docx]

1233. Loeb, A. “Analysis of the Materials Retrieved from Runs 4 and 5 in IM1’s Path” (thirteenth diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE13.docx]

1232. Loeb, A. “A Rich Harvest of Wires and Fragments from IM1’s Path” (twelve diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE12.docx]

1231. Loeb, A. “Ashes to Ashes, Dust to Dust” (tenth diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE10.docx]

1230. Loeb, A. “You Cannot Make a Lemonade Without Lemons” (ninth diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE9.docx]

1229. Loeb, A. “An Anomalous Wire Made of Manganese and Platinum in the Pacific Ocean Site of the First Interstellar Meteor” (eighth diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE8.docx]

1228. Loeb, A. “Strange Wires and Diverse Fragments in the Pacific Ocean Site of the First Interstellar Meteor” (seventh diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE7.docx]

1227. Loeb, A. “Do Aliens Have Hair? (sixth diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE6.docx]

1226. Loeb, A. “First Sample of Fragments from the Pacific Ocean Floor (fifth diary report)”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/IE5.docx]

1225. Loeb, A. "Scooping the Ocean Floor (fourth diary report)", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/IE4.pdf]

1224. Loeb, A. "Arriving At Silver Star (third diary report)", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/IE3.pdf]

1223. Loeb, A. "Seeking Extraterrestrial Artifacts in the Pacific Ocean (second diary report)", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/IE2.pdf]

1222. Loeb, A. "It's Easier to Seek Extraterrestrial Facts from the Ocean Floor Than Get it From Government", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/IE1.pdf]

1221. Padmanabhan, H. & Loeb, A. "Alleviating the Need for Exponential Evolution of JWST galaxies in $10^{10}M_{\odot}$ Halos at $z > 10$ by a Modified ΛCDM Power Spectrum" (2023).[arXiv:2306.04684]

1220. Loeb, A. "The Multiple Groups of UAP Studies Within Government", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/Fab1.pdf]

1219. Loeb, A. "Interstellar Space Trash is Our Treasure", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/Tra1.pdf]

1218. Loeb, A. "Terrestrial Relics from Non-Human Spacecraft", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/Art1.pdf]

1217. Loeb, A. "An Interstellar Twist to Human History", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/BIM.pdf]

1216. Loeb, A. "Breaking News: We Are Not the Smartest!", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/New2.pdf]

1215. Loeb, A. "NASA, AARO and the Galileo Project Agree on the Need for a Scientific Study of UAP", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/NASA2.pdf]

1214. Watters, W.A., Loeb, A., et al. "The Scientific Investigation of Unidentified Aerial Phenomena (UAP) Using Multimodal Ground-Based Observatories", Journal of Astronomical Instrumentation 12, 1, 2340006 (2023).[arXiv:2305.18566]

1213. Randall, M., et al. "SkyWatch: A Passive Multistatic Radar Network for the Measurement of Object Position and Velocity", Journal of Astronomical Instrumentation 12, 1, 2340004 (2023).[arXiv:2305.18562]

1212. Cloete, R., et al. "Integrated Computing Platform for Detection and Tracking of Unidentified Aerial Phenomena (UAP)", Journal of Astronomical Instrumentation 12, 1, (In Press).

1211. Loeb, A. "Self-Replicating Machines", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/Rep1.pdf]

1210. Loeb, A. "The Search for Extraterrestrials May Inspire an Uplifting Future for Humanity", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/Com1.pdf]

1209. Loeb, A. "Nature Made It Difficult to Weaponize Black Holes", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/SMB.pdf]

1208. Loeb, A. "Ideas Are Not Good Enough Without Good Data", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/Hap1.pdf]

1207. Loeb, A. "Nothing Lasts Forever", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/Epi1.pdf]

1206. Loeb, A. "The Horizon for Intergalactic Travel", Medium (2023).

[https://www.cfa.harvard.edu/~ loeb/Far1.pdf]

1205. Loeb, A. "A Log of Our Exponential History", Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Log1.pdf]

1204. MacLeod, M., Antoni, A., Huang, C., Dupre, A., & Loeb, A. "Left Ringing: Betelgeuse Illuminates the Connection Between Convective outbursts, Mode switching, and Mass Ejection in Red Supergiants", ApJ (2023). [arXiv:2305.09732]

1203. Fragione, G., & Loeb, A. "Neutron Star Kicks and Implications for Their Rotation at Birth", ApJ (2023). [arXiv:2305.08920]

1202. Mukherjee, D., Siraj, A., Trac, H., & Loeb, A. "Close Encounters of the Interstellar Kind: Examining the Capture of Interstelar Objects in Near Earth Orbit", ApJ (2023). [arXiv:2305.08915]

1201. Loeb, A. "Is Spacetime Continuous or Discrete?", Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Space1.pdf]

1200. Loeb, A. "Will Your Home Be Hit by a Meteorite?", Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/NJ1.pdf]

1199. Loeb, A. "The Benefits of a Systematic Over Anecdotal Evidence", Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Stu1.pdf]

1198. Loeb, A. "Would You Press a Button on an Extraterrestrial Gadget?", Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/But1.pdf]

1197. Loeb, A. "Interstellar Diary", Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Exp2.pdf]

1196. Loeb, A. "Chasing 'Oumuamua", Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Chase1.pdf]

1195. Loeb, A. "Space Trash in Our Cosmic Neighborhood", Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/ML1.pdf]

1194. Loeb, A. “A Play About Life Beyond Earth”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Josh1.pdf]

1193. Loeb, A. “Follow the Extraterrestrial Water”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Fo1.pdf]

1192. Loeb, A. “Training AI on Desired Content”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/AI2.pdf]

1191. Loeb, A. “The Cosmic Distribution of Love”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Next1.pdf]

1190. Loeb, A. “Our Survival in the Milky Way”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/See1.pdf]

1189. Loeb, A. “A Blind Date with Interstellar Matter”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Mat1.pdf]

1188. Loeb, A. “The Density of What Matters in the Universe”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Den1.pdf]

1187. Loeb, A. “AI Alignment Resembles Helicopter Parenting””, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Align1.pdf]

1186. Loeb, A. “Water as Rocket Fuel on the Moon or Mars”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Water1.pdf]

1185. Loeb, A. “The State of the Universe”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/State1.pdf]

1184. Loeb, A. “Elon Musk is Wrong About Aliens!”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Elon.pdf]

1183. Loeb, A. “Fellows of the Galileo Project”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Postd.pdf]

1182. Loeb, A. “Afterthoughts on the Second UAP Senate Hearing”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Pos1.pdf]

1181. Loeb, A. “The Shots Heard Round the World”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Hum1.pdf]

1180. Loeb, A. “Tracking Extraterrestrial Packages with AI”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Al1.pdf]

1179. Loeb, A. “Reflections of a Farm Boy: “From Farm to Table” Science”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/DC1.pdf]

1178. Loeb, A. “Philanthropy by Inspiration”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Phil1.pdf]

1177. Loeb, A. “Extraterrestrial Offer Benefits, Not Existential Risk”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Exist1.pdf]

1176. Loeb, A. “On the Virtue of Real Action in Place of ‘Virtue Signaling”’, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Virt.pdf]

1175. Loeb, A. “Planetary Defense Warning Stations”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Prot.pdf]

1174. Loeb, A. “The New Society of AI”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/AIEco.pdf]

1173. Loeb, A. “The Cosmos is Different from Our Backyard”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/AIS1.pdf]

1172. Loeb, A. “Will Future AI Systems be Legally Liable?”, Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Broad1.pdf]

1171. Loeb, A. "Will Future AI Systems be Legally Liable?", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Leg1.pdf]

1170. Loeb, A. "Dating Interstellar Objects with the Webb Space Telescope", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Webb1.pdf]

1169. Loeb, A. "Knowledge is Strength: Extraordinary Evidence Requires Extraordinary Funding", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Gov1.pdf]

1168. Ezell, C., & Loeb, A. "Detection Rate of 50-meter Interstellar Objects with LSST", ApJL (2020). [arXiv:2303.14766]

1167. Loeb, A. "What is the Proper Pronoun for GPT-4?", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/AI1.pdf]

1166. Hoang, T., & Loeb, A. "Implications of Evaporative Cooling by H_2 for 1I/'Oumuamua", ApJL (2020). [arXiv:2303.1386]

1165. Loeb, A. "The Simplicity of Telling the Truth", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/In1.pdf]

1164. Loeb, A. "'Oumuamua Was Not a Hydrogen-Water Iceberg", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Truth1.pdf]

1163. Loeb, A. "Is 'Oumuamua a Hydrogen-Water Iceberg?", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Ou.pdf]

1162. Loeb, A. "Exotic Propulsion", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Prop.pdf]

1161. Loeb, A. "1984", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Ninety.pdf]

1160. Loeb, A. "Open-Minded AI", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Chat1.pdf]

1159. Loeb, A. "Science is an Infinite Box of Chocolates", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/World1.pdf]

1158. Siraj, A. & Loeb, A. "Localizing the First Interstellar Meteor with Seismometer Data", ApJL (2023). [arXiv:2303.07357]

1157. Loeb, A. "Interstellar Objects from Broken Dyson Spheres", RNAAS (2023). [arXiv:2303.08013]

1156. Loeb, A. "Interstellar Interpretation of Plato's Cave Allegory", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Kick1.pdf]

1155. Loeb, A. "How to Navigate Academia", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Car1.pdf]

1154. Hoffman, C., Chen, N., DiMatteo, T., Ni, Y. Bird, S., Croft, R. & Loeb, A. "Triple and Quadruple Black Holes in the ASTRID Simulation at $z \sim 2$", ApJ (2023). [arXiv:2303.04825]

1153. Loeb, A. "A Gift From a Silver Star", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Exped1.pdf]

1152. Loeb, A. "Keep the Branch We Are Sitting On!", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Astro1.pdf]

1151. Loeb, A. "Separating Science from Fiction", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Fict1.pdf]

1150. Loeb, A. "Distinguishing Ourselves from Nature", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Flow1.pdf]

1149. Loeb, A. "Do Technological Civilizations Self-Destruct or Self-Replicate?", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Risk1.pdf]

1148. Loeb, A. "Herlinde Koelbl's Fascination With Scientists", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Fas.pdf]

1147. Loeb, A. "Wishing a Better Future for All of Us", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/BD.pdf]

1146. Loeb, A. "Loving Reality Without Makeup", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Hasid.pdf]

1145. Loeb, A. "Can A.I. Reproduce Human Creativity?", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Creative.pdf]

1144. Hertzberg, M. P., & Loeb, A. "Possible Relation Between the Cosmological Constant and Standard Model Parameters", PRD (2023). [https://arxiv.org/abs/2302.09090]

1143. Loeb, A. "City Lights in Our Sky and Plastic in Our Oceans", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Plastic.pdf]

1142. Loeb, A. "Wishing to Be a Museum Item on an Exo-Planet", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Leave1.pdf]

1141. Loeb, A. "Interstellar Romance", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Moon2.pdf]

1140. Loeb, A. "Balloons or Extraterrestrial Devices?", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Bare.pdf]

1139. Loeb, A. "Could the Biggest Blunder of Fundamental Physics Be Resolved?", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/CC.pdf]

1138. Loeb, A. "Past and Future Life in Martian Lava Tubes", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/Lava.pdf]

1137. Loeb, A. "Science Is Better Than Politics", Medium (2023).
[https://www.cfa.harvard.edu/~ loeb/WW1.pdf]

1136. Loeb, A. "The Existential Risk from Fast Bullets During Interstellar Travel", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Int1.pdf]

1135. Loeb, A. "What Would Have Happened to the Dinosaurs if the Chixulub Impactor Was a Black Hole?", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/CH1.pdf]

1134. Loeb, A. "Thermonuclear Explosions on Prxima b Are Detectable by JWST", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/TN1.pdf]

1133. Loeb, A. "Searching for Partners Around the Milky Way", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/MW1.pdf]

1132. Loeb, A. "Interstellar Objects from Broken Dyson Spheres", RNAAS (2023).

[https://www.cfa.harvard.edu/˜ loeb/Dyson_arXiv.pdf]

1131. Loeb, A. "Observing Earth With Love", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Ast1.pdf]

1130. Loeb, A. "Interstellar Objects from Broken Dyson Spheres", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/H1.pdf]

1129. Loeb, A. "We Are Going to Visit the First Interstellar Meteor", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/PN1.pdf]

1128. Loeb, A. "What Constitutes a Miracle?", Medium (2023).

[https://www.cfa.harvard.edu/˜ loeb/Two.pdf]

1127. Padmanabhan, H., & Loeb, A. "A New Limit on Intergalactic Magnetic Fields on sub-kpc Scales from Fast Radio Bursts", ApJL (2023). [arXiv:2301.08259]

1126. Loeb, A. “Imagine Interstellar”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Imag.pdf]

1125. Loeb, A. “Trading Disruptive Science for Imagined Realities”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Chem.pdf]

1124. Loeb, A. “Thirty Years at Harvard University”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Thirty.pdf]

1123. Loeb, A. “Finding Meaning in a Multi Star Family”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Mean.pdf]

1122. Loeb, A. “Planck Energy Accelerators”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/MPl.pdf]

1121. Loeb, A. “Intergalactic Travel At No Cost”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/SBH.pdf]

1120. Loeb, A. “Thoughts on the 2022 ODNI UAP Report”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/OD.pdf]

1119. Loeb, A. “The Most Fantastic Spacecraft Ever Imagined”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/NM.pdf]

1118. Loeb, A. “The Pleasure of Figuring Out the Location of the First Interstellar Meteor”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Manus.pdf]

1117. Loeb, A. “The Most Exciting Signal Starts in the Noise”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Canvas.pdf]

1116. Loeb, A. “Should We Develop an ET Encounter Manual?”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/WH1.pdf]

1115. Loeb, A. “The Claustrophobia of a Closed Universe”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Close.pdf]

1114. Loeb, A. “The Unexplored Dimension of the Universe”, Medium (2023).
[https://www.cfa.harvard.edu/˜ loeb/Virus.pdf]

1113. Loeb, A. “The Writing on Our Tombstone”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Tom.pdf]

1112. Loeb, A. “Was Earth’s Surface Ever Completely Frozen?”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Solar1.pdf]

1111. Loeb, A. “Beliefs Versus Evidence in Science and Beyond”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Super.pdf]

1110. Loeb, A. “Was Earth Terraformed by Martians?”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Sym.pdf]

1109. Loeb, A. “No High-Rise Left Standing on Early Mars or Earth”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/High.pdf]

1108. Loeb, A. “Seeking Immortality in Space”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Book.pdf]

1107. Loeb, A. “Extraterrestrial Heaven: Innovation with no Bureaucracy”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Atw.pdf]

1106. Loeb, A. “The Next Copernican Revolution”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Copernicus.pdf]

1105. Loeb, A. “Our Interstellar Blessing: Live Long and Prosper!”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Only.pdf]

1104. Loeb, A. "Interplanetary Soccer on Mars", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Soccer.pdf]

1103. Loeb, A. "Allowing for the Unexpected in an Interstellar Date", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Lotem.pdf]

1102. Hertzberg, M., & Loeb, A. "Quantum Tunneling of Ultralight Dark Matter Out of Satellite Galaxies", ApJ (2022). [arXiv:2212.07386]

1101. Loeb, A. "Imaging Hell at High Resolution", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Io.pdf]

1100. Safazadeh, M., Jani, K., Chen, N., DiMatteo, T. & Loeb, A. "A New Approach to Constrain the Hubble Expansion Rate at High Redshifts by Gravitational Waves", ApJ (2022). [arXiv:2212.06707]

1099. Loeb, A. "Creating a Transient Star in the Laboratory", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/SunLab.pdf]

1098. Loeb, A. "Is Ceres Our Third Hub After the Moon and Mars?", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Ceres.pdf]

1097. Loeb, A. "Why Is Science Important?", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Science.pdf]

1096. Loeb, A. "A Million CubeSats in Our Backyard", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Cube.pdf]

1095. Fragione, G., & Loeb, A. "Constraining the Cosmic Merger History of Intermediate-Mass Black Holes with Gravitational Wave Detectors", ApJ (2022). [arXiv:2212.04056]

1094. Loeb, A. "The Sky's the Limit on the Speed of Light", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Speed.pdf]

1093. Loeb, A. "Questions of Life and Death", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Question.pdf]

1092. Loeb, A. “Is it Possible to Communicate with Gravitational Waves?”, Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Blum.pdf]

1091. Tillinghast-Raby, A., Loeb, A. & Siraj, A. “Expected Fragment Distribution from the First Interstellar Meteor CNEOS 2014-01-08”, ApJ (2022).[arXiv:2212.00839]

1090. Loeb, A. “Cast Your Craft on Interstellar Waters”, Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/White.pdf]

1089. Loeb, A. “What Makes the Life of a Physicist Meaningful”, Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Ask.pdf]

1088. Loeb, A. “Life on Titan May Signal Early Life in the Universe”, RNAAS (2022).[arXiv:2212.00473]

1087. Loeb, A. “Was Terrestrial Intelligence Seeded by a Gardener?”, Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Pans.pdf]

1086. Loeb, A. “Life on Titan May Signal Early Life in the Universe”, Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Titan.pdf]

1085. Loeb, A. “Collecting Fragments from the First Interstellar Meteor”, Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Size.pdf]

1084. Loeb, A. “Confluence of Natural and Artificial Intelligences”, Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/AIBio.pdf]

1083. Loeb, A. “The Side Academy”, Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Side.pdf]

1082. Loeb, A. “Life as We Know or Do Not Know It”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Earth.pdf]

1081. Loeb, A. “Cosmic Seeds of the Biggest Black Holes”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Quasar.pdf]

1080. Loeb, A. “A Hint from the Webb Telescope that the First Stars Were Massive”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Heaven.pdf]

1079. Loeb, A. “Are City Lights Still on Around White Dwarfs?”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/SunWD.pdf]

1078. Loeb, A. “Earthlings, Unite!”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Unite.pdf]

1077. Loeb, A. “What Makes Us Human?”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/What1.pdf]

1076. Loeb, A. “The Proper Way to Swipe Left or Right”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Human.pdf]

1075. Loeb, A. “Three Revolutions that Will Change Humanity”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Rev.pdf]

1074. Loeb, A. “A Black Hole in the Solar System?”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/EBH.pdf]

1073. Loeb, A. “Let It Be ... An Intelligent Signal”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Bom.pdf]

1072. Siraj, A. Loeb, A. et al. “Physical Considerations for an Intercept Mission to a 1I/’Oumuamua-like Interstellar Object”, Journal of Astronomical Instrumentation (2022).[arXiv:2211.02120]

1071. Loeb, A. “Nerds May Save Humanity”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Num.pdf]

1070. Loeb, A. “What Happens in Vegas Does Not Stay in Vagas”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/LV.pdf]

1069. Pacucci, F., & Loeb, A. “Accretion from Winds of Red Giant Branch Stars May Reveal the Supermassive Black Hole in Leo I”, ApJL (2022). [arXiv:2211.00019]

1068. Loeb, A. “Old Newspapers in Extraterrestrial Restaurants”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Mind.pdf]

1067. Loeb, A. “For the Love of Evidence”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/QE.pdf]

1066. Loeb, A. “Searching for Bread Crumbs Around an Invisible Baby”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Leo.pdf]

1065. Loeb, A. “From Simplicity to Complexity and Back”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Ant.pdf]

1064. Loeb, A. “A New Calculation on the Fly to the NASA UAP Study”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/DC.pdf]

1063. Loeb, A. “Gravitational Wave Acceleration to Relativistic Energies”, RNAAS (2022).[arXiv:2210]

1062. Loeb, A. “Hazards and Benefits of Interstellar Travel”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/CDM.pdf]

1061. Loeb, A. “Gravitational Propulsion”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Pillar.pdf]

1060. Loeb, A. “Near Earth Probes (NEPs)”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/NEP.pdf]

1059. Loeb, A. “Seeds from An Interstellar Dandelion”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Dust.pdf]

1058. Loeb, A. “Life and Death by Nuclear Energy”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Nucl.pdf]

1057. Loeb, A. “Life is Hard Work, But Luck Helps”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Inteli.pdf]

1056. Loeb, A. “Lost Civilizations from Our Cosmic Past”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Bil.pdf]

1055. Loeb, A. “A Word of Torah About Extraterrestrials”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Bon.pdf]

1054. Loeb, A. “When Visiting the Jungle, We Are Likely to See Animals”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Addition.pdf]

1053. Loeb, A. “Open Science and Unidentified Aerial Phenomena”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Pres.pdf]

1052. Loeb, A. “Down to Earth Limits on Unidetified Aerial Phenomena”, RNAAS (2022).

1051. Loeb, A. “Down to Earth Limits on UAP in Ukraine”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Uk.pdf]

1050. Loeb, A. “Rogue Planets”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Rogue.pdf]

1049. Loeb, A. “Permanent Climate Change on Habitable Planets”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Dist.pdf]

1048. Loeb, A. "Do Astronomers Exist On Other Habitable Planets?", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/After.pdf]

1047. Loeb, A. "An Extraterrestrial Resolution to the Absurdity of Life", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Myth.pdf]

1046. Loeb, A. "Understanding Ourselves Thanks to Sentient AI Systems", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/AIAI.pdf]

1045. Ezell, C., & Loeb, A. "The Inferred Abundance of Interstellar Objects of Technological Origin", Acta Astronautica (2022). [arXiv:2209.11262]

1044. Loeb, A. "Bright Spot in Orbit Around a Black Hole", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Hot.pdf]

1043. Ezell, C., Lazarian, A., & Loeb, A. "A Lunar Backup Record of Humanity", Nature (2022). [arXiv:2209.11155]

1042. Siraj, A., & Loeb, A. "Interstellar Meteors Are Outliers in Material Strength", ApJL (2022). [arXiv:2209.09905]

1041. Loeb, A. "Nature is Kind to Astronomers", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Kind.pdf]

1040. Loeb, A. "The Unfamiliar Nature of Interstellar Objects", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/ISOs.pdf]

1039. Loeb, A. "Discovery of a Second Interstellar Meteor", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/IM.pdf]

1038. Loeb, A. "Time-Stamping Our Cosmic History", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Oldest.pdf]

1037. Lee, R., Pacucci, F., Natarajan, P., & Loeb, A. "The Two $z \sim 13$ Galaxy Candidates HD1 and HD2 Are Likely Not Lensed", New Astronomy (2022). [arXiv:2209.06572]

1036. Loeb, A. "Message in an Interstellar Bottle", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/PNGE.pdf]

1035. Scherrer, R., & Loeb, A. "Ultra Long-Term Cosmology and Astrophysics", New Astronomy (2022). [arXiv:2209.06572]

1034. Loeb, A. "The Universe is Too Big for Us to Ignore It", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Uni.pdf]

1033. Loeb, A. "Low-Hanging Fruits of Extraterrestrial Intelligence", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Out.pdf]

1032. Loeb, A. "Post-Pandemic Aspirations", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Post.pdf]

1031. Loeb, A. "Overview of the Galileo Project", J. Astr. Inst. (2022). [arXiv:2209.02479]

1030. Loeb, A. "Rebooting Earth from a Lunar Backup System", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Lunar.pdf]

1029. Loeb, A. "Let Many Flowers Bloom", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Big.pdf]

1028. Loeb, A. "Humans are Not Scientific Detectors", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Det.pdf]

1027. Loeb, A. "A Meeting With 'Oumuamua at the Venice Film Festival", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Ven.pdf]

1026. Vagnozzi, S., & Loeb, A. "The Challenge of Ruling Out Inflation via the Primordial Graviton Background", ApJ (2022). [arXiv:2208.14088]

1025. Loeb, A. “Advice to Young People”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/shell.pdf]

1024. Loeb, A. “You and It”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Bub.pdf]

1023. Loeb, A. “Exploring the Unknown”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/god.pdf]

1022. Loeb, A. “Interstellar Dating”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/avatar.pdf]

1021. Loeb, A. “The Genius in Our Interstellar Class”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Smart.pdf]

1020. Loeb, A. “The Last Year in the Life of a Star”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Last.pdf]

1019. Loeb, A. “What is Real?”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/What.pdf]

1018. Loeb, A. “The Scissors of Academic Review”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Sciz.pdf]

1017. Loeb, A. “Messages Carried by Ripples in Space and Time”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Curve.pdf]

1016. Loeb, A. “Gifts of Active Galactic Nuclei”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Basket.pdf]

1015. Loeb, A. “Wish Upon a Star”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Wish.pdf]

1014. Loeb, A. “What Came First: the Astro-Chicken or the Egg?”, Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Chic.pdf]

1013. Loeb, A. "Rising Above the Noise", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Unce.pdf]

1012. Cheng, S. & Loeb, A. "Metallicity Ceiling in Quasars from Recycled Stellar Winds, ApJ (2022). [arXiv:2208.04337]

1011. Loeb, A. "The Enigmatic Universe", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Plant.pdf]

1010. Loeb, A. "What is Our Rating in the Cosmic Dating Scene?", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/ET.pdf]

1009. Loeb, A. "Thank You for Your Service to Blue Skies Science", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Thanks.pdf]

1008. Loeb, A. "Our Cosmic Roots suggest Humility", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Save.pdf]

1007. Loeb, A. "Interstellar archaeology", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Noema.pdf]

1006. Siraj, A., Loeb, A., & Gallaudet, T. "An Ocean Expedition by the Galileo Project to Retrieve Fragments of the First Large Interstellar Meteor CNEOS 2014-01-08", JAI (2022). [arXiv:2208.00092]

1005. Padmanabhan, H., & Loeb, A. "Unravelling the Formation of the First Supermassive Black Holes with the SKA Pulsar Timing Array", ApJ (2022). [arXiv:2207.14309]

1004. Loeb, A. "Our Cosmic Roots suggest Humility", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Save.pdf]

1003. Loeb, A. "What Doesn't Kill You, Makes You Stronger", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Les.pdf]

1002. Loeb, A. "A Test of Cosmic Inflation and Quantum Gravity", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/GW.pdf]

1001. Loeb, A. "What Lies Beyond the Horizon?", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/ZG.pdf]

1000. Loeb, A. "What's in a Name?", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Pluto.pdf]

999. Loeb, A. "Nature Could Be Simple", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/simplicity.pdf]

998. Loeb, A. "Overview of the Galileo Project", arXiv (2022).
[https://www.cfa.harvard.edu/˜ loeb/gp_overview.pdf]

997. Loeb, A. "The Bright Side of the Moon", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/MN.pdf]

996. Loeb, A. "Life As We Do Not Know It", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/We.pdf]

995. Loeb, A. "Webb's Deep Insight: Time is of the Essence", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Time.pdf]

994. Loeb, A. "The First Cosmic Bits that were Caught in Webb's Web", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Webb.pdf]

993. Loeb, A. "Interstellar Artifacts", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/ISO.pdf]

992. Loeb, A. "The New Eyes and Brain of the Galileo Project", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Album.pdf]

991. Loeb, A. "The Sunrise Ritual", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Jog.pdf]

990. Loeb, A. "Extinction of the TeV Gamma-Ray Background by Sunlight", RNAAS (2022). [arXiv:2207.00671]

989. Loeb, A. "Extinction of Gamma-Rays by Sunlight", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/TeV.pdf]

988. Loeb, A. "Quantum-Gravity Engineers", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Technology.pdf]

987. Loeb, A. "Will Humanity Be Saved by Deus Ex Machina?", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Mach.pdf]

986. Loeb, A. "Galileo Would Have Been Proud of Our Project", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Pos.pdf]

985. Loeb, A. "Recalculating Academia", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Jel.pdf]

984. Loeb, A. "Three Unsung Heroes from Our Cosmic Past", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Early.pdf]

983. Loeb, A. "Survival of the Optimist", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Sym.pdf]

982. Loeb, A. "Could UAP Have Kinship to Our AI Systems", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Kin.pdf]

981. Loeb, A. "Imitation is the Sincerest Form of Flattery", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Imm.pdf]

980. Loeb, A. "The Bliss of an Academic Family", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Win.docx]

979. Pacucci, F., Foord, A., Gordon, L. & Loeb, A. "Lensing in the Darkness: A Bayesian Analysis of 22 Chandra Sources at $z > 6$ Shows No Evidence of Lensing" (2022). [arXiv:2206.01217]

978. Loeb, A. "The Beginner's Mind of Machine Learning", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Beg.pdf]

977. Loeb, A. "Technological Selection in the Race to Interstellar Space", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Tech.pdf]

976. Loeb, A. "Quantum Tunneling of Fuzzy Dark Matter Out of Satellite Galaxies", RNAAS (2022). [arXiv:2205]

975. Loeb, A. "Quantum Tunneling of Dark Matter", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Tunnel.pdf]

974. Fragione, G., & Loeb, A. "Implication of Spin Constraints by the Event Horizon Telescope on Stellar Orbits in the Galactic Center", ApJL (2022). [arXiv:2205.12274]

973. Loeb, A. "With Age Comes Wisdom", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/MV.pdf]

972. Loeb, A. "The Trading Card of Human Civilization", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/PNGNFT.pdf]

971. Loeb, A. "Galactic Kites", RNAAS (2022). [arXiv:2205.10618]

970. Loeb, A. "Galactic Kites", Medium (2022).
[https://www.cfa.harvard.edu/~ loeb/Kite.pdf]

969. MacLeod, M., De, K., & Loeb, A. "Dusty, Self-Obscured Transients from Stellar Mergers and Common Envelope Phases", ApJ (2022). [arXiv:2205.07929]

968. Loeb, A. "Thoughts About the First Congressional Hearing on Unidetified Objects in Half a Century", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Congress.pdf]

967. Loeb, A. "Intergalactic Travel With MOND Rockets", RNAAS (2022). [arXiv:2205]

966. Loeb, A. "Alleviating the Tyranny of the Rocket Equation", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Rocket.pdf]

965. Loeb, A. "Pushing the Frontiers of Science With Government Data", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/USG.pdf]

964. Loeb, A. "Fishing In Extraterrestrial Seas", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Ent.pdf]

963. Loeb, A. "Two Novel Observational Tests of General Relativity", RNAAS (2022). [arXiv:2205.02746]

962. Loeb, A. "Cherish Those Junior Moments", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Jun.pdf]

961. Loeb, A. "How To Guide Our Life?", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Lif.pdf]

960. Loeb, A. "Detecting the Memory Effect from a Black Hole Merger at the Galactic Center Through Lunar Ranging", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Moo.pdf]

959. Loeb, A., "Detecting the Memory Effect from a Massive Black Hole Merger at the Galactic Center Through Lunar Ranging", RNASS (2022). [https://lweb.cfa.harvard.edu/˜ loeb/GW_arXiv.pdf]

958. Loeb, A. "The New Horizons Meteor", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Voy.pdf]

957. Siraj, A. & Loeb, A. "New Constraints on the Composition and Initial Speed of CNEOS 2014-01-08", RNAAS (2022). [arXiv:2204.08482]

956. Loeb, A. "The First Interstellar Meteor Had a Larger Material Strength Than Iron Meteorites", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Iron.pdf]

955. Loeb, A. "Scooping Interstellar Fragments from the Ocean Floor", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/EB.pdf]

954. Fragione, G., Loeb, A., Kocsis, B., & Rasio, F. "Merger Rates of Intermediate-Mass Blck Hole Binaries in Nuclear Star Clusters", MNRAS (2022). [arXiv:2204.03745]

953. Loeb, A. "Announcing the Closest and Farthest Objects from Outside the Solar System on the Same Week", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Kn.pdf]

952. Loeb, A., "Limiting Flux Versus Redshift as a Flag of New Physics", RNASS (2022). [https://lweb.cfa.harvard.edu/ loeb/Max_arXiv.pdf]

951. Loeb, A. "How Bright Can a Source in the Sky Be?", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Lim.pdf]

950. Loeb, A. "The Scientific Method", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Sci.pdf]

949. Loeb, A. "What Is Missing In Academia?", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Aca.pdf]

948. Loeb, A., "Self-Interacting Dark Matter from Gravitational Scattering", ApJL (2022). [https://arxiv.org/abs/2203.11962]

947. Loeb, A. "What Is Dark Matter?", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Silence.pdf]

946. Loeb, A. "The Silence of Snow", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Rain.pdf]

945. Loeb, A., "Spurious Radial Migration from Relativistic Effects in the Mil,ky-Way Disk", RNAAS (2022). [https://arxiv.org/abs/2203.09028]

944. Loeb, A. "The Substitute for the Drake Equation in Extraterrestrial Space Archaeology", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Alt.pdf]

943. Loeb, A., "Gravitational Redshift for Wide Binaries in Gaia eDR3", RNAAS (2022). [https://arxiv.org/abs/2203.06461]

942. Loeb, A. "The First Interstellar Meteor", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/ISM.pdf]

941. Loeb, A. "Intelligent Communication", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Intell.pdf]

940. MacLeod, M., Vick, M., & Loeb, A. "Tidal Wave Breaking in the Eccentric Lead-in to Mass Transfer and Common Envelope Phases", ApJ (2022). [https://arxiv.org/abs/2203.01945]

939. Loeb, A. "Communicating with Extraterrestrials", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Com.pdf]

938. Loeb, A., "Time Evolution of the CMB Quadrupole", RNAAS (2022). [https://arxiv.org/abs/2203.01806]

937. Szolgyen, A., MacLeod, M., & Loeb, A. "Eccentricity Evolution in Gaseous Dynamical Friction", MNRAS (2022). [https://arxiv.org/abs/2203.01334]

936. Loeb, A. "Life Under the Ice", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Att.pdf]

935. Loeb, A. "What Do the Best Scientists in the Milky Way Know?", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/Hope.pdf]

934. Loeb, A. "Miliky-Way Gifts to Life Expectancy", Medium (2022).

[https://www.cfa.harvard.edu/˜ loeb/MW.pdf]

933. Loeb, A. "Mind the Gap: Cosmic Stoicism", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/CD.pdf]

932. Loeb, A. "Our Biggest Global Challenge", The Hill (2022).
[https://www.cfa.harvard.edu/˜ loeb/Tree.pdf]

931. Loeb, A., "A Hot Subdwarf Model for the 18.18 Minute Pulsar GLEAM-X", RNAAS (2022). [https://arxiv.org/abs/2202.04949]

930. Padmanabhan, H., & Loeb, A. "Signatures of Supermassive Black Hole Binaries on Maser Systems", MNRAS (2022). [arXiv:2202.03437]

929. Loeb, A. "Mysterious 18-Minute Radio Pulses Are Not from "Little Green Men"", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/HSD.pdf]

928. Loeb, A., "Climate Change and Human Evolution from the Passage of the Solar System through a Cold Cloud 2-3Myrs ago", Science (2022). [https://arxiv.org/abs/2202.01813]

927. Loeb, A. "Galaxies Expand As They Emit Light", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Expand.pdf]

926. Loeb, A., "Measuring the Expansion or Contraction of Galaxies", RNAAS (2022). [https://arxiv.org/abs/2202.00825]

925. Loeb, A. "City Lights on Other Planets", The Hill (2022).
[https://www.cfa.harvard.edu/˜ loeb/CityLights.pdf]

924. Loeb, A. "Intelligent Adaptation or Barbarian Duplication", The Hill (2022).
[https://www.cfa.harvard.edu/˜ loeb/Intel.pdf]

923. Loeb, A. "Life Lessons After Sixty Years", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Lessons.pdf]

922. Loeb, A. "Finding UAP from Above", The Hill (2022).
[https://www.cfa.harvard.edu/˜ loeb/Lab.pdf]

921. Loeb, A. "Identifying the Unidentified", The DeBrief (2022).
[https://www.cfa.harvard.edu/˜ loeb/Loeb-UAP-Debrief.pdf]

920. Loeb, A. "Digitizing Intelligence", Medium (2022).
[https://www.cfa.harvard.edu/˜ loeb/Digital.pdf]

919. Loeb, A. "An Interview in the Metaverse", The Hill (2022).
[https://www.cfa.harvard.edu/˜ loeb/Meta.pdf]

918. Loeb, A. "Extraordinary Evidence Requires Extraordinary Funding", The DeBrief (2022).
[https://thedebrief.org/extraordinary-evidence-requires-extraordinary-funding-the-search-for-extraterrestrial-technology/]

917. Pacucci, F., Dayal, P., Harikane, Y., Inoue, A.K. & Loeb, A., "Are the Newly-Discoevred $z \sim 13$ Drop-Out Sources Starburst Galaxies or Quasars?", MNRAS (2022). [https://arxiv.org/abs/2201.00823]

916. Loeb, A. "Investing a Trillion Dollars per Year on What Matters", The Hill (2022).
[https://www.cfa.harvard.edu/˜ loeb/Trillion.pdf]

915. Loeb, A. "Virtual Realities and Fermi's Paradox", The Hill (2022).
[https://www.cfa.harvard.edu/˜ loeb/Makeup.pdf]

914. Loeb, A. "Reinvigorating the UAP Legacy of Senator Harry Reid", The Hill (2021).
[https://www.cfa.harvard.edu/˜ loeb/Reid.pdf]

913. Loeb, A. "Looking Through the Train", Medium (2021).
[https://www.cfa.harvard.edu/˜ loeb/Train.pdf]

912. Loeb, A. "Fishing in Interstellar Space", The DeBrief (2021).
[https://www.cfa.harvard.edu/˜ loeb/Love.pdf]

911. Loeb, A. "The Need for a Scientific Study of Satellite Data on UAP", The Hill (2021).
[https://www.cfa.harvard.edu/˜ loeb/Sat.pdf]

910. Loeb, A. “Against the Wind”, Medium (2021).
[https://www.cfa.harvard.edu/˜ loeb/Feed.pdf]

909. Loeb, A. “The Tricky Reality of Reality”, Medium (2021).
[https://www.cfa.harvard.edu/˜ loeb/VR.pdf]

908. Loeb, A. “Reality is not Virtual”, The DeBrief (2021).
[https://www.cfa.harvard.edu/˜ loeb/Comp.pdf]

907. Gallaudet, T., & Loeb, A. “Will We Soon Rewrite Texbooks on Our Place in the Universe?”, The Hill (2021).
[https://www.cfa.harvard.edu/˜ loeb/UAP-TG-AL.pdf]

906. Loeb, A. “Risk Assessment in Mainstream Science”, Medium (2021).
[https://www.cfa.harvard.edu/˜ loeb/Risk.pdf]

905. Loeb, A. “Dating the Next ‘Oumuamua”, The Debrief (2021).
[https://www.cfa.harvard.edu/˜ loeb/Mark.pdf]

904. Loeb, A., “A New Way to Limit the Interaction of Dark Matter with Baryons”, PRL (2021). [https://arxiv.org/abs/2111.14891]

903. Siraj,, A. & Loeb, A. “The New Astronomical Frontier of Interstellar Objects”, Astrobiology (2021). [arXiv:2111.05516]

902. Loeb, A. “The Fly on the Porch of My Home”, The Debrief (2021).
[https://www.cfa.harvard.edu/˜ loeb/Most.pdf]

901. Loeb, A. “AI-Scientists May Usher In a Bright Future in the Search for Extraterrestrial Intelligence”, The Debrief (2021).
[https://thedebrief.org/ai-scientists-search-for-extraterrestrials/]

900. Loeb, A. “Health Risks of Space Tourism”, The Hill (2021).
[https://www.cfa.harvard.edu/˜ loeb/OpLo.pdf]

899. Loeb, A. “The Thread Between Space Exploration and Spirituality”, Medium (2021).
[https://www.cfa.harvard.edu/˜ loeb/SciRel.pdf]

898. Loeb, A. "Our Future May Be Better With AI Scientists", Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/AI-Science.pdf]

897. Loeb, A. "Science and Religion", Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/ScienceRel.pdf]

896. Loeb, A. "Attention to Anomalies", Inference (2021).

895. Siraj, A. & Loeb, A. "The New Astronomical Frontier of Interstellar Objects", Astrobiology (2021). [arxiv:2111.05516]

894. Loeb, A. "Picking Low Hanging Fruit with the Galileo Project", Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/Fruit.pdf]

893. Loeb, A. "Our Humbling Cosmic Circumstances Might Be Shared By Others", Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/Final.pdf]

892. Loeb, A. "Our Future in Space", Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/PD_Medium.pdf]

891. Loeb, A. "On The Possibility of an Artificial Origin for 'Oumuamua", Astrobiology (2021). [arXiv:2110.15213]

890. Loeb, A. "Let Many Flowers Bloom in Space", Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/Flower.pdf]

889. Loeb, A. "Our Avatars in Space", Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/Avatar.pdf]

888. Pacucci, F., & Loeb, A. "The Search for the Farthest Quasar: Consequences for Black Hole Growth and Seed Models", MNRAS (2021). [arXiv:2110.10176]

887. Loeb, A. "On the Possibility of an Artificial Origin for 'Oumuamua", Astrobiology (2021).

[https://www.cfa.harvard.edu/˜ loeb/Loeb_Astrobiology.pdf]

886. Loeb, A. “Following Our Childhood Curiosity”, Scientific American (2021).

[https://www.cfa.harvard.edu/˜ loeb/PD.pdf]

885. Loeb, A. “Protocol for Contact with Extraterrestrial Equipment”, Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/Protocol.pdf]

884. Loeb, A. “Searching for Anomalies”, Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/Mo.pdf]

883. Loeb, A. “AI-Astronauts from Advanced Civilizations”, Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/AIS.pdf]

882. Loeb, A. “When Did Life Start In The Universe?”, Scientific American (2021).

[https://www.cfa.harvard.edu/˜ loeb/LB.pdf]

881. Loeb, A. “Be Kind to Extraterrestrial Guests”, Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/AG.pdf]

880. Loeb, A. “Was Our Universe Created in a Laboratory?”, Scientific American (2021).

[https://www.cfa.harvard.edu/˜ loeb/BB.pdf]

879. Loeb, A. “Our Ego Trip In The Cosmos”, Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/Physics.pdf]

878. Loeb, A. “The Play Is Not About Us”, Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/Bib.pdf]

877. Loeb, A. “Rising Above the Rubble”, Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/info.pdf]

876. Loeb, A. “Imagination Is Not a Consequence of Formal Education”, Medium (2021).

[https://www.cfa.harvard.edu/˜ loeb/Super.pdf]

875. Loeb, A. "The Next Sunrise Will Look Different", Medium (2021).
[https://www.cfa.harvard.edu/˜ loeb/sunrise.pdf]

874. Loeb, A. "Will Autonomous AI Systems Replace Astronauts?", Medium (2021).
[https://www.cfa.harvard.edu/˜ loeb/AI.pdf]

873. Safarzadeh, M., Simon, J.D., & Loeb, A. "A Statistical Detection of Wide Binary Systems in the Ultra-Faint Dwarf Galaxy Reticulum II", ApJ (2021). [https://arxiv.org/abs/2109.07522]

872. Majidi, D., Forbes, J. C., & Loeb, A. "Where to Find Over-Massive Brown Dwarfs: New Benchmark Syste,s for Binary Evolution", ApJ (2021). [arXiv:2109.96899]

871. Phan, M., Hoang, T., & Loeb, A. "Erosion of Icy Interstellar Objects by Cosmic Rays and Implications for 'Oumuamua", ApJ (2021). [arXiv:2109.04494]

870. Loeb, A. "A Sermon About Extraterrestrials", Medium (2021).
[https://www.cfa.harvard.edu/˜ loeb/sermon.pdf]

869. Loeb, A. "The 'Adults In The Room' Could Be Scientists", Medium (2021). [https://www.cfa.harvard.edu/˜ loeb/memory.pdf]

868. Loeb, A. "Microbes, Natural Intelligence and Artificial Intelligence", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/microbe.pdf]

867. Siraj, A., & Loeb, A. "Preliminary Evidence That Protoplanetary Disks Eject More Mass Than They Retain", Nature (2021). [arXiv:2108.13429]

866. Loeb, A. "Interstellar Monuments", Scientific American (2021).
[https://www.cfa.harvard.edu/˜ loeb/Finale.pdf]

865. Outmezguine, N., Pacucci, F. & Loeb, A. "Detection Prospects of Local Super-Massive Black Holes Based on the Sloan-Digital Sky Survey", ApJ (2021). [arXiv:2108.10123]

864. Loeb, A. "How To Find "Life As We Do Not Know It?", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Wave.pdf]

863. Loeb, A. "Pressing Buttons on a "Never-Seen-Before" Asteroid", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Sel.pdf]

862. Fragione, G., Loeb, A., & Rasio, F. "Impact of Natal Kicks on Merger Rates and Spin-Orbit Alignments of Black Hole-Neutron Star Mergers", ApJL (2021). [aarXiv:2108.06538]

861. Loeb, A. "Showing Off in Space is an Oxymoron", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Show.pdf]

860. Siraj, A., & Loeb, A. "Intelligent Responses to Our Technological Signals Will Not Arrive In Fewer Than A Few Millenia", Acta Astronautica (2021). [arXiv:2108.01690]

859. Loeb, A. "To Look Or Not To Look: That Is The Question!", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Doc.pdf]

858. Schroeder, S. L., et al. (with Loeb, A.) "The Evolution of Binaries Under the Influence of Radiation-Driven Winds from a stellar Companion", ApJ (2021). [arXiv:2107.09675]

857. Loeb, A. "When Will We Get a Response?", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Perf.pdf]

856. Loeb, A. "What Counts as Scientific Evidence?", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/evi.pdf]

855. Safarzadeh, M., & Loeb, A. "A New Challenge For Dark Matter Models", PRL (2021). [arXiv:2107.03478]

854. Loeb, A. "Getting a Megapixel Image of UAP", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/hires.pdf]

853. Loeb, A. "Why is Anomalous Evidence So Unpopular?", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Igno.pdf]

852. Loeb, A. "Scientists Should Identify the Unidentified in the Pentagon Report", The Hill (2021). [https://thehill.com/opinion/technology/560343-time-for-scientists-to-identify-the-unidentified-in-pentagons-ufo-report]

851. Loeb, A. "How to Tell if an ET/AI System is a Friend or a Foe?", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Tro.pdf]

850. Loeb, A. "Oumuamua and UAP", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Who.pdf]

849. Loeb, A. "UFO Sightings Echo Our Childhood Longing", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Theo.pdf]

848. Loeb, A. "Defenses That Hurt Science", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Def.pdf]

847. Hu, B., & Loeb, A. "Energetic Explosions from Collisions of Stars at Relativistic Speeds in Galactic Nuclei", ApJ (2021). [arXiv:2105.14026]

846. Loeb, A. "A Fresh Approach to the Search for Extraterrestrial Intelligence", Book Chapter (2021). [https://www.cfa.harvard.edu/˜ loeb/Fresh_SETI.pdf]

845. Loeb, A. "Seeking Intelligence", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Int.pdf]

844. Loeb, A. "What To Do With Extraterrestrials?", Boston Globe (2021). [https://www.cfa.harvard.edu/˜ loeb/Boston_Globe.pdf]

843. Loeb, A. "Detecting Heat from Extraterrestrial Probes in the Solar System with JWST", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Explore.pdf]

842. Vagnozzi, S., Pacucci, F., & Loeb, A. "Implications for the Hubble Tension from the Ages of the Oldest Astrophysical Objects", PRL (2021). [arXiv:2105.10421]

841. Loeb, A. "Searching for City Lights on Other Planets", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Light.pdf]

840. Tabor, E., & Loeb, A. "Detectability of Artificial Lights from Proxima b", ApJL (2021). [arXiv:2105.08081]

839. Loeb, A. "Death By Primordial Black Holes", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/PBH.pdf]

838. Loeb, A. "Be Yourself; Everything Else Is Already Taken", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Creativity.pdf]

837. Loeb, A. "Dark Matter or Modified Gravity?", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Gravity.pdf]

836. Loeb, A. "What To Do When ETs Show Up?", The Hill (2021). [https://www.cfa.harvard.edu/˜ loeb/Hill.pdf]

835. Safarzadeh, M., & Loeb, A. "The Challenge to MOND from Ultra Faint Dwarf Galaxies, ApJL (2021). [arXiv:2104.13961]

834. Loeb, A. "Cosmic Responsibility", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/CosR.pdf]

833. Loeb, A. "Scientific Orthodoxy and Religious Dogma", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Orth.pdf]

832. Siraj, A., & Loeb, A. "Constraining Primordial Black Holes Based on the Dynamics of Neptune", ApJ (2021). [arXiv:2104.07672]

831. Loeb, A. "How Much Time Does Humanity Have Left?", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Matter.pdf]

830. Giner, S., & Loeb, A. "Constraining Black Hole Spin Based on the Absence of Lense-Thirring Precession of Megamaser Clumps", MNRAS (2021). [arXiv:2104.05084]

829. Loeb, A. "Waiting for the Universe to Change", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Wait.pdf]

828. Loeb, A. "Shooting Stars at the Speed of Light", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Relat.pdf]

827. Loeb, A. "Scientists are Perpetual Students of Nature", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Ment.pdf]

826. Siraj, A., & Loeb, A. "The Mass Budget Necessary to Explain 'Oumuamua as a Nitrogen Iceberg", ApJL (2021). [arXiv:2103.14032]

825. Loeb, A. "Are Nitrogen Icebergs Common in Oort Clouds?", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Oort.pdf]

824. Loeb, A. "When Did Life Start in the Universe?", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/Bio.pdf]

823. Loeb, A. "What To Do When Extraterrestrials Show Up?", Scientific American (2021). [https://www.cfa.harvard.edu/~ loeb/Early1.pdf]

822. Loeb, A. "Photography of Interstellar Objects", Scientific American (2021). [https://www.cfa.harvard.edu/~ loeb/Photo.pdf]

821. Siraj, A., & Loeb, A. "Breakup of a Long-Period Comet as the Origin of the Dinosaur Extinction", Nature Scientific Reports (2021). [arXiv:2101.06785]

820. Loeb, A. "Scientific Knowledge is Always Good", Scientific American (2021). [https://www.cfa.harvard.edu/~ loeb/Know.pdf]

819. Padmanabhan, H., & Loeb, A. "GN-z11-flash: A shock-breakout in a Population III supernova at Cosmic Dawn?", ApJL (2021). [arXiv:2101.12222]

818. Loeb, A. "Scientific Results Must Be Reproducible", Scientific American (2021). [https://www.cfa.harvard.edu/~ loeb/Rep.pdf]

817. Lingam, M., & Loeb, A. "The Extended Habitable Epoch of the Universe for Liquids Other than Water", ApJ (2021). [arXiv:2101.10341]

816. Lingam, M., & Loeb, A. "Physical Constraints on Motility with Applications to Possible Life on Mars and Enceladus", ApJ (2021). [arXiv:2101.06876]

815. Rodriguez, C., Kremer, K., Chatterjee, S., Fragione, G., Loeb, A., Rasio, F., Weatherford, N., & Ye, C. "The Observed Rate of Binary Black Hole Mergers can be Entirely Explained by Globular Clusters", RNAAS (2021). [arXiv:2101.07793]

814. Fragione, G., & Loeb, A. "Constraining Neutron Star Radii in Black Hole-Neutron Star Mergers from their Electromagnetic Counterparts", ApJ (2021). [arXiv:2101.07313]

813. Fragione, G., & Loeb, A. "Constraining Neutron Star Radii in Black Hole-Neutron Star Mergers from their Electromagnetic Counterparts", ApJ (2021). [arXiv:2101.07313]

812. Loeb, A. "The Shrapnel that Killed the Dinosaurs", Scientific American (2021). [https://www.cfa.harvard.edu/~ loeb/Dino.pdf]

811. Emami, R., Anantua, R., Chael, A., & Loeb, A. "Positron Effects on Polarized Images and Spectra from Jet and Accretion Flow Models of M87 and Sgr A*", ApJ (2021). [arXiv:2101.05327]

810. Siraj, A., & Loeb, A. "The Copernican Principle Rules Out BLC1 as a Technological Radio Signal from the Alpha Centauri System", ApJL (2021). [arXiv:2101.04118]

809. Loeb, A. "The Black Hole that Might Have Shaped Life on Earth", Scientific American (2021). [https://www.cfa.harvard.edu/˜ loeb/tde.pdf]

808. Loeb, A. "Experimental Tests of Theology", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/G.pdf]

807. Tremaine, S., Kocsis, B., & Loeb, A. "Thermal Equilibrium of an Ideal Gas in a Free-Floating Box", American J. of Phys. (2020). [arXiv:2012.13273]

806. Unal, C., Pacucci, F., & Loeb, A. "Properties of Ultralight Bosons from Heavy Quasar Spins via Superradiance", JCAP (2020). [arXiv:2012.12790]

805. Loeb, A. "Message from Our Nearest Star?", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Proxima.pdf]

804. Loeb, A. "Our Neighbors Grass May Not Be Green", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/UFO.pdf]

803. Loeb, A. "The Cosmic Dawn of Technology", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Cos.pdf]

802. Padmanabhan, H., & Loeb, A. "Distinguishing AGN from Starbursts as the Origin of Double Peaked Lyman-Alpha Emitters in the Reionization Era", A&A (2020). [arXiv:2011.14900]

801. Siraj, A., & Loeb, A. "Interstellar Objects Outnumber Solar System Objects in the Oort Cloud", ApJL (2020). [arXiv:2011.14900]

800. Vangozzi, S., Loeb, A., & Moresco, M., "Eppur e piatto? The Cosmic Chronometer Take on Spatial Curvature and Cosmic Concordance", ApJ (2020). [arXiv:2011.11645]

799. Loeb, A. "Multi-Messenger SETI", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Multi.pdf]

798. Loeb, A. "Our Conversation with the Sky", Pioneer Works (2020). [https://www.cfa.harvard.edu/˜ loeb/Arecibo.pdf]

797. Fragione, G., & Loeb, A. "Implications of Recoil Kicks for Black Hole Mergers from LIGO/Virgo Catalogs", ApJL (2020). [arXiv:2011.08935]

796. Loeb, A. "Inexhaustible Creation Out of Nothing", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/AST.pdf]

795. Loeb, A. "Noah's Spacecraft", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Noa.pdf]

794. Loeb, A. "The Non-Medical Benefits of Social Distancing", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Med.pdf]

793. Bose, S., & Loeb, A. "Measuring the Mass and Concentration of Dark Matter Halos from the Velocity Dispersion Profile of Their Stars", ApJL (2020). [arXiv:2010.15123]

792. Loeb, A. "Restoring Confidence In Evidence Based Science", Wall Street Journal (2020). [https://www.cfa.harvard.edu/˜ loeb/WSJ.pdf]

791. Loeb, A. "The Empty Part of the Glass Is Also Full", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/DA.pdf]

790. Loeb, A. "Black Holes Are Finally In Vogue", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/BH.pdf]

789. Loeb, A. "Taking Risks Should be Mainstream In Science", NYT (2020). [https://www.cfa.harvard.edu/˜ loeb/Exp.pdf]

788. Siraj, A., & Loeb, A. "Observable Signatures of the Ejection Speed of Interstellar Objects from their Birth Systems", ApJL (2020). [arXiv:2010.02214]

787. Loeb, A. "Living Near a White Dwarf", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Solar.pdf]

786. Loeb, A. "Life and Fate", Inference (2020). [https://inference-review.com/letter/life-and-fate]

785. Siraj, A., & Loeb, A. "Transfer of Life Between Earth and Venus with Planet-Grazing Asteroids", ApJL (2020). [arXiv:2009.09512]

784. Loeb, A. "Searching for the Atoms of Life", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Atom.pdf]

783. Emami, R., et al. (with Loeb, A.) "DM halo morphological types of MW-like galaxies in the TNG50 simulation: Simple, Twisted, or Stretched", ApJ (2020). [arXiv:2009.09220]

782. Lingam, M., & Loeb, A. "Constraints on the abundance of 0.01c stellar engines in the Milky Way", ApJL (2020). [arXiv:2009.08874]

781. Lingam, M., & Loeb, A. "On The Biomass Required To Produce Phosphine Detected In The Cloud Decks Of Venus", ApJL (2020). [arXiv:2009.07835]

780. D'Orazio, D. J., & Loeb, A. "Using Gravitational Wave Parallax to Measure the Hubble Parameter with Pulsar Timing Arrays", Phys. Rev. D (2020). [arXiv:2009.06084]

779. Loeb, A. "Post COVID-19 Academia", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Career.pdf]

778. Fragione, G., Loeb, A., & Rasio, F. A. "On the Origin of GW190521-like Events from Repeated Black Hole Mergers in Star Clusters", ApJL (2020). [arXiv:2009.05065]

777. Loeb, A. "Nature's Splendor Exceeds Our Imagination", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Imagine.pdf]

776. Fragione, G., & Loeb, A. "An Upper Limit on the Spin of SgrA* based on Stellar Orbits in its Vicinity", ApJL (2020). [arXiv:2008.11734]

775. Loeb, A. "Social Distancing of Cosmic Proportions", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Baby.pdf]

774. Lingam, M., & Loeb, A. "Potential For Liquid Water Biochemistry Deep Under The Surfaces Of The Moon, Mars And Beyond", ApJL (2020). [arXiv:2008.08709]

773. Loeb, A. "The Hawking Limit", Scientific American (2020). [https://www.cfa.harvard.edu/˜ l

772. Vick, M., MacLeod, M., Lai, D. & Loeb, A. "Tidal Dissipation Impact on the Eccentric Onset of Common Envelope Phases in Massive Binary Star Systems", ApJL (2020). [arXiv:2008.05476]

771. Tabor, E., & Loeb, A. "FRB 121102 Bursts at a Constant Rate per Log Time", ApJL (2020). [arXiv:2008.02809]

770. Loeb, A. "Intellectual Territorialism", Scientific American (2020). [https://www.cfa.harvard.e

769. Loeb, A. "What if We Lived a Million Years?", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Li.pdf]

768. Padmanabhan, H., & Loeb, A. "Constraining the Host Galaxy Halos of Massive Black Holes from LISA Event Rates", JCAP (2020). [arXiv:2007.12710]

767. Siraj, A., & Loeb, A. "The Case for an Early Solar Binary Companion", ApJL (2020). [arXiv:2007.10339]

766. Jani, K., & Loeb, A. "Gravitational-Wave Lunar Observatory for Cosmology", PRL (2020). [arXiv:2007.08550]

765. MacLeod, M., & Loeb, A. "Hydrodynamic Winds From Twin-Star Binaries", ApJ (2020). [arXiv:2007.07252]

764. Loeb, A. "Filming the Evolving Universe", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Mom.pdf]

763. Hoang, T., & Loeb, A. "Detectability of Thermal Emission from Sub-Relativistic Objects", Acta Astronautica (2020). [arXiv:2007.04892]

762. Loeb, A. "Geometry of the Universe", Astronomy magazine (2020). [https://www.cfa.harvard.edu/˜ loeb/Geo.pdf]

761. Safarzadeh, M., & Loeb, A. "Formation of Mass-Gap Objects in Highly Asymmetric Mergers", ApJL (2020). [arXiv:2007.00847]

760. Loeb, A. "Scientific Brainstorming", Scientific American (2020).
[https://www.cfa.harvard.edu/˜ loeb/Bal.pdf]

759. Fragione, G., Perna, R., & Loeb, A. "Calibrating the Binary Black Hole Population in Nuclear Star Clusters Through Tidal Disruption Events", MNRAS (2020). [arXiv:2006.14632]

758. Siraj, A., & Loeb, A. "Risks for Life on Proxima b from Sterilizing Asteroid Impacts", ApJL (2020). [arXiv:2006.12503]

757. Loeb, A. "An Audacious Explanation for Fast Radio Bursts", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Hy.pdf]

756. Safarzadeh, M., Toonen, S., & Loeb, A. "The Nearest Discovered Black Hole Is Likely Not In a Triple Configuration", ApJL (2020). [arXiv:2006.11872]

755. Hoang, T, & Loeb, A. "Destruction of molecular hydrogen ice and Implications for 1I/2017 U1 ('Oumuamua)", ApJL (2020). [arXiv:2006.08088]

754. Loeb, A. "Living With Scientific Uncertainty", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Un.pdf]

753. Lingam, M., & Loeb, A. "Aquatic Biospheres On Temperate Planets Around Sun-like Stars And M-dwarfs", PSJ (2020). [arXiv:2005.14387]

752. Siraj, A., & Loeb, A. "Searching for Black Holes in the Outer Solar System with LSST", ApJ (2020). [arXiv:2005.12280]

751. Turyshev, S., Klupar, P., Loeb, A., Manchester, Z., Parkin, K., Witten, E. & Worden, P. "Exploration of the Outer Solar System with Fast and Small Sailcraft", Decadal White Paper (2020). [arXiv:2005.12336]

750. Christian, P., & Loeb, A. "Detecting Black Hole Occultations by Stars with Space Interferometric Telescopes", ApJ (2020). [arXiv:2005.03042]

749. Loeb, A. "Theories of Everything Could Be False", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Test.pdf]

748. Loeb, A. "The End of Time Could Be Of Our Own Making", Inference (2020). [https://www.cfa.harvard.edu/˜ loeb/Loeb_Inference.pdf]

747. Domenech, G., Chen, X, Kamionkowski, M., & Loeb, A. "Lensing Anomaly as a Fingerprint of Alternative Scenarios to Inflation", PRD (2020). [arXiv:2005.08998]

746. Loeb, A. "Scientific Excellence is Not Just About Technical Skills", Scientific American (2020). [https://www.cfa.harvard.edu/~ loeb/Ideas.pdf]

745. Christian, P., & Loeb, A. "Detecting Black Hole Occultations by Stars with Space Interferometric Telescopes", ApJ (2020). [arXiv:2005.03042]

744. Hoang, T., & Loeb, A. "Can Planet Nine Be Detected Gravitationally by a Sub-Relativistic Spacecraft?", ApJL (2020). [arXiv:2005.01120]

743. Safarzadeh, M., Biscoveanu, & Loeb, A. "Constraining the delay time distribution of compact binary objects from the stochastic gravitational wave background searches", ApJL (2020). [arXiv:2004.12999]

742. Loeb, A., & Gil, D. "COVID-19: A Moon Landing Moment for Science?", Scientific American (2020). [https://www.cfa.harvard.edu/~ loeb/Loeb_Gil.pdf]

741. Siraj, A., & Loeb, A. "Impact of Dust Graints Accelerated by Supernovae on the Moon", ApJL (2020). [arXiv:2004.11379]

740. Loeb, A. "A Sobering Astronomical Reminder from COVID-19", Scientific American (2020). [https://www.cfa.harvard.edu/~ loeb/C19.pdf]

739. Lingam, M., & Loeb, A. "What is in a Name: the Etymology of Astrobiology", Int. J. Astrobiology (2020). [arXiv:2004.11312]

738. Loeb, A. "Why the Pursuit of Scientific Knowledge Will Never End", Scientific American (2020). [https://www.cfa.harvard.edu/~ loeb/Limit.pdf]

737. Pacucci, F., & Loeb, A. "Separating Accretion and Mergers in the Cosmic Growth of Black Holes with X-ray and Gravitational Wave Observations", ApJ (2020). [arXiv:2004.07246]

736. Hu, B., & Loeb, A. "An Upper Limit on the Initial Temperature of the Radiation-Dominated Universe", PRL (2020). [arXiv:2004.02895]

735. Siraj, A., & Loeb, A. "Repeated Impact-Driven Plume Formation On Enceladus Over Myr Timescales", ApJL (2020). [arXiv:2003.07866]

734. Padmanabhan, H., & Loeb, A. "Changing Look Quasars From Tidal Disruption Flares", MNRAS (2020). [arXiv:2003.07365]

733. Burkert, A., & Loeb, A. "Flattening the COVID-19 Curves", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/COVID.pdf]

732. Chesler, P. M., & Loeb, A. "Holographic duality and mode stability of de Sitter space in semiclassical gravity", PRD (2020). [arXiv:2003.05501]

731. MacLeod, M., & Loeb, A. "Pre-Common-Envelope Mass Loss from Coalescing Binary Systems", ApJ (2020). [arXiv:2003.01123]

730. Unal, C., & Loeb, A. "The Spin Dependence of the Fundamental Plane of Black Hole Activity", MNRAS (2020). [arXiv:2002.11778]

729. Fragione, G., Loeb, A., & Rasio, F. A. "Merging Black Holes in the Low-Mass and High-Mass Gaps from 2+2 Quadruple Systems", ApJ (2020). [arXiv:2002.11278]

728. Loeb, A. "Searching for Naked Singularities on the Sky", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/NS.pdf]

727. Lingam, M., & Loeb, A. "Propulsion of Spacecrafts to Relativistic Speeds Using Natural Astrophysical Sources", ApJ (2020). [arXiv:2002.03210]

726. Loeb, A. "The Endless Pursuit of Knowledge", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Limit.pdf]

725. Fragione, G., Loeb, A., Kremer, K., & Rasio, F. A. "Gravitational Wave Captures by Intermediate Mass Black Holes", ApJ (2020). [arXiv:2002.02975]

724. Loeb, A. "Why Have Students?", Scientific American (2020).
[https://www.cfa.harvard.edu/˜ loeb/Student.pdf]

723. Padmanabhan, H., & Loeb "New Empirical Constraints on the Cosmological Evolution of Gas and Stars in Galaxies", MNRAS (2020). [arXiv:2002.01489]

722. Siraj, A., & Loeb "Observational Signatures of Sub-Relativistic Meteors", ApJ (2020). [arXiv:2002.01476]

721. Hayasaki, K., Bate, M. R., & Loeb, A. "Ionization and Dissociation Induced Fragmentation of a Tidally Disrupted Star Into Planets Around a Supermassive Black Hole", Nature (2020). [arXiv:2001.04172]

720. Siraj, A., & Loeb "Detecting Interstellar Objects Through Stellar Occultations", ApJL (2020). [arXiv:2001.02681]

719. Siraj, A., & Loeb "Transfer of Life by Earth-Grazing Objects to Exoplanetary Systems", J. Int. Astrobiology (2020). [arXiv:2001.02234]

718. Loeb, A. "Darwinian Survival Favors Generalists", Scientific American (2020). [https://www.cfa.harvard.edu/˜ loeb/Gen.pdf]

717. Loeb, A. "Upper Limit on the Dissipation of Gravitational Waves in Gravitationally-Bound Systems", ApJL (2020). [arXiv:2001.01730]

716. Loeb, A. "Surfing on a Flash of Light from an Explosing Star", Scientific American (2019). [https://www.cfa.harvard.edu/˜ loeb/SN.pdf]

715. Loeb, A. "Can the Universe Provide the Meaning of Life?", Scientific American (2019). [https://www.cfa.harvard.edu/˜ loeb/Meaning.pdf]

714. Padmanabhan, H., & Loeb, A. "It is Feasible to Directly Measure Black Hole Masses in the First Galaxies ", ApJL (2019). [arXiv:1912.0555]

713. MacLeod, M., & Loeb, A. "Runaway Coalescence of Pre-Common-Envelope Stellar Binaries", ApJ (2019). [arXiv:1912.05545]

712. Lingam, M., & Loeb, A. "Constraints on Aquatic Photosynthesis for Terrestrial Planets Around Other Stars", ApJL (2019). [arXiv:1912.04301]

711. Gottlieb, O., & Loeb, A. "Electromagnetic signals from the Decay of Free Neutrons in the First Hours of Neutron Star Mergers", MNRAS (2019). [arXiv:1912.04289]

710. Lingam, M., & Loeb, A. "Habitable Age Instead of Location for Terrestrial Worlds", ApJL (2019). [arXiv:1912.02862]

709. Loeb, A. "The Simple Truth", Scientific American (2019).
[https://www.cfa.harvard.edu/˜ loeb/Simple.pdf]

708. Loeb, A. "A Tale of Three Frontiers", Scientific American (2019). [https://www.cfa.harvard.edu/˜ loeb/Tale.pdf]

707. Safarazadeh, M., Hamers, A., Loeb, A. & Berger, E. "Formation of Mass Gap Black Holes in Gravitational Wave Merger Events from Wide Hierarchical Quadruple Systems", ApJL (2019). [arXiv:1911.04495]

706. Lingam, M., & Loeb, A. "Electric Sails Are Potentially More Effective Than Light Sails Near Most Stars", Acta Astronautica (2019). [arXiv:1911.02765]

705. Azhar, F., & Loeb, A. "Finely-Tuned Models Sacrifice Explanatory Depth", British Journal for the Philosophy of Science (2019). [arXiv:1910.13608]

704. Loeb, A. "Essential Advice for Fledgling Scientists", Scientific American (2019). [https://www.cfa.harvard.edu/˜ loeb/Tips.pdf]

703. Loeb, A. "What To Do When The Sun Will Brighten?", Scientific American (2019). [https://www.cfa.harvard.edu/˜ loeb/Sun.pdf]

702. Pacucci, F., & Loeb, A. "Reality or Mirage? Observational Test and Implications for the Claimed Extremely Magnified Quasar at $z = 6.3$", ApJL (2019). [arXiv: 1910.10156]

701. Jani, K., & Loeb, A. "Global Stellar Budget for LIGO Black Holes", ApJL (2019). [arXiv:1910.09580]

700. Loeb, A. "Terrestrial Life May Have Been Exported Out of the Solar System on Earth-Grazing Bodies", Scientific American (2019). [https://www.cfa.harvard.edu/˜ loeb/Skim.pdf]

699. Siraj, A., & Loeb "Exporting Terrestrial Life Out of the Solar System with Gravitational Slingshots of Earthgrazing Bodies", J. Int. Astrobiology (2019). [arXiv:1910.06414]

698. Emami, R., & Loeb, A. "Probing Intermediate Mass Black Holes in M87 through Multi-Wavelength Gravitational Wave Observations", MNRAS (2019). [arXiv:1910.04828]

697. D'Orazio, D. J., & Loeb, A. "Repeated Gravitational Lensing of Gravitational Waves in Hierarchical Black Hole Triples", Phys. Rev. D (2019). [arXiv:1910.02966]

696. Anantua, R., Emami, R., & Loeb, A. "Determining the Composition of Relativistic Jets from Polarization Maps", ApJ (2019). [arXiv:1909.09230]

695. Loeb, A. "Science is Not About Getting More Likes", Scientific American (2019).
[https://www.cfa.harvard.edu/˜ loeb/BP.pdf]

694. Lingam, M., Ginsburg, I., & Loeb, A. "Prospects for Life on Temparate Planets Around Brown Dwarfs", MNRAS (2019). [arXiv:1909:08791]]

693. Siraj, A., & Loeb, A. "An Argument for a Kilometer-Scale Nucleus of C/2019 Q4", RNAAS (2019). [arXiv:1909.07286]

692. Agarwal, D. et al. (with A. Loeb) "A Fast Radio Burst in the Direction of the Virgo Cluster", MNRAS (2019). [arXiv:1909.05779]

691. Chen, H.-Y., Chesler, P., & Loeb, A. "Searching for Quark Cores With Binary Neutron Star Inspirals", PRD (2019). [arXiv:1909.04096]

690. Munoz, J., Ravi, V., & Loeb, A. "Periodic Fast Radio Bursts from Young Neutron Stars", ApJ (2019). [arXiv:1909.00004]

689. Siraj, A., & Loeb, A. "Radio Flares from Collisions of Neutron Stars with Interstellar Asteroids", RNAAS (2019). [arXiv:1908.11440]

688. Loeb, A. "The Moon as a Fishing Net for Extraterrestrial Life", Scientific American (2019).
[https://www.cfa.harvard.edu/˜ loeb/ML.pdf]

687. Siraj, A., & Loeb, A. "A Real-Time Search for Interstellar Impact on the Moon", Acta Astronautica (2019). [arXiv:1908.08543]

686. Kreidberg, L., et al. (with A. Loeb), "Absence of a Thick Atmosphere on the Terrestrial Exoplanet LHS 3844b", Nature (2019). [arXiv:1908.06834]

685. Lingam, M., & Loeb, A. "Photosynthesis on Exoplanets and Exomoons from Reflected Light", J. Int. Astrobiology (2019). [arXiv:1907.12576]

684. Loeb, A. "Nothing Persists Except Change Itself", Scientific American (2019).
[https://www.cfa.harvard.edu/˜ loeb/PF.pdf]

683. Fragione, G., & Loeb, A. "Black Holes-Neutron Stars Mergers from Triples II: the Role of Metallicity and Spin-Orbit Misalignment", MNRAS (2019). [arXiv:1907.08614]

682. Fragione, G., Ginsburg, I. & Loeb, A. "Supernovae in Massive Binaries and Compact Object Mergers Near Supermassive Black Holes", JCAP (2019). [arXiv:1907.08008]

681. Lingam, M., & Loeb, A. "Searching the Moon for Extrasolar Material and the Building Blocks of Extraterrestrial Life", PNAS (2019). [arXiv:1907.05427]

680. Loeb, A. "Science as a Way of Life", Scientific American (2019). [https://www.cfa.harvard.edu/˜ loeb/PL.pdf]

679. Loeb, A., & Tripathi, A. "Federal Leadership of Future Moonshots", Scientific American (2019). [https://www.cfa.harvard.edu/˜ loeb/Moon.pdf]

678. Chesler, P., Jokela, N., Loeb, A., & Vourinen, A. "Finite-Temperature Equations of State for Neutron Star Mergers", Phys. Rev. D (2019). [arXiv:1906.08440]

677. Loeb, A. "One Thing to Change About the World", Harvard Gazette (2019). [https://news.harvard.edu/gazette/story/2019/06/focal-point-harvard-professor-avi-loeb-wants-more-scientists-to-think-like-children/]

676. Siraj. A., & Loeb, A. "Halo Meteors", MNRAS (2019). [arXiv:1906.05291]

675. Loeb, A. "It Takes a Village to Declassify an Error Bar", Scientific American (2019). [https://www.cfa.harvard.edu/˜ loeb/Bar.pdf]

674. Schroder, S., MacLeod, M., Loeb, A., Sirajmmmez, A. & Mandel, I. "Explosions Driven by the Coalescence of a Compact Object with the Core of a Massive-Star Companion Inside a Common Envelope: Circumstellar Properties, Light Curves, and Population Statistics", ApJ (2019). [arXiv:1906.04189]

673. Siraj , A. & Loeb, A. "Probing Extrasolar Planetary Systems with Interstellar Meteors", ApJL, (2019). [arXiv:1906.03270]

672. Lingam, M. & Loeb, A. "Brown Dwarf Atmospheres As The Potentially Most Detectable And Abundant Sites For Life", ApJ, (2019). [arXiv:1905.11410]

671. Safarzadeh, M., Loeb, A., & Reid, M. "Constraining a black hole companion for M87* through imaging by the Event Horizon Telescope", MNRAS (2019). [arXiv:1905.06835]

670. Loeb, A. "In Search of Green Dwarfs", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/Green.pdf]

669. Loeb, A. "Scientific Transparency", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/Pub.pdf]

668. Loeb, A. "The Second Interstellar Visitor", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/Meteor.pdf]

667. Siraj, A., & Loeb, A. "Discovery of a Meteor of Interstellar Origin", ApJL (2019). [arXiv:1904.07224]

666. Safarzadeh, M., & Loeb, A. "Explaining the Enhanced Star Formation Rate of Jellyfish Galaxies in Galaxy Clusters", MNRAS (2019). [arXiv:1904.05900]

665. Fragione, G., & Loeb, A., "Black Hole-Neutron Star Mergers from Triples", MNRAS (2019). [arXiv:1903.10511]

664. Loeb, A. "Two Laboratory Experiments with Theological Implications", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/Get.pdf]

663. K. Vattis, S. M. Koushiappas, & Loeb, A. "Late Universe Decaying Dark Matter Can Relieve the H_0 Tension", Phys. Rev. Lett. (2019). [arXiv:1903.06220]

662. Loeb, A. "Protecting Scientific Innovation from Social Pressure", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/Co.pdf]

661. L. Kreidberg, et al. "Absence of a Thick Atmosphere on the Terrestrial Exoplanet LHS 3883b", Nature (2019).

660. Emami, R., & Loeb, A. "Segregation of Stellar-Mass Black Holes at the Galactic Center", Phys. Rev. D (2019). [arXiv:1903.02578]

659. Emami, R., & Loeb, A. "Gravitational Waves from Stellar-Mass Black Holes Around SgrA*", Phys. Rev. Lett. (2019). [arXiv:1903.02579]

658. Loeb, A. "Humanities of the Future", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/Hum.pdf]

657. Wang, X., & Loeb, A. "Non-Thermal Emission from the Interaction of Magnetized Exoplanets with the Wind of Their Host Star", ApJL (2019). [arXiv:1902.05165]

656. Loeb, A. "Life Near a Black Holes", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/Fun.pdf]

655. Siraj, A., & Loeb, A. "Oumuamua's Geometry Could Be More Extreme than Previously Inferred", accepted for publication in RNAAS (2018). [https://www.cfa.harvard.edu/~ loeb/SL.pdf]

654. Loeb, A. "Are we Really the Smartest Kid on the Block?", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/Kid.pdf]

653. Safarzadeh, M., & Loeb, A. "An Upper Limit on Primordial Magnwtic Field from Ultra-Faint Dwarf Galaxies", ApJL (2019). [arXiv:1901.03341]

652. Lingam, M., & Loeb, A. "Photosynthesis on Habitable Planets Around Low Mass Stars" to MNRAS (2019). [arXiv:1901.01270]

651. Loeb, A. "Embracing Nature All the Way from Walden Pond to Extraterrestrial Ponds", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/Th.pdf]

650. Loeb, A. "Advanced Extraterrestrials Are an Approximation to God", Scientific American (2019). [https://www.cfa.harvard.edu/~ loeb/GE.pdf]

649. Forbes, J., & Loeb, A. "Turning up the Heat on 'Oumuamua", to ApJL (2019). [arXiv:1901.00508]

648. Siraj, A., & Loeb, A. "Identifying Interstellar Objects Trapped in the Solar System through Their Orbital Parameters" to MNRAS (2018). [arXiv:1811.09632]

647. Loeb, A. "Our Future in Space Will Echo Our Future on Earth", Scientific American, Observations (2018).
[https://www.cfa.harvard.edu/~ loeb/Fut.pdf]

646. Loeb, A. "How to Approach 'Oumuamua", Scientific American, Observations (2018).
[https://www.cfa.harvard.edu/~ loeb/Pre.pdf]

645. Loeb, A. "Six Strange Facts About Our First Interstellar Guest, 'Oumuamua", Scientific American, Observations (2018).
[https://www.cfa.harvard.edu/~ loeb/L_T.pdf]

644. Ravi, V., & Loeb, A. "Explaining the Statistical Properties of Fast Radio Bursts with Suppressed Low-Frequency Emission", ApJ (2018). [arXiv:1811.00109]

643. Pacucci, F., & Loeb, A. "Most Lensed Quasars at $z > 6$ Are Missed by Current Surveys", ApJL (2018). [arXiv:1810.12302]

642. Bialy, S., & Loeb, A. "Could Solar Radiation Pressure Explain 'Oumumua's Peculiar Acceleration?", ApJL (2018). [arXiv:1810.11490]

641. Emami R., & Loeb, A. "Formation Redshift of the Massive Black Holes Detected by LIGO", Phys. Rev. Lett. (2018). [arXiv:1810.09257]

640. Loeb, A. "Seeking the Truth When it is Not the Consensus", Scientific American, Observations (2018). [https://www.cfa.harvard.edu/~ loeb/Loeb_A.pdf]

639. Ginsburg, I., Lingam, M., & Loeb, A. "Galactic Panspermia", ApJ (2018). [arXiv:1810.04307]

638. Loeb, A. "Making the Church Taller", , Scientific American, Observations (2018). [https://www.cfa.harvard.edu/~ loeb/Loeb_Shape.pdf]

637. Lingam, M., & Loeb, A. "Physical Constraints on the Evolution of Life on Exoplanets", Invited Colloquium for Review of Modern Physics (2018). [arXiv:1810.02007]

636. Lingam, M., & Loeb, A. "Dependence of Biological Activity on the Surface Water Fraction of Planets", ApJ (2018). [arXiv:1809.09118]

635. Loeb, A. "Searching for Relics of Dead Civilizations", Scientific American, Observations (2018). [https://www.cfa.harvard.edu/~ loeb/Loeb_R.pdf]

634. Azhar, F., & Loeb, A. "Gauging Fine-Tuning", Phys. Rev. D, (2018). [arXiv:1809.06220]

633. Guo, H., Liu, X., Shen, Y., Loeb, A., Monroe, T., & Prochaska, J. "Constraining Sub-Parsec Binary Supermassive Black Holes in Quasars with Multi-Epoch Spectroscopy. III. Candidates from Continued Radial Velocity Tests", MNRAS (2018). [arXiv:1809.04610]

632. Munoz, J., & Loeb A. "Finding the Missing Baryons with Fast Radio Bursts and Sunyaev-Zeldovich Maps", PRD (2018). [arXiv:1809.04074]

631. Chen, X., Loeb, A. & Xianyu, Z. " Unique Fingerprints of Alternatives to Inflation in the Primordial Power Spectrum", Phys. Rev. Lett. (2018). [arXiv:1809.02603]

630. Rodriguez, C. L., & Loeb, A. "Redshift Evolution of the Black Hole Merger Rate from Globular Clusters", ApJL (2018). [arXiv:1809.01152]

629. Yalinewich, A., Guillochon, J., Sari, R. & Loeb, A. "Shock Breakouts from Tidal Disruption Events", MNRAS (2018). [arXiv:1808.10447]

628. D'Orazio, D., & Loeb, A. "Detecting the Orbital Motion of Nearby Supermassive Black Hole Binaries with Gaia", MNRAS, (2018). [arXiv:1808.09974]

627. Pacucci, F., Loeb, A., Mezcua M., & Martin-Navarro, I. "Glimmering in the Dark: Modeling the Low-Mass End of the $M_{\rm bh}$–σ Relation and the Quasar Luminosity Function", ApJ Letters (2018). [arXiv:1808.09452]

626. Loeb, A. "Two Facets of Reality", Scientific American, Observations (2018). [https://www.cfa.harvard.edu/~ loeb/Loeb_P.pdf]

625. Lingam, M., & Loeb, A. "Limitations of Chemical Propulsion for Interstellar Escape from Habitable Zones around Low-Mass Stars", AAS Research Notes (2018). [arXiv:1808.08141]

624. Loeb, A., & Lingam, M. "In Search for Lost Intellectual Treasures" to *Project Syndicate* (2018). [https://www.cfa.harvard.edu/~ loeb/Loeb_Lingam.pdf]

623. Opher, M., Loeb, A., Drake, J. & Toth, G. "A Predicted Small and Round Heliosphere" to Nature Astronomy (2018). [arXiv:1808.06611]

622. Loeb, A. "Progress Through Anomalies", published in Scientific American (2018). [https://www.cfa.harvard.edu/~ loeb/Loeb_Anomaly.pdf]

621. Loeb, A. "Sailing on Light", Forbes Science, Aug 16 (2018). [https://www.cfa.harvard.edu/~ loeb/Loeb_Forbes.pdf]

620. Scherrer, R. J., & Loeb, A. "The Relation Between Transverse and Radial Velocity Distributions for Observations of an Isotropic Velocity Field", MNRAS (2018. [arXiv:1808.01208]

619. Amorisco, N. C., & Loeb, A. "First Constraints on Fuzzy Dark Matter from the Dynamics of Stellar Streams in the Milky Way", to JCAP (2018). [arXiv:1808.00464]

618. Loeb, A. "Our Dialogue With Nature", Scientific American (August 2018). [https://www.cfa.harvard.edu/~ loeb/Loeb_Science.pdf]

617. Loeb, A. "The Infinite-Sum Game", Scientific American (July 31, 2018). [https://www.cfa.harvard.edu/~ loeb/Loeb_Sum.pdf]

616. Lingam, M., & Loeb, A. "Relative Likelihood of Success in the Searches for Primitive versus Intelligent Extraterrestrial Life", Astrobiology (2018). [arXiv:1807.08879]

615. Girma, E., & Loeb, A. "Astrometric Detection of Intermediate-Mass Black Holes At the Galactic Centre", MNRAS (2018). [arXiv:1807.02469]

614. D'Orazio, D., Loeb, A. & Guillochon, J. "Constraining the Stellar Mass Function from the Deficiency of Tidal Disruption Flares in the Nuclei of Massive Galaxies", MNRAS (2018). [arXiv:1807.00029]

613. Loeb, A., & Munoz, J. "The First Stars May Shed Light on Dark Matter", Physics **11**, 69 (2018). [https://physics.aps.org/articles/v11/69][arXiv:1807.01531]

612. Loeb, A. "Where Do Ideas Come From?", for publication (2018). [arXiv:1806.10092]

611. Loeb, A. "Securing Fuel for Our Frigid Cosmic Future", accepted for publication in Scientific American (2018). [arXiv:1806.07170]

610. Fragione, G., Loeb, A., & Ginsburg, I. "A Dynamical Origin for Planets in Triple Star Systems", MNRAS (2018). [arXiv:1806.05189]

609. Loeb, A. "Experimental Tests of Spirituality", Scientific American (2018). [arXiv:1806.01661]

608. Loeb, A. "Implications of Neutron Star Mergers for Extraterrestrial Civilizations", Scientific American (2018). [arXiv:1803.04919]

607. Lingam, M., & Loeb, A. "Is Extraterrestrial Life Suppressed on Subsurface Ocean Worlds due to the Paucity of Bioessential Elements?" to PNAS (2018). [arXiv:1806.00018]

606. Forbes, J., & Loeb, A. "On the Existence of Brown Dwarfs More Massive Than the Hydrogen Burning Limit", ApJ (2018). [arXiv:1805.12143]

605. Loeb, A. "Lets Talk About Black Hole Singularities", accepted for publication in Scientific American (2018). [arXiv:1805.05865]

604. Bose, S., Ginsburg, I. & Loeb, A. "Dating Tidal Distrution of Globular Clusters with Gaia Data on their Stellar Streams", ApJ (2018). [arXiv:1804.07770]

603. Loeb, A. "Interstellar Escape from Proxima b is Barely Possible with Chemical Rockets", accepted for publication in Scientific American (2018). [arXiv:1804.03698]

602. Wang, X., & Loeb, A. "Self-Sustaining Star Formation Fronts in Filaments During Cosmic Dawn", ApJL (2018). [arXiv:1804.02407]

601. Lingam, M., & Loeb, A. "Role of Stellar Physics in Regulating the Critical Steps for Life", Journal of Astrobiology (2018). [arXiv:1804.02271]

600. Munoz, J. B., Dvorkin, C., & Loeb, A. "21-cm Fluctuations from Charged Dark Matter", Phys. Rev. Lett. (2018). [arXiv:1804.01092]

599. Lingam, M., & Loeb, A. "Optimal Target Stars in the Search for Life", ApJ (2018). [arXiv:1803.07570]

598. Christian, P., Mocz, P., & Loeb, A. "Evolution of the Black Hole Mass Function in Star Clusters from Multiple Mergers", ApJ (2018). [arXiv:1803.07094]

597. Munoz, J. B., & Loeb, A. "Insights on Dark Matter from Hydrogen during Cosmic Dawn", accepted for publication (2018). [arXiv:1802.10094]

596. Loeb, A. "Rejuvenating the Contract of Academia with Society", Scientific American, Observations (Feb 14, 2018). [arXiv:1802.05289]

595. Christian, P., Vitale, S., & Loeb, A. "Detecting Stellar Lensing of Gravitational Waves with Ground-Based Observatories", Phys. Rev. Lett. (2018). [arXiv:1802.02586]

594. Hoang, T., Loeb, A., Lazarian, A., & Cho, J. "Spinup and Disruption of Interstellar Asteroids by Mechanical Torques, and Implications for 1I/2017 U1 ('Oumuamua)", ApJ (2018). [arXiv:1802.01335]

593. Lingam, M., & Loeb, A. "Implications of Captured Interstellar Objects for Panspermia and Extraterrestrial Life", ApJ (2018). [arXiv:1801.10254]

592. Loeb, A. "Are Alien Civilizations Technologically Advanced?", Scientific American, Observations (January 2018). [arXiv:1801.06180]

591. Lingam, M., Dong, C, Fang, X., Jakosky, B. M., & Loeb, A. "The Propitious Role of Solar Energetic Particles in the Origin of Life", ApJ, 853, 10 (2018). [arXiv:1801.05781]

590. Imara, N., Loeb, A., Johnson, B.D., Conroy, C., & Behroozi, P."A Model Connecting Galaxy Masses, Star Formation Rates, and Dust Temperatures Across Cosmic Time", ApJ (2018). [arXiv:1801.01499]

589. Ben-Ami, S., Vikhlinin, A., & Loeb, A. "SMBH Seeds: Model Discrimination with High Energy Emission Based on Scaling Relation Evolution", ApJ (2017). [arXiv:1712.03207]

588. D'Orazio, D., & Loeb, A. "Imaging Massive Black Hole Binaries with Millimeter Interferometry: measuring black hole masses and the Hubble constant", ApJ (2017). [arXiv:1712.02362]

587. Lingam, M., & Loeb, A. "Subsurface Exolife", Int. J. Astrobiology (2017). [arXiv:1711.09908]

586. Hallakoun, N. et al. (with Loeb, A.) "Periodic optical variability and debris accretion in white dwarfs: a test for a causal connection", MNRAS (2017). [arXiv:1711.10488]

585. Chen, H., Forbes, J. C., & Loeb, A. "Influence of XUV Irradiation from Sgr A* on Planetary Habitability and Occurrence of Panspermia near the Galactic Center", ApJ (2017). [arXiv:1711.06692]

584. Hartwig, T., Bromm, V., & Loeb, A. "Survey strategies for the first supernovae with JWST", MNRAS (2017). [arXiv:1711.05742]

583. Fialkov, A., Loeb, A., & Lorimer, D. "Enhanced Rates of Fast Radio Bursts from Galaxy Clusters", ApJ (2017). [arXiv:1711.04396]

582. Lingam, M., & Loeb, A. "Is Life Most Likely Around Sun-like Stars?", MNRAS (2017). [arXiv:1710.11134]

581. Lingam, M., & Loeb, A. "Impact and Mitigation Strategy for Future Solar Flares", ApJL (2017). [arXiv:1709.05348]

580. Munoz, J. B., & Loeb, A. "Constraints on Dark-Matter-Baryon Scattering from the Temperature Evolution of the Intergalactic Medium", Phys. Rev. D (2017). [arXiv:1708.08923]

579. Li, G., Ginsburg, I., Naoz, S., & Loeb, A. "Eclipsing Stellar Binaries in the Galactic Center", ApJL (2017). [arXiv:1708.08466]

578. Koushiappas, S. M., & Loeb, A. "Maximum Redshift of Gravitational Wave Merger Events", Phys. Rev. Lett. (2017). [arXiv:1708.07380]

577. Lingam, M., & Loeb, A. "Risks for Life on Habitable Planets from Superflares of their Host Stars", Phys. Rev. (2017). [arXiv:1708.04241]

576. Lingam, M., & Loeb, A. "Reduced Diversity of Life Around Proxima Centauri and TRAPPIST-1", ApJL (2017). [arXiv:1707.07007]

575. Lingam, M., & Loeb, A. "Implications of Tides for Life on Exoplanets", Astrobiology (2017). [arXiv:1707.04594]

574. Sloan, D., Batista, R., & Loeb, A. "The Resilience of Life to Astrophysical Events", Nature Scientific Reports (2017). [arXiv:1707.04253]

573. Lingam, M., & Loeb, A. "Physical Constraints on the Likelihood of Life on Exoplanets", Int. J. of Astrobiology (2017). [arXiv:1707.02996]

572. Pacucci, F., Loeb, A., & Salvadori, S. "Gravitational Wave Sources from Pop III Stars are Preferentially Located within the Cores of their Host Galaxies", MNRAS Letters (2017). [arXiv:1706.09892]

571. Hoang, T., & Loeb, A. "Electromagnetic Forces on a Relativistic Spacecraft in the Interstellar Medium", ApJL (2017). [arXiv:1706.07798]

570. Fialkov, A., & Loeb, A. "A Fast Radio Burst Occurs Every Second throughout the Observable Universe", ApJL (2017). [arXiv: 1706.06582]

569. Burkhart, B., & Loeb, A. "The Detectability of Radio Auroral Emission from Proxima B", ApJL (2017). [arXiv:1706.07038]

568. Loeb, A. "The Case for Cosmic Modesty", Scientific American (2017). [arXiv:1706.05959]

567. D'Orazio, D. J., & Loeb, A. "A Single Progenitor Model for GW150914 and GW170104", Phys. Rev. D. (2017). [arXiv:1706.04211]

566. Wang, X., & Loeb, A. "Formation of Hypervelocity Stars in AGN Outflows", ApJL (2017). [arXiv:1706.04201]

565. Forbes, J. C., & Loeb, A. "Evaporation of Planetary Atmospheres due to XUV Illumination by Quasars", MNRAS (2017). [arXiv:1705.06741]

564. Chesler, P. M., & Loeb, A. "Constraining Modified Newtonian Dynamics with Gravitational Waves", Phys. Rev. Lett. (2017). [arXiv:1704.05116]

563. Medvedev, M. V., & Loeb, A. "Plasma Constraints on the Cosmological Abundance of Magnetic Monopoles and the Origin of Cosmic Magnetic Fields", JCAP (2017). [arXiv:1704.05094]

562. Mashian, N., & Loeb, A. "Hunting Black Holes with GAIA", MNRAS (2017). [arXiv:1704.03455]

561. Koushiappas, S. M., & Loeb, A. "Dynamics of Dwarf Galaxies Disfavor Stellar-Mass Black Holes as Dark Matter", Phys. Rev. Lett. (2017). [arXiv:1704.01668]

560. Burns, J.O., et al. (with A. Loeb) "A Space-Based Observational Strategy for Characterizing the First Stars and Galaxies Using the Redshifted 21-cm Global Spectrum", ApJ (2017). [arXiv: 1704.02651]

559. Smith, A., Bromm, V., & Loeb, A. "How Did the First Supermassive Black Holes Form?", invited review for Astronomy & Geophysics (2017). [arXiv:1703.03083]

558. Dierickx, M., & Loeb, A. "Upper Limit on the Milky Way Mass from the Orbit of the Sagittarius Dwarf Satellite", ApJ (2017). [arXiv:1703.02137]

557. Lingam, M., & Loeb, A. "Enhanced Interplanetary Panspermia in the TRAPPIST-1 System", PNAS (2017). [arXiv:1703.00878]

556. Lingam, M., & Loeb, A. "Natural and Artificial Spectral Edges in Exoplanets", ApJL (2017). [arXiv:1702.05500]

555. Kiziltan, B., Baumgardt, H., & Loeb, A. "An Intermediate-Mass Black Hole in the Centre of the Globular Cluster 47 Tucanae", Nature **542**, 203 (2017). [arXiv:1702.02149]

554. Kapinska, A. D., et al. (with Loeb, A.) "Spectral Energy Distribution and Radio Halo of NGC 253 at Low Radio Frequencies", ApJ (2017). [arXiv:1702.02434]

553. Loeb, A., & Imara, N. "Astrophysical Russian Dolls", Nature Astronomy **1**, 6 (2017). [arXiv:1701.03664]

552. Christian, P., & Loeb, A. "eLISA Detection of Black Hole Binaries in the Milky Way Galaxy", MNRAS (2017). [arXiv:1701.01736]

551. Maoz, D., & Loeb, A. "Searching for giga-Jansky Fast Radio Bursts from the Milky Way with a Global Array of Low-Cost Radio Receivers", MNRAS (2017). [arXiv:1701.01475]

550. Lingam, M., & Loeb, A. "Fast Radio Bursts from Extragalactic Light Sails", ApJL (2017). [arXiv:1701.01109]

549. Ijjas, A., Steinhardt, P., & Loeb, A. "Pop Goes the Universe", Scientific American **316**, 32 (2017).

548. Wang, X., & Loeb, A. "Ultra High Energy Cosmic-Rays from Non-Relativistic Quasar Outflows", Phys. Rev. Lett. (2016). [arXiv:1611.07616]

547. Fialkov, A., & Loeb, A. "Jetted Tidal Disruptions of Stars as a Flag of Intermediate Mass Black Holes at High Redshifts", MNRAS, (2016). [arXiv:1611.01386]

546. Dierickx, M., & Loeb, A. "Predicted Extension of the Sagittarius Stream to the Milky Way Virial Radius", ApJ (2016). [arXiv:1611.00089]

545. Manchester, Z., & Loeb, A. "Stability of a Light Sail Riding on a Laser Beam", Phys. Rev. X (2016). [arXiv:1609.09506]

544. Michaeli, E., & Loeb, A. "Shaping of the Inner Oort Cloud by Planet Nine", MNRAS (2016). [arXiv:1609.08614]

543. Paul, S., et al. (with Loeb, A.) "Delay Spectrum with Phase-Tracking Arrays: Extracting the HI power spectrum from the Epoch of Reionization", ApJ (2016). [arXiv:1610.07003]

542. Christian, P., & Loeb, A. "Interferometric Measurement of Acceleration at Relativistic Speeds", Phys. Rev. Lett. (2016). [arXiv:1608.08230]

541. Kreidberg, L., & Loeb, A. "Prospects for Characterizing the Atmosphere of Proxima Centauri b", ApJL (2016). [arXiv: 1608.07345]

540. Rane, A., & Loeb, A. "A Novel Approach for Identifying Host Galaxies of Nearby FRBs", MNRAS (2016). [arXiv:1608.06952]

539. Beardsley, A. P., et al. (with A. Loeb) "First Season MWA EoR Power Spectrum Results at Redshift 7", ApJ (2016). [arXiv:1608.06281]

538. Hoang, T., Lazarian, A., Burkhart, B., & Loeb, A. "The Interation of Relativistiv Spacecrafts with the Insterstellar Medium", ApJ (2016). [arXiv:1608.05284]

537. Johannsen, T., Wang, C., Broderick, A. E., Doeleman, S., Fish, V., Loeb, A., & Psaltis, D. "Testing General Relativity with Accretion-Flow Imaging of SgrA*", Phys. Rev. Lett. (2016). [arXiv: 1608.03593]

536. Loeb, A. "Lessons from Mayan Astronomy", Nature, to be published (2016). [arXiv:1608.01731]

535. Fragione, G., & Loeb, A. "Constraining Milky Way Mass with Hypervelocity Stars", MNRAS (2016). [arXiv:1608.01517]

534. Smith, A., Bromm, V., & Loeb, A. "Lyman-alpha Radiation Hydrodynamics of Galactic Winds Before Cosmic Reionization", MNRAS, (2016). [arXiv:1607.07166]

533. Wang, X., & Loeb, A. "Quasar Driven Outflows Account for the Missing Extragalactic Gamma-Ray Background", Nature Physics (2016). [arXiv:1607.06472]

532. Wang, X., & Loeb A. "Cumulative Neutrino Background from Quasar-Driven Outflows", Phys. Rev. Lett. (2016). [arXiv:1607.06476]

531. Loeb, A. "On the Habitability of our Universe", chapter for the book "Consolidation of Fine Tuning", 51 pages, Oxford University Press (2016). [arXiv:1606.08926]

530. Loeb, A., Batista, R., & Sloan, D. "Relative Likelihood for Life as a Function of Cosmic Time", JCAP (2016). [arXiv:1606.08448]

529. Lenc, E. et al. (with A. Loeb) "Low Frequency Observations of Linearly Polarized Structure in the Interstellar Medium Near the South Galactic Pole", ApJ (2016). [arXiv:1607.05779]

528. Carroll, P. A., et al. (with A. Loeb) "A High Reliability Survey of Dicrete Epoch of Reionization Foreground Sources in the MWA EoR0 Field", MNRAS (2016). [arXiv:1607.03861]

527. Jacobs, D. C., et al. (with A. Loeb) "The Murchison Widefield Array 21 cm Power Spectrum Analysis Methodology", ApJ (2016). [arXiv:1605.06978]

526. Ewall-Wice, A., et al. (with A. Loeb) "First Limits on the 21-cm Power Spectrum During the Epoch of X-ray Heating", MNRAS, in press (2016). [arXiv:1605.00016]

525. Meiron, Y., Kocsis, B., & Loeb, A. "Detecting Triple Systems with Gravitational Wave Observations", ApJ (2016). [arXiv: 1604.02148]

524. Burkhart, B., & Loeb, A. "Predicted Sizes of Pressure-Supported HI Clouds in the Outskirts of the Virgo Cluster", ApJ (2016). [arXiv:1604.01767]

523. Imara, N., & Loeb, A. "The Distortion of the Cosmic Microwave Background Spectrum Due to Intergalactic Dust", ApJ (2016). [arXiv:1604.00005]

522. Jiang, Y., Guillochon, J., & Loeb, A. "Prompt Radiation and Mass Outflows from the Stream-Stream Collisions of Tidal Disruption Events", ApJ (2016). [arXiv:1603.07733]

521. Mashian, N., & Loeb, A. "CEMP Stars: Possible Hosts to Carbon Planets in the Early Universe", MNRAS (2016). [arXiv:1603.06943]

520. Ginzburg, S., Sari, R., & Loeb, A. "Blackbody Radiation from Isolated Neptunes", ApJ (2016). [arXiv:1603.02876]

519. Amorisco, N. C., & Loeb, A. "Ultra-Diffuse Galaxies: the High-Spin Tail of the Abundant Dwarf Galaxy Population", MNRAS, (2016). [arXiv:1603.00463]

518. Fialkov, A., & Loeb, A. "Constraining the CMB Optical Depth Through the Dispersion Measure of Cosmological Radio Transients", JCAP (2016). [arXiv:1602.08130]

517. Smith, A., Bromm, V., & Loeb, A. "Evidence for a Direct Collapse Black Hole in the Lyman-alpha Source CR7", MNRAS, (2016). [arXiv:1602.07639]

516. Loeb, A. "Electromagnetic Counterparts to Black Hole Mergers Detected by LIGO", ApJL, 819, L21 (2016). [arXiv:1602.04735]

515. Fish, V. et al. (with A. Loeb) "Persistent Asymmetric Structure of Sagittarius A* on Event Horizon Scales", ApJ (2016). [arXiv: 1602.05527]

514. Offringa, A. R., et al. (with A. Loeb) "Parametrising the Epoch of Reionization Foregrounds: A Deep Survey of Low-Frequency Point-Source Spectra with the MWA", MNRAS (2016). [arXiv: 1602.02247]

513. Soumagnac, M. T., et al. (with A. Loeb) "Large Scale Distribution of Total Mass Versus Luminous Matter from Baryon Acoustic Oscillations: First Search in the SDSS-III BOSS Data Release 10", Phys. Rev. Lett. (2016). [arXiv:1602.01839]

512. Dijkstra, M., Sethi, S., & Loeb, A. "3-cm Fine Structure Masers: A Unique Signature of Supermassive Black Hole Formation via Direct Collapse in the Early Universe", ApJ (2016). [arXiv:1601.04712]

511. Pober J. C., et al. (with Loeb A.) "The Importance of Wide-Field Foreground Removal for 21 cm Cosmology: A Demonstration with Early MWA Epoch of Reionization Observations", ApJ (2016). [arXiv:1601.06177]

510. Fialkov, A., & Loeb, A. "Precise Measurement of the Reionization Optical Depth from the Global 21-cm Signal Accounting for Cosmic Heating", ApJ (2016). [arXiv:1601.03058]

509. Mashian, N., Loeb, A., & Sternberg, A. "Spectral Distortion of the CMB by the Cumulative CO Emission from Galaxies Throughout Cosmic History", MNRAS (2016). [arXiv:1601.02618]

508. Trott, K.M., et al. (with A. Loeb), "CHIPS: The Cosmological HI Power Spectrum Estimator", ApJ (2016). [arXiv:1601.02073]

507. Yamazaki, R., Hayasaki, K., & Loeb, A. "Optical-Infrared Flares and Radio Afterglows from the Tidal Disruption of Jovian Planets by their Host Star", MNRAS (2015). [arXiv:1512.01747]

506. Johnson, M., et al. (with Loeb, A.) "Resolved Magnetic Field Structure and Variability Near the Event Horizon of Sagittarius A*", Science (2015). [arXiv:1512.01220]

505. Margalit, B., & Loeb, A. "Inferring the Distances of Fast Radio Bursts Through 21-cm Absorption", MNRAS (2015). [arXiv:1511.03615]

504. Imara, N., & Loeb, A. "Limits on Intergalactic Dust During Reionization", ApJL (2015). [arXiv:1510.07047]

503. Ray, A., & Loeb, A. "Inferring the Composition of Super-Jupiter Mass Companions of Pulsars with Radio Line Spectroscopy" (2015). [arXiv:1510.06418]

502. Wang, X., & Loeb, A. "Quasar-Driven Outflows Account for the Missing Extragalactic γ-ray Background" (2015).

501. Hayasaki, K., & Loeb, A. "Detection of Gravitational Waves Emission by Supermassive Black Hole Binaries Through Tidal Disruption Flares" (2015). [arXiv:1510.05760]

500. Patej, A., & Loeb, A. "Detectability of Local Group Dwarf Galaxy Analogues at High Redshifts" to ApJL (2015). [arXiv:1510.02101]

499. Pikovski, I., & Loeb, A. "Quantum Coherent Oscillations in the Early Universe", Phys. Rev. Lett. (2015). [arXiv:1509.08895]

498. Patej, A., & Loeb, A. "Density Jumps Near the Virial Radius of Galaxy Clusters", ApJ (2015). [arXiv:1509.07506]

497. Christian, P., & Loeb, A. "Mapping the Dynamics of Cold Gas Around SgrA* Through 21cm Absorption", ApJL (2015). [arXiv: 1509.06790]

496. Ginsburg, I., Wang, X., Loeb, A., & Cohen, O. "Detecting Stars at the Galactic Centre via Synchrotron Emission", MNRAS (2015). [arXiv:1509.06251]

495. Guillochon, J., & Loeb, A. "SETI via Leakage from Light Sails in Exoplanetary Systems", ApJL (2015). [arXiv:1508.03043]

494. Kulkarni, G., & Loeb, A. "Radio Crickets: Chriping Jets from Black Hole Binaries Entering their Gravitational Wave Inspiral", MNRAS (2015). [arXiv:1507.06990]

493. Hallakoun, N, et al. "SDSS J1152+0248: An Eclipsing Double White-Dwarf from the Kepler K2 Campaign", MNRAS (2015). [arXiv:1507.0631]

492. Lin, H. W., & Loeb, A. "Statistical Signatures of Panspermia in Exoplanet Surveys", ApJL (2015). [arXiv:1507.05614]

491. Mashian, N., Sternberg, A., & Loeb, A. "Predicting the Intensity Mapping Signal for multi-J CO Lines", JCAP (2015). [arXiv: 1507.02686]

490. Loeb, A. "The Infinity Pool", Nature (2015). [arXiv: 1507.02524]

489. Maoz, D., Loeb, A., Shvartzvald, Y., Sitek, M., Engel, M., Kiefer, F., Kiraga, M., Levi, A., Mazeh, T., Pawlak, M., Rich, R. M., & Wyrzykowski, L. "Fast Radio Bursts: the Observational Case for a Galactic Origin", MNRAS (2015). [arXiv:1507.01002]

488. Mashian, N., Oesch, P., & Loeb, A. "An Empirical Model for the Galaxy Luminosity and Star-Formation Rate Function at High Redshift", MNRAS (2015). [arXiv:1507.00999]

487. Yamazaki, R., & Loeb, A. "Optical Inverse Compton Emission from Clusters of Galaxies", MNRAS (2015). [arXiv:1506.07414]

486. Thyagarajan, N., et al. (with Loeb, A.) "Confirmation of Wide-Field Signatures in Redshifted 21 cm Power Spectra", ApJL, in press (2015). [arXiv:1506150]

485. Lin, H. W., & Loeb, A. "Scaling Relations of Halo Cores for Self-Interacting Dark Matter", Phys. Rev. Lett. (2015). [arXiv: 1506.05471]

484. Wang, X., & Loeb, A. "Probing the Gaseous Halo of Galaxies through Non-Thermal Emission from AGN-Driven Outflows", MNRAS, (2015). [arXiv:1506.05470]

483. Johnson, M., Loeb, A., Shiokawa, H., Chael, A., & Doeleman, S. "Measuring the Direction and Angular Velocity of a Black Hole Accretion Disk via Lagged Interferometric Covariance", ApJ, (2015). [arXiv:1505.07870]

482. Dillon, J. S., et al. "Empirical Covariance Modeling for 21 cm Power Spectrum Estimation: A Method Demonstration and New Limits from Early MWA 128-Tile Data", Phys. Rev. D. (2015). [arXiv:1506.01026]

481. Bussmann, R. S., et al. "Hermes: ALMA Imaging of HERSCHEL-Selected Dusty Star-Forming Galaxies", ApJ (2015). [arXiv: 1504.05256]

480. Bialy, S., Sternberg, A., & Loeb, A. "Water Formation in the Early Universe", ApJ Letters, **804**, L29 (2015). [arXiv:1503.03475]

479. Thyagarajan, N., et al. (with Loeb, A.) "Foregrounds in Wide-Field Redshifted 21 cm Power Spectra", ApJ (2015). [arXiv: 1502.07596]

478. Christian, P., & Loeb, A. "Probing the Spacetime Around Supermassive Black Holes with Ejected Plasma Blobs", MNRAS, (2015). [arXiv:1502.07365]

477. Li, G., Naoz, S., Kocsis, B., & Loeb, A. "Implications of the Eccentric Kozai-Lidov Mechanism for Stars Surrounding Supermassive Black Hole Binaries", MNRAS (2015). [arXiv: 1502.03825]

476. Fialkov, A., & Loeb, A. "Distortion of the Luminosity Function of High-Redshift Galaxies by Gravitational Lensing", ApJ (2015). [arXiv:1502.03141]

475. Loeb, A. "How to Collect Matches That Will Catch Fire", Nature (2015). [arXiv:1502.00709]

474. Hayasaki, K., Stone, N. C., & Loeb, A. "Circularization of Tidally Disrupted Stars Around Spinning Supermassive Black Holes", MNRAS (2015). [arXiv:1501.05207]

473. Offringa, A. R. et al. "The Low-Frequency Environment of the Murchison Widefield Array: Low Frequencey Interference Analysis and Mitigation", PASA (2015). [arXiv:1501.03946]

472. Loeb, A., & Maoz, D. "Using Atomic Clocks to Detect Gravitational Waves", Phys. Rev. D (2015). [arXiv:1501.00996]

471. Lin, H. W., & Loeb, A. "A Unifying Theory for Scaling Laws of Human Populations", Nature , (2015). [arXiv:1501.00738]

470. Novak, M., et al. "New Insights from Deep VLA Data on the Potentially Recoiling Black Hole CID-42 in the COSMOS Field", MNRAS (2014). [arXiv:1412.0004]

469. Loeb, A., & Guillochon, J. "Observational Cosmology with Semi-Relativistic Stars", Phys. Rev. Lett. (2014). [arXiv:1411.5030]

468. Guillochon, J., & Loeb, A. "The Fastest Unbound Stars in the Universe", ApJ (2014). [arXiv:1411.5022]

467. Patej, A., & Loeb, A. "A Simple Physical Model for the Gas Distribution in Galaxy Clusters", ApJ (2014). [arXiv:1411.2971]

466. Psaltis, D., Narayan, R., Fish, V., Broderick, A., Loeb, A., & Doeleman, S. "Event-Horizon-Telescope Evidence for Alignment of the Black Hole in the Center of the Milky Way with the Inner Stellar Disk", ApJ (2014). [arXiv:1409.5447]

465. Barnacka, A., & Loeb, A. "A Size-Duration Trend for Gamma-Ray Burst Progenitors", ApJL (2014). [arXiv:1409.1232]

464. Lin, H., & Loeb, A. "Finding Rocky Asteroids Around White Dwarfs by Their Periodic Thermal Emission", ApJL (2014). [arXiv:1408.2832]

463. Lin, H. W., Gonzales-Abad, G., & Loeb, A. "Detecting Industrial Pollution in the Atmospheres of Earth-like Planets", ApJL, (2014). [arXiv:1406.3025]

462. Tremaine, S., Shen, Y., Liu, X., & Loeb, A. "Relativistic Redshifts in Quasar Broad Lines" ApJ (2014). [arXiv:1406.2468]

461. Dierickx, M., Blecha, L., & Loeb, A. "Signatures of the M31-M32 Galactic Collision", ApJL (2014). [arXiv:1405.3990]

460. Loeb, A. "On the Benefits of Promoting Diversity of Ideas", Nature Physics (2014). [arXiv:1405.2954]

459. Li, G., Naoz, S., Holman, M., & Loeb, A. "Chaos in the Test Particle Eccentric Kozai-Lidov Mechanism", ApJ (2014). [arXiv:1405.0494]

458. Stone, N., Metzger, B, & Loeb, A. "Evaporation and Accretion of Extrasolar Comets Following White Dwarf Kicks", MNRAS (2014). [arXiv:1404.3213]

457. Christian, P., & Loeb, A. "Timing Constraints on the Position and Velocity Vectors of Pulsars at the Galactic Centre", MNRAS, (2014). [arXiv:1404.1928]

456. Mastrobuono-Battisti, A., Perets, H. B., & Loeb, A. "Effects of Intermediate Mass Black Holes on Nuclear Star Clusters", ApJ, (2014). [arXiv:1403.3094]

455. Ijjas, A., Steinhardt, P., & Loeb, A. "Inflationary Schism After Planck2013" (2014). [arXiv:1402.6980]

454. Wang, X., & Loeb, A. "Detecting Floating Black Holes as They Traverse the Gas Disk of the Milky Way", MNRAS (2014). [arXiv:1402.5975]

453. Pani, P. & Loeb, A. "Exclusion of the Remaining Mass Window for Primordial Black Holes as the Dominant Contituent of Dark Matter", Phys. Rev. Lett. (2014). [arXiv:1401.3025]

452. Guillochon, J., Loeb, A., MacLeod, M., & Ramirez-Ruiz, E. "Possible Origin of the G2 Cloud from the Tidal Disruption of a Known Giant Star by SgrA*", ApJL (2014). [arXiv:1401.2990]

451. Walker, M. G., & Loeb, A. "Is the Universe Simpler than LCDM?", Contemporary Physics (2014). [arXiv:1401.1146]

450. Liu, X., Shen, Y., Bian F., Loeb, A., Tremaine, S. "Constraining Sub-Parsec Binary Supermassive Black Holes in Quasars with Multi-Epoch Spectroscopy. II. The Population with Kinematically Offset Broad Balmer Emission Lines", ApJ (2013). [arXiv:1312.6694]

449. Loeb, A. "The Habitable Epoch of the Early Universe", Astrobiology (2013). [arXiv:1312.0613]

448. Stacy, A., Pawlik, A. H., Bromm, V., & Loeb, A. "The Mutual Interaction Between Population III Stars and Self-Annihilating Dark Matter", MNRAS (2013). [arXiv:1312.3117]

447. Rubin, D., & Loeb, A., "The Virialization Density of Peaks with General Density Profiles Under Spherical Collapse", JCAP, in press (2013). [arXiv:1311.5594]

446. Broderick, A., Johannsen, T., Loeb, A., &* Psaltis, D., "Testing the No-Hair Theorem with Event Horizon Telescope Observations of SgrA*",ApJ (2013). [arXiv:1311.5564]

445. Rubin, D., & Loeb, A. "The Kinetic Sunyaev-Zeldovich Effect from the Diffuse Gas in the Local Group", JCAP (2013). [arXiv:1311.5255]

444. Loeb, A. "Spurious Velocities in Dynamically-Cold Systems Due to the Gravitational Redshift of Their Constituent Stars", Phys. Rev. D (2013). [arXiv:1311.4551]

443. Fialkov, A., & Loeb, A., "The 21cm Signal from the Cosmological Epoch of Recombination", JCAP (2013). [arXiv:1311.4574]

442. Katz, B., Waxman, E., Thompson, T., & Loeb, A. "The Energy Production Rate Density of Cosmic Rays in the Local Universe is $\sim 10^{44-45}$ erg Mpc^{-3} yr^{-1} at All Particle Energies", preprint (2013). [arXiv:1311.0287]

441. Li, G., Naoz, S., Kocsis, B., & Loeb, A. "Counter-Orbiting Planets Were Flipped Over by a Coplanar Outer Object", Nature Comm., (2013). [arXiv:1310.6044]

440. Loeb, A., Shvartzvald, Y., & Maoz, D. "Fast Radio Bursts May Originate from Nearby Flaring Stars", MNRAS (2013). [arXiv:1310.2419]

439. Kocsis, B., & Loeb, A. "Menus for Feeding Black Holes", Space Science Reviews (2013). [arXiv:1310.0815]

438. La Plante, P., Bataglia, N, Natarajan, A., Peterson, J. B., Trac, H., Cen, R., & Loeb, A. "Reionization on Large Scales IV: Predictions for the 21cm Signal Incorporating the Light Cone Effect", ApJ (2013). [arXiv:1309.7056]

437. Ijjas, A., Steinhardt, P. J., & Loeb, A. "Scale-Free Primordial Cosmology", Phys. Rev. D (2013). [arXiv:1309.4480]

436. Kilic, M., Agol, E., Loeb, A., Maoz, D., et al. "Habitable Planets Around White Dwarf", Kepler White Paper (2013). [arXiv:1309.0009]

435. Rule, E., Loeb, A., & Streinitski V. "High-n Hydrogen Recombination Lines from the First Galaxies", ApJL (2013). [arXiv:1308.6215]

434. Wyithe, S. , Loeb, A., & Oesch, P. "A Predicted New Population of UV-Faint Galaxies at $z > 4$", MNRAS (2013). [arXiv:1308.2030]

433. Pani, P. & Loeb, A. "Constraining Primordial Black Hole Bombs Through Spectral Distortions of the Cosmic Microwave Background", Phys. Rev. D (2013). [arXiv:1307:5176]

432. Shen, Y., Liu, X., Loeb, A., & Tremaine, S. "Constraining sub-Parsec Binary Supermassive Black Holes in Quasars with Multi-Epoch Spectroscopy. I. The General Quasar Population", ApJ (2013). [arXiv:1306.4330]

431. Mashian, N., & Loeb, A. "Constraining the Minimum Luminosity of High Redshift Galaxies through Gravitational Lensing", MNRAS, (2013). [arXiv:1305.6924]

430. Christian, P., & Loeb, A. "Measuring the X-ray Background in the Reionization Era with First Generation 21 cm Experiments", MNRAS, (2013). [arXiv:1305.5541]

429. Loeb, A. "On the Importance of Conceptual Thinking Outside the Simulation Box", accepted for publication in Nature Physics (2013). [arXiv:1305.5495]

428. Balberg, S., Sari, R., & Loeb, A. "A New Rare Type of Supernovae: Hypervelocity Stellar Collisions at Galactic Centers", MNRAS (2013). [arXiv:1304.7969]

427. Ijjas, A., Steinhardt, P. J., & Loeb, A. "Inflationary paradigm in Trouble After Planck2013", Phys. Lett. (2013). [arXiv:1304.2785]

426. Pan, T., & Loeb, A. "Finding Core Collapse Supernova from the Epoch of Reionization Behind Cluster Lenses", MNRAS (2013). [arXiv:1303.6960]

425. Pan, T., Patnaude, D. J., & Loeb, A. "Super-luminous X-ray Emission from the Interaction of Supernova Ejecta with Dense Circumstellar Shells", MNRAS (2013). [arXiv:1303.6958]

424. Mashian, N., Sternberg, A., & Loeb, A. "The Ratio of CO to Total Gas Mass in High Redshift Galaxies", MNRAS (2013). [arXiv:1302.6998]

423. Loeb, A., & Maoz, D. "Detecting Bio-Markers in Habitable-Zone Earths Transiting White Dwarfs", MNRAS (2013). [arXiv:1301.4994]

422. Psaltis, D., Li, G., & Loeb, A. "Deviation of Stellar Orbits from Test Particle Trajectories Around Sgr A* Due to Tides and Winds", ApJ (2012). [arXiv:1212.3342]

421. Medvedev, M. V., & Loeb, A. "Dynamics of Astrophysical Bubbles and Bubble-Driven Shocks: Basic Theory, Analytical Solutions and Observational Signatures", ApJ (2012). [arXiv:1212.0330]

420. Medvedev, M. V., & Loeb, A. "On Poynting-Flux-Driven Bubbles and Shocks Around Merging Neutron Star Binaries", MNRAS (2012). [arXiv:1212.0333]

419. Liu, D., Pe'er, A., & Loeb, A. "A two-component jet model for the tidal disruption event Swift J164449.3+573451", ApJ (2012). [arXiv:1211.5120]

418. Liu, A., Pritchard, J., Tegmark, M., & Loeb, A. "Global 21cm Signal Experiments: a Designer's Guide", Phys. Rev. D (2012). [arXiv:1211.3743]

417. Battaglia, N., Natarajan, A., Trac, H., Cen, R., & Loeb, A. "Reionization on Large Scales III: Predictions for Low-ℓ Cosmic Microwave Background Polarization and High-ℓ Kinetic Sunyaev-Zel'dovich Observables", ApJ (2012). [arXiv:1211.2832]

416. Natarajan, A., Battaglia, N., Trac, H., Pen, U.-L., & Loeb, A. "Reionization on Large Scales II: Detecting Patchy Reionization through Cross Correlation of the Cosmic Microwave Background", ApJ, (2012). [arXiv:1211.2822]

415. Battaglia, N., Trac, H., Cen, R., & Loeb, A. "Reionization on Large Scales I: A Parametric Model Constructed from Radiation-Hydrodynamic Simulations", ApJ (2012). [arXiv:1211.2821]

414. Stone, N., Sari, R., & Loeb, A. "Consequences of Strong Compression in Tidal Disruption Events", MNRAS (2012). [arXiv:1210.3374]

413. Doeleman, S. S. et al. "Jet Launching Structure Resolved Near the Supermassive Black Hole in M87", Science **338**, 355 (2012). [arXiv:1210.6132]

412. Keshet, U., Kushnir, D., Loeb, A., & Waxman, U. "Detection of a Virial Shock Around the Coma Galaxy Cluster", Nature (2012). [arXiv:1210.1574]

411. Hayasaki, K., Stone, N., & Loeb, A. "Finite, Intense Accretion Bursts from Tidal Disruption of Stars on Bound Orbits", MNRAS, (2012). [arXiv:1210.1333]

410. Hayasaki, K., Stone, N., & Loeb, A. "Tidal Disruption Flares from Stars on Eccentric Orbits" (2012). [arXiv:1210.1050]

409. Stone, N., Loeb, A., & Berger, E. "Pulsations in Short GRBs from Black Hole-Neutron Star Mergers", Phys. Rev. D (2012). [arXiv:1209.4097]

408. Ferrara, A., & Loeb, A. "Escape Fraction of Ionizing Radiation from Starburst Galaxies at High Redshifts", MNRAS (2012). [arXiv:1209.2123]

407. Wyithe, J.S.B., & Loeb, A. "A Suppressed Contribution of Low Mass Galaxies to Reionization due to Supernova Feedback", MNRAS, (2012). [arXiv:1209.2215]

406. Li, G., & Loeb, A. "Accumulated Tidal Heating of Stars Over Multiple Pericenter Passages Near SgrA*", MNRAS (2012). [arXiv:1209.1104]

405. Stacy, A., Greif, T. H., Klessen, R. S., Bromm, V., & Loeb, A. "Rotation and Internal Structure of Population III Protostars", MNRAS (2012). [arXiv:1209.1439]

404. Behroozi, P. S., Loeb, A., & Wechsler, R. H. "Unbound Particles in Dark Matter Halos", JCAP (2012). [arXiv:1208.0334]

403. Wang, F., Bromm, V., Greif, T., Stacy, A., Dai, Z., Loeb, A., & Cheng, K. "Probing Pre-galactic Metal Enrichment with High-Redshift Gamma-Ray Bursts", ApJ (2012). [arXiv:1207.3879]

402. Loeb, A. "How to Nurture Scientific Discoveries Despite Their Unpredictable Nature", Nature (2012). [arXiv:1207.3812]

401. Visbal, E., Loeb, A., & Hernquist, L. "A Simple Model for the Density Profiles of Isolated Dark Matter Halos", ApJ (2012). [arXiv:1206.5852]

400. Pan, T., & Loeb, A. "Identifying Stars of Mass $> 150 M_{\odot}$ from Their Eclipse by a Binary Companion", MNRAS (2012). [arXiv: 1206.1050]

399. Naoz, S., Kocsis, B., Loeb, A., & Yunes, N. "Resonant Post-Newtonian Eccentricity Excitation in Hierarchical Three-body Systems", ApJ (2012). [arXiv:1206.4316]

398. Kocsis, B., Haiman, Z., & Loeb, A. "The Gap Closes: a New Scenario for the Evolution of Supermassive Black Hole Binaries with Gaseous Disks", MNRAS (2012). [arXiv:1205.5268]

397. Blecha, L., Civano, F., Elvis, M., & Loeb, A. "Constraints on the Nature of CID-42: Recoil Kick or Supermassive Black Hole Pair?", MNRAS (2012). [arXiv:1205.6202]

396. Kocsis, B., Haiman, Z., & Loeb, A. "Gas Pile Up and Overflow in Circumbinary Accretion Disks: Type-I.5 Migration", MNRAS, (2012). [arXiv:1205.4714]

395. Besla, G., Hernquist, L., & Loeb, A. "The Origin of the Microlensing Events Observed Towards the LMC and the Stellar Counterpart of the Magellanic Stream", MNRAS (2012). [arXiv:1205.4724]

394. Loeb, A. "The Optimal Cosmic Epoch for Precision Cosmology", JCAP (2012). [arXiv:1203.2622]

393. Civano, F., et al. "Chandra High Resolution Observations of CID-42, a Candidate Recoiling SMBH, ApJ (2012). [arXiv:1205.0815]

392. Loeb, A. "Rating Research Risk", Nature, **484**, 279 (2012).

391. Li, G., Kocsis, B., & Loeb, A. "Gravitational Wave Heating of Stars and Accretion Disks", MNRAS (2012). [arXiv:1203.0317]

390. Shlaer, B., Vilenkin, A., & Loeb, A. "Early Structure Formation from Cosmic String Loops", JCAP (2012). [arXiv:1202.1346]

389. Vogelsberger, M., Zavala, J., & Loeb, A. "Subhaloes in Self-Interacting Galactic Dark Matter Haloes", MNRAS (2012). [arXiv:1201.5892]

388. Blecha, L., Loeb, A., & Narayan, R. "Double-peaked Narrow-Line Signatures of Dual Supermassive Black Holes in Galaxy Merger Simulations", MNRAS (2012). [arXiv:1201.1904]

387. Ginsburg, I., Loeb, A., & Wegner, G.A. "Hypervelocity Planets and Transits Around Hypervelocity Stars", MNRAS (2012). [arXiv: 1201.1446]

386. Murray-Clay, R., & Loeb, A. "Disruption of a Proto-Planetary Disk by the Black Hole at the Milky Way Centre", Nature (2011). [arXiv:1112.4822]

385. Pan, T., Kasen, D., & Loeb, A. "Pair-Instability Supernovae at the Epoch of Reionization", MNRAS (2011). [arXiv:1112.2710]

384. Wyithe, S., & Loeb, A. "Photon Trapping Enables Super-Eddington Growth of Black-Hole Seeds in Galaxies at High Redshift", MNRAS (2011). [arXiv:1111.5424]

383. Peér, A., & Loeb, A. "Constraining Sources of Ultra High Energy Cosmic Rays Using High Energy Observations with the Fermi Satellite", Phys. Rev. D (2011). [arXiv:1111.3964]

382. Pan, T., Loeb, A., & Kasen, D. "Pair-Instability Supernovae via Collision Runaway in Young Dense Star Clusters", MNRAS (2011). [arXiv:1111.3648]

381. Stacy, A., Pawlik, A., Bromm, V., & Loeb, A. "Effect of Population III Multiplicity on Dark Star Formation", MNRAS (2011). [arXiv:1111.1527]

380. Loeb, A., & Turner, E. L., "Detection Technique for Artificially-Illuminated Objects in the Outer Solar System and Beyond", Astrobiology, 12, 290 (2012). [arXiv:1110.6181]

379. Bittner, J., & Loeb, A., "The Imprint of the Relative Velocity Between Baryons and Dark Matter on the 21-cm Signal from Reionization", Phys. Rev. D (2011). [arXiv:1110.4659]

378. Loeb, A., "The Reionization of Cosmic Hydrogen by the First Galaxies", Chapter 3 in "Adventures in Cosmology", edited by D. Goodstein, World Scientific (2012).

377. Li, N., Mao, S., Gao, L., Loeb, A., & Di Stefano, R., "Effects of Supermassive Binary Black Holes on Gravitational Lenses", MNRAS, (2011). [arXiv:1110.0887]

376. Stone, N., & Loeb, A., "Observing Lense-Thirring Precession in Tidal Disruption Flares", Phys. Rev. Lett. (2011). [arXiv:1109.6660]

375. Li, G., Conroy, C., & Loeb, A., "Empirical Constraints on the Coevolution of Supermassive Black Holes and their Host Spheroids", MNRAS (2011). [arXiv:1110.0017]

374. Pritchard, J., & Loeb, A., "21-cm Cosmology", Rep. Prog. Phys., (2011). [arXiv:1109.6012]

373. Visbal, E., & Loeb, A., "Gauging the Contribution of X-ray Sources to Reionization Through the Kinetic Sunyaev-Zel'dovich Effect", JCAP (2011). [arXiv:1109.5722]

372. Wyithe, S., Mould, J., & Loeb, A., "The Small Contribution to Hydrogen Reionization from Gravitational Infall", ApJL (2011). [arXiv:1108.5809]

371. Dijkstra, M., Gilfanov, M., Loeb, A., & Sunyaev, R. "Constraints on the Redshift Evolution of the L_X-SFR Relation from the Cosmic X-Ray Backgrounds", MNRAS (2011). [arXiv:1108.4420]

370. Loeb, A. "Rating Growth of Scientific Knowledge and Risk from Theory Bubbles" (2011). [arXiv:1108.5282]

369. Kulkarni, G., & Loeb, A. "Formation of Galactic Nuclei with Multiple Supermassive Black Holes at High Redshifts", MNRAS, (2011). [arXiv:1107.0517]

368. Villaescusa-Navarro, F., Vogelsberger, M., Viel, M., & Loeb, A. "Neutrino Signatures on the High Transmission Regions of the Lyman-alpha Forest", Phys. Rev. Lett. (2011). [arXiv:1106.2543]

367. Broderick, A. E., Fish, V. L., Doeleman, S. S., & Loeb, A. "Constraining the Structure of Sagittarius A*'s Accretion Flow with Millimeter-VLBI Closure Phases", ApJ (2011). [arXiv:1106.2550]

366. Burns, J. O., et al. "Probing the First Stars and Black Holes in the Early Universe with the Dark Ages Radio Explorer (DARE)", Adv. Space Res. (2011). [arXiv:1106.5194]

365. Gultekin, K., Tremaine, S., Loeb, A., & Richstone, D. O. "Observational selection effects and the M-sigma relation", ApJ (2011). [arXiv:1106.1079]

364. Stone, N., & Loeb, A. "Tidal Disruption Flares of Stars From Moderately Recoiled Black Holes", MNRAS (2011). [arXiv:1105.4966]

363. Visbal, E., Trac, H., & Loeb, A. "Demonstrating the Feasibility of Line Intensity Mapping Using Mock Data of Galaxy Clustering from Simulations", JCAP (2011). [arXiv:1104.4809]

362. Zauderer, A., Berger, E., Soderberg, A. M., Loeb, A., Narayan, R., et al. "The Birth of a Relativistic Outflow in the Unusual γ–ray Transient Swift J16449.3+573451", Nature (2011). [arXiv:1106.3568]

361. Broderick, A., Loeb, A., & Reid, M. J. "Localizing Sagittarius A* and M87 on Microarcsecond Scales with Millimeter VLBI", ApJ (2011). [arXiv:1104.3146]

360. Kocsis, B., Yunes, N., & Loeb, A. "Observable Signatures of EMRI Black Hole Binaries Embedded in Thin Accretion Disks", Phys. Rev. D (2011). [arXiv:1104.2322]

359. Yunes, N., Kocsis, B., Loeb, A., & Haiman, Z. "Imprint of Accretion Disk-Induced Migration on Gravitational Waves from Extreme Mass Ratio Inspirals", Phys. Rev. Lett. (2011). [arXiv:1103.4609]

358. Zavala, J., Vogelsberger, M., Slatyer, T. R., Loeb, A., & Springel, V. "The Cosmic X-ray and Gamma-ray Background from Dark Matter Annihilation", Phys. Rev. D, 2011. [arXiv:1103.0776]

357. O'Leary, R., & Loeb, A. "Recoiled Star Clusters in the Milky Way Halo: N-body Simulations and a Candidate Search through SDSS", MNRAS, 2011. [arXiv:1102.3695]

356. Mirabel, I. F., Dijkstra, M., Laurent, P., Loeb, A., & Pritchard, J. R., "Stellar Black Holes at the Dawn of the Universe", Astron. & Astrophys., **528**, 149, 2011.

355. Loeb, A. "On the Importance of Hypervelocity Stars for the Long-Term Future of Cosmology", JCAP, 2011. [arXiv:1102.0007]

354. Balberg, S., & Loeb, A. "Supernova Shock Breakout Through a Wind", MNRAS, 2011. [arXiv:1101.1489]

353. Pritchard, J. & Loeb, A. "Hydrogen Was Not Ionized Abruptly", Nature **468**, 772, 2010.

352. Chakraborti, S., Ray, A., Soderberg, A., Loeb, A., & Chandra, P. "Ultra High Energy Cosmic Ray Acceleration in Engine-driven Relativistic Supernovae", Nature, 2010. [arXiv:1012.0850]

351. Faucher-Giguere, C.-A., & Loeb, A. "Pulsar-Black Hole Binaries in the Galactic Center", MNRAS, 2010. [arXiv:1012.0573]

350. Rubin, D., & Loeb, A. "Constraining the Stellar Mass Function in the Galactic Center via Mass Loss from Stellar Collisions", Advances in Astronomy, 174105, 2011. [arXiv:1012.0583]

349. Loeb, A., & Weiner, N. "Cores in Dwarf Galaxies from Dark Matter with a Yukawa Potential", Phys. Rev. Lett. **106**, 171302 2011. [arXiv:1011.6374]

348. Stacy, A., Bromm, V., & Loeb, A. "Effect of Streaming Motion of Baryons Relative to Dark Matter on the Formation of the First Stars", ApJL, **730**, L1, 2011.

347. Wyithe, S., & Loeb, A. "Extrapolating the Evolution of Galaxy Sizes to the Epoch of Reionization", ApJL, 2010. [arXiv:1011.3210]

346. Broderick, A., Fish, V., Doeleman, S., & Loeb, A. " Evidence for Low Black Hole Spin and Physically Motivated Accretion Models from Millimeter VLBI Observations of Sagittarius A*", ApJ, 2010. [arXiv:1011.2770]

345. Conroy, C., Loeb, A., & Spergel, D. N. "Evidence Against Dark Matter Halos Surrounding the Globular Clusters MGC1 and NGC 2419", ApJL, 2010. [arXiv:1010.5783]

344. Munoz, J., & Loeb, A. "Constraining the Minimum Mass of High-Redshift Galaxies and Their Contribution to the Ionization State of the IGM", ApJ, **729**, 99, 2011.

343. Stacy, A., Bromm, V., & Loeb, A. "Rotation Speed of the First Stars", MNRAS, 2010. [arXiv:1010.0997]

342. Blecha, L., Cox, T. J., Loeb, A., & Hernquist, L. "Recoiling Black Holes in Merging Galaxies: Relationship to AGN Lifetimes, Starbursts, and the M-sigma Relation", MNRAS, 2010. [arXiv:1009.4940]

341. Barkana, R., & Loeb, A. "Scale-Dependent Bias of Galaxies from Baryonic Acoustic Oscillations", MNRAS, 2011. [arXiv:1009.1393]

340. Visbal, E., & Loeb, A. "Measuring the 3D Clustering of Undetected Galaxies Through Cross Correlation of their Cumulative Flux Fluctuations from Multiple Spectral Lines", JCAP, **11**, 016, 2010.

339. Loeb, A. "Taking "The Road Not Taken": On the Benefits of Diversifying Your Academic Portfolio", Nature **467**, 358, 2010. [arXiv:1008.1586]

338. Adshead, P., Easther, R., Pritchard, J., & Loeb, A. "Inflation and the Scale Dependent Spectral Index: Prospects and Strategies", JCAP, **02**, 021, 2011.

337. Bittner, J., & Loeb, A. "Measuring the Redshift of Reionization with a Modest Array of Low-Frequency Dipoles", JCAP, 2011. [arXiv:1006.5460]

336. Pritchard, J., & Loeb, A. "Constraining the Unexplored Period Between Reionization and the Dark Ages with Observations of the Global 21-cm Signal", Phys. Rev. D, **82**, 3006, 2010.

335. Stone, N., & Loeb, A. "Repeating Tidal Disruption of Stars as a Prompt Electromagnetic Signature of Supermassive Black Hole Coalescence", MNRAS, **412**, 75, 2011.

334. Lacki, B. C., Thompson, T. A., Quataert, E., Loeb, A., & Waxman, E. "On The GeV & TeV Detections of the Starburst Galaxies M82 & NGC 253", ApJ, **734**, 107, 2010.

333. Keshet, U., & Loeb, A. "Using Radio Halos and Minihalos to Measure the Distributions of Magnetic Fields and Cosmic-Rays in Galaxy Clusters", ApJ, **722**, 737, 2010.

332. Civano, F., et al. "A Runaway Black Hole in COSMOS: Gravitational Wave or Slingshot Recoil?", ApJ **717**, 209 , 2010.

331. Keshet, U., Markevitch, M., Birnboim, Y., & Loeb, A. "Dynamics and Magnetization in Galaxy Cluster Cores Traced by X-ray Cold Fronts", ApJL, **719**, L74, 2010.

330. Yunes, N., Psaltis, D., Ozel, F., & Loeb, A. "Constraining Parity Violation in Gravity with Measurements of Neutron-Star Moments of Inertia", Phys. Rev. D**81**, 064020, 2010.

329. Broderick, A., & Loeb, A. "Portrait of a Black Hole", Scientific American, Dec. issue, 42, 2010. [http://cfa-www.harvard.edu/∼loeb/sciam2.pdf]

328. Patnaude, D., Loeb, A., & Jones, C. "Evidence for a Black Hole Remnant in the Type IIL Supernova 1979C", New Astronomy, **16**, 187, 2011.

327. Shen, Y., & Loeb, A. "Identifying Supermassive Black Hole Binaries With Broad Emission Line Diagnosis", MNRAS, **725**, 249, 2010.

326. Fish, V., Doeleman, S., Broderick, A. , Loeb, A., & Rogers, A. "Detecting Changing Polarization Structures in Sagittarius A* with High Frequency VLBI", ApJ, **706**, 1353, 2009.

325. Loeb, A. "Electromagnetic Signature of Galactic Black Hole Binaries That Enter Their Gravitational-Wave Induced Inspiral", Phys. Rev. **D 81**, 047503, 2010.

324. Pritchard, J., Loeb, A., & Wyithe, J.S.W. "Constraining Reionization Using 21-cm Observations in Combination with CMB and Lyman-alpha Forest Data", MNRAS, **408**, 57, 2010.

323. Moro-Martin, A., Turner, E. L., & Loeb, A. "Will LSST Detect Extra-Solar Planetesimals Entering the Solar System?", ApJ, **704**, 733, 2009.

322. Broderick, A., & Loeb, A. "Signatures of Relativistic Helical Motion in the Rotation Measures of AGN Jets", ApJ, **703**, L104, 2009.

321. Barkana, R., & Loeb, A. "Concentrating the Dark Matter in Galaxy Clusters through Tidal Stripping of Baryonically-Compressed Galactic Halos", MNRAS **405**, 1969, 2010.

320. Cen, R., McDonald, P., Trac, H., & Loeb, A. "Probing the Epoch of Reionization with the Lyman Alpha Forest at $z \sim 4$–5", ApJ, **706**, L164, 2009.

319. Doeleman, S. et al. " Imaging an Event Horizon: submm-VLBI of a Super-Massive Black Hole", 2009. [arXiv:0906.3899]

318. Munoz, J. A., Trac, H., & Loeb, A. "Galaxy Statistics in Pencil-beam Surveys at High Redshifts", MNRAS **405**, 2001, 2009.

317. Munoz, J. A., Madau, P., Loeb, A., & Diemand, J. "Probing the Epoch of Reionization with Milky-Way Satellites", MNRAS, **400**, 1593, 2009.

316. Bagla, J.S., & Loeb, A. "The Hyperfine Transition of ^{3}He+ as a Probe of the Intergalactic Medium", 2009. [arXiv:0905.1698]

315. Faucher-Giguere, C.-A., & Loeb, A. "The Pulsar Contribution to the Gamma-Ray Background", JCAP, **1**, 5, 2010.

314. Birnboim, Y., & Loeb, A. "The Kinetic Sunyaev-Zel'dovich effect of the Milky Way Halo", JCAP, **6**, 008, 2009.

313. Broderick, A., Loeb, A., & Narayan, R. "The Event Horizon Around SgrA*", ApJ, **701**, 2, 2009. [arXiv:0903.1105]

312. Dijkstra, M., & Loeb, A., "Upper Limit on Dimming of Cosmological Sources by Intergalactic Grey Dust Based on the Soft X-ray Background", MNRAS, **397**, 4 , 2009.

311. Dijkstra, M., & Loeb, A., "Lyman Alpha 'Blobs' as an Observable Signature of Cold Accretion Streams into Galaxies", MNRAS, **400**, 1109, 2009.

310. Ghez, A., et al., " The Galactic Center: A Laboratory for Fundamental Astrophysics and Galactic Nuclei", 2009. [arXiv:0903.0383]

309. Madau, P. , et al., "Massive Black Holes Across Cosmic Time", 2009. [arXiv:0903.0097]

308. Cooke, J., et al., "First Light Sources at the End of the Dark Ages: Direct Observations of Population III Stars, Proto-Galaxies, and Supernovae During the Reionization Epoch, 2009. [arXiv:0902.4602]

307. Soderberg, A., et al., "The Dynamic X-ray Sky of the Local Universe", 2009. [arXiv:0902.3674]

306. McQuinn, M., et al., "In Situ Probes of the First Galaxies and Reionization: Gamma-ray Bursts", 2009. [arXiv:0902.3442]

305. Furlanetto, S., et al., "Cosmology from the Highly-Redshifted 21 cm Line", 2009. [arXiv:0902.3259]

304. Moustakas, L. A., et al., "Strong gravitational lensing probes of the particle nature of dark matter", 2009. [arXiv:0902.3219]

303. Peterson, J. B., et al., "21 cm Intensity Mapping", 2009. [arXiv:0902.3091]

302. Furlanetto, S., et al., "Astrophysics from the Highly-Redshifted 21 cm Line", 2009. [arXiv:0902.3011]

301. Cooray, A., et al., "A New Era in Extragalactic Background Light Measurements: The Cosmic History of Accretion, Nucleosynthesis and Reionization", 2009. [arXiv:0902.2372]

300. Bloom, J., et al. "Coordinated Science in the Gravitational and Electromagnetic Skies", 2009. [arXiv:0902.1527]

299. Broderick, A., & Loeb, A., "Imaging the Black Hole Silhouette of M87: Implications for Jet Formation and Black Hole Spin", ApJ, **697**, 2, 2009. [arXiv:0812.0366]

298. Visbal, E., Loeb, A., & Wyithe, J. S. W., "Cosmological Constraints from 21cm Surveys After Reionization", JCAP, **10**, 30 2009.

297. Loeb, A., "The Race Between Stars and Quasars in Reionizing Cosmic Hydrogen", JCAP, **3**, 22, 2009. [arXiv:0811.2222]

296. Wyithe, J. S. B., & Loeb, A., "Evidence for Merger-Driven Activity in the Clustering of High Redshift Quasars", MNRAS, **395**, 1607, 2009.

295. Broderick, A., Fish, V. L., Doeleman, S. S., & Loeb, A., "Estimating the Parameters of Sgr A*'s Accretion Flow Via Millimeter VLBI", ApJ, **697**, 1, 2009. [arXiv:0809.4490]

294. Fish, V. L., Broderick, A., Doeleman, S. S., & Loeb, A., " Using Millimeter VLBI to Constrain RIAF Models of Sagittarius A*", ApJL, **692**, L14, 2009.

293. O'Leary, R., & Loeb, A. "Star Clusters Around Recoiled Black Holes in the Milky Way Halo", MNRAS, **395**, 2, 2009.

292. Waxman, E., & Loeb, A. "Constraints on the Local Sources of Ultra High-Energy Cosmic Rays", JCAP, **8**, 26, 2009.

291. Doeleman, S. S., Fish, V. L., Broderick, A., Loeb, A., & Rogers, A. "Detecting flaring structures in Sagittarius A* with high frequency VLBI", ApJ, **695**, 1, 2009. [arXiv:0809.3424]

290. Wyithe, S., & Loeb, A. "The 21cm Power Spectrum After Reionization", MNRAS **397**, 1976, 2008.

289. Shattow, G., & Loeb, A. "Implications of Recent Measurements of the Milky Way Rotation for the Orbit of the Large Magellanic Cloud", MNRAS, **392**, L21, 2009. [arXiv:0808.0104]

288. Trac, H., Cen, R., & Loeb, A. " Imprint of Inhomogeneous Hydrogen Reionization on the Temperature Distribution of the Intergalactic Medium", ApJ, **689**, L81, 2008. [arXiv:0807.4530]

287. O'Leary, R., Kocsis, B., & Loeb, A. "Gravitational Waves from Scattering of Stellar-Mass Black Holes in Galactic Nuclei", MNRAS, **395**, 4, 2009. [arXiv:0807.2638]

286. Fish, V. L., Doeleman, S. S., Broderick, A., Loeb, A., & Rogers, A. "Detecting Flaring Structures in Sagittarius A* with (Sub)Millimeter VLBI", Proc. of theXXIX URSI General Assembly, 2008. [arXiv:0807.2427]

285. Loeb, A. "Long-Term Evolution in Transit Duration of Extrasolar Planets from Magnetic Activity in their Parent Stars", New Astronomy, **14**, 363, 2009. [arXiv:0807.0835]

284. Dijkstra, M., & Loeb, A. "Acceleration of Galactic Supershells by Lyα Radiation", MNRAS, **396**, 1, 2009. [arXiv:0809.2099]

283. Dijkstra, M., & Loeb, A. "Lyα Driven Outflows Around Star Forming Galaxies", MNRAS, **391**, 457, 2008. [arXiv:0807.2645]

282. Blecha, L., & Loeb, A. " Effects of gravitational-wave recoil on the dynamics and growth of supermassive black holes", MNRAS, **390**, 1311, 2008. [arXiv:0805.1420]

281. Munoz, J., & Loeb, A. "The Density Contrast of the Shapley Supercluster", MNRAS, **391**, 1341, 2008. [arXiv:0805.0596]

280. Loeb, A. "Let there be Light: the Emergence of Structure out of the Dark Ages in the Early Universe", invited review for the UNESCO EOLSS ENCYCLOPEDIA, 2008. [arXiv:0804.2258]

279. Kocsis, B., & Loeb, A. "Brightening of an Accretion Disk Due to Viscous Dissipation of Gravitational Waves During the Coalescence of Supermassive Black Holes", Phys. Rev. Lett., **101**, 041101, 2008. [arXiv:0803.0003]

278. Loeb, A. "21cm Absorption by Compact Hydrogen Disks Around Black Holes in Radio-Loud Galactic Nuclei", JCAP, **5**, 8, 2008. [arXiv:0802.2717]

277. Pritchard, J. R., & Loeb, A. "Evolution of the 21 cm signal throughout cosmic history", Phys. Rev. D, **78**, 10, 2008. [arXiv:0802.2102]

276. Loeb, A. "Future of Our Universe", Physica Plus, 2008.
[http://www.cfa.harvard.edu/~ loeb/F.pdf]

275. Reid, M., Broderick, A., Loeb, A., Honma, M., & Brunthaler, A., "Limits on the Position Wander of Sgr A*", ApJ, **682**, 1041, 2008. [arXiv:0801.4505]

274. Loeb, A., & Wyithe, S., "Possibility of Precise Measurement of the Cosmological Power Spectrum With a Dedicated 21cm Survey After Reionization", Phys. Rev. Lett., **100**, 161301, 2008. [arXiv:0801.1677]

273. Loeb, A., "Is a Classical Language Adequate in Assessing the Detectability of the Redshifted 21cm Signal from the Early Universe?", JCAP, **4**, 21, 2008. [arXiv:0801.0441]

272. Loeb, A., & Narayan, R., "Dynamical Constraints on the Local Group from the CMB and 2MRS Dipoles", MNRAS, **386**, 2221, 2008. [arXiv:0711.3809]

271. Loeb, A. "The Frontier of Reionization: Theory and Forthcoming Observations", opening lecture for "Astrophysics In the Next Decade", [arXiv:0711.3463]

270. Munoz, J. A., & Loeb, A., "Light-Cone Distortion of the Clustering and Abundance of Massive Galaxies at High-Redshifts", MNRAS, **386**, 2323, 2008. [arXiv:0711.2515]

269. Dijkstra, M., & Loeb, A., "The Polarization of Scattered Lyman Alpha Radiation Around High-Redshift Galaxies", MNRAS, **386**, 492, 2008. [arXiv:0711.2312]

268. Munoz, J. A., & Loeb, A., "Verifying the Identity of High-Redshift Massive Galaxies Through the Clustering of Lower Mass Galaxies Around Them", MNRAS, **385**, 2175, 2008. [arXiv:0711.0467]

267. Wyithe, S., Loeb, A., & P. M. Geil, "Baryonic Acoustic Oscillations in 21cm Emission: A Probe of Dark Energy", MNRAS, **383**, 1159, 2008.

266. Sherwin, B. D., Loeb, A., O'Leary, R., "Hypervelocity Stars from the Andromeda Galaxy", MNRAS, **386**, 1179, 2008. [arXiv:0709.1156]

265. Wyithe, S., & Loeb, A., "Fluctuations in 21cm Emission After Reionization", MNRAS, **383**, 606, 2007. [arXiv:0708.3392]

264. Wyithe, S., & Loeb, A., "The Imprint of Cosmic Reionization on Galaxy Clustering", MNRAS, **382**, 921, 2007. [arXiv:0706.3744]

263. Bromm, V., & Loeb, A., "GRB Cosmology", invited chapter in a book on *The Physics of Gamma-Ray Bursts*, Cambridge University Press, 2007. [arXiv:0706.2445]

262. Barkana, R., & Loeb, A., "The Difference PDF of 21-cm Fluctuations: A Powerful Statistical Tool for Probing Cosmic Reionization", MNRAS, **384**, 1069, 2008.

261. Wyithe, S., Loeb, A., & Schmidt, B., "The Correlation Between Star Formation and 21cm Emission During the Reionization Epoch", MNRAS, **380**, 1087, 2007. [arXiv:0705.1825]

260. Cox, T. J., & Loeb, A., "The Collision Between the Milky-Way and Andromeda Galaxies", MNRAS, **386**, 461, 2008. [arXiv:0705.1170]

259. Babich, D., & Loeb, A., "Imprint of Distortions in the Oort Cloud on the CMB Anisotropies", MNRAS, **14**, 2, 2009. [arXiv:0705.0987]

258. Kocsis, B., & Loeb, A., "Distortion of Gravitational-Wave Packets Due to their Self-Gravity", Phys. Rev. D, **76**, 084022, 2007. [arXiv:0704.1149]

257. Loeb, A., "Observable Signatures of a Black Hole Ejected by Gravitational Radiation Recoil in a Galaxy Merger", Physical Review Letters, **99**, 041103, 2007. [astro-ph/0703722]

256. Loeb, A., "Missing Pages in Our Photo Album of the Infant Universe", Physica Plus, **8**, 2007. [astro-ph/0702298]

255. Loeb, A., & Waxman, E. "Properties of the Radio-Emitting Gas Around SgrA*", JCAP, **03**, 011, 2007. [astro-ph/0702043]

254. Carilli, C., Hewitt, J. N., & Loeb, A. "Low-Frequency Radio Astronomy from the Moon: Cosmic Reionization", *The Return to The Moon* Conf. Proc., STScI, 2007. [astro-ph/0702070]

253. Stark, D., Loeb, A., & Ellis, R. S. "An Empirically-Calibrated Model for Interpreting the Evolution of Galaxies During the Reionization Era", ApJ, **668**, 627, 2007. [astro-ph/0701882]

252. Hoffman, L., & Loeb, A. "Dynamics of triple black hole systems in hierarchically merging massive galaxies", MNRAS, **377**, 957, 2007.

251. Barkana, R., & Loeb, A. "The Physics and Early History of the Intergalactic Medium", Rep. Prog. Phys., **70**, 627-657, 2007. [astro-ph/0611541]

250. Loeb, A., & Zaldarriaga, M., "Eavesdropping on Radio Broadcasts from Galactic Civilizations with Upcoming Observatories for Redshifted 21cm Radiation", JCAP, **1**, 20, 2007. [astro-ph/0610377]

249. Wyithe, S., & Loeb, A., "The correlation between the distribution of galaxies and 21cm emission at high redshifts", MNRAS, **375**, 1034, 2007.

248. Loeb, A., "The Dark Ages of the Universe", Scientific American, **295**, 46, 2006. [http://cfa-www.harvard.edu/∼loeb/sciam.pdf]

247. Ginsburg, I., & Loeb, A., "Hypervelocity Collisions of Binary Stars at the Galactic Centre", MNRAS, **376**, 492, 2007.

246. Babich, D. & Loeb, A., "CMB Anisotropies from Outflows in Lyman Break Galaxies", MNRAS, **374**, L24 , 2007.

245. O'Leary, R., & Loeb, A., "Production of Hypervelocity Stars through Encounters with Stellar-Mass Black Holes in the Galactic Centre", MNRAS, **383**, 86, 2008. [astro-ph/0609046]

244. Thompson, T., Quataert, E., Waxman, E., & Loeb, A., "Assessing the Starburst Contribution to the Gamma-Ray and Neutrino Backgrounds", 2006. [astro-ph/0608699]

243. Dijkstra, M., & Loeb, A., "Requirements for Cosmological 21cm Masers", New Astronomy, **13**, 395, 2008.

242. Broderick, A., & Loeb, A., "Testing General Relativity with High-Resolution Imaging of Sgr A*", Journal of Physics: Conference Series, **54**, 448, 2006. [astro-ph/0607279]

241. Wyithe, S., & Loeb, A., "Smooth Boundaries to Cosmological HII Regions from Galaxy Clustering", MNRAS, **374**, 960, 2007.

240. Loeb, A., "Thermal Evaporation of Gas from X-ray Clusters", JCAP, **03**, 1, 2007.

239. Loeb, A., "First Light in the Universe", SAAS-Fee Advanced Course, 158 pages, Springer Verlag, Berlin 2008. [astro-ph/0603360]

238. Loeb, A., "An Observational Test for the Anthropic Origin of the Cosmological Constant", JCAP, **5**, 9, 2006.

237. Loeb, A., & Waxman, E. "The Cumulative Background of High-Energy Neutrinos", JCAP, **5**, 3, 2006.

236. Wyithe, S., & Loeb, A. "Suppression of Dwarf Galaxy Formation By Cosmic Reionization", Nature, **411**, 322, 2006. [astro-ph/0603550]

235. Bromm, V., & Loeb, A. "GRB Cosmology and the First Stars", invited review, *Gamma-Ray Bursts in the Swift Era*, Sixteenth Maryland Astrophysics Conference, held 29 November - 2 December, 2005 in Washington, DC. Edited by S.S. Holt, N. Gehrels, and J.A. Nousek. AIP Conference Proceedings, Vol. 836. Melville, NY: American Institute of Physics, p.503-512, 2006. [astro-ph/0601216]

234. Barkana, R., & Loeb, A. "Light-Cone Anisotropy in 21cm Fluctuations During the Epoch of Reionization", MNRAS, **372**, 43 2006.

233. Hoffman, L., & Loeb, A. " Three-Body Kick to a Bright Quasar out of Its Galaxy During a Merger", ApJ, **638**, L75, 2006.

232. Ginsburg, I., & Loeb, A. "The Fate of Former Companions to Hypervelocity Stars Originating at the Galactic Center", MNRAS, **368**, 221, 2006.

231. Barkana, R., & Loeb, A. "Detecting Reionization in the Star Formation Histories of High-Redshift Galaxies", MNRAS, **371**, 395 2006.

230. Babich, D., & Loeb, A. "Imprint of Inhomogeneous Reionization on the Power Spectrum of Galaxy Surveys at High Redshifts", ApJ, **640**, 1, 2006.

229. Bromm, V., & Loeb, A. "High-Redshift Gamma-Ray Bursts from Population III Progenitors", ApJ, **642**, 382, 2006.

228. Broderick, A., & Loeb, A. "Imaging Optically-Thin Hot Spots Near the Black Hole Horizon of Sgr A* at Radio and Near-Infrared Wavelengths", MNRAS, **367**, 503, 2005.

227. Brunthaler, A., Reid, M. J., Loeb, A., & Falcke, H. "The proper motion of M 33", Astronomische Nachrichten, **326**, 487, 2005.

226. Quataert, E., & Loeb, A. "Nonthermal THz to TeV Emission from Stellar Wind Shocks in the Galactic Center", ApJL, **635**, L45, 2005.

225. Broderick, A., & Loeb, A. "Frequency-Dependent Shift in the Image Centroid of the Black Hole at the Galactic Center as a Test of General Relativity", ApJ, **636**, L109, 2006.

224. Wyithe, S.J.B., & Loeb, A. "Cosmic Variance In the Transparency of the Intergalactic Medium After Reionization", ApJ, **646**, 696 2006.

223. Loeb, A., Reid, M. J., Brunthaler, A., & Falcke, H., "Constraints on the Proper Motion of the Andromeda Galaxy Based on the Survival of Its Satellite M33 Through the Dynamics of the Local Group", ApJ, **633**, 894, 2005.

222. Broderick, A., & Loeb, A., "Imaging Bright Spots in the Accretion Flow Near the Black Hole Horizon of SgrA*", MNRAS, **363**, 353 2005.

221. Wyithe, S.J.B., & Loeb, A., "Constraints on the Process that Regulates the Growth of Supermassive Black Holes Based on the Intrinsic Scatter in the $M_{\rm bh}$–σ Relation", ApJ, **634**, 910, 2005.

220. Wyithe, J. S. B., Loeb, A., & Barnes, D., "Prospects for Redshifted 21-cm observations of quasar HII regions", ApJ, **634**, 715, 2005.

219. Babich, D., & Loeb, A., "Polarization of 21cm Radiation from the Epoch of Reionization", ApJ, **635**, 1, 2005.

218. Maoz, D., Waxman, E., & Loeb, A. "The Remnants of Intergalactic Supernovae", ApJ, **632**, 847, 2005.

217. Fang, T., Loeb, A., Tytler, D., Kirkman, D., & Suzuki, N. "Signature of Galactic Outflows as Absorption-Free Gaps in the Ly-alpha Forest", 2005. [astro-ph/0505182]

216. Loeb, A., & Zaldarriaga, M., "The Small-Scale Power Spectrum of Cold Dark Matter", Phys. Rev. D **71**, 103520, 2005. [astro-ph/0504112]

215. Barkana, R., & Loeb, A., "Probing the Epoch of Early Baryonic Infall Through 21cm Fluctuations", MNRAS, **363**, L36, 2005.

214. Loeb, A., "A Dynamical Method for Measuring Masses of Stars with Transiting Planets", ApJ, **623**, L45, 2005.

213. Hirata, C. M., Loeb, A., & Afshordi, N., "CMB B-mode polarization from Thomson scattering in the local universe", Phys. Rev. D, **71**, 063531, 2005.

212. Wyithe, J. S. B., Loeb, A., & Carilli, C., "Improved Constraints on The Neutral Intergalactic Hydrogen Surrounding Quasars at Redshifts $z > 6$" ApJ, **628**, 575, 2005.

211. Barkana, R., & Loeb, A., "Detecting the Earliest Galaxies Through Two New Sources of 21cm Fluctuations", ApJ, **626**, 1, 2005.

210. Furlanetto, S., & Loeb, A. "Is Double Reionization Physically Plausible?", ApJ, **634**, 1, 2005.

209. Barkana, R., & Loeb, A., "A Method for Separating the Physics from the Astrophysics of High-Redshift 21 Centimeter Fluctuations", ApJ, **624**, L65, 2005.

208. Wyithe, J. S. B., & Loeb, A., "A Size of $\sim$ 10Mpc for the Ionized Bubbles at the End of Cosmic Reionization", Nature, **432**, 194, 2004. [astro-ph/0409412]

207. Loeb, A., "The Environmental Impact of Supermassive Black Holes", invited contribution to Proc. of the Conf. on "Growing Black Holes" held in Garching, Germany, on June 21-25, 2004, edited by A. Merloni, S. Nayakshin and R. Sunyaev, Springer-Verlag series of "ESO Astrophysics Symposia", 2004. [astro-ph/0408166]

206. Wyithe, J. S. B., & Loeb, A., "Undetected Sources Allow Transmission of the Lyα Line From Galaxies Prior to Reionization", ApJ, **625**, 1, 2005.

205. Keshet, U., Waxman, E., & Loeb, A., "Searching for Intergalactic Shocks with the SKA", in "Astrophysics with the Square Kilometer Array", eds. C. Carilli and S. Rawlings, New Astronomy Reviews, **48**, 1119, 2004 [astro-ph/0407243]

204. Granot, J., Ramirez-Ruiz, E., & Loeb, A., "Implications of the Measured Image Size for the Radio Afterglow of GRB 030329", ApJ, **618**, 413, 2004.

203. Zhang, B., & Loeb, A., "A model for the flaring radio emission in the double pulsar system J0737-3039", ApJL, **614**, L53, 2004.

202. Wyithe, J. S. B., & Loeb, A., "Calibrating the Galaxy Halo - Black Hole Relation Based on the Clustering of Quasars", ApJ, **621**, 95, 2005.

201. Loeb, A., Barkana, R., & Hernquist, L., "Was the Universe Reionized at z=10?", ApJ, 620, 553, 2005.

200. Sagiv, A., Waxman, E., & Loeb, A. "Probing the Magnetic Field Structure in Gamma-Ray Bursts through Dispersive Plasma Effects on the Afterglow Polarization", ApJ, **615**, 253, 2004.

199. Dijkstra, M., Haiman, Z., & Loeb, A. "A Limit on the Contribution of Quasars to Reionization from the X-ray Background", ApJ, **613**, 646, 2004.

198. Keshet, U., Waxman, E., & Loeb, A. "Imprint of Intergalactic Shocks on the Low-Frequency Radio Sky", ApJ, **617**, 281, 2004.

197. Wyithe, S., & Loeb, A. "A large neutral fraction of cosmic hydrogen a billion years after the Big Bang", Nature, **427**, 815, 2004. [astro-ph/0401188]

196. Milosavlevic, M., & Loeb, A. "The Link Between Warm Molecular Disks in Maser Nuclei and Star Formation Near the Black Hole at the Galactic Center", ApJL, **604**, L45, 2004.

195. Bromm, V., & Loeb, A. "Accretion onto a primordial protostar", New Astronomy, **9**, 353, 2004. [astro-ph/0312458]

194. Wyithe, S., & Loeb, A. "Redshifted 21cm Signatures Around the Highest Redshift Quasars", ApJ, **610**, 117, 2004.

193. Hartmann, D. H., Grindlay, J., Band, D., Blandford, R., Craig, W., Fishman, G. J., Gherles, N., Harrison, F., Hong, J., Kouveliotou, C., Loeb, A., & Woosley, S.E. "Tracing Cosmic Star Formation with EXIST", New Astronomy Reviews, **48**, 237, 2004.

192. Furlanetto, S., & Loeb, A. "Large-Scale Structure Shocks at Low and High Redshifts", ApJ, **611**, 642, 2004.

191. Chuzhoy, L., & Loeb, A. "Element segregation in giant galaxies and X-ray clusters", MNRAS, **349**, L13, 2004.

190. Gao, L., Loeb, A., Peebles, J. P. E., White, S. D. M., & Jenkins, A. "Early Formation and Late Merging of the Giant Galaxies", ApJ, **614**, 17, 2004.

189. Loeb, A., & Zaldarriaga, M. "Measuring the Small-Scale Power Spectrum of Cosmic Density Fluctuations Through 21 cm Tomography Prior to the Epoch of Structure Formation", Phys. Rev. Lett., **92**, 211301, 2004.

188. Loeb, A. "Direct Feeding of the Black Hole at the Galactic Center with Radial Gas Streams from Close-In Stellar Winds", MNRAS, **350**, 725, 2004.

187. Wyithe, S., & Loeb, A. "Detection of Gravitational Waves from the Coalescence of Population-III Remnants with Advanced LIGO", ApJL, **612**, 597, 2004.

186. Loeb, A. "Apparent Deviations from Keplerian Acceleration for Stars Around the Supermassive Black Hole at the Galactic Center", 2003. [astro-ph/0309716]

185. Chatterjee, P., Loeb, A., & Hernquist, L. "Evaporation of Stellar–Mass Black Holes from Globular Star Clusters", 2003.

184. Doré, O., Holder, G. P., & Loeb, A. " The CMB Quadrupole in a Polarized Light", ApJ, **612**, 81, 2004.

183. Pfahl, E. & Loeb, A. "Probing the Spacetime Around SgrA* With Radio Pulsars", ApJ, **615**, 253, 2004.

182. Barkana, R. & Loeb, A. "Unusually Large Fluctuations in the Statistics of Galaxy Formation at High Redshift", ApJ, **609**, 474, 2004.

181. Nagamine, K., & Loeb, A. "Future Evolution of the Intergalactic Medium in a Universe Dominated by a Cosmological Constant", New Astronomy, **9**, 573, 2004.

180. Bromm, V., & Loeb, A. "The Formation of the First Low-Mass Stars From Gas With Low Carbon and Oxygen Abundance", Nature, **425**, 812, 2003.

179. Loeb, A. "Detecting the First Stars, one Star at a Time", Proc. of IAU Colloquim 192 on "Supernovae", April 2003, Valencia, Spain, eds. J. M. Marcaide and K. W. Weiler, 2003. [astro-ph/0307231]

178. Keshet, U., Waxman, E., & Loeb, A., "The Case for a Low Extragalactic Gamma-ray Background", JCAP, **04**, 006, 2004. [astro-ph/0306442]

177. Barkana, R., & Loeb, A., "GRBs versus Quasars: Lyman-α Signatures of Reionization versus Cosmological Infall", ApJ, **601**, 64, 2004.

176. Hartmann, D. H., Grindlay, J., Hong, J., Loeb, A., Blandford, R., Craig, W., Fishman, J., Kouveliotou, C., Gehrels, N., Band, D., Harrison, F., Woosley, S. E., "Observing GRBs with EXIST", in Gamma-Ray Bursts: 30 Years of Discovery: Gamma-Ray Burst Symposium. AIP Conference Proceedings, Vol. 727, held 8-12 September, 2003 in Santa Fe, New Mexico. Edited by E. E. Fenimore and M. Galassi. Melville, NY: American Institute of Physics, p. 67, 2004.

175. Holder, G., & Loeb, A., "A Method for Mapping the Temperature Profile of X-ray Clusters Through Radio Observations", ApJ, **602**, 659, 2004.

174. Loeb, A., "Spectroscopic Constraints on the Surface Magnetic Field of the Accreting Neutron Star EXO 0748-676", Phys. Rev. Lett., **91**, 071103, 2003.

173. Granot, J., & Loeb, A., "Radio Imaging of GRB Jets in Nearby Supernovae", ApJ, **593**, L81, 2003.

172. Wyithe, J. S. B., & Loeb, A., "Self-Regulated Growth of Supermassive Black Holes in Galaxies as the Origin of the Optical and X-ray Luminosity Functions of Quasars", ApJ, **595**, 614, 2003.

171. Santos, M., & Loeb, A., "A Method to Infer the Stellar Population that Dominated the UV Background at the End of Reionization", 2003. [astro-ph/0304130]

170. Loeb, A., & Gaudi, B. S., "Periodic Flux Variability of Stars due to the Reflex Doppler Effect Induced by Planetary Companions", ApJL, **588**, L117, 2003.

169. Wyithe, J. S. B, & Loeb, A., "Was the Universe Reionized by Massive Pop-III Stars?", ApJL, **588**, L69, 2003.

168. Bromm, V., & Loeb, A., "The First Sources of Light", Proc. of 13th Annual October Astrophysics Conference in Maryland, "The Emergence of Cosmic Structure", College Park, October 2002. [astro-ph/0301406]

167. Wang, X., Loeb, A., & Waxman, E., "Stability of an Ultra-Relativistic Blast Wave in an External Medium with a Steep Power-Law Density Profile", ApJ, **594**, 924 2003.

166. Bromm, V., & Loeb, A., "Formation of the First Supermassive Black Holes",ApJ, **596**, 34, 2003.

165. Chatterjee, P., Hernquist, L., & Loeb, A., "Effects of Wandering on the Coalescence of Black Hole Binaries in Galactic Centers", ApJ, **592**, 32, 2003.

164. Wyithe, S., & Loeb, A., "Low-Frequency Gravitational Waves from Massive Black Hole Binaries: Predictions for LISA and Pulsar Timing Arrays", ApJ, **590**, 691, 2003.

163. Furlanetto, S. R., & Loeb, A., "Metal Absorption Lines as Probes of the Intergalactic Medium Prior to the Reionization Epoch", ApJ, **588**, 18, 2003.

162. Loeb, A., & Peebles, P. J. E., "Cosmological Origin of the Stellar Velocity Dispersions in Massive Early-Type Galaxies", ApJ, **589**, 29, 2003.

161. Barkana, R., & Loeb, A., "Spectral Signature of Cosmological Infall Around the First Quasars", Nature, **421**, 341, 2003. [astro-ph/0209515]

160. Wyithe, J. S. B., & Loeb, A., "Reionization of Hydrogen and Helium by Early Stars and Quasars", ApJ, **586**, 693, 2003.

159. Natarajan, P., Loeb, A. Kneib, J.-P., & Smail, I., "Constraints on the Collisional Nature of the Dark Matter from Gravitational Lensing in the Cluster A2218", ApJL, **580**, L17, 2002.

158. Furlanetto, S., & Loeb, A. "The 21cm Forest: Radio Absorption Spectra as a Probe of the Intergalactic Medium Before Reionization", ApJ, **579**, 1, 2002.

157. Wyithe, J. S. B., & Loeb, A., "A Physical Model for the Luminosity Function of High-Redshift Quasars", ApJ, **581**, 886, 2002.

156. Wyithe, J. S. B., & Loeb, A., "Measuring the Size of Quasar Broad-Line Clouds Through Time Delay Light-Curve Anomalies of Gravitational Lenses", ApJ, **577**, 615, 2002.

155. Nagamine, K., & Loeb, A., "Future Evolution of Nearby Large Scale Structure in a Universe Dominated by a Cosmological Constant", New Astronomy, **8**, 439, 2002.

154. Barkana, R., & Loeb, A., "Effective Screening due to Minihalos During the Epoch of Reionization", ApJ, **578**, 1, 2002.

153. Loeb, A., "Are X-ray Clusters Cooled by Heat Conduction to the Surrounding Intergalactic Medium?", New Astronomy, **7**, 279, 2002.

152. Wyithe, S., & Loeb, A., "Gravitational Lensing of the SDSS High-Redshift Quasars", ApJ, **577**, 57, 2002.

151. Furlanetto, S., & Loeb, A., "Identifying Gamma-Ray Burst Remnants Through Positron Annihilation Radiation", ApJ, **569**, L91 , 2002.

150. Wyithe, S., & Loeb, A. "Are the Highest Redshift Quasars Magnified by Gravitational Lensing?", Nature, **417**, 923, 2002. [astro-ph/0203116]

149. Keshet, U., Waxman, E., Loeb, A., Springel, V., & Hernquist, L. "Gamma-Rays from Intergalactic Shocks", ApJ, **585**, 128, 2003.

148. Bromm, V., & Loeb, A. "The Expected Redshift Distribution of Gamma-Ray Bursts", ApJ, **575**, 111, 2002.

147. Furlanetto, S., & Loeb, A. "Emission of Positron Annihilation Line Radiation by Clusters of Galaxies", ApJ, **572**, 796, 2002.

146. Stancil, P. C., Loeb, A., Zaldarriaga, M., Dalgarno, A. and Lepp, S. "Cosmological Recombination of Lithium and its Effect on the Microwave Background Anisotropies", ApJ, **580**, 29, 2002.

145. Loeb, A., & Waxman, E. "Galactic Constraints on the Sources of Ultra-High Energy Cosmic Rays", 2002 [astro-ph/0205272]

144. Heyl, J. S. & Loeb, A. "Vacuum Decay Constraints on a Cosmological Scalar Field", Phys. Rev. Lett., **88**, 121302, 2002.

143. Chatterjee, P., Hernquist, L., & Loeb, A. "Brownian Motion in Gravitationally-Bound Systems", Phys. Rev. Lett., **88**, 121103, 2002.

142. Medvigy, D., & Loeb, A. "Element Diffusion During Cosmological Structure Formation", 2001 [astro-ph/0110014]

141. Wang, X., Loeb, A., & Waxman, E. "Stability of the Forward/Reverse Shock System Formed by the Impact of a Relativistic Fireball on an Ambient Medium", ApJ, **568**, 830, 2002.

140. Loeb, A. "Novel Ways to Probe the Universe with Gamma-Ray Bursts and Quasars", invited contribution to the proceedings of the conference "Lighthouses in the Universe: The Most Luminous Celestial Objects and their use for Cosmology", Garching, August 2001 (Springer-Verlag). [astro-ph/0108432]

139. Loeb, A. "The Long-Term Future of Extragalactic Astronomy", Phys. Rev. D65, 047301, 2002. [astro-ph/0107568]

138. Furlanetto, S., & Loeb, A. "Constraining the Collisional Nature of the Dark Matter Through Observations of Gravitational Wakes", ApJ, **565**, 854, 2002.

137. Chatterjee, P., Hernquist, L., & Loeb, A. " Dynamics of a Massive Black Hole at the Center of a Dense Stellar System", ApJ, **572**, 371 , 2002.

136. Loeb, A. "Cosmological Studies with Gamma-Ray Bursts", chapter for the book "Supernovae and Gamma-Ray Bursters", edited by K. W. Weiler, Springer-Verlag Press, 2001. [astro-ph/0106455]

135. Jimenez, R., & Loeb, A. "Constraining Cosmological Parameters Based on Relative Galaxy Ages", ApJ, **573**, 37, 2002.

134. Zaldarriaga, M., & Loeb, A. "The Imprint of Lithium Recombination on the Microwave Background Anisotropies", ApJ, **564**, 52, 2002.

133. Gaudi, B. S., Granot, J., & Loeb, A. "Microlensing and the Surface Brightness Profile of the Afterglow Image of GRB 000301C ", ApJ, **561**, 178, 2001.

132. Waxman, E., & Loeb, A. "TeV Neutrinos and GeV Photons from Shock Breakout in Supernovae", Phys. Rev. Lett., **87**, 071101, 2001.

131. Loeb, A. "Probing the Universe After Cosmological Recombination Through the Effect of Neutral Lithium on the Microwave Background Anisotropies", ApJ, **555**, L1, 2001.

130. Furlanetto, S. R., & Loeb, A. "Intergalactic Magnetic Fields from Quasar Outflows", ApJ, **556**, 619, 2001.

129. Gaudi, B. S., & Loeb, A. "Resolving the Image of Gamma-Ray Burst Afterglows with Gravitational Microlensing", ApJ, **558**, 643, 2001.

128. Granot, J., & Loeb, A. "Chromatic Signatures in the Microlensing of GRB Afterglows", ApJL, **551**, L63, 2001.

127. Haiman, Z., & Loeb, A. "What is the Highest Plausible Redshift of Luminous Quasars?", ApJL, **552**, 459, 2001.

126. Loeb, A., & Barkana, R., "The Reionization of the Universe by the First Stars and Quasars", Annual Reviews of Astronomy & Astrophysics, **39**, 19–66, 2001. [astro-ph/0010467]

125. Barkana, R., & Loeb, A., "In the Beginning: The First Sources of Light and the Reionization of the Universe", Physics Reports, **349**, 125–238, 2001. [astro-ph/0010468]

124. Loeb, A., Narayan, R., & Raymond, J. C., "Does the Mass Accretion Rate Depend on the Radius of the Accreting Star?", ApJ, **547**, L151, 2001.

123. Wang, X., & Loeb, A., "Emission from Bow Shocks of Beamed Gamma-Ray Bursts", ApJ, **552**, 49, 2001.

122. Alexander, T., & Loeb, A., "Enhanced Microlensing by Stars Around the Black Hole in the Galactic Center", ApJ, **551**, 223, 2001.

121. Medvigy, D., & Loeb, A. "Steady-State Structure of Relativistic Collisionless Shocks", 2000. [astro-ph/0012029]

120. Garnavich, P., Loeb, A., & Stanek, K., "Resolving Gamma-Ray Burst 000301C with a Gravitational Microlens", ApJ, **544**, L11, 2000.

119. Bromm, V., Kudritzki, R. & Loeb, A., "Generic Spectrum and Ionization of a Heavy Initial Mass Function for the First Stars", ApJ, **552**, 464, 2001.

118. Mao, S., & Loeb, A., "Gravitational Microlensing of Gamma-Ray Burst Afterglows by Single and Binary Stars", ApJ, **547**, L97, 2000.

117. Waxman, E. & Loeb, A., "Fluctuations in the Radio Background from Intergalactic Synchrotron Emission", ApJ, **545**, L11, 2000.

116. Loeb, A., & Waxman, E., "Gamma-Ray Background From Structure Formation in the Intergalactic Medium", Nature, **405**, 156, 2000.

115. Ciardi, B., & Loeb, A., "Expected Number and Flux Distribution of Gamma-Ray-Burst Afterglows with High Redshifts", ApJ, **540**, 687, 2000.

114. Barkana, R., & Loeb, A., "Identifying the Reionization Redshift from the Cosmic Star Formation Rate", ApJ, **539**, 20, 2000.

113. Barkana, R., Hogg., D., Loeb, A., & Blandford, R., "Gravitational Lensing of High Redshift Sources", Proc. of "Gravitational Lensing: Recent Progress and Future Goals", Boston University, July 1999; edited by T. G. Brainerd and C. S. Kochanek [astro-ph/0001325]

112. Wood, K., & Loeb, A., "Escape of Ionizing Radiation from High-Redshift Galaxies", ApJ, **545**, 86, 2000.

111. Wang, X., & Loeb, A., "Variability of GRB Afterglows Due to Interstellar Turbulence", ApJ, **535**, 788, 2000.

110. Loeb, A., "The First Sources of Light in the Universe", in ASP Conference Series, **193**, 586, 1999. [astro-ph/9907155]

109. Woods, E., & Loeb, A., "Radio Detection of Old GRB Remnants in the Local Universe", 1999 [astro-ph/9907110]

108. Medvedev, M.V., & Loeb, A., "Generation of Magnetic Fields in the Relativistic Shock of Gamma-Ray Burst Sources", ApJ, **526**, 697, 1999.

107. Haiman, Z., & Loeb, A., "X-Ray Emission from the First Quasars", ApJL, **521**, L9, 1999.

106. Perna, R., Raymond, J., & Loeb, A., "Identifying Gamma-Ray Burst Remnants in Nearby Galaxies", ApJ, **533**, 658, 2000.

105. Woods, E., & Loeb, A., "Constraints on Off-Axis X-Ray Emission from Beamed GRBs", ApJ, **523**, 187, 1999.

104. Rybicki, G. B., & Loeb, A., "Polarization of the Lyα Halos Around Sources Before Cosmological Reionization", ApJ, **520**, L79, 1999.

103. Loeb, A., & Rybicki, G. B., "Scattered Lyman-alpha Radiation Around Sources Before Cosmological Reionization", ApJ, **524**, 527 1999. [astro-ph/9902180]

102. Heyrovsky, D., Sasselov, D., & Loeb, A., "Probing Red Giant Atmospheres with Gravitational Microlensing", ApJ, **543**, 406, 2000.

101. Barkana, R., & Loeb, A., "The Photo-Evaporation of Dwarf Galaxies During Reionization", ApJ, **523**, 54, 1999.

100. Haiman, Z., & Loeb, A., "Empirical Constraints on the First Stars and Quasars", invited contribution to the 9th Annual October Maryland Astrophysics Conference on "After the Dark Ages: When Galaxies Were Young", College Park, Maryland, October 1998. [astro-ph/9811395]

99. Perna, R., & Loeb, A., "Constraining the Beaming of Gamma-Ray Bursts with Radio Surveys", ApJ, **509**, L85 1998.

98. Loeb, A., "Measuring the Virial Temperature of Galactic Halos Through Electron Scattering of Quasar Emission Lines", ApJ, **508**, L115 1998.

97. Waxman, E., & Loeb, A., "A Sub-Relativistic Shock Model for the Radio Emission of SN1998bw", ApJ, **515**, 721, 1999.

96. Haiman, Z. & Loeb, A., "Determining the Redshift of Reionization from the Spectra of High-Redshift Sources", ApJ, **519**, 479, 1999.

95. Loeb, A., "The First Stars and Quasars", invited contribution to Proc. of the 34th Liege International Astrophysics Colloquium on "The Next Generation Space Telescope", June 1998. [astro-ph/9806163]

94. Haiman, H., Madau, P., & Loeb, A., "Constraints from the Hubble Deep Field on High Redshift Quasar Models", ApJ, **514**, 535, 1999. [astro-ph/9805258]

93. Loeb, A. & Perna, R., "Are HI Supershells the Remnants of Gamma-Ray Bursts?", ApJ, **503**, 35, 1998.

92. Perna, R., & Loeb, A., "X-Ray Absorption by the Hot Intergalactic Medium", ApJL, **503**, 135, 1998.

91. Woods, E., & Loeb, A., "The Expected Rate of Gamma-Ray Burst Afterglows In Supernova Searches", ApJL, **508**, 760, 1998. [astro-ph/9803249]

90. Loeb, A., "Direct Measurement of Cosmological Parameters from the Cosmic Deceleration of Extragalactic Objects", ApJL, **499**, 111, 1998.

89. Pen, U., Loeb, A., & Turok, N., "Gamma Ray Bursts from Baryon Decay in Neutron Stars", ApJ, **509**, 537, 1998. [astro-ph/9712178]

88. Perna, R., & Loeb, A., "Identifying the Environment and Redshift of GRB Afterglows from the Time-Dependence of Their Absorption Spectra", ApJ, **501**, 467, 1998.

87. Bartelmann, M., & Loeb, A., "Effects of Disks on Gravitational Lensing by Spiral Galaxies", ApJ, **503**, 48, 1998.

86. Pilla, R., & Loeb, A., "Spectral Implications of Variability in GRB Fireballs", to appear in Proc. of the VIII Marcel Grossman Meeting on General Relativity, Jerusalem, 1997. [astro-ph/9710293]

85. Pilla, R., & Loeb, A., "Emission Spectra from Internal Shocks in Gamma-Ray-Burst Sources", ApJL, **494**, 167, 1998.

84. Haiman, Z., & Loeb, A., "Observational Signatures of the First Quasars", ApJ, **503**, 505, 1998.

83. Loeb, A., & Perna, R., "Microlensing of Gamma-Ray Burst Afterglows", ApJL, **495**, 597, 1998.

82. Fox, D., & Loeb, A., "Do the Electrons and Ions in X-ray Clusters Share the Same Temperature?", ApJ, **491**, 459, 1997.

81. Perna, R., & Loeb, A., "Probing the Mass Fraction of MACHOs in Extragalactic Halos", ApJ, **493**, 523, 1998.

80. Perna, R., Loeb, A., & Bartelmann, M. "Effects of Dust on Gravitational Lensing by Spiral Galaxies", ApJ, **488**, 550, 1997.

79. Haiman, Z., & Loeb, A., " Detection of the First Star Clusters with NGST", contribution to "Science with the Next Generation Telescope", eds. E. P. Smith A. Koratker, ASP Conf. Series, (ASP, San Francisco), 133, 251-256, 1998. [astro-ph/9705144]

78. Loeb, A., "The First Stars and Quasars in the Universe", in "Science with the NGST", eds. E. P. Smith A. Koratkar, ASP Conf. Series, (ASP, San Francisco), 133, 73-86, 1998. [astro-ph/9704290]

77. Loeb, A. & Haiman, Z., "Signatures of Intergalactic Dust from the First Supernovae", ApJL, **490**, L571, 1997.

76. Kamionkowski, M. & Loeb, A., "Getting Around Cosmic Variance", Physical Review D, **56**, 4511, 1997.

75. Loeb, A., & Ulmer, A., "Optical Appearance of the Debris of a Star Disrupted by a Massive Black Hole", ApJ, **489**, 573, 1997.

74. Woods, E., & Loeb, A., "Constraints on Galaxy Evolution and the Cosmological Constant from Damped Ly-alpha Absorbers", 1997. [astro-ph/9703076]

73. Heyrovsky, D., & Loeb, A., "Microlensing of an Elliptical Source by a Point Mass", ApJ, **490**, 38, 1997.

72. Haiman, Z. & Loeb, A., "Formation and Signatures of the First Stars", to appear in the Proceedings of the 18th Texas Symposium on Relativistic Astrophysics, Chicago, 1997, eds. A. Olinto, J. Frieman, D. Schramm, (World Scientific). [astro-ph/9701239]

71. Perna, R. & Loeb, A., "Microlensing of Quasars by Stars Within Their Damped Lyα Absorbers", ApJ, **489**, 489, 1997.

70. Loeb, A., "Gravitational Lensing of Quasars by Spiral Galaxies", to appear in the Proceedings of the 18th Texas Symposium on Relativistic Astrophysics, Chicago, 1997, eds. A. Olinto, J. Frieman D. Schramm, (World Scientific). [astro-ph/9701100]

69. Haiman, Z., & Loeb, A., "Signatures of Stellar Reionization of the Universe", ApJ, **483**, 21, 1997.

68. Refregier, A., & Loeb, A., "Gravitational Lensing of the X-Ray Background by Clusters of Galaxies", ApJ, **478**, 476, 1997.

67. Loeb, A., & Refregier, A., "Effect of Gravitational Lensing on Measurements of the Sunyaev-Zel'dovich Effect", ApJL, **476**, L59, 1997.

66. Haiman, Z., Rees, M. J., & Loeb, A., "Destruction of Molecular Hydrogen During Cosmological Reionization", ApJ, **476**, 458, 1997.

65. Eisenstein, D. J., Loeb, A., & Turner, E. L., "Dynamical Mass Estimates of Large-Scale Filaments From Redshift Surveys," ApJ, **475**, 421, 1997.

64. Loeb, A., "Microwave Background Anisotropies Due to the Kinematic Sunyaev-Zeldovich Effect of the Lyα Forest," ApJ, **471**, L1, 1996.

63. Kosowsky, A., & Loeb, A., "Faraday Rotation of the Microwave Background Polarization By a Primordial Magnetic Field," ApJ, **469**, 1, 1996.

62. Haiman, Z., Rees, M., & Loeb, A., "H_2 Cooling of Primordial Gas Triggered by UV Irradiation," ApJ, **467**, 522, 1996.

61. Haiman, Z., Thoul, A. A., & Loeb, A., "Cosmological Formation of Low–Mass Objects," ApJ, **464**, 523, 1996.

60. Loeb, A., "Contribution of Bremsstrahlung Emission from Lyα Clouds to the Microwave Background Fluctuations," ApJ, **459**, L5, 1996.

59. Eisenstein, D. J., & Loeb, A., "Can the Tully–Fisher Relation Be the Result of Initial Conditions?," ApJ, **459**, 432, 1996.

58. Bartelmann, M., & Loeb, A., "Gravitational Lensing of Quasars by Their Damped Lyα Absorbers," ApJ, **457**, 529, 1996.

57. Loeb, A., "Cosmological Origin of Quasars", eds. H. Böhringer, G. E. Morfill, J. E. Trümper, Ann. N.Y. Acad. Sci., **759**, 558, 1995.

56. Refregier, A., & Loeb, A., "Probing Cluster Potentials through Gravitational Lensing of Background X-Ray Sources", in Proc. of "Roentgenstrahlung from the Universe", Wuerzburg, Germany, eds. Zimmermann, U.H., et al. (Garching:MPE), 611, 1995. [preprint astro-ph/9512039].

55. Woods, E., & Loeb, A., "Empirical Constraints on Source Properties and Host Galaxies of Cosmological Gamma-Ray Bursts," ApJ, **453**, 583, 1995.

54. Kumar, P., Narayan, R., & Loeb, A., "On the Interaction of Convection and Rotation in Stars," ApJ, **453**, 480, 1995.

53. Ryu, D., Brown, G., Ostriker, J. P., & Loeb, A., "Stable and Unstable Accretion Flows with Angular Momentum near a Point Mass," ApJ, **452**, 364, 1995.

52. Loeb, A., & Sasselov, D., "Removing the Degeneracy of Microlensing Light Curves Through Narrow Band Photometry of Giants," ApJ, **449**, 33L, 1995.

51. Loeb, A., & Eisenstein, D. J., "Probing Early Clustering Through Lyα Absorption Lines Beyond the Quasar Redshift," ApJ, **448**, 17, 1995.

50. Eisenstein, D. J., & Loeb, A., "Origin of Quasar Progenitors from the Collapse of Low-Spin Cosmological Perturbations," ApJ, **443**, 11, 1995.

49. Eisenstein, D. J., & Loeb, A., "An Analytical Model for the Triaxial Collapse of Cosmological Perturbations," ApJ, **439**, 520, 1995.

48. Loeb, A., & Mao, S., 1994, "Evidence From Gravitational Lensing for a Non-Thermal Pressure Support In the Cluster of Galaxies Abell 2218," ApJ, **435**, L109, 1994.

47. Loeb, A., & Rasio, F.A., "Collapse of Primordial Gas Clouds and the Formation of Quasar Black Holes," ApJ, **432**, 52, 1994.

46. Narayan, R., Loeb, A., & Kumar, P., "Causality in Strong Shear Flows," ApJ, **431**, 359, 1994.

45. Woods, E. & Loeb, A., "Empirical Constraints on Cosmological Gamma-ray Bursts," ApJ, **425**, L63, 1994.

44. Thoul, A. A., Bahcall, J. N., & Loeb, A., "Element Diffusion in the Solar Interior," ApJ, **421**, 828, 1994.

43. Umemura, M., Fukushige, T. Makino, J., Ebisuzaki, T., Sugimoto, D., Turner, E. L., & Loeb, A., "Smooth Particle Hydrodynamics on GRAPE-1," Publ. Astron. Soc. Jap., **45**, 311, 1993.

42. Umemura, M., Loeb, A., & Turner, E.L., "Early Cosmic Formation of Massive Black Holes," ApJ, **419**, 459, 1993.

41. Loeb, A., "Are Gamma-Ray Bursts at Cosmological Distances Optically-Thin?," Phys. Rev. D, **48**, 3419, 1993.

40. Loeb, A., "Finding Proto–Quasars At High Redshifts," ApJ, **404**, L37, 1993.

39. Dar, A., Laor, A., Loeb, A., "Constraints on the Cosmic Rays in the Small Magellanic Cloud," Phys. Rev. Lett., **71**, 3394, 1993.

38. Loeb, A., "Cosmological Formation of Quasar Black Holes," ApJ, **403**, 542, 1993.

37. Loeb, A. & Ostriker, J. P., "Production of a Soft Cosmic x-ray Background During Structure Formation in The Intergalactic Medium," unpublished, Institute for Advanced Study Preprint IASSNS-AST/92, 1992.

36. Gould, A. & Loeb, A., "Discovering Planetary Systems Through Gravitational Microlenses," ApJ, **396**, 104, 1992.

35. Richstone, D., Loeb, A., & Turner, E. L., "A Lower Limit on the Cosmic Mean Density From the Ages of Clusters of Galaxies," ApJ, **393**, 477, 1992.

34. Loeb, A. & Laor, A., "Accretion Flows Near Black Holes Mediated By Radiative Viscosity," ApJ, **384**, 115, 1992.

33. Kulsrud, R., & Loeb, A. "Dynamics and Gravitational Interaction of Waves in Non-uniform Media," Phys. Rev. D, **45**, 525, 1992.

32. Loeb, A., McKee, C. F., & Lahav, O., "Unsaturated Comptonization of Isotropic Photon Spectra by Relativistic Electrons," ApJ, **374**, 44, 1991.

31. Loeb, A., "The Diffuse X-ray Background and the Intergalactic Medium," in *After the first three minutes*, Eds. S. Holt et al., AIP Proc. 222, (New-York, 1991), pp. 329-338.

30. Loeb, A. & Starkman, G. D., "A Detector For the Cosmic Neutrino Background," Nucl. Phys. B, Proc. Suppl., **19**, 241, 1990.

29. Daly, R., & Loeb, A., "A Possible Origin of Galactic Magnetic Fields," ApJ, **364**, 451, 1990.

28. Bahcall, J. N., & Loeb, A., "Element Diffusion in Stellar Interiors," ApJ, **360**, 267, 1990.

27. Loeb, A., "Bound Neutrino Sphere and Spontaneous Neutrino Pair Creation in Cold Neutron Stars," Phys. Rev. Lett., **64**, 115, 1989.

26. Lahav, O., Loeb, A., & McKee, C. F., "Constraints on a Hot Intergalactic Medium From the X-Ray and Submillimeter Backgrounds," ApJ, **349**, L9, 1989.

25. Loeb, A. & Stodolsky, L., "Relativistic Spin Relaxation in Stochastic Electromagnetic Fields," Phys. Rev. D, **40**, 3520, 1989.

24. Quashnock, J., Loeb, A., & Spergel, D.N., "Magnetic Field Generation During the Cosmological QCD Phase Transition," ApJ, **344**, L49, 1989.

23. Loeb, A., "Collisional Incoherence in Neutrino Line Emission," Phys., Rev. D, **39**, 1009, 1989.

22. Loeb, A., Bahcall, J. N., & Milgrom, M., "The Magnitude of ^{3}He Diffusion in the Sun," ApJ, **341**, 1108, 1989.

21. Dar, A., Loeb, A., & Nussinov, S., "Could Unstable Relic Particles Distort the Microwave Background Radiation?," ApJ, **338**, L41, 1989.

20. Kanter, M., Michael, G., Kaplan, Z., & Loeb, A., "Inductive Programmed Generator for Electrothermal Launchers," IEEE Trans. on Magnetics, **25**, 1988.

19. Spector, N., Kaplan, Z., Loeb, A., Brill, B., & Levinson, J., "Confined High Pressure Discharge: Experiments," IEEE Trans. on Magnetics, **25**, 538, 1988.

18. Loeb, A. & Kaplan, Z., "A Theoretical Model for the Physical Processes in the Confined High Pressure Discharge in Electrothermal Launchers," IEEE Trans. on Magnetics, **25**, 342, 1989.

17. Levinson, J., Spector, N., Appelbaum, G., Loeb, A., Kaplan, Z., & Arad, B., "Velocity Measurements of Dense Plasma Jets Produced in Capillary Discharges," J. Phys. D, 1988.

16. Spector, N., Levinson, Y., Loeb, A., & Kaplan, Z., "Spectroscopic Diagnostics of the Characteristics of an Electrothermal Free Jet Plasma," J. Phys. D, 1988.

15. Loeb, A., "The Electromagnetic Characteristics of the Dynamics of a Self-gravitating Quasi-neutral Plasma," Phys. Rev. D, **37**, 3484, 1988.

14. Eliezer, S., & Loeb, A., "The Use of Magnetic Fields in Laser Produced Plasmas for Free Electron Laser and Acceleration of Particles," in *Advanced Accelerator Concepts*, ed. F. E. Mills (AIP: New York), **156**, 170, 1987.

13. Loeb, A., & Friedland, L., "The Nonlinear Dynamics of Dense Electron Beams in the Autoresonance Laser Accelerator," Phys. Lett. A, **129**, 329, 1988.

12. Eliezer, S., & Loeb, A., "A Gamma-ray Laser in a Positronium Medium," *Laser Interactions and Related Plasma Phenomena*, eds. H. Hora and G. H. Miley, **8** (1988).

11. Spergel, D. N., Piran, T., Loeb, A., Goodman, J., & Bahcall, J. N., "A Model for Neutrino Cooling of the LMC Supernova," Science, **237**, 1471, 1987.

10. Loeb, A., Friedland, L., & Eliezer, S. "Acceleration of Electron Positron Plasmas to High Energies," IEEE Trans. on Plasma Sci., **PS-15**, 238, 1987.

9. Loeb, A., Friedland, L., & Eliezer, S. "Autoresonance Laser Acceleration of Guided 'Quasi-neutral' Electron Positron Beams," Phys. Rev. A, **35**, 1692, 1987.

8. Loeb, A. (with 12 co-authors), "Double Layers in Laser Produced Plasmas," *Laser Interactions and Related Plasma Phenomena*, eds. H. Hora and G. H. Miley, **7**, 329 (1986).

7. Loeb, A. (with 12 co-authors), "The Evolution of Strong Shock Waves Produced by a Trapezoidal Laser Pulse," *Laser Interactions and Related Plasma Phenomena*, eds. H. Hora and G. H. Miley, **7**, 279 (1986).

6. Loeb, A., & Eliezer, S., "Free Electron Laser and Laser Electron Accelerations Based on the Mega-Gauss Magnetic Fields in Laser Produced Plasmas," Phys. Rev. Lett., **56**, 2252, 1986.

5. Eliezer, S., & Loeb, A., "Two-dimensional Analytical Considerations of large Magnetic and Electric Fields in Laser Produced Plasmas," Laser and Particle Beams, **4**, 249, 1986.

4. Loeb, A., & Friedland, L., "Autoresonance Laser Accelerator," Phys. Rev. A, **33**, 1828, 1986.

3. Loeb, A., Loebenstein, M., Ludmirsky, A., Eliezer, S., Maman, S., & Gazit, Y. "Point Explosion Simulation by Fast Spark Discharges," J. Ap. Phys., **57**, 2501, 1985.

2. Zigler, A., Ludmirsky, A., Loeb, A., Borowitz, J. L., Eliezer, S., Givon, M., Gazit, Y., Jackel, S., Krumbein, A. D., Rosenblum, M., & Arad, B., "Deposition of Energy Outside the Focal Spot as observed in the Rear Surface of Laser Irradiated Targets," Phys. Lett., **112A**, 223, 1985.

1. Loeb, A., & Eliezer, S., "An Analytical Model for Creation and Decay of Strong Shock Waves Caused by a Trapezoidal Laser Pulse," Phys. Fluids, **28**, 1196, 1985.

Patent

"A Method and Apparatus for Accelerating Masses to High Velocities", by Z. Kaplan, A. Loeb & G. Engler, 1988.
"Low Specific Mass Space Power System", by T.F. Sheerin, & A. Loeb, 2020.