

CURRICULUM VITAE

Abraham Loeb

Field of Research: Theoretical Astrophysics and Cosmology

Family: Married to Dr. Ofrit Liviatan and father to daughters Klil and Lotem

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Harvard University
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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.

2007– 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– 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– 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 Mag-

azine.

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 Professor 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 Bitner (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. Kansas), 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).

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 Milkmeda”*, 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

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). [arXiv:2510.01405]
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).
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