# Matthew J Lehner

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 94 papers | 4,975 citations | 94381 37 h-index | 91828 69 g-index |
| 99 all docs | 99 docs citations | 99 times ranked | 3798 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The MACHO Project: Microlensing Results from 5.7 Years of Large Magellanic Cloud Observations. Astrophysical Journal, 2000, 542, 281-307. | 1.6 | 752 |
| 2 | The MACHO Project Large Magellanic Cloud Microlensing Results from the First Two Years and the Nature of the Galactic Dark Halo. Astrophysical Journal, 1997, 486, 697-726. | 1.6 | 440 |
| 3 | MACHO Project Limits on Black Hole Dark Matter in the 1â€“30 [ITAL]M[/ITAL][TINF]âŠ™[/TINF] Range. Astrophysical Journal, 2001, 550, L169-L172. | 1.6 | 271 |
| 4 | The MACHO Project: Microlensing Optical Depth toward the Galactic Bulge from Difference Image Analysis. Astrophysical Journal, 2000, 541, 734-766. | 1.6 | 153 |
| 5 | EROS and MACHO Combined Limits on Planetary-Mass Dark Matter in the Galactic Halo. Astrophysical Journal, 1998, 499, L9-L12. | 1.6 | 143 |
| 6 | MACHO Alert 95â€30: First Realâ€Time Observation of Extended Source Effects in Gravitational Microlensing. Astrophysical Journal, 1997, 491, 436-450. | 1.6 | 131 |
| 7 | New Limits on Primordial Black Hole Dark Matter from an Analysis of Kepler Source Microlensing Data. Physical Review Letters, 2013, 111, 181302. | 2.9 | 130 |
| 8 | Microlensing Optical Depth toward the Galactic Bulge Using Clump Giants from the MACHO Survey. Astrophysical Journal, 2005, 631, 879-905. | 1.6 | 114 |
| 9 | Gravitational Microlensing Events Due to Stellarâ€Mass Black Holes. Astrophysical Journal, 2002, 579, 639-659. | 1.6 | 108 |
| 10 | OSSOS. VII. 800+ Trans-Neptunian Objectsâ€”The Complete Data Release. Astrophysical Journal, Supplement Series, 2018, 236, 18. | 3.0 | 108 |
| 11 | THE OUTER SOLAR SYSTEM ORIGINS SURVEY. I. DESIGN AND FIRST-QUARTER DISCOVERIES. Astronomical Journal, 2016, 152, 70. | 1.9 | 105 |
| 12 | EXPERIMENTAL LIMITS ON PRIMORDIAL BLACK HOLE DARK MATTER FROM THE FIRST 2 YR OFKEPLERDATA. Astrophysical Journal, 2014, 786, 158. | 1.6 | 102 |
| 13 | Combined Analysis of the Binary Lens Causticâ€crossing Event MACHO 98â€SMCâ€1. Astrophysical Journal, 2000, 532, 340-352. | 1.6 | 99 |
| 14 | First limits on nuclear recoil events from the ZEPLIN I galactic dark matter detector. Astroparticle Physics, 2005, 23, 444-462. | 1.9 | 96 |
| 15 | Col-OSSOS: Colors of the Interstellar Planetesimal 1I/â€˜Oumuamua. Astrophysical Journal Letters, 2017, 851, L38. | 3.0 | 96 |
| 16 | Limits on WIMP cross-sections from the NAIAD experiment at the Boulby Underground Laboratory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 616, 17-24. | 1.5 | 93 |
| 17 | The MACHO Project Large Magellanic Cloud Variable Star Inventory. XI. Frequency Analysis of the Fundamentalâ€Mode RR Lyrae Stars. Astrophysical Journal, 2003, 598, 597-609. | 1.6 | 92 |
| 18 | Binary Microlensing Events from the MACHO Project. Astrophysical Journal, 2000, 541, 270-297. | 1.6 | 91 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The MACHO Project 9 Million Star Color-Magnitude Diagram of the Large Magellanic Cloud. Astronomical Journal, 2000, 119, 2194-2213. | 1.9 | 83 |
| 20 | Variability-selected Quasars in MACHO Project Magellanic Cloud Fields. Astronomical Journal, 2003, 125, 1-12. | 1.9 | 82 |
| 21 | The MACHO Project LMC Variable Star Inventory. VII. The Discovery of RV Tauri Stars and New Type II Cepheids in the Large Magellanic Cloud. Astronomical Journal, 1998, 115, 1921-1933. | 1.9 | 79 |
| 22 | Repetitive patterns in rapid optical variations in the nearby black-hole binary V404 Cygni. Nature, 2016, 529, 54-58. | 13.7 | 71 |
| 23 | DISCOVERY OF A NEW RETROGRADE TRANS-NEPTUNIAN OBJECT: HINT OF A COMMON ORBITAL PLANE FOR LOW SEMIMAJOR AXIS, HIGH-INCLINATION TNOs AND CENTAURS. Astrophysical Journal Letters, 2016, 827, L24. | 3.0 | 70 |
| 24 | The MACHO Project LMC Variable Star Inventory.V.Classification and Orbits of 611 Eclipsing Binary Stars. Astronomical Journal, 1997, 114, 326. | 1.9 | 69 |
| 25 | The MACHO Project LMC Variable Star Inventory. X. The R Coronae Borealis Stars. Astrophysical Journal, 2001, 554, 298-315. | 1.6 | 69 |
| 26 | All planetesimals born near the Kuiper belt formed as binaries. Nature Astronomy, 2017, 1, . | 4.2 | 63 |
| 27 | The MACHO Project Large Magellanic Cloud Variable Star Inventory. III. Multimode RR Lyrae Stars, Distance to the Large Magellanic Cloud, and Age of the Oldest Stars. Astrophysical Journal, 1997, 482, 89-97. | 1.6 | 60 |
| 28 | First Detection of a Gravitational Microlensing Candidate toward the Small Magellanic Cloud. Astrophysical Journal, 1997, 491, L11-L13. | 1.6 | 58 |
| 29 | The MACHO Project: Microlensing Detection Efficiency. Astrophysical Journal, Supplement Series, 2001, 136, 439-462. | 3.0 | 57 |
| 30 | The RR Lyrae Population of the Galactic Bulge from the MACHO Database: Mean Colors and Magnitudes. Astrophysical Journal, 1998, 492, 190-199. | 1.6 | 55 |
| 31 | Massâ€losing Semiregular Variable Stars in Baadeâ€™s Windows. Astrophysical Journal, 2001, 552, 289-308. | 1.6 | 50 |
| 32 | Detectability of Occultations of Stars by Objects in the Kuiper Belt and Oort Cloud. Astronomical Journal, 2007, 134, 1596-1612. | 1.9 | 47 |
| 33 | Difference Image Analysis of Galactic Microlensing. I. Data Analysis. Astrophysical Journal, 1999, 521, 602-612. | 1.6 | 45 |
| 34 | Col-OSSOS: z-Band Photometry Reveals Three Distinct TNO Surface Types. Astronomical Journal, 2017, 154, 101. | 1.9 | 44 |
| 35 | THE TAOS PROJECT: RESULTS FROM SEVEN YEARS OF SURVEY DATA. Astronomical Journal, 2013, 146, 14. | 1.9 | 42 |
| 36 | Discovery and Characterization of a Caustic Crossing Microlensing Event in the Small Magellanic Cloud. Astrophysical Journal, 1999, 518, 44-49. | 1.6 | 40 |

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|---|---|---|---|
| 37 | The MACHO Project LMC Variable Star Inventory. VI. The Second Overtone Mode of Cepheid Pulsation from First/Second Overtone Beat Cepheids. Astrophysical Journal, 1999, 511, 185-192. | 1.6 | 39 |
| 38 | Is the Large Magellanic Cloud Microlensing Due to an Intervening Dwarf Galaxy?. Astrophysical Journal, 1997, 490, L59-L63. | 1.6 | 37 |
| 39 | The MACHO ProjectHubble Space TelescopeFollowâ€Up: Preliminary Results on the Location of the Large Magellanic Cloud Microlensing Source Stars. Astrophysical Journal, 2001, 552, 582-590. | 1.6 | 37 |
| 40 | The MACHO Project Large Magellanic Cloud Variable-Star Inventory. XIII. Fourier Parameters for the First-Overtone RR Lyrae Variables and the LMC Distance. Astronomical Journal, 2004, 127, 334-354. | 1.9 | 36 |
| 41 | THE TAOS PROJECT: UPPER BOUNDS ON THE POPULATION OF SMALL KUIPER BELT OBJECTS AND TESTS OF MODELS OF FORMATION AND EVOLUTION OF THE OUTER SOLAR SYSTEM. Astronomical Journal, 2010, 139, 1499-1514. | 1.9 | 34 |
| 42 | MACHO 96â€LMCâ€2: Lensing of a Binary Source in the Large Magellanic Cloud and Constraints on the Lensing Object. Astrophysical Journal, 2001, 552, 259-267. | 1.6 | 32 |
| 43 | Col-OSSOS: The Colors of the Outer Solar System Origins Survey. Astrophysical Journal, Supplement Series, 2019, 243, 12. | 3.0 | 31 |
| 44 | A SEARCH FOR OCCULTATIONS OF BRIGHT STARS BY SMALL KUIPER BELT OBJECTS USING MEGACAM ON THE MMT. Astronomical Journal, 2009, 138, 568-578. | 1.9 | 30 |
| 45 | The MACHO Project Large Magellanic Cloud Variable Star Inventory. XII. Three Cepheid Variables in Eclipsing Binaries. Astrophysical Journal, 2002, 573, 338-350. | 1.6 | 27 |
| 46 | The Taiwanese-American Occultation Survey: The Multi-Telescope Robotic Observatory. Publications of the Astronomical Society of the Pacific, 2009, 121, 138-152. | 1.0 | 26 |
| 47 | Col-OSSOS: Color and Inclination Are Correlated throughout the Kuiper Belt. Astronomical Journal, 2019, 157, 94. | 1.9 | 26 |
| 48 | Galactic Bulge Microlensing Events from the MACHO Collaboration. Astrophysical Journal, 2005, 631, 906-934. | 1.6 | 24 |
| 49 | Microlensing of Kepler Stars as a Method of Detecting Primordial Black Hole Dark Matter. Physical Review Letters, 2011, 107, 231101. | 2.9 | 24 |
| 50 | First Results from the Taiwanese-American Occultation Survey (TAOS). Astrophysical Journal, 2008, 685, L157-L160. | 1.6 | 22 |
| 51 | Difference Image Analysis of Galactic Microlensing. II. Microlensing Events. Astrophysical Journal, Supplement Series, 1999, 124, 171-179. | 3.0 | 21 |
| 52 | The MACHO Project Sample of Galactic Bulge Highâ€Amplitude Î´ Scuti Stars: Pulsation Behavior and Stellar Properties. Astrophysical Journal, 2000, 536, 798-815. | 1.6 | 21 |
| 53 | The Zero Point of Extinction toward Baade's Window from RR Lyrae Stars. Astrophysical Journal, 1998, 494, 396-399. | 1.6 | 19 |
| 54 | TAOS: The Taiwaneseâ€“American Occultation Survey. Earth, Moon and Planets, 2003, 92, 459-464. | 0.3 | 17 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | OSSOS. IV. DISCOVERY OF A DWARF PLANET CANDIDATE IN THE 9:2 RESONANCE WITH NEPTUNE. Astronomical Journal, 2016, 152, 212. | 1.9 | 17 |
| 56 | The Transneptunian Automated Occultation Survey (TAOS II). Proceedings of SPIE, 2012, , . | 0.8 | 16 |
| 57 | UPPER LIMITS ON THE NUMBER OF SMALL BODIES IN SEDNA-LIKE ORBITS BY THE TAOS PROJECT. Astronomical Journal, 2009, 138, 1893-1901. | 1.9 | 15 |
| 58 | Searching for moving objects in HSC-SSP: Pipeline and preliminary results. Publication of the Astronomical Society of Japan, 2018, 70, . | 1.0 | 14 |
| 59 | Astrometry with the MACHO Data Archive. I. High Proper Motion Stars toward the Galactic Bulge and Magellanic Clouds. Astrophysical Journal, 2001, 562, 337-347. | 1.6 | 13 |
| 60 | GRB 071112C: A CASE STUDY OF DIFFERENT MECHANISMS IN X-RAY AND OPTICAL TEMPORAL EVOLUTION. Astrophysical Journal, 2012, 748, 44. | 1.6 | 12 |
| 61 | Early Optical Brightening in GRB 071010B. Astrophysical Journal, 2008, 679, L5-L8. | 1.6 | 11 |
| 62 | FOSSIL. I. The Spin Rate Limit of Jupiter Trojans. Planetary Science Journal, 2021, 2, 191. | 1.5 | 11 |
| 63 | OSSOS. XVIII. Constraining Migration Models with the 2:1 Resonance Using the Outer Solar System Origins Survey. Astronomical Journal, 2019, 158, 214. | 1.9 | 10 |
| 64 | The TAOS Project: High-Speed Crowded Field Aperture Photometry. Publications of the Astronomical Society of the Pacific, 2009, 121, 1429-1439. | 1.0 | 9 |
| 65 | The TAOS Project: Statistical Analysis of Multi-Telescope Time Series Data. Publications of the Astronomical Society of the Pacific, 2010, 122, 959-975. | 1.0 | 9 |
| 66 | Status of the Transneptunian Automated Occultation Survey (TAOS II). Proceedings of SPIE, 2016, , . | 0.8 | 9 |
| 67 | THE TAIWAN-AMERICAN OCCULTATION SURVEY PROJECT STELLAR VARIABILITY. I. DETECTION OF LOW-AMPLITUDE Î´ SCUTI STARS. Astronomical Journal, 2010, 139, 757-764. | 1.9 | 8 |
| 68 | The Contribution of Dwarf Planets to the Origin of Jupiter Family Comets. Astronomical Journal, 2019, 158, 184. | 1.9 | 8 |
| 69 | TAOS â€“ The Taiwanese-American Occultation Survey. Astronomische Nachrichten, 2006, 327, 814-817. | 0.6 | 7 |
| 70 | THE TAIWANESE-AMERICAN OCCULTATION SURVEY PROJECT STELLAR VARIABILITY. II. DETECTION OF 15 VARIABLE STARS. Astronomical Journal, 2010, 139, 2026-2033. | 1.9 | 7 |
| 71 | Status of the Transneptunian Automated Occultation Survey (TAOS II). Proceedings of SPIE, 2014, , . | 0.8 | 7 |
| 72 | OSSOS. XII. Variability Studies of 65 Trans-Neptunian Objects Using the Hyper Suprime-Cam. Astrophysical Journal, Supplement Series, 2019, 244, 19. | 3.0 | 7 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | The prototype cameras for trans-Neptunian automatic occultation survey. Proceedings of SPIE, 2016, , . | 0.8 | 7 |
| 74 | Simultaneous Detection of Optical Flares of the Magnetically Active M-dwarf Wolf359. Astronomical Journal, 2022, 163, 164. | 1.9 | 7 |
| 75 | A 9 megapixel large-area back-thinned CMOS sensor with high sensitivity and high frame-rate for the TAOS II program. Proceedings of SPIE, 2016, , . | 0.8 | 6 |
| 76 | The TAOS II Survey: Real-time Detection and Characterization of Occultation Events. Publications of the Astronomical Society of the Pacific, 2021, 133, 034503. | 1.0 | 5 |
| 77 | Col-OSSOS: The Distinct Color Distribution of Single and Binary Cold Classical KBOs. Planetary Science Journal, 2021, 2, 90. | 1.5 | 5 |
| 78 | Characteristic of e2v CMOS sensors for astronomical applications. Proceedings of SPIE, 2014, , . | 0.8 | 4 |
| 79 | The MACHO Project: Microlensing Optical Depth toward the Galactic Bulge from Difference Image Analysis. Astrophysical Journal, 2001, 557, 1035-1035. | 1.6 | 4 |
| 80 | Nuclear recoil limits from the ZEPLIN I liquid xenon WIMP dark matter detector. New Astronomy Reviews, 2005, 49, 245-249. | 5.2 | 3 |
| 81 | Operating a heterogeneous telescope network. , 2006, , . | | 3 |
| 82 | Wide-field photometry at 20 Hz for the TAOS II Project. , 2012, , . | | 3 |
| 83 | High speed wide field CMOS camera for Transneptunian Automatic Occultation Survey. , 2014, , . | | 3 |
| 84 | Status of the Transneptunian Automated Occultation Survey (TAOS II). , 2018, , . | | 3 |
| 85 | OSSOS. XXIII. 2013 VZ<sub>70</sub> and the Temporary Coorbitals of the Giant Planets. Planetary Science Journal, 2021, 2, 212. | 1.5 | 3 |
| 86 | Col-OSSOS: Probing Ice Line/Color Transitions within the Kuiper Beltâ€™s Progenitor Populations. Planetary Science Journal, 2022, 3, 9. | 1.5 | 3 |
| 87 | FOSSIL. II. The Rotation Periods of Small-sized Hilda Asteroids. Astrophysical Journal, Supplement Series, 2022, 259, 7. | 3.0 | 3 |
| 88 | â€œThe MACHO Project: 45 Candidate Microlensing Events from the Firstâ€Year Galactic Bulge Data. Astrophysical Journal, 1998, 500, 522-523. | 1.6 | 2 |
| 89 | Long-term Dynamical Stability in the Outer Solar System. I. The Regular and Chaotic Evolution of the 34 Largest Trans-Neptunian Objects. Astronomical Journal, 2021, 162, 164. | 1.9 | 2 |
| 90 | A Close Binary Star Resolved from Occultation by 87 Sylvia. Publications of the Astronomical Society of the Pacific, 2009, 121, 359-364. | 1.0 | 1 |

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|---|---|---|---|
| 91 | THE TAIWANESE-AMERICAN OCCULTATION SURVEY PROJECT STELLAR VARIABILITY. III. DETECTION OF 58 NEW VARIABLE STARS. Astronomical Journal, 2014, 147, 70. | 1.9 | 1 |
| 92 | STATUS OF THE TAOS PROJECT AND A SIMULATOR FOR TNO OCCULTATION. , 2006, , 345-358. | | 1 |
| 93 | 2018 August 15 stellar occultation by minor planet (134340) Pluto. Monthly Notices of the Royal Astronomical Society, 2022, 511, 5550-5559. | 1.6 | 1 |
| 94 | Recent results of the dark matter search with NaI(T1) detectors at boulby mine. Nuclear Physics, Section B, Proceedings Supplements, 2003, 124, 193-196. | 0.5 | 0 |