

Lisa Kaltenegger

List of Publications by Year in descending order

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139
papers

9,791
citations

47006

47
h-index

39675

94
g-index

142
all docs

142
docs citations

142
times ranked

6146
citing authors

#	ARTICLE	IF	CITATIONS
1	Transiting Exoplanet Survey Satellite. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2014, 1, 014003.	1.8	2,300
2	Transiting Exoplanet Survey Satellite (TESS). <i>Proceedings of SPIE</i> , 2014, , .	0.8	566
3	M Stars as Targets for Terrestrial Exoplanet Searches And Biosignature Detection. <i>Astrobiology</i> , 2007, 7, 85-166.	3.0	330
4	THE MUSCLES TREASURY SURVEY. I. MOTIVATION AND OVERVIEW*. <i>Astrophysical Journal</i> , 2016, 820, 89.	4.5	298
5	What makes a planet habitable?. <i>Astronomy and Astrophysics Review</i> , 2009, 17, 181-249.	25.5	281
6	TRANSITS OF EARTH-LIKE PLANETS. <i>Astrophysical Journal</i> , 2009, 698, 519-527.	4.5	275
7	Spectral Evolution of an Earth-like Planet. <i>Astrophysical Journal</i> , 2007, 658, 598-616.	4.5	223
8	Kepler-22b: A 2.4 EARTH-RADIUS PLANET IN THE HABITABLE ZONE OF A SUN-LIKE STAR. <i>Astrophysical Journal</i> , 2012, 745, 120.	4.5	218
9	Kepler-62: A Five-Planet System with Planets of 1.4 and 1.6 Earth Radii in the Habitable Zone. <i>Science</i> , 2013, 340, 587-590.	12.6	213
10	The TESS Objects of Interest Catalog from the TESS Prime Mission. <i>Astrophysical Journal, Supplement Series</i> , 2021, 254, 39.	7.7	190
11	How to Characterize Habitable Worlds and Signs of Life. <i>Annual Review of Astronomy and Astrophysics</i> , 2017, 55, 433-485.	24.3	170
12	EFFECT OF UV RADIATION ON THE SPECTRAL FINGERPRINTS OF EARTH-LIKE PLANETS ORBITING M STARS. <i>Astrophysical Journal</i> , 2015, 809, 57.	4.5	154
13	A NEARBY M STAR WITH THREE TRANSITING SUPER-EARTHS DISCOVERED BY K2. <i>Astrophysical Journal</i> , 2015, 804, 10.	4.5	149
14	TESS Discovery of a Transiting Super-Earth in the pi Mensae System. <i>Astrophysical Journal Letters</i> , 2018, 868, L39.	8.3	148
15	THE HABITABLE ZONES OF PRE-MAIN-SEQUENCE STARS. <i>Astrophysical Journal Letters</i> , 2014, 797, L25.	8.3	142
16	A CATALOG OF KEPLER HABITABLE ZONE EXOPLANET CANDIDATES. <i>Astrophysical Journal</i> , 2016, 830, 1.	4.5	133
17	Impact of space weather on climate and habitability of terrestrial-type exoplanets. <i>International Journal of Astrobiology</i> , 2020, 19, 136-194.	1.6	125
18	Spectral Fingerprints of Earth-like Planets Around FGK Stars. <i>Astrobiology</i> , 2013, 13, 251-269.	3.0	121

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19	<i><i>Darwin</i></i> A Mission to Detect and Search for Life on Extrasolar Planets. <i>Astrobiology</i> , 2009, 9, 1-22.	3.0	112
20	A giant planet candidate transiting a white dwarf. <i>Nature</i> , 2020, 585, 363-367.	27.8	111
21	TESS Discovery of an Ultra-short-period Planet around the Nearby M Dwarf LHS 3844. <i>Astrophysical Journal Letters</i> , 2019, 871, L24.	8.3	108
22	UV SURFACE ENVIRONMENT OF EARTH-LIKE PLANETS ORBITING FGKM STARS THROUGH GEOLOGICAL EVOLUTION. <i>Astrophysical Journal</i> , 2015, 806, 137.	4.5	105
23	COMPOSITIONS OF HOT SUPER-EARTH ATMOSPHERES: EXPLORING <i><i>KEPLER</i></i> CANDIDATES. <i>Astrophysical Journal Letters</i> , 2011, 742, L19.	8.3	104
24	IMPACT OF ATMOSPHERIC REFRACTION: HOW DEEPLY CAN WE PROBE EXO-EARTH'S ATMOSPHERES DURING PRIMARY ECLIPSE OBSERVATIONS?. <i>Astrophysical Journal</i> , 2014, 791, 7.	4.5	99
25	EChO. <i>Experimental Astronomy</i> , 2012, 34, 311-353.	3.7	98
26	CALCULATING THE HABITABLE ZONE OF BINARY STAR SYSTEMS. II. P-TYPE BINARIES. <i>Astrophysical Journal</i> , 2013, 777, 166.	4.5	97
27	Planetary system around the nearby M dwarf GJ 357 including a transiting, hot, Earth-sized planet optimal for atmospheric characterization. <i>Astronomy and Astrophysics</i> , 2019, 628, A39.	5.1	97
28	The L 98-59 System: Three Transiting, Terrestrial-size Planets Orbiting a Nearby M Dwarf. <i>Astronomical Journal</i> , 2019, 158, 32.	4.7	93
29	Deciphering Spectral Fingerprints of Habitable Exoplanets. <i>Astrobiology</i> , 2010, 10, 89-102.	3.0	88
30	A Volcanic Hydrogen Habitable Zone. <i>Astrophysical Journal Letters</i> , 2017, 837, L4.	8.3	88
31	EXPLORING THE HABITABLE ZONE FOR <i><i>KEPLER</i></i> PLANETARY CANDIDATES. <i>Astrophysical Journal Letters</i> , 2011, 736, L25.	8.3	85
32	DETECTING PLANETARY GEOCHEMICAL CYCLES ON EXOPLANETS: ATMOSPHERIC SIGNATURES AND THE CASE OF SO ₂ . <i>Astrophysical Journal</i> , 2010, 708, 1162-1167.	4.5	83
33	EXPLORING ATMOSPHERES OF HOT MINI-NEPTUNES AND EXTRASOLAR GIANT PLANETS ORBITING DIFFERENT STARS WITH APPLICATION TO HD 97658b, WASP-12b, CoRoT-2b, XO-1b, AND HD 189733b. <i>Astrophysical Journal</i> , 2014, 780, 166.	4.5	83
34	The effect of Lyman $\hat{\pm}$ radiation on mini-Neptune atmospheres around M stars: application to GJ 436b. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 446, 345-353.	4.4	81
35	CALCULATING THE HABITABLE ZONE OF BINARY STAR SYSTEMS. I. S-TYPE BINARIES. <i>Astrophysical Journal</i> , 2013, 777, 165.	4.5	79
36	UV surface habitability of the TRAPPIST-1 system. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2017, 469, L26-L30.	3.3	78

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37	Darwinâ€™an experimental astronomy mission to search for extrasolar planets. <i>Experimental Astronomy</i> , 2009, 23, 435-461.	3.7	74
38	High precision astrometry mission for the detection and characterization of nearby habitable planetary systems with the Nearby Earth Astrometric Telescope (NEAT). <i>Experimental Astronomy</i> , 2012, 34, 385-413.	3.7	73
39	The Far Future of Exoplanet Direct Characterization. <i>Astrobiology</i> , 2010, 10, 121-126.	3.0	70
40	TRANSMISSION SPECTRUM OF EARTH AS A TRANSITING EXOPLANET FROM THE ULTRAVIOLET TO THE NEAR-INFRARED. <i>Astrophysical Journal Letters</i> , 2013, 772, L31.	8.3	70
41	CHARACTERIZING HABITABLE EXOMOONS. <i>Astrophysical Journal Letters</i> , 2010, 712, L125-L130.	8.3	68
42	HABITABLE ZONES OF POST-MAIN SEQUENCE STARS. <i>Astrophysical Journal</i> , 2016, 823, 6.	4.5	68
43	The First Habitable-zone Earth-sized Planet from TESS. I. Validation of the TOI-700 System. <i>Astronomical Journal</i> , 2020, 160, 116.	4.7	67
44	Origin and Evolution of Life on Terrestrial Planets. <i>Astrobiology</i> , 2010, 10, 69-76.	3.0	62
45	Spectra of Earth-like Planets through Geological Evolution around FGKM Stars. <i>Astrophysical Journal</i> , 2018, 854, 19.	4.5	61
46	Cryptic Photosynthesisâ€™Extrasolar Planetary Oxygen Without a Surface Biological Signature. <i>Astrobiology</i> , 2009, 9, 623-636.	3.0	58
47	A 1D microphysical cloud model for Earth, and Earth-like exoplanets: Liquid water and water ice clouds in the convective troposphere. <i>Icarus</i> , 2012, 221, 603-616.	2.5	56
48	The Transiting Exoplanet Survey Satellite. <i>Proceedings of SPIE</i> , 2016, , .	0.8	56
49	Colors of Extreme Exo-Earth Environments. <i>Astrobiology</i> , 2013, 13, 47-56.	3.0	53
50	MODEL SPECTRA OF THE FIRST POTENTIALLY HABITABLE SUPER-EARTHâ€™Gl581d. <i>Astrophysical Journal</i> , 2011, 733, 35.	4.5	51
51	DETECTING VOLCANISM ON EXTRASOLAR PLANETS. <i>Astronomical Journal</i> , 2010, 140, 1370-1380.	4.7	50
52	The Darwin mission: Search for extra-solar planets. <i>Advances in Space Research</i> , 2005, 36, 1114-1122.	2.6	49
53	Geophysical and Atmospheric Evolution of Habitable Planets. <i>Astrobiology</i> , 2010, 10, 45-68.	3.0	47
54	Origin and Formation of Planetary Systems. <i>Astrobiology</i> , 2010, 10, 19-32.	3.0	46

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55	WATER-PLANETS IN THE HABITABLE ZONE: ATMOSPHERIC CHEMISTRY, OBSERVABLE FEATURES, AND THE CASE OF KEPLER-62 <i>e</i> AND -62 <i>f</i> . <i>Astrophysical Journal Letters</i> , 2013, 775, L47.	8.3	46
56	Surface biosignatures of exo-Earths: Remote detection of extraterrestrial life. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 3886-3891.	7.1	46
57	Co-Evolution of Atmospheres, Life, and Climate. <i>Astrobiology</i> , 2010, 10, 77-88.	3.0	45
58	Dynamical Habitability of Planetary Systems. <i>Astrobiology</i> , 2010, 10, 33-43.	3.0	42
59	The Origins Space Telescope. <i>Nature Astronomy</i> , 2018, 2, 596-599.	10.1	41
60	A Methane Extension to the Classical Habitable Zone. <i>Astrophysical Journal</i> , 2018, 858, 72.	4.5	39
61	The High-energy Radiation Environment around a 10 Gyr M Dwarf: Habitable at Last?. <i>Astronomical Journal</i> , 2020, 160, 237.	4.7	39
62	A Roadmap for the Detection and Characterization of Other Earths. <i>Astrobiology</i> , 2010, 10, 113-119.	3.0	32
63	Lessons from early Earth: UV surface radiation should not limit the habitability of active M star systems. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 485, 5598-5603.	4.4	28
64	The White Dwarf Opportunity: Robust Detections of Molecules in Earth-like Exoplanet Atmospheres with the James Webb Space Telescope. <i>Astrophysical Journal Letters</i> , 2020, 901, L1.	8.3	28
65	Atmospheric mass-loss and evolution of short-period exoplanets: the examples of CoRoT-7b and Kepler-10b. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 433, 3239-3245.	4.4	25
66	A Catalog of Spectra, Albedos, and Colors of Solar System Bodies for Exoplanet Comparison. <i>Astrobiology</i> , 2018, 18, 1559-1573.	3.0	25
67	Differentiating modern and prebiotic Earth scenarios for TRAPPIST-1e: high-resolution transmission spectra and predictions for <i>JWST</i> . <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 505, 3562-3578.	4.4	24
68	Target star catalogue for Darwin Nearby Stellar sample for search for terrestrial planets. <i>Astrophysics and Space Science</i> , 2010, 326, 233-247.	1.4	22
69	The Mega-MUSCLES Spectral Energy Distribution of TRAPPIST-1. <i>Astrophysical Journal</i> , 2021, 911, 18.	4.5	22
70	Refraction in planetary atmospheres: improved analytical expressions and comparison with a new ray-tracing algorithm. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 451, 1268-1283.	4.4	21
71	The Vegetation Red Edge Biosignature Through Time on Earth and Exoplanets. <i>Astrobiology</i> , 2018, 18, 1123-1136.	3.0	21
72	3D simulations of planet trapping at disc cavity boundaries. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 485, 2666-2680.	4.4	20

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73	Terrestrial exoplanets: diversity, habitability and characterization. <i>Physica Scripta</i> , 2008, T130, 014032.	2.5	19
74	Biomarkers Set in Context. , 0, , 79-98.		18
75	UV Surface Environments and Atmospheres of Earth-like Planets Orbiting White Dwarfs. <i>Astrophysical Journal</i> , 2018, 862, 69.	4.5	17
76	Stellar Aspects of Habitability – Characterizing Target Stars for Terrestrial Planet-Finding Missions. <i>Astrobiology</i> , 2010, 10, 103-112.	3.0	16
77	The Search for Worlds Like Our Own. <i>Astrobiology</i> , 2010, 10, 5-17.	3.0	16
78	TESS Habitable Zone Star Catalog. <i>Astrophysical Journal Letters</i> , 2019, 874, L8.	8.3	16
79	Inherent modulation: a fast chopping method for nulling interferometry. , 2003, , .		15
80	Climate sensitivity to ozone and its relevance on the habitability of Earth-like planets. <i>Icarus</i> , 2019, 321, 608-618.	2.5	15
81	High-resolution Transmission Spectra of Earth Through Geological Time. <i>Astrophysical Journal Letters</i> , 2020, 892, L17.	8.3	15
82	Past, present and future stars that can see Earth as a transiting exoplanet. <i>Nature</i> , 2021, 594, 505-507.	27.8	15
83	Planetary targets in the search for extrasolar oxygenic photosynthesis. <i>Plant Ecology and Diversity</i> , 2009, 2, 207-219.	2.4	14
84	High-resolution Spectra and Biosignatures of Earth-like Planets Transiting White Dwarfs. <i>Astrophysical Journal Letters</i> , 2020, 894, L6.	8.3	14
85	How surfaces shape the climate of habitable exoplanets. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 495, 1-11.	4.4	14
86	Expanding the Timeline for Earth’s Photosynthetic Red Edge Biosignature. <i>Astrophysical Journal Letters</i> , 2019, 879, L20.	8.3	13
87	Rocky exoplanet characterization and atmospheres. <i>International Journal of Astrobiology</i> , 2012, 11, 297-307.	1.6	10
88	Biofluorescent worlds: global biological fluorescence as a biosignature. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 481, 2487-2496.	4.4	10
89	Atmospheres and UV Environments of Earth-like Planets throughout Post-main-sequence Evolution. <i>Astrophysical Journal</i> , 2019, 875, 99.	4.5	10
90	Fizeau interferometric imaging of Io volcanism with LBT/LMIRcam. <i>Proceedings of SPIE</i> , 2014, , .	0.8	9

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91	Biofluorescent Worlds – II. Biological fluorescence induced by stellar UV flares, a new temporal biosignature. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 488, 4530-4545.	4.4	9
92	Requirements on the stellar rejection for the Darwin Mission. , 2004, , .		8
93	Extended-time-scale creep measurement on Maraging cantilever blade springs. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 593, 597-607.	1.6	8
94	Climate Sensitivity to Carbon Dioxide and the Moist Greenhouse Threshold of Earth-like Planets under an Increasing Solar Forcing. <i>Astrophysical Journal</i> , 2018, 869, 129.	4.5	8
95	High-resolution reflection spectra for Proxima b and Trappist-1e models for ELT observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	8
96	Finding Signs of Life in Transits: High-resolution Transmission Spectra of Earth-like Planets around FGKM Host Stars. <i>Astrophysical Journal Letters</i> , 2021, 909, L2.	8.3	8
97	Spectral Fingerprints of Habitability. <i>EAS Publications Series</i> , 2010, 41, 485-504.	0.3	7
98	Which stars can see Earth as a transiting exoplanet?. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2020, 499, L111-L115.	3.3	7
99	Finding Signs of Life on Transiting Earthlike Planets: High-resolution Transmission Spectra of Earth through Time around FGKM Host Stars. <i>Astrophysical Journal</i> , 2020, 904, 10.	4.5	7
100	High-resolution Spectra for a Wide Range of Habitable Zone Planets around Sun-like Stars. <i>Astrophysical Journal Letters</i> , 2020, 898, L42.	8.3	7
101	H ₂ -dominated Atmosphere as an Indicator of Second-generation Rocky White Dwarf Exoplanets. <i>Astrophysical Journal Letters</i> , 2022, 925, L10.	8.3	7
102	Characterizing habitable extrasolar planets using spectral fingerprints. <i>Comptes Rendus - Palevol</i> , 2009, 8, 679-691.	0.2	6
103	Follow the water: finding water, snow, and clouds on terrestrial exoplanets with photometry and machine learning. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2022, 513, L72-L77.	3.3	6
104	Target star catalogue for Darwin: Nearby Habitable Star Systems. <i>Proceedings of the International Astronomical Union</i> , 2005, 1, 89-92.	0.0	5
105	Direct imaging of Earth-like planets from space (TPF-C). , 2006, , .		5
106	The science of EChO. <i>Proceedings of the International Astronomical Union</i> , 2010, 6, 359-370.	0.0	5
107	The TESS Mission Target Selection Procedure. <i>Publications of the Astronomical Society of the Pacific</i> , 2021, 133, 095002.	3.1	5
108	Requirements of a nulling space interferometer for the search for extrasolar planets. <i>Advances in Space Research</i> , 2004, 34, 618-624.	2.6	4

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109	Interferometric space missions for the search for terrestrial exoplanets: Requirements on the rejection ratio. <i>Astrophysics and Space Science</i> , 2006, 306, 147-158.	1.4	4
110	The Habitability of GJ 357D: Possible Climate and Observability. <i>Astrophysical Journal Letters</i> , 2019, 883, L40.	8.3	4
111	Color classification of Earth-like planets with machine learning. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 504, 6106-6116.	4.4	4
112	Color Catalogue of Life in Ice: Surface Biosignatures on Icy Worlds. <i>Astrobiology</i> , 2021, , .	3.0	4
113	Atmospheric Biomarkers and their Evolution over Geological Timescales. <i>Proceedings of the International Astronomical Union</i> , 2005, 1, 259-264.	0.0	3
114	Session 22. Habitability of Super-Earths. <i>Astrobiology</i> , 2008, 8, 394-396.	3.0	3
115	Planetary Atmospheres and Chemical Markers for Extraterrestrial Life. , 2013, , 145-167.		3
116	Around Which Stars Can TESS Detect Earth-like Planets? The Revised TESS Habitable Zone Catalog. <i>Astronomical Journal</i> , 2021, 161, 233.	4.7	3
117	Characteristics of proposed 3 and 4 telescope configurations for Darwin and TPF-I. <i>Proceedings of the International Astronomical Union</i> , 2005, 1, 255-258.	0.0	2
118	Mission Requirements: How to Search for Extrasolar Planets. , 0, , 51-77.		2
119	Spectral characterization of Earth-like transiting exoplanets. , 2008, , .		2
120	Overview of the Origins Space telescope: science drivers to observatory requirements. , 2018, , .		2
121	Energy Sources for, and Detectability of, Life on Extrasolar Planets. <i>Cellular Origin and Life in Extreme Habitats</i> , 2012, , 835-857.	0.3	2
122	The Origins Space Telescope. , 2019, , .		2
123	The Exoplanet Characterization Observatory (EChO): performance model <i>EclipseSim</i> and applications. <i>Proceedings of SPIE</i> , 2012, , .	0.8	1
124	High-resolution Spectra of Earth-like Planets Orbiting Red Giant Host Stars. <i>Astronomical Journal</i> , 2020, 160, 225.	4.7	1
125	Habitable Planet, Characterization. , 2015, , 1039-1048.		1
126	The simulated detection of low-mass companions with GENIE. , 2004, , .		0

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127	Super-Earths and life - a fascinating puzzle: Example GJ 581d. Proceedings of the International Astronomical Union, 2010, 6, 376-384.	0.0	0
128	Habitable Zone, Effect of Tidal Locking. , 2011, , 721-722.		0
129	Biomarkers of Habitable Worlds - Super-Earths and Earths. Proceedings of the International Astronomical Union, 2011, 7, 302-312.	0.0	0
130	Quiescent and flaring lyman- α radiation of host stars and effects on exoplanets. Proceedings of the International Astronomical Union, 2015, 11, 391-396.	0.0	0
131	Biomarkers Atmospheric, Evolution Over Geological Time. , 2021, , 1-1.		0
132	Habitability, Effects of Stellar Irradiation. , 2014, , 1-2.		0
133	Clouds. , 2014, , 1-4.		0
134	Habitable Planet, Characterization. , 2014, , 1-12.		0
135	Biomarkers, Spectral. , 2015, , 297-306.		0
136	Habitability, Effects of Stellar Irradiation. , 2015, , 1037-1038.		0
137	Clouds. , 2015, , 485-487.		0
138	Biomarkers Atmospheric, Evolution Over Geological Time. , 2015, , 294-294.		0
139	M Stars as Targets for Terrestrial Exoplanet Searches And Biosignature Detection. Astrobiology, 2007, 7, 85-166.	3.0	0