

Charles H Lineweaver

List of Publications by Year in descending order

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91
papers

3,028
citations

172457

29
h-index

175258

52
g-index

98
all docs

98
docs citations

98
times ranked

2735
citing authors

#	ARTICLE	IF	CITATIONS
1	How Dry is the Brown Dwarf Desert? Quantifying the Relative Number of Planets, Brown Dwarfs, and Stellar Companions around Nearby Sun-like Stars. <i>Astrophysical Journal</i> , 2006, 640, 1051-1062.	4.5	284
2	The Galactic Habitable Zone and the Age Distribution of Complex Life in the Milky Way. <i>Science</i> , 2004, 303, 59-62.	12.6	282
3	An Estimate of the Age Distribution of Terrestrial Planets in the Universe: Quantifying Metallicity as a Selection Effect. <i>Icarus</i> , 2001, 151, 307-313.	2.5	148
4	Signatures of a Shadow Biosphere. <i>Astrobiology</i> , 2009, 9, 241-249.	3.0	139
5	Expanding Confusion: Common Misconceptions of Cosmological Horizons and the Superluminal Expansion of the Universe. <i>Publications of the Astronomical Society of Australia</i> , 2004, 21, 97-109.	3.4	137
6	A LARGER ESTIMATE OF THE ENTROPY OF THE UNIVERSE. <i>Astrophysical Journal</i> , 2010, 710, 1825-1834.	4.5	134
7	The Cosmic Microwave Background and Observational Convergence in the Λ CDM Plane. <i>Astrophysical Journal</i> , 1998, 505, L69-L73.	4.5	110
8	Does the Rapid Appearance of Life on Earth Suggest that Life Is Common in the Universe?. <i>Astrobiology</i> , 2002, 2, 293-304.	3.0	97
9	Finding a Second Sample of Life on Earth. <i>Astrobiology</i> , 2005, 5, 154-163.	3.0	85
10	The hyperthermophilic origin of life revisited. <i>Biochemical Society Transactions</i> , 2004, 32, 168-171.	3.4	83
11	Campaign 9 of the K2 Mission: Observational Parameters, Scientific Drivers, and Community Involvement for a Simultaneous Space- and Ground-based Microlensing Survey. <i>Publications of the Astronomical Society of the Pacific</i> , 2016, 128, 124401.	3.1	79
12	What Fraction of Sun-like Stars Have Planets?. <i>Astrophysical Journal</i> , 2003, 598, 1350-1360.	4.5	77
13	Life, gravity and the second law of thermodynamics. <i>Physics of Life Reviews</i> , 2008, 5, 225-242.	2.8	72
14	The Case for a Gaian Bottleneck: The Biology of Habitability. <i>Astrobiology</i> , 2016, 16, 7-22.	3.0	71
15	Targeting cancer's weaknesses (not its strengths): Therapeutic strategies suggested by the atavistic model. <i>BioEssays</i> , 2014, 36, 827-835.	2.5	64
16	The elemental abundances (with uncertainties) of the most Earth-like planet. <i>Icarus</i> , 2018, 299, 460-474.	2.5	63
17	Root Mean Square Anisotropy in the COBEDMR Four-Year Sky Maps. <i>Astrophysical Journal</i> , 1997, 475, 393-398.	4.5	59
18	What Can Cosmic Microwave Background Observations Already Say about Cosmological Parameters in Open and Critical-Density Cold Dark Matter Models?. <i>Astrophysical Journal</i> , 1998, 496, 624-634.	4.5	59

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19	Applications of wavelets to the analysis of cosmic microwave background maps. <i>Monthly Notices of the Royal Astronomical Society</i> , 1999, 310, 823-834.	4.4	58
20	Black holes constrain varying constants. <i>Nature</i> , 2002, 418, 602-603.	27.8	56
21	To What Extent Does Terrestrial Life “Follow The Water”? <i>Astrobiology</i> , 2010, 10, 349-361.	3.0	54
22	Exoplanet predictions based on the generalized Titius’s Bode relation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 435, 1126-1138.	4.4	52
23	Black hole versus cosmological horizon entropy. <i>Classical and Quantum Gravity</i> , 2003, 20, 2753-2764.	4.0	49
24	An Extensive Phase Space for the Potential Martian Biosphere. <i>Astrobiology</i> , 2011, 11, 1017-1033.	3.0	47
25	The Habitability of Our Earth and Other Earths: Astrophysical, Geochemical, Geophysical, and Biological Limits on Planet Habitability. <i>Annual Review of Earth and Planetary Sciences</i> , 2012, 40, 597-623.	11.0	47
26	Ancestral gene regulatory networks drive cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 6160-6162.	7.1	46
27	A Younger Age for the Universe. <i>Science</i> , 1999, 284, 1503-1507.	12.6	44
28	Misconceptions about the Big Bang. <i>Scientific American</i> , 2005, 292, 36-45.	1.0	39
29	Using the inclinations of Kepler systems to prioritize new Titius’s Bode-based exoplanet predictions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 448, 3608-3627.	4.4	37
30	Cancer progression as a sequence of atavistic reversions. <i>BioEssays</i> , 2021, 43, e2000305.	2.5	37
31	A Comprehensive Comparison of the Sun to Other Stars: Searching for Self-Selection Effects. <i>Astrophysical Journal</i> , 2008, 684, 691-706.	4.5	33
32	Ancient genes establish stress-induced mutation as a hallmark of cancer. <i>PLoS ONE</i> , 2017, 12, e0176258.	2.5	33
33	The Metallicity of Stars with Close Companions. <i>Astrophysical Journal</i> , 2007, 669, 1220-1234.	4.5	28
34	Solutions to the tethered galaxy problem in an expanding universe and the observation of receding blueshifted objects. <i>American Journal of Physics</i> , 2003, 71, 358-364.	0.7	25
35	Dark-energy dynamics required to solve the cosmic coincidence. <i>Physical Review D</i> , 2008, 78, .	4.7	23
36	Re-ionizing the universe without stars. <i>Astrophysics and Space Science</i> , 2011, 335, 345.	1.4	21

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37	The volatility trend of protosolar and terrestrial elemental abundances. <i>Icarus</i> , 2019, 328, 287-305.	2.5	21
38	Cosmic Microwave Background Anisotropies from Scaling Seeds: Fit to Observational Data. <i>Physical Review Letters</i> , 1997, 79, 5198-5201.	7.8	20
39	The Cosmic Coincidence as a Temporal Selection Effect Produced by the Age Distribution of Terrestrial Planets in the Universe. <i>Astrophysical Journal</i> , 2007, 671, 853-860.	4.5	17
40	Global biogeography since Pangaea. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017, 284, 20170716.	2.6	15
41	Paleontological Tests: Human-Like Intelligence Is Not a Convergent Feature of Evolution. <i>Cellular Origin and Life in Extreme Habitats</i> , 2009, , 353-368.	0.3	13
42	The Observational Case for Jupiter Being a Typical Massive Planet. <i>Astrobiology</i> , 2002, 2, 325-334.	3.0	12
43	Evolution beyond Newton, Darwin, and entailing law: the origin of complexity in the evolving biosphere. , 0, , 162-190.		12
44	What is complexity? Is it increasing?. , 2013, , 3-16.		10
45	16 Temperature, Biogenesis, and Biospheric Self-Organization. , 0, , 207-221.		9
46	Using complexity science to search for unity in the natural sciences. , 2013, , 68-79.		9
47	Life: the final frontier for complexity?. , 0, , 135-161.		7
48	On the Nonobservability of Recent Biogenesis. <i>Astrobiology</i> , 2003, 3, 241-243.	3.0	7
49	Using the phase diagram of liquid water to search for life. <i>Australian Journal of Earth Sciences</i> , 2012, 59, 253-262.	1.0	7
50	Directionality principles from cancer to cosmology. , 0, , 19-41.		6
51	Solutions to the Cosmic Initial Entropy Problem without Equilibrium Initial Conditions. <i>Entropy</i> , 2017, 19, 411.	2.2	6
52	The role of generative entrenchment and robustness in the evolution of complexity. , 0, , 308-331.		5
53	Information width: a way for the second law to increase complexity. , 2013, , 246-276.		5
54	On the spontaneous generation of complexity in the universe. , 2013, , 80-112.		5

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55	Beyond the Second Law: An Overview. Understanding Complex Systems, 2014, , 3-27.	0.6	4
56	What Can Life on Earth Tell Us About Life in the Universe?. Cellular Origin and Life in Extreme Habitats, 2012, , 799-815.	0.3	4
57	A simple treatment of complexity: cosmological entropic boundary conditions on increasing complexity. , 2013, , 42-67.		4
58	Comparison of the Atavistic Model of Cancer to Somatic Mutation Theory: Phylostratigraphic Analyses Support the Atavistic Model. , 2020, , 243-261.		4
59	INFLATION AND THE COSMIC MICROWAVE BACKGROUND. , 2005, , .		4
60	A Model Earth-sized Planet in the Habitable Zone of $\hat{\iota}$ Centauri A/B. Astrophysical Journal, 2022, 927, 134.	4.5	4
61	Testing the Cosmic Microwave Background Data for Systematic Effects. Astrophysical Journal, 2004, 603, 371-382.	4.5	3
62	6 Cosmological and Biological Reproducibility: Limits on the Maximum Entropy Production Principle. , 0, , 67-77.		3
63	Spreading the power. Physics of Life Reviews, 2010, 7, 463-464.	2.8	3
64	Emergent order in processes: the interplay of complexity, robustness, correlation, and hierarchy in the biosphere. , 2013, , 191-223.		3
65	The Biological Overview Effect: Our Place in Nature. Journal of Big History, 2019, 3, 109-122.	0.4	3
66	Cosmic Thermobiology. , 2004, , 233-248.		2
67	The Initial Low Gravitational Entropy of the Universe as the Origin of Design in Nature. Cellular Origin and Life in Extreme Habitats, 2012, , 3-16.	0.3	2
68	Wrestling with biological complexity: from Darwin to Dawkins. , 0, , 279-307.		2
69	On the plurality of complexity-producing mechanisms. , 0, , 332-351.		2
70	Emergent spatiotemporal complexity in field theory. , 0, , 113-132.		2
71	Precambrian Surface Temperatures and Molecular Phylogeny. Symposium - International Astronomical Union, 2004, 213, 355-358.	0.1	1
72	How Common are Earths? How Common are Jupiters?. Symposium - International Astronomical Union, 2004, 213, 41-44.	0.1	1

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73	What can Rapid Terrestrial Biogenesis Tell Us about Life in the Universe?. Symposium - International Astronomical Union, 2004, 213, 259-262.	0.1	1
74	Dark Energy and the Entropy of the Observable Universe. , 2010, , .		1
75	Where Do We Go from Here? <i>Astrobiology</i> Editorial Board Opinions. <i>Astrobiology</i> , 2014, 14, 629-644.	3.0	1
76	The Cosmic Evolution of Biochemistry. , 2018, , 75-87.		1
77	Entropy Production and the Maximum Entropy of the Universe. <i>Proceedings (mdpi)</i> , 2019, 46, .	0.2	1
78	The inferential evolution of biological complexity: forgetting nature by learning to nurture. , 0, , 224-245.		1
79	Comments on the Comparison of the COBE DMR and Tenerife Data. <i>Annals of the New York Academy of Sciences</i> , 1995, 759, 676-679.	3.8	0
80	Witnesses to the birth of the big bang. <i>Physics World</i> , 2001, 14, 42-42.	0.0	0
81	Is the pre-WMAP CMB data self-consistent?. <i>New Astronomy Reviews</i> , 2003, 47, 901-905.	12.8	0
82	Comparative CMBology: Putting Things Together. Symposium - International Astronomical Union, 2005, 201, 358-367.	0.1	0
83	Increasingly Overlapping Magisteria of Science and Religion. , 2008, , 154-181.		0
84	An artificial Kepler dichotomy? Implications for the coplanarity of planetary systems. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 196-196.	0.0	0
85	Are We Alone? An Interview with Dr. Norman Sleep. <i>Astrobiology</i> , 2020, 20, 563-571.	3.0	0
86	Cosmology in a Nutshell + an Argument Against $\hat{\Omega} = 0$ Based on the Inconsistency of the CMB and Supernovae Results. <i>Globular Clusters - Guides To Galaxies</i> , 1999, , 167-173.	0.1	0
87	Can we describe the evolution of the cosmic event horizon with the maximum entropy production principle?. , 0, , .		0
88	Baryon asymmetry as a stochastic result and implications for the time of baryogenesis. , 0, , .		0
89	An inflationary explanation to the universe's low initial gravitational entropy. , 0, , .		0
90	A Lonely Universe. <i>Inference</i> , 2022, 6, .	0.0	0

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91	Understanding the Chances for Life. <i>Inference</i> , 2022, 7, .	0.0	0