

Lars Bildsten

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

13,722
citations

117625

34
h-index

155660

55
g-index

60
all docs

60
docs citations

60
times ranked

6455
citing authors

#	ARTICLE	IF	CITATIONS
1	MODULES FOR EXPERIMENTS IN STELLAR ASTROPHYSICS (MESA). <i>Astrophysical Journal, Supplement Series</i> , 2011, 192, 3.	7.7	2,880
2	MODULES FOR EXPERIMENTS IN STELLAR ASTROPHYSICS (MESA): PLANETS, OSCILLATIONS, ROTATION, AND MASSIVE STARS. <i>Astrophysical Journal, Supplement Series</i> , 2013, 208, 4.	7.7	2,251
3	MODULES FOR EXPERIMENTS IN STELLAR ASTROPHYSICS (MESA): BINARIES, PULSATIONS, AND EXPLOSIONS. <i>Astrophysical Journal, Supplement Series</i> , 2015, 220, 15.	7.7	1,990
4	Modules for Experiments in Stellar Astrophysics ($\{M\}\{E\}\{S\}\{A\}$): Convective Boundaries, Element Diffusion, and Massive Star Explosions. <i>Astrophysical Journal, Supplement Series</i> , 2018, 234, 34.	7.7	1,182
5	The Palomar Transient Factory: System Overview, Performance, and First Results. <i>Publications of the Astronomical Society of the Pacific</i> , 2009, 121, 1395-1408.	3.1	900
6	Modules for Experiments in Stellar Astrophysics (MESA): Pulsating Variable Stars, Rotation, Convective Boundaries, and Energy Conservation. <i>Astrophysical Journal, Supplement Series</i> , 2019, 243, 10.	7.7	860
7	Exploring the Optical Transient Sky with the Palomar Transient Factory. <i>Publications of the Astronomical Society of the Pacific</i> , 2009, 121, 1334-1351.	3.1	618
8	Faint Thermonuclear Supernovae from AM Canum Venaticorum Binaries. <i>Astrophysical Journal</i> , 2007, 662, L95-L98.	4.5	310
9	Deformations of accreting neutron star crusts and gravitational wave emission. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 319, 902-932.	4.4	267
10	The Planet around 51 Pegasi. <i>Astrophysical Journal</i> , 1997, 481, 926-935.	4.5	175
11	A luminous, blue progenitor system for the type Ia supernova 2012Z. <i>Nature</i> , 2014, 512, 54-56.	27.8	136
12	White Dwarf Donors in Ultracompact Binaries: The Stellar Structure of Finite-Entropy Objects. <i>Astrophysical Journal</i> , 2003, 598, 1217-1228.	4.5	133
13	UNSTABLE HELIUM SHELL BURNING ON ACCRETING WHITE DWARFS. <i>Astrophysical Journal</i> , 2009, 699, 1365-1373.	4.5	128
14	Theoretical Modeling of the Thermal State of Accreting White Dwarfs Undergoing Classical Nova Cycles. <i>Astrophysical Journal</i> , 2004, 600, 390-403.	4.5	121
15	Asteroseismology can reveal strong internal magnetic fields in red giant stars. <i>Science</i> , 2015, 350, 423-426.	12.6	119
16	Energetic eruptions leading to a peculiar hydrogen-rich explosion of a massive star. <i>Nature</i> , 2017, 551, 210-213.	27.8	112
17	LOCAL RADIATION HYDRODYNAMIC SIMULATIONS OF MASSIVE STAR ENVELOPES AT THE IRON OPACITY PEAK. <i>Astrophysical Journal</i> , 2015, 813, 74.	4.5	108
18	THE IGNITION OF CARBON DETONATIONS VIA CONVERGING SHOCK WAVES IN WHITE DWARFS. <i>Astrophysical Journal</i> , 2014, 785, 61.	4.5	103

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19	A prevalence of dynamo-generated magnetic fields in the cores of intermediate-mass stars. <i>Nature</i> , 2016, 529, 364-367.	27.8	101
20	General relativistic orbital decay in a seven-minute-orbital-period eclipsing binary system. <i>Nature</i> , 2019, 571, 528-531.	27.8	96
21	Thermal Structure and Radius Evolution of Irradiated Gas Giant Planets. <i>Astrophysical Journal</i> , 2006, 650, 394-407.	4.5	76
22	Outbursts of luminous blue variable stars from variations in the helium opacity. <i>Nature</i> , 2018, 561, 498-501.	27.8	62
23	POSSIBLE DETECTION OF THE STELLAR DONOR OR REMNANT FOR THE TYPE Ia _x SUPERNOVA 2008ha. <i>Astrophysical Journal</i> , 2014, 792, 29.	4.5	60
24	The Thermal State of the Accreting White Dwarf in AM Canum Venaticorum Binaries. <i>Astrophysical Journal</i> , 2006, 640, 466-473.	4.5	60
25	The observational signatures of convectively excited gravity modes in main-sequence stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 430, 1736-1745.	4.4	57
26	The Zwicky Transient Facility Census of the Local Universe. I. Systematic Search for Calcium-rich Gap Transients Reveals Three Related Spectroscopic Subclasses. <i>Astrophysical Journal</i> , 2020, 905, 58.	4.5	57
27	ZTF 18aaqesu (SN2018byg): A Massive Helium-shell Double Detonation on a Sub-Chandrasekhar-mass White Dwarf. <i>Astrophysical Journal Letters</i> , 2019, 873, L18.	8.3	56
28	Late-time spectroscopy of Type Ia _x Supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 461, 433-457.	4.4	52
29	Multi-gigayear White Dwarf Cooling Delays from Clustering-enhanced Gravitational Sedimentation. <i>Astrophysical Journal</i> , 2020, 902, 93.	4.5	51
30	Spreading of Accreted Material on White Dwarfs. <i>Astrophysical Journal</i> , 2004, 610, 977-990.	4.5	48
31	The First Ultracompact Roche Lobe-filling Hot Subdwarf Binary. <i>Astrophysical Journal</i> , 2020, 891, 45.	4.5	47
32	Inferring Explosion Properties from Type II-Plateau Supernova Light Curves. <i>Astrophysical Journal</i> , 2019, 879, 3.	4.5	46
33	ORBITAL EVOLUTION OF COMPACT WHITE DWARF BINARIES. <i>Astrophysical Journal</i> , 2012, 758, 64.	4.5	43
34	AM CANUM VENATICORUM PROGENITORS WITH HELIUM STAR DONORS AND THE RESULTANT EXPLOSIONS. <i>Astrophysical Journal</i> , 2015, 807, 74.	4.5	38
35	A New Class of Roche Lobe-filling Hot Subdwarf Binaries. <i>Astrophysical Journal Letters</i> , 2020, 898, L25.	8.3	33
36	Remnants of Subdwarf Helium Donor Stars Ejected from Close Binaries with Thermonuclear Supernovae. <i>Astrophysical Journal</i> , 2019, 887, 68.	4.5	32

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37	Numerical Simulations of Convective Three-dimensional Red Supergiant Envelopes. <i>Astrophysical Journal</i> , 2022, 929, 156.	4.5	31
38	PTF1 J082340.04+081936.5: A Hot Subdwarf B Star with a Low-mass White Dwarf Companion in an 87-minute Orbit. <i>Astrophysical Journal</i> , 2017, 835, 131.	4.5	28
39	Variability of Red Supergiants in M31 from the Palomar Transient Factory. <i>Astrophysical Journal</i> , 2018, 859, 73.	4.5	28
40	Year 1 of the ZTF high-cadence Galactic plane survey: strategy, goals, and early results on new single-mode hot subdwarf B-star pulsators. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 505, 1254-1267.	4.4	27
41	The Value of Progenitor Radius Measurements for Explosion Modeling of Type II-Plateau Supernovae. <i>Astrophysical Journal Letters</i> , 2020, 895, L45.	8.3	26
42	Discovery of a Double-detonation Thermonuclear Supernova Progenitor. <i>Astrophysical Journal Letters</i> , 2022, 925, L12.	8.3	20
43	Mass Transfer and Stellar Evolution of the White Dwarfs in AM CVn Binaries. <i>Astrophysical Journal</i> , 2021, 923, 125.	4.5	18
44	Viscous dissipation for Euler's disk. <i>Physical Review E</i> , 2002, 66, 056309.	2.1	17
45	Still Brighter than Pre-explosion, SN 2012Z Did Not Disappear: Comparing Hubble Space Telescope Observations a Decade Apart. <i>Astrophysical Journal</i> , 2022, 925, 138.	4.5	17
46	Electron Captures on α as a Trigger for Helium Shell Detonations. <i>Astrophysical Journal</i> , 2017, 845, 97.	4.5	16
47	The Effects of Magnetic Fields on the Dynamics of Radiation Pressure-dominated Massive Star Envelopes. <i>Astrophysical Journal</i> , 2017, 843, 68.	4.5	15
48	Convectively Driven 3D Turbulence in Massive Star Envelopes. I. A 1D Implementation of Diffusive Radiative Transport. <i>Astrophysical Journal</i> , 2020, 902, 67.	4.5	14
49	Stochastic Low-frequency Variability in Three-dimensional Radiation Hydrodynamical Models of Massive Star Envelopes. <i>Astrophysical Journal Letters</i> , 2022, 924, L11.	8.3	14
50	Shock Breakout in Three-dimensional Red Supergiant Envelopes. <i>Astrophysical Journal</i> , 2022, 933, 164.	4.5	13
51	A Massive Star's Dying Breaths: Pulsating Red Supergiants and Their Resulting Type IIP Supernovae. <i>Astrophysical Journal</i> , 2020, 891, 15.	4.5	9
52	Variability of Massive Stars in M31 from the Palomar Transient Factory. <i>Astrophysical Journal</i> , 2020, 893, 11.	4.5	8
53	X-ray diagnostics of chemical composition of the accretion disc and donor star in UCXBs II. XMM-Newton observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 442, 2817-2825.	4.4	7
54	Digital Infrastructure in Astrophysics. , 2020, 52, .		2

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55	Physical Interpretation of Dwarf Nova Primary Effective Temperatures. International Astronomical Union Colloquium, 2004, 194, 192-193.	0.1	1
56	Accreting, Mixing, and X-ray Bursting. AIP Conference Proceedings, 2008, , .	0.4	0
57	Workshop on Faint and Fast Transients. Proceedings of the International Astronomical Union, 2011, 7, 269-269.	0.0	0
58	Explosions on a Variety of Scales. Proceedings of the International Astronomical Union, 2011, 7, 71-71.	0.0	0