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List of Publications by Year in descending order

53 papers	12,081 citations	109137 35 h-index	168136 53 g-index
53 all docs	53 docs citations	53 times ranked	6198 citing authors

#	Article	IF	Citations
1	MODULES FOR EXPERIMENTS IN STELLAR ASTROPHYSICS (MESA): PLANETS, OSCILLATIONS, ROTATION, AND MASSIVE STARS. Astrophysical Journal, Supplement Series, 2013, 208, 4.	3.0	2,251
2	MODULES FOR EXPERIMENTS IN STELLAR ASTROPHYSICS (MESA): BINARIES, PULSATIONS, AND EXPLOSIONS. Astrophysical Journal, Supplement Series, 2015, 220, 15.	3.0	1,990
3	FLASH: An Adaptive Mesh Hydrodynamics Code for Modeling Astrophysical Thermonuclear Flashes. Astrophysical Journal, Supplement Series, 2000, 131, 273-334.	3.0	1,913
4	Modules for Experiments in Stellar Astrophysics (${mathtt{M}}{mathtt{E}}{mathtt{S}}{mathtt{A}}$): Convective Boundaries, Element Diffusion, and Massive Star Explosions. Astrophysical Journal, Supplement Series, 2018, 234, 34.	3.0	1,182
5	Modules for Experiments in Stellar Astrophysics (MESA): Pulsating Variable Stars, Rotation, Convective Boundaries, and Energy Conservation. Astrophysical Journal, Supplement Series, 2019, 243, 10.	3.0	860
6	The Accuracy, Consistency, and Speed of an Electronâ€Positron Equation of State Based on Table Interpolation of the Helmholtz Free Energy. Astrophysical Journal, Supplement Series, 2000, 126, 501-516.	3.0	635
7	The Neutron Star and Black Hole Initial Mass Function. Astrophysical Journal, 1996, 457, 834.	1.6	300
8	The conductive propagation of nuclear flames. I - Degenerate C + O and O + NE + MG white dwarfs. Astrophysical Journal, 1992, 396, 649.	1.6	270
9	On Variations in the Peak Luminosity of Type Ia Supernovae. Astrophysical Journal, 2003, 590, L83-L86.	1.6	261
10	Integration of Nuclear Reaction Networks for Stellar Hydrodynamics. Astrophysical Journal, Supplement Series, 1999, 124, 241-263.	3.0	219
11	The Accuracy, Consistency, and Speed of Five Equations of State for Stellar Hydrodynamics. Astrophysical Journal, Supplement Series, 1999, 125, 277-294.	3.0	191
12	ADVANCED BURNING STAGES AND FATE OF 8-10M_{â˜‰}STARS. Astrophysical Journal, 2013, 772, 150.	1.6	155
13	STARLIB: A NEXT-GENERATION REACTION-RATE LIBRARY FOR NUCLEAR ASTROPHYSICS. Astrophysical Journal, Supplement Series, 2013, 207, 18.	3.0	148
14	On Type Ia supernovae from the collisions of two white dwarfs. Monthly Notices of the Royal Astronomical Society: Letters, 2009, 399, L156-L159.	1.2	125
15	THE THREE-DIMENSIONAL EVOLUTION TO CORE COLLAPSE OF A MASSIVE STAR. Astrophysical Journal Letters, 2015, 808, L21.	3.0	125
16	TRENDS IN ⁴⁴ Ti AND ⁵⁶ Ni FROM CORE-COLLAPSE SUPERNOVAE. Astrophysical Journal, Supplement Series, 2010, 191, 66-95.	3.0	92
17	ON VARIATIONS OF PRE-SUPERNOVA MODEL PROPERTIES. Astrophysical Journal, Supplement Series, 2016, 227, 22.	3.0	92
18	THE¹²C +¹²C REACTION AND THE IMPACT ON NUCLEOSYNTHESIS IN MASSIVE STARS. Astrophysical Journal, 2013, 762, 31.	1.6	88

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19	The conductive propagation of nuclear flames. 2: Convectively bounded flames in C + O and O + NE + MG cores. Astrophysical Journal, 1994, 420, 348.	1.6	73
20	⁵⁶Ni PRODUCTION IN DOUBLE-DEGENERATE WHITE DWARF COLLISIONS. Astrophysical Journal, 2010, 724, 111-125.	1.6	68
21	On the Observability of Individual Population III Stars and Their Stellar-mass Black Hole Accretion Disks through Cluster Caustic Transits. Astrophysical Journal, Supplement Series, 2018, 234, 41.	3.0	66
22	The Reduction of the Electron Abundance during the Preâ€explosion Simmering in White Dwarf Supernovae. Astrophysical Journal, 2008, 677, 160-168.	1.6	59
23	ON CARBON BURNING IN SUPER ASYMPTOTIC GIANT BRANCH STARS. Astrophysical Journal, 2015, 807, 184.	1.6	59
24	The effect of 12C +12C rate uncertainties on the evolution and nucleosynthesis of massive stars. Monthly Notices of the Royal Astronomical Society, 2012, 420, 3047-3070.	1.6	55
25	A highly magnified star at redshift 6.2. Nature, 2022, 603, 815-818.	13.7	53
26	EVALUATING SYSTEMATIC DEPENDENCIES OF TYPE Ia SUPERNOVAE: THE INFLUENCE OF PROGENITOR²²Ne CONTENT ON DYNAMICS. Astrophysical Journal, 2009, 701, 1582-1604.	1.6	48
27	Skye: A Differentiable Equation of State. Astrophysical Journal, 2021, 913, 72.	1.6	45
28	Proton-rich Nuclear Statistical Equilibrium. Astrophysical Journal, 2008, 685, L129-L132.	1.6	44
29	BAYESIAN ESTIMATION OF THERMONUCLEAR REACTION RATES. Astrophysical Journal, 2016, 831, 107.	1.6	43
30	Physical Properties of Laminar Helium Deflagrations. Astrophysical Journal, 2000, 528, 913-945.	1.6	42
31	TURBULENT CHEMICAL DIFFUSION IN CONVECTIVELY BOUNDED CARBON FLAMES. Astrophysical Journal, 2016, 832, 71.	1.6	39
32	CONVECTIVE PROPERTIES OF ROTATING TWO-DIMENSIONAL CORE-COLLAPSE SUPERNOVA PROGENITORS. Astrophysical Journal, 2016, 822, 61.	1.6	38
33	PROPERTIES OF CARBONâ€“OXYGEN WHITE DWARFS FROM MONTE CARLO STELLAR MODELS. Astrophysical Journal, 2016, 823, 46.	1.6	38
34	The Impact of Nuclear Reaction Rate Uncertainties on the Evolution of Core-collapse Supernova Progenitors. Astrophysical Journal, Supplement Series, 2018, 234, 19.	3.0	38
35	A TRACER METHOD FOR COMPUTING TYPE IA SUPERNOVA YIELDS: BURNING MODEL CALIBRATION, RECONSTRUCTION OF THICKENED FLAMES, AND VERIFICATION FOR PLANAR DETONATIONS. Astrophysical Journal, Supplement Series, 2016, 225, 3.	3.0	36
36	CONSTRAINTS ON EXPLOSIVE SILICON BURNING IN CORE-COLLAPSE SUPERNOVAE FROM MEASURED Ni/Fe RATIOS. Astrophysical Journal, 2015, 807, 110.	1.6	35

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37	ZERO IMPACT PARAMETER WHITE DWARF COLLISIONS IN FLASH. Astrophysical Journal, 2012, 759, 39.	1.6	33
38	Statistical methods for thermonuclear reaction rates and nucleosynthesis simulations. Journal of Physics G: Nuclear and Particle Physics, 2015, 42, 034007.	1.4	33
39	Observational Evidence for High Neutronization in Supernova Remnants: Implications for Type Ia Supernova Progenitors. Astrophysical Journal, 2017, 843, 35.	1.6	33
40	Neutrinos from Beta Processes in a Presupernova: Probing the Isotopic Evolution of a Massive Star. Astrophysical Journal, 2017, 851, 6.	1.6	32
41	Observing Intermediate-mass Black Holes and the Upper Stellar-mass gap with LIGO and Virgo. Astrophysical Journal, 2022, 924, 39.	1.6	32
42	Presupernova Neutrinos: Directional Sensitivity and Prospects for Progenitor Identification. Astrophysical Journal, 2020, 899, 153.	1.6	26
43	The Impact of White Dwarf Luminosity Profiles on Oscillation Frequencies. Astrophysical Journal Letters, 2018, 867, L30.	3.0	22
44	ON MEASURING THE METALLICITY OF A TYPE IA SUPERNOVAâ€™S PROGENITOR. Astrophysical Journal, 2016, 824, 59.	1.6	20
45	Stable nickel production in type Ia supernovae: A smoking gun for the progenitor mass?. Astronomy and Astrophysics, 2022, 660, A96.	2.1	16
46	On Stellar Evolution in a Neutrino Hertzsprungâ€“Russell Diagram. Astrophysical Journal, 2020, 893, 133.	1.6	15
47	On the Impact of ²²Ne on the Pulsation Periods of Carbonâ€“Oxygen White Dwarfs with Helium-dominated Atmospheres. Astrophysical Journal, 2021, 910, 24.	1.6	14
48	On the Structure, Magnetic Properties, and Infrared Spectra of Iron Pseudocarbynes in the Interstellar Medium. Astrophysical Journal, 2019, 879, 2.	1.6	11
49	Quantifying How Density Gradients and Front Curvature Affect Carbon Detonation Strength during SNe Ia. Astrophysical Journal, 2019, 871, 154.	1.6	9
50	Editorial: Data: Insights and Challenges in a Time of Abundance. Astrophysical Journal, Supplement Series, 2018, 236, 1.	3.0	4
51	Laminar Flame Speeds in Degenerate Oxygenâ€“Neon Mixtures. Astrophysical Journal, 2020, 891, 5.	1.6	3
52	CNO Cycle Burning in Ultra-low Metallicity Solar Mass Stars. Research Notes of the AAS, 2020, 4, 172.	0.3	1
53	Modifying the Free Energy in Skye. Research Notes of the AAS, 2022, 6, 43.	0.3	1