

Nir Shaviv

List of Publications by Year in descending order

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57
papers

2,028
citations

236925

25
h-index

243625

44
g-index

57
all docs

57
docs citations

57
times ranked

2178
citing authors

#	ARTICLE	IF	CITATIONS
1	An outburst from a massive star 400 days before a supernova explosion. <i>Nature</i> , 2013, 494, 65-67.	27.8	183
2	The spiral structure of the Milky Way, cosmic rays, and ice age epochs on Earth. <i>New Astronomy</i> , 2003, 8, 39-77.	1.8	180
3	A Porosity Length Formalism for Photon Limited Mass Loss from Stars above the Eddington Limit. <i>Astrophysical Journal</i> , 2004, 616, 525-541.	4.5	176
4	PRECURSORS PRIOR TO TYPE II SUPERNOVA EXPLOSIONS ARE COMMON: PRECURSOR RATES, PROPERTIES, AND CORRELATIONS. <i>Astrophysical Journal</i> , 2014, 789, 104.	4.5	175
5	Energetic eruptions leading to a peculiar hydrogen-rich explosion of a massive star. <i>Nature</i> , 2017, 551, 210-213.	27.8	112
6	Inhomogeneity in Cosmic Ray Sources as the Origin of the Electron Spectrum and the PAMELA Anomaly. <i>Physical Review Letters</i> , 2009, 103, 111302.	7.8	91
7	Increased ionization supports growth of aerosols into cloud condensation nuclei. <i>Nature Communications</i> , 2017, 8, 2199.	12.8	77
8	The theory of steady-state super-Eddington winds and its application to novae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2001, 326, 126-146.	4.4	72
9	Bright, Months-long Stellar Outbursts Announce the Explosion of Interaction-powered Supernovae. <i>Astrophysical Journal</i> , 2021, 907, 99.	4.5	59
10	Polarization evolution in strong magnetic fields. <i>Monthly Notices of the Royal Astronomical Society</i> , 2000, 311, 555-564.	4.4	58
11	The high-energy polarization-limiting radius of neutron star magnetospheres – I. Slowly rotating neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2003, 342, 134-144.	4.4	53
12	The response of clouds and aerosols to cosmic ray decreases. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 8152-8181.	2.4	52
13	The Nature of the Radiative Hydrodynamic Instabilities in Radiatively Supported Thomson Atmospheres. <i>Astrophysical Journal</i> , 2001, 549, 1093-1110.	4.5	51
14	Life Extinctions by Cosmic Ray Jets. <i>Physical Review Letters</i> , 1998, 80, 5813-5816.	7.8	49
15	Is There a Dynamic Effect in the Screening of Nuclear Reactions in Stellar Plasmas?. <i>Astrophysical Journal</i> , 2000, 529, 1054-1069.	4.5	45
16	Origin of the High Energy Extragalactic Diffuse Gamma Ray Background. <i>Physical Review Letters</i> , 1995, 75, 3052-3055.	7.8	44
17	PTF13efv: AN OUTBURST 500 DAYS PRIOR TO THE SNHUNT 275 EXPLOSION AND ITS RADIATIVE EFFICIENCY. <i>Astrophysical Journal</i> , 2016, 824, 6.	4.5	39
18	Magnetic lensing near ultramagnetized neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 1999, 306, 333-347.	4.4	36

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19	Numerical simulations of continuum-driven winds of super-Eddington stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2008, 389, 1353-1359.	4.4	34
20	The fate of a WD accreting H-rich material at high accretion rates. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 433, 2884-2892.	4.4	34
21	The Electrostatic Screening of Thermonuclear Reactions in Astrophysical Plasmas. I. <i>Astrophysical Journal</i> , 1996, 468, 433.	4.5	33
22	The Electrostatic Screening of Nuclear Reactions in the Sun. <i>Astrophysical Journal</i> , 2001, 558, 925-942.	4.5	32
23	The maximal runaway temperature of Earth-like planets. <i>Icarus</i> , 2011, 216, 403-414.	2.5	29
24	Open cluster birth analysis and multiple spiral arm sets in the Milky Way. <i>New Astronomy</i> , 2007, 12, 410-421.	1.8	27
25	Dynamics of fronts in thermally bistable fluids. <i>Astrophysical Journal</i> , 1992, 392, 106.	4.5	27
26	SEARCH FOR PRECURSOR ERUPTIONS AMONG TYPE IIB SUPERNOVAE. <i>Astrophysical Journal</i> , 2015, 811, 117.	4.5	26
27	On the behaviour of stellar winds that exceed the photon-tiring limit. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 394, 595-604.	4.4	24
28	RECOVERING THE OBSERVED B/C RATIO IN A DYNAMIC SPIRAL-ARMED COSMIC RAY MODEL. <i>Astrophysical Journal</i> , 2014, 782, 34.	4.5	20
29	A lower limit on the halo mass to form supermassive black holes. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 417, 3035-3046.	4.4	19
30	The spectral temperature of optically thick outflows with application to light echo spectra from $\hat{\iota}$ Carinae's giant eruption. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 462, 345-351.	4.4	17
31	The extragalactic neutrino background radiations from blazars and cosmic rays. <i>Astroparticle Physics</i> , 1996, 4, 343-349.	4.3	14
32	Binary pulsar J0737 $\hat{\alpha}$ ³⁰³⁹ $\hat{\alpha}$ evidence for a new core collapse and neutron star formation mechanism. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 438, 1005-1013.	4.4	14
33	Reconciling the diffuse Galactic $\hat{\iota}$ ³ -ray and the cosmic ray spectra. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 466, 3674-3681.	4.4	12
34	Is there a dynamic effect in the screening of nuclear reactions in stellar plasmas?. <i>Physics Reports</i> , 1999, 311, 99-114.	25.6	11
35	Interface dynamics and domain growth in thermally bistable fluids. <i>Physical Review E</i> , 1994, 50, 2048-2056.	2.1	10
36	The super-Eddington nature of supermassive stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 427, 3071-3080.	4.4	9

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37	Instability & Mass Loss near the Eddington Limit. <i>Astrophysics and Space Science Library</i> , 2012, , 275-297.	2.7	9
38	Asteroseismic effects in close binary stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 434, 1869-1882.	4.4	8
39	Pattern evolution in thermally bistable media. <i>Astrophysical Journal</i> , 1994, 426, 621.	4.5	8
40	Can non-linear structure form at the era of decoupling?. <i>Monthly Notices of the Royal Astronomical Society</i> , 1998, 297, 1245-1260.	4.4	6
41	Constraining MOND using the vertical motion of stars in the solar neighbourhood. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 456, 1163-1171.	4.4	6
42	Impact of the ISM magnetic field on GRB afterglow polarization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 5340-5347.	4.4	6
43	The instability of radiative flows: from the early universe to the Eddington luminosity limit. <i>Physics Reports</i> , 1999, 311, 177-185.	25.6	5
44	The state of ${}^7\text{Be}$ in the core of the Sun and the solar neutrino flux. <i>Monthly Notices of the Royal Astronomical Society</i> , 2003, 341, 119-128.	4.4	5
45	The IONâ€CAGE Code: A Numerical Model for the Growth of Charged and Neutral Aerosols. <i>Earth and Space Science</i> , 2020, 7, e2020EA001142.	2.6	5
46	Why the Salpeter approximation is not valid in the Sun. <i>Journal of Physics A</i> , 2003, 36, 6187-6196.	1.6	4
47	Comment [on â€œCosmic rays, carbon dioxide, and climateâ€]. <i>Eos</i> , 2004, 85, 510-510.	0.1	4
48	ON THE LINK BETWEEN COSMIC RAYS AND TERRESTRIAL CLIMATE. <i>International Journal of Modern Physics A</i> , 2005, 20, 6662-6665.	1.5	4
49	Continuumâ€Driven Winds from Superâ€Eddington Stars: A Tale of Two Limits. , 2008, , .		4
50	A GRB model satisfying stringent observational constraints. <i>Astrophysics and Space Science</i> , 1995, 231, 445-448.	1.4	3
51	The solar and Southern Oscillation components in the satellite altimetry data. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 3297-3306.	2.4	3
52	ON CONTINUUM-DRIVEN WINDS FROM ROTATING STARS. <i>Astrophysical Journal</i> , 2012, 757, 191.	4.5	1
53	Approximate analytical solutions to the condensation-coagulation equation of aerosols. <i>Aerosol Science and Technology</i> , 2016, 50, 578-590.	3.1	1
54	Lower Limits on the Nucleosynthesis of ${}^{44}\text{Ti}$ and ${}^{60}\text{Fe}$ in the Dynamic Spiral-arm Cosmic-Ray Propagation Model. <i>Astrophysical Journal</i> , 2018, 863, 86.	4.5	1

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55	The mass distribution in a merger model. <i>Astrophysical Journal</i> , 1993, 412, L25.	4.5	1
56	The Electrostatic Screening of Nuclear Reactions in Dense Plasma. <i>AIP Conference Proceedings</i> , 2002, , .	0.4	0
57	The Mass Distribution in a Collapsing Merging Spherical Cluster of Objects. <i>Astrophysical Journal</i> , 1995, 448, 514.	4.5	0