

Madappa Prakash

List of Publications by Year in descending order

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59
papers

10,690
citations

101384

36
h-index

168136

53
g-index

60
all docs

60
docs citations

60
times ranked

3923
citing authors

#	ARTICLE	IF	CITATIONS
1	Neutron Star Structure and the Equation of State. <i>Astrophysical Journal</i> , 2001, 550, 426-442.	1.6	1,290
2	Neutron star observations: Prognosis for equation of state constraints. <i>Physics Reports</i> , 2007, 442, 109-165.	10.3	1,097
3	The Physics of Neutron Stars. <i>Science</i> , 2004, 304, 536-542.	6.0	1,078
4	Isospin asymmetry in nuclei and neutron stars. <i>Physics Reports</i> , 2005, 411, 325-375.	10.3	802
5	Direct URCA process in neutron stars. <i>Physical Review Letters</i> , 1991, 66, 2701-2704.	2.9	638
6	Composition and structure of protoneutron stars. <i>Physics Reports</i> , 1997, 280, 1-77.	10.3	636
7	Minimal Cooling of Neutron Stars: A New Paradigm. <i>Astrophysical Journal, Supplement Series</i> , 2004, 155, 623-650.	3.0	436
8	The equation of state of hot, dense matter and neutron stars. <i>Physics Reports</i> , 2016, 621, 127-164.	10.3	418
9	Rapid Cooling of the Neutron Star in Cassiopeia A Triggered by Neutron Superfluidity in Dense Matter. <i>Physical Review Letters</i> , 2011, 106, 081101.	2.9	353
10	The Equation of State of Neutron Star Matter in Strong Magnetic Fields. <i>Astrophysical Journal</i> , 2000, 537, 351-367.	1.6	293
11	Generic conditions for stable hybrid stars. <i>Physical Review D</i> , 2013, 88, .	1.6	289
12	Equation of State and the Maximum Mass of Neutron Stars. <i>Physical Review Letters</i> , 1988, 61, 2518-2521.	2.9	273
13	Tidal Love numbers of neutron and self-bound quark stars. <i>Physical Review D</i> , 2010, 82, .	1.6	273
14	Effects of Strong Magnetic Fields on Neutron Star Structure. <i>Astrophysical Journal</i> , 2001, 554, 322-339.	1.6	248
15	The nuclear symmetry energy in relativistic Brueckner-Hartree-Fock calculations. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1987, 199, 469-474.	1.5	247
16	Thermal properties of interacting hadrons. <i>Nuclear Physics A</i> , 1992, 546, 718-760.	0.6	193
17	NEUTRINO EMISSION FROM COOPER PAIRS AND MINIMAL COOLING OF NEUTRON STARS. <i>Astrophysical Journal</i> , 2009, 707, 1131-1140.	1.6	187
18	Rapid cooling and the structure of neutron stars. <i>Astrophysical Journal</i> , 1994, 425, 802.	1.6	169

#	ARTICLE	IF	CITATIONS
19	Azimuthal distributions in heavy ion collisions and the nuclear equation of state. <i>Physical Review C</i> , 1988, 38, 2101-2107.	1.1	144
20	Transverse momenta, nuclear equation of state, and momentum-dependent interactions in heavy-ion collisions. <i>Physical Review C</i> , 1990, 41, 1545-1552.	1.1	144
21	Evolution of Proto-Neutron Stars with Quarks. <i>Physical Review Letters</i> , 2001, 86, 5223-5226.	2.9	139
22	Effects of strong magnetic fields in strange baryonic matter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2002, 531, 167-174.	1.5	111
23	Rapidly rotating pulsars and the equation of state. <i>Astrophysical Journal</i> , 1990, 355, 241.	1.6	110
24	Quark-hadron phase transitions in Young and old neutron stars. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2000, 486, 239-248.	1.5	92
25	Equation of state of dense nuclear matter. <i>Nuclear Physics A</i> , 1987, 464, 740-768.	0.6	91
26	Evolution of Proto-Neutron Stars with Kaon Condensates. <i>Astrophysical Journal</i> , 2001, 553, 382-393.	1.6	79
27	Limiting masses and radii of neutron stars and their implications. <i>Physical Review C</i> , 2021, 103, .	1.1	76
28	Effective mass in nuclei and the level density parameter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1983, 128, 141-146.	1.5	60
29	Stellar Superfluids. , 2014, , 505-579.		58
30	Treating quarks within neutron stars. <i>Physical Review D</i> , 2019, 100, .	1.6	56
31	Thermal properties of supernova matter: The bulk homogeneous phase. <i>Physical Review C</i> , 2014, 89, .	1.1	55
32	NS 1987A in SN 1987A. <i>Astrophysical Journal</i> , 2020, 898, 125.	1.6	52
33	Thermal properties of hot and dense matter with finite range interactions. <i>Physical Review C</i> , 2015, 92, .	1.1	51
34	NEUTRINOPROPAGATION INDENSEASTROPHYSICALSYSTEMS. <i>Annual Review of Nuclear and Particle Science</i> , 2001, 51, 295-344.	3.5	50
35	Åkmal-Pandharipande-Ravenhall equation of state for simulations of supernovae, neutron stars, and binary mergers. <i>Physical Review C</i> , 2019, 100, .	1.1	49
36	Rotation of stars containing strange quark matter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1990, 243, 175-180.	1.5	42

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37	Rapid cooling of neutron stars. Physics Reports, 1994, 242, 297-312.	10.3	38
38	What a Two Solar Mass Neutron Star Really Means. , 2011, , 275-304.		35
39	On the Minimum Radius of Very Massive Neutron Stars. Astrophysical Journal, 2020, 899, 164.	1.6	33
40	Momentum dependence, Boltzmann-Uehling-Uhlenbeck calculations, and transverse momenta. Physical Review C, 1988, 37, 2253-2256.	1.1	27
41	Shear viscosity of hadrons with K-matrix cross sections. Physical Review C, 2013, 88, .	1.1	27
42	γ -mode oscillations in hybrid stars: A tale of two sounds. Physical Review D, 2021, 103, .	1.6	25
43	Relativistic nuclear matter with composite nucleons. Physical Review C, 1992, 45, 2518-2521.	1.1	22
44	Dense matter equation of state for neutron star mergers. European Physical Journal A, 2019, 55, 1.	1.0	18
45	Degenerate limit thermodynamics beyond leading order for models of dense matter. Annals of Physics, 2015, 363, 533-555.	1.0	16
46	γ modes of neutron stars with hadron-to-quark crossover transitions. Physical Review D, 2021, 104, .	1.6	15
47	Quasinormal γ modes of neutron stars with quarks. Physical Review D, 2022, 105, .	1.6	12
48	Comparison of viscosities from the Chapman-Enskog and relaxation time methods. Open Physics, 2012, 10, .	0.8	10
49	Hot and dense matter beyond relativistic mean field theory. Physical Review C, 2016, 93, .	1.1	9
50	Shear viscosity of the outer crust of neutron stars: Ion contributions. Physical Review C, 2008, 78, .	1.1	5
51	Enforcing causality in nonrelativistic equations of state at finite temperature. Physical Review C, 2017, 95, .	1.1	5
52	Neutron stars as probes of extreme energy density matter. Pramana - Journal of Physics, 2015, 84, 927-941.	0.9	4
53	Thermal effects in dense matter beyond mean field theory. International Journal of Modern Physics E, 2017, 26, 1740005.	0.4	3
54	Pairing properties from random distributions of single-particle energy levels. Physical Review C, 2018, 97, .	1.1	3

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55	Generic Conditions for Stable Hybrid Stars. , 2014, , .		2
56	Muon production in low-energy electron-nucleon and electron-nucleus scattering. Physical Review D, 2007, 76, .	1.6	1
57	Transport Properties of a Non-Relativistic Delta-Shell Gas with Long Scattering Lengths. , 2011, , 367-378.		1
58	THERMAL AND TRANSPORT PROPERTIES OF A NONRELATIVISTIC QUANTUM GAS INTERACTING THROUGH A DELTA-SHELL POTENTIAL. International Journal of Modern Physics E, 2013, 22, 1330023.	0.4	0
59	Thermal effects in dense matter beyond mean field theory. , 2017, , 33-52.		0