

Sanjay Reddy

List of Publications by Year in descending order

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50276

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docs citations

100
times ranked

2980
citing authors

#	ARTICLE	IF	CITATIONS
1	Dark lepton superfluid in protoneutron stars. Physical Review D, 2022, 105, .	4.7	4
2	Properties of the neutron star crust: Quantifying and correlating uncertainties with improved nuclear physics. Physical Review C, 2022, 105, .	2.9	6
3	Large and massive neutron stars: Implications for the sound speed within QCD of dense matter. Physical Review C, 2022, 105, .	2.9	18
4	Confronting a set of Skyrme and χ_{EFT} predictions for the crust of neutron stars. European Physical Journal A, 2022, 58, 1.	2.5	5
5	Enhanced Supernova Axion Emission and Its Implications. Physical Review Letters, 2021, 126, 071102.	7.8	40
6	Limiting masses and radii of neutron stars and their implications. Physical Review C, 2021, 103, .	2.9	76
7	Properties of Neutron Star Crust with Improved Nuclear Physics: Impact of Chiral EFT Interactions and Experimental Nuclear Masses. Few-Body Systems, 2021, 62, 1.	1.5	9
8	Observable signatures of enhanced axion emission from protoneutron stars. Physical Review D, 2021, 104, .	4.7	37
9	Search for compact dark matter objects in the solar system with LIGO data. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 800, 135072.	4.1	19
10	Direct astrophysical tests of chiral effective field theory at supranuclear densities. Physical Review C, 2020, 102, .	2.9	73
11	Stringent constraints on neutron-star radii from multimessenger observations and nuclear theory. Nature Astronomy, 2020, 4, 625-632.	10.1	269
12	Pions in hot dense matter and their astrophysical implications. Physical Review C, 2020, 101, .	2.9	38
13	Confronting gravitational-wave observations with modern nuclear physics constraints. European Physical Journal A, 2019, 55, 1.	2.5	83
14	Dark halos around neutron stars and gravitational waves. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 012-012.	5.4	59
15	Constraining the neutron-matter equation of state with gravitational waves. Physical Review D, 2019, 100, .	4.7	31
16	Constraining the properties of dense matter and neutron stars by combining nuclear physics and gravitational waves from GW170817. AIP Conference Proceedings, 2019, , .	0.4	5
17	Quarkyonic Matter and Neutron Stars. Physical Review Letters, 2019, 122, 122701.	7.8	175
18	Gravitational Waves from Compact Dark Objects in Neutron Stars. Physical Review Letters, 2019, 122, 071102.	7.8	21

#	ARTICLE	IF	CITATIONS
19	Photons in dense nuclear matter: Random-phase approximation. <i>Physical Review C</i> , 2018, 97, .	2.9	9
20	Nuclear pasta in hot dense matter and its implications for neutrino scattering. <i>Physical Review C</i> , 2018, 97, .	2.9	16
21	Rapid Neutrino Cooling in the Neutron Star MXB 1659-29. <i>Physical Review Letters</i> , 2018, 120, 182701.	7.8	54
22	Critical examination of constraints on the equation of state of dense matter obtained from GW170817. <i>Physical Review C</i> , 2018, 98, .	2.9	238
23	Constraints on axion-like particles and nucleon pairing in dense matter from the hot neutron star in HESS J1731-347. <i>Physical Review C</i> , 2018, 98, .	2.9	57
24	Constraining the Speed of Sound inside Neutron Stars with Chiral Effective Field Theory Interactions and Observations. <i>Astrophysical Journal</i> , 2018, 860, 149.	4.5	250
25	Neutron Stars Exclude Light Dark Baryons. <i>Physical Review Letters</i> , 2018, 121, 061802.	7.8	75
26	Neutrino-nucleon scattering in the neutrino-sphere. <i>Physical Review C</i> , 2018, 98, .	2.9	9
27	Lower limit on the heat capacity of the neutron star core. <i>Physical Review C</i> , 2017, 95, .	2.9	49
28	Late-time Cooling of Neutron Star Transients and the Physics of the Inner Crust. <i>Astrophysical Journal</i> , 2017, 839, 95.	4.5	35
29	Dispersion and decay of collective modes in neutron star cores. <i>Physical Review C</i> , 2017, 96, .	2.9	11
30	Charged current neutrino interactions in hot and dense matter. <i>Physical Review C</i> , 2017, 95, .	2.9	48
31	Energy conservation and the chiral magnetic effect. <i>Physical Review D</i> , 2017, 96, .	4.7	20
32	Neutrino Signatures from Young Neutron Stars. , 2017, , 1605-1635.		11
33	Thermal conductivity and impurity scattering in the accreting neutron star crust. <i>Physical Review C</i> , 2016, 94, .	2.9	19
34	Nucleon-nucleon bremsstrahlung of dark gauge bosons and revised supernova constraints. <i>Physical Review C</i> , 2016, 94, .	2.9	59
35	Neutrino Signatures from Young Neutron Stars. , 2016, , 1-31.		1
36	Quantum Monte Carlo calculations of the thermal conductivity of neutron star crusts. <i>Physical Review C</i> , 2015, 92, .	2.9	5

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37	Role of the electron mass in damping chiral plasma instability in Supernovae and neutron stars. Physical Review D, 2015, 91, .	4.7	54
38	Electron-neutron scattering and transport properties of neutron stars. Physical Review C, 2015, 91, .	2.9	7
39	Charged-current reactions in the supernova neutrino-sphere. Physical Review C, 2015, 91, .	2.9	29
40	Nuclear theory and science of the facility for rare isotope beams. Modern Physics Letters A, 2014, 29, 1430010.	1.2	57
41	Goldstone modes in the neutron star core. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 735, 340-343.	4.1	26
42	Neutrino scattering from hydrodynamic modes in hot and dense neutron matter. Physical Review C, 2014, 89, .	2.9	6
43	The equation of state of neutron matter, symmetry energy and neutron star structure. European Physical Journal A, 2014, 50, 1.	2.5	102
44	Spin response and neutrino emissivity of dense neutron matter. Physical Review C, 2013, 87, .	2.9	13
45	Dark matter thermalization in neutron stars. Physical Review D, 2013, 88, .	4.7	78
46	Low-energy collective excitations in the neutron star inner crust. Physical Review C, 2013, 87, .	2.9	56
47	Forecasting Neutron Star Temperatures: Predictability and Variability. Physical Review Letters, 2013, 111, 241102.	7.8	76
48	Bridging the Gap by Squeezing Superfluid Matter. Physical Review Letters, 2012, 108, 111102.	7.8	10
49	Medium modification of the charged-current neutrino opacity and its implications. Physical Review C, 2012, 86, .	2.9	158
50	Strangelet dwarfs. Journal of Physics G: Nuclear and Particle Physics, 2012, 39, 065201.	3.6	18
51	Protoneutron Star Cooling with Convection: The Effect of the Symmetry Energy. Physical Review Letters, 2012, 108, 061103.	7.8	117
52	Maximum mass and radius of neutron stars, and the nuclear symmetry energy. Physical Review C, 2012, 85, .	2.9	305
53	Low-energy theory for superfluid and solid matter and its application to the neutron star crust. Physical Review C, 2011, 84, .	2.9	29
54	Superfluid Dynamics in Neutron Star Crusts. Progress of Theoretical Physics Supplement, 2010, 186, 9-16.	0.1	40

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55	Superfluid response and the neutrino emissivity of neutron matter. <i>Physical Review C</i> , 2009, 79, .	2.9	39
56	Superfluid Heat Conduction and the Cooling of Magnetized Neutron Stars. <i>Physical Review Letters</i> , 2009, 102, 091101.	7.8	61
57	Superfluid Pairing Gap in Strong Coupling. <i>Physical Review Letters</i> , 2008, 100, 150403.	7.8	65
58	Mean-field analysis of pairing in asymmetric Fermi systems at finite temperature. <i>Physical Review A</i> , 2008, 78, .	2.5	8
59	Bulk viscosity due to kaons in color-flavor-locked quark matter. <i>Physical Review C</i> , 2007, 75, .	2.9	43
60	Magnetar oscillations pose challenges for strange stars. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2007, 379, L63-L66.	3.3	36
61	Cool Dense Matter and Neutron Star Phenomenology. <i>Nuclear Physics A</i> , 2007, 785, 24-35.	1.5	0
62	Stability of strange star crusts and strangelets. <i>Physical Review D</i> , 2006, 73, .	4.7	76
63	Neutrino opacities in nuclear matter. <i>Nuclear Physics A</i> , 2006, 777, 356-394.	1.5	191
64	Strange crusts on strange stars. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2006, 32, S267-S274.	3.6	1
65	Strange Star Surface: A Crust with Nuggets. <i>Physical Review Letters</i> , 2006, 96, 041101.	7.8	104
66	QUARK MATTER IN NEUTRON STARS: AN APERÄ±U. <i>Modern Physics Letters A</i> , 2006, 21, 1965-1979.	1.2	7
67	MATTER AT EXTREME DENSITY AND ITS ROLE IN NEUTRON STARS AND SUPERNOVA. <i>International Journal of Modern Physics B</i> , 2006, 20, 2704-2713.	2.0	1
68	Dense Matter in Compact Stars: Theoretical Developments and Observational Constraints. <i>Annual Review of Nuclear and Particle Science</i> , 2006, 56, 327-374.	10.2	173
69	New States of Matter in Polarized Cold Fermi Atoms. , 2006, , .		0
70	MATTER AT EXTREME DENSITY AND ITS ROLE IN NEUTRON STARS AND SUPERNOVA. , 2006, , .		0
71	Asymmetric Two-Component Fermion Systems in Strong Coupling. <i>Physical Review Letters</i> , 2005, 95, 060401.	7.8	246
72	Phase structure of two-flavor quark matter: Heterogeneous superconductors. <i>Physical Review C</i> , 2005, 71, .	2.9	55

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73	Hybrid Stars that Masquerade as Neutron Stars. <i>Astrophysical Journal</i> , 2005, 629, 969-978.	4.5	530
74	NEUTRINO PROCESSES IN HOT AND DENSE MATTER: CURRENT STATUS & OPEN ISSUES. , 2005, , .		0
75	Neutron stars, supernova and phases of dense quark matter. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2004, 30, S879-S885.	3.6	1
76	Neutrino scattering off pair-breaking and collective excitations in superfluid neutron matter and in color-flavor-locked quark matter. <i>Physical Review C</i> , 2004, 70, .	2.9	40
77	THE MICRO-PHYSICS OF NEUTRINO TRANSPORT AT EXTREME DENSITY. , 2004, , .		0
78	Neutrino interactions in dense stellar matter. <i>European Physical Journal A</i> , 2003, 17, 475-481.	2.5	1
79	Neutrino rates in color flavor locked quark matter. <i>Nuclear Physics A</i> , 2003, 714, 337-351.	1.5	51
80	Compact stars with color superconducting quark matter. <i>Physical Review D</i> , 2003, 67, .	4.7	174
81	Neutrino processes in the condensed phase of color flavor locked quark matter. <i>Physical Review D</i> , 2003, 68, .	4.7	16
82	Charged and Superconducting Vortices in Dense Quark Matter. <i>Physical Review Letters</i> , 2002, 88, 132302.	7.8	27
83	Color-neutral superconducting quark matter. <i>Physical Review D</i> , 2002, 66, .	4.7	175
84	Novel phases and transitions in color flavor locked matter. <i>Physical Review D</i> , 2002, 65, .	4.7	131
85	Extra dimensions, SN1987a, and nucleon-nucleon scattering data. <i>Nuclear Physics B</i> , 2001, 595, 335-359.	2.5	104
86	Neutrino and axion emissivities of neutron stars from nucleon-nucleon scattering data. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2001, 499, 9-15.	4.1	103
87	The likelihood of GODs' existence: improving the SN 1987a constraint on the size of large compact dimensions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2001, 509, 1-9.	4.1	81
88	First order kaon condensation in neutron stars: Finite size effects in the mixed phase. <i>Physical Review C</i> , 2001, 63, .	2.9	36
89	Minimal color-flavor-locked-nuclear interface. <i>Physical Review D</i> , 2001, 64, .	4.7	224
90	Evolution of a Neutron Star from Its Birth to Old Age. <i>Lecture Notes in Physics</i> , 2001, , 364-423.	0.7	42

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91	First order phase transitions in neutron star matter: droplets and coherent neutrino scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 475, 1-8.	4.1	58
92	Kaon condensation in proto-neutron star matter. Physical Review C, 2000, 62, .	2.9	85
93	Neutrino propagation in color superconducting quark matter. Physical Review D, 2000, 62, .	4.7	68
94	Effects of strong and electromagnetic correlations on neutrino interactions in dense matter. Physical Review C, 1999, 59, 2888-2918.	2.9	188
95	Evolution of Proto-Neutron Stars. Astrophysical Journal, 1999, 513, 780-804.	4.5	438
96	Thermal Evolution of Neutron Stars. Astrophysics and Space Science, 1998, 263, 291-294.	1.4	0
97	Neutrino interactions in hot and dense matter. Physical Review D, 1998, 58, .	4.7	261
98	Neutrino Scattering in a Newly Born Neutron Star. Astrophysical Journal, 1997, 478, 689-700.	4.5	27
99	Neutrinos from Protoneutron Stars: a Probe of Hot and Dense Matter. , 1996, , 237-245.		0