Georg G Raffelt

List of Publications by Year
in descending order

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41	6,773	101543	265206
papers	citations	36 h-index	42 g-index

42	42	42	3101
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Neutrino physics with JUNO. Journal of Physics G: Nuclear and Particle Physics, 2016, 43, 030401.	3.6	750
2	Mixing of the photon with low-mass particles. Physical Review D, 1988, 37, 1237-1249.	4.7	635
3	Astrophysical methods to constrain axions and other novel particle phenomena. Physics Reports, 1990, 198, 1-113.	25.6	578
4	Monte Carlo Study of Supernova Neutrino Spectra Formation. Astrophysical Journal, 2003, 590, 971-991.	4.5	467
5	Neutrono dispersion at finite temperature and density. Nuclear Physics B, 1988, 307, 924-936.	2.5	407
6	Bounds on exotic-particle interactions from SN1987A. Physical Review Letters, 1988, 60, 1793-1796.	7.8	393
7	Self-induced conversion in dense neutrino gases: Pendulum in flavor space. Physical Review D, 2006, 74, .	4.7	270
8	PARTICLEPHYSICS FROMSTARS. Annual Review of Nuclear and Particle Science, 1999, 49, 163-216.	10.2	265
9	Astrophysical axion bounds diminished by screening effects. Physical Review D, 1986, 33, 897-909.	4.7	205
10	Multiple Spectral Splits of Supernova Neutrinos. Physical Review Letters, 2009, 103, 051105.	7.8	189
11	New bound on neutrino dipole moments from globular-cluster stars. Physical Review Letters, 1990, 64, 2856-2858.	7.8	163
12	Standard and nonstandard plasma neutrino emission revisited. Astrophysical Journal, 1994, 425, 222.	4.5	161
13	Collective neutrino flavor conversion: Recent developments. Nuclear Physics B, 2016, 908, 366-381.	2.5	156
14	SELF-SUSTAINED ASYMMETRY OF LEPTON-NUMBER EMISSION: A NEW PHENOMENON DURING THE SUPERNOVA SHOCK-ACCRETION PHASE IN THREE DIMENSIONS. Astrophysical Journal, 2014, 792, 96.	4.5	152
15	Fast Pairwise Conversion of Supernova Neutrinos: A Dispersion Relation Approach. Physical Review Letters, 2017, 118, 021101.	7.8	141
16	SN 1987A gamma-ray limits on the conversion of pseudoscalars. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 383, 439-443.	4.1	134
17	Red giant bound on the axion-electron coupling reexamined. Physical Review D, 1995, 51, 1495-1498.	4.7	133
18	Linearized flavor-stability analysis of dense neutrino streams. Physical Review D, 2011, 84, .	4.7	117

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19	High-resolution supernova neutrino spectra represented by a simple fit. Physical Review D, 2012, 86, .	4.7	116
20	Constraining invisible neutrino decays with the cosmic microwave background. Physical Review D, 2005, 72, .	4.7	108
21	Self-induced decoherence in dense neutrino gases. Physical Review D, 2007, 75, .	4.7	101
22	Muâ€•and Tauâ€Neutrino Spectra Formation in Supernovae. Astrophysical Journal, 2001, 561, 890-914.	4.5	93
23	Axion and neutrino bounds improved with new calibrations of the tip of the red-giant branch using geometric distance determinations. Physical Review D, 2020, 102, .	4.7	89
24	Neutrino Signature of Supernova Hydrodynamical Instabilities in Three Dimensions. Physical Review Letters, 2013, 111, 121104.	7.8	88
25	Core mass at the helium flash from observations and a new bound on neutrino electromagnetic properties. Astrophysical Journal, 1990, 365, 559.	4.5	84
26	Flavor-dependent Neutrino Angular Distribution in Core-collapse Supernovae. Astrophysical Journal, 2017, 839, 132.	4.5	77
27	Muonic boson limits: Supernova redux. Physical Review D, 2022, 105, .	4.7	75
28	Grand unified neutrino spectrum at Earth: Sources and spectral components. Reviews of Modern Physics, 2020, 92, .	45.6	69
29	Relic Density of Neutrinos with Primordial Asymmetries. Physical Review Letters, 2009, 102, 241302.	7.8	55
30	Supernova bounds on neutrino radiative decays. Astroparticle Physics, 1993, 1, 377-386.	4.3	50
31	Normal-mode analysis for collective neutrino oscillations. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 019-019.	5.4	49
32	Low-Energy Supernovae Severely Constrain Radiative Particle Decays. Physical Review Letters, 2022, 128, .	7.8	48
33	Reduced neutrino opacities and the SN 1987A signal. Physical Review D, 1995, 51, 6635-6646.	4.7	38
34	Fast neutrino flavor conversion: collective motion vs. decoherence. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 002-002.	5.4	38
35	Spurious instabilities in multiangle simulations of collective flavor conversion. Physical Review D, 2012, 86, .	4.7	37
36	Neutrino Flavor Pendulum Reloaded: The Case of Fast Pairwise Conversion. Physical Review Letters, 2022, 128, 121102.	7.8	34

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37	Distinguishing Dirac and Majorana neutrinos by their decays via Nambu-Goldstone bosons in the gravitational-anomaly model of neutrino masses. Physical Review D, 2020, 101, .	4.7	31
38	Solar neutrino flux at keV energies. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 010-010.	5.4	28
39	Flavour-dependent radiative correction to neutrino-neutrino refraction. Journal of High Energy Physics, 2009, 2009, 020-020.	4.7	17
40	Comment on â€œNew Limits to the Infrared Background: Bounds on Radiative Neutrino Decay and on Contributions of Very Massive Objects to the Dark Matter Problemâ€• Physical Review Letters, 1998, 81, 4020-4020.	7.8	15
41	Standard and Nonstandard Plasma Neutrino Emission Revisted: Erratum. Astrophysical Journal, 1995, 438, 1017.	4.5	11