

# Georg Raffelt

## List of Publications by Year in descending order

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47  
papers

4,302  
citations

147801

31  
h-index

214800

47  
g-index

47  
all docs

47  
docs citations

47  
times ranked

2281  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mixing of the photon with low-mass particles. <i>Physical Review D</i> , 1988, 37, 1237-1249.	4.7	635
2	Neutrino dispersion at finite temperature and density. <i>Nuclear Physics B</i> , 1988, 307, 924-936.	2.5	407
3	Bounds on exotic-particle interactions from SN1987A. <i>Physical Review Letters</i> , 1988, 60, 1793-1796.	7.8	393
4	Supernova Neutrino Opacity from Nucleon-Nucleon Bremsstrahlung and Related Processes. <i>Astrophysical Journal</i> , 1998, 507, 339-352.	4.5	188
5	Solar constraints on hidden photons re-visited. <i>Journal of Cosmology and Astroparticle Physics</i> , 2013, 2013, 034-034.	5.4	165
6	Standard and nonstandard plasma neutrino emission revisited. <i>Astrophysical Journal</i> , 1994, 425, 222.	4.5	161
7	Red giant bound on the axion-electron coupling reexamined. <i>Physical Review D</i> , 1995, 51, 1495-1498.	4.7	133
8	Nucleon Spin Fluctuations and the Supernova Emission of Neutrinos and Axions. <i>Physical Review Letters</i> , 1996, 76, 2621-2624.	7.8	133
9	Physics of synchronized neutrino oscillations caused by self-interactions. <i>Physical Review D</i> , 2002, 65, .	4.7	132
10	Flavor Oscillations in the Supernova Hot Bubble Region: Nonlinear Effects of Neutrino Background. <i>Physical Review Letters</i> , 2002, 89, 191101.	7.8	127
11	High-resolution supernova neutrino spectra represented by a simple fit. <i>Physical Review D</i> , 2012, 86, .	4.7	116
12	Neutrino emission characteristics and detection opportunities based on three-dimensional supernova simulations. <i>Physical Review D</i> , 2014, 90, .	4.7	114
13	Neutrino oscillations and the supernova 1987A signal. <i>Physical Review D</i> , 1996, 54, 1194-1203.	4.7	111
14	Limits on a $C \langle P \rangle$ -violating scalar axion-nucleon interaction. <i>Physical Review D</i> , 2012, 86, .	4.7	111
15	Axial Symmetry Breaking in Self-Induced Flavor Conversion of Supernova Neutrino Fluxes. <i>Physical Review Letters</i> , 2013, 111, 091101.	7.8	102
16	Neutrino Signature of Supernova Hydrodynamical Instabilities in Three Dimensions. <i>Physical Review Letters</i> , 2013, 111, 121104.	7.8	88
17	Self-consistent approach to neutral-current processes in supernova cores. <i>Physical Review D</i> , 1995, 52, 1780-1799.	4.7	87
18	Multiple-scattering suppression of the bremsstrahlung emission of neutrinos and axions in supernovae. <i>Physical Review Letters</i> , 1991, 67, 2605-2608.	7.8	76

#	ARTICLE	IF	CITATIONS
19	Muonic boson limits: Supernova redux. <i>Physical Review D</i> , 2022, 105, .	4.7	75
20	Neutrino dispersion in magnetized media and spin oscillations in the early Universe. <i>Nuclear Physics B</i> , 1996, 479, 3-24.	2.5	73
21	Axion hot dark matter bounds after Planck. <i>Journal of Cosmology and Astroparticle Physics</i> , 2013, 2013, 020-020.	5.4	69
22	Grand unified neutrino spectrum at Earth: Sources and spectral components. <i>Reviews of Modern Physics</i> , 2020, 92, .	45.6	69
23	Supernova neutrino halo and the suppression of self-induced flavor conversion. <i>Physical Review D</i> , 2012, 85, .	4.7	68
24	Fast time variations of supernova neutrino fluxes and their detectability. <i>Physical Review D</i> , 2010, 82, .	4.7	65
25	Photon-photon dispersion of TeV gamma rays and its role for photon-ALP conversion. <i>Physical Review D</i> , 2015, 91, .	4.7	57
26	Unparticle constraints from supernova 1987A. <i>Physical Review D</i> , 2007, 76, .	4.7	53
27	Collective neutrino oscillations in nonspherical geometry. <i>Physical Review D</i> , 2008, 78, .	4.7	52
28	Supernova bounds on neutrino radiative decays. <i>Astroparticle Physics</i> , 1993, 1, 377-386.	4.3	50
29	Low-Energy Supernovae Severely Constrain Radiative Particle Decays. <i>Physical Review Letters</i> , 2022, 128, .	7.8	48
30	Reduced neutrino opacities and the SN 1987A signal. <i>Physical Review D</i> , 1995, 51, 6635-6646.	4.7	38
31	Neutrino flavor pendulum in both mass hierarchies. <i>Physical Review D</i> , 2013, 88, .	4.7	37
32	Distinguishing Dirac and Majorana neutrinos by their decays via Nambu-Goldstone bosons in the gravitational-anomaly model of neutrino masses. <i>Physical Review D</i> , 2020, 101, .	4.7	31
33	Dark matter and thermal pulses in horizontal-branch stars. <i>Astrophysical Journal</i> , 1990, 354, 568.	4.5	31
34	Fast time variations of supernova neutrino signals from 3-dimensional models. <i>Physical Review D</i> , 2012, 86, .	4.7	29
35	Can a mass inversion save solar neutrino oscillations from the LSND neutrino?. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1996, 366, 429-433.	4.1	28
36	Supernova neutrino scattering rates reduced by nucleon spin fluctuations: Perturbative limit. <i>Physical Review D</i> , 1996, 54, 2784-2792.	4.7	24

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37	Liouville term for neutrinos: flavor structure and wave interpretation. <i>Journal of Cosmology and Astroparticle Physics</i> , 2018, 2018, 016-016.	5.4	22
38	Magnetically induced neutrino oscillations and neutrino refractive effects in the early Universe. <i>Physical Review Letters</i> , 1988, 60, 879-881.	7.8	21
39	The paradox of axions surviving primordial magnetic fields. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1996, 366, 224-228.	4.1	18
40	Reduction of weak interaction rates in neutron stars by nucleon spin fluctuations: Degenerate case. <i>Physical Review D</i> , 1997, 55, 523-527.	4.7	12
41	Raffelt and Seckel reply. <i>Physical Review Letters</i> , 1992, 68, 3116-3116.	7.8	11
42	Photon dispersion in a supernova core. <i>Physical Review D</i> , 1998, 57, 3235-3241.	4.7	11
43	Dark matter and the age of globular clusters. <i>Nature</i> , 1990, 343, 347-348.	27.8	10
44	Horizontal branch stars and the neutrino signal from SN 1987A. <i>Physical Review D</i> , 1988, 38, 3811-3812.	4.7	8
45	Axions. <i>Space Science Reviews</i> , 2002, 100, 153-158.	8.1	7
46	Stellar-evolution limits on axion properties. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 1999, 72, 43-53.	0.4	4
47	Axions. <i>Space Sciences Series of ISSI</i> , 2002, , 153-158.	0.0	2