

# George M Fuller

## List of Publications by Year in descending order

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114  
papers

7,618  
citations

50566

48  
h-index

58552

86  
g-index

114  
all docs

114  
docs citations

114  
times ranked

2763  
citing authors

#	ARTICLE	IF	CITATIONS
1	Modified Brink-Axel hypothesis for astrophysical Gamow-Teller transitions. Physical Review C, 2022, 105, .	1.1	6
2	Effects of an intermediate mass sterile neutrino population on the early Universe. Physical Review D, 2022, 105, .	1.6	2
3	Test for the Origin of Solar Mass Black Holes. Physical Review Letters, 2021, 126, 071101.	2.9	35
4	Inference of neutrino flavor evolution through data assimilation and neural differential equations. Physical Review D, 2021, 103, .	1.6	5
5	Time of flight and supernova progenitor effects on the neutrino halo. Physical Review D, 2020, 102, .	1.6	24
6	Consequences of neutrino self-interactions for weak decoupling and big bang nucleosynthesis. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 001-001.	1.9	17
7	Fast oscillations, collisionless relaxation, and spurious evolution of supernova neutrino flavor. Physical Review D, 2020, 102, .	1.6	53
8	Inference offers a metric to constrain dynamical models of neutrino flavor transformation. Physical Review D, 2020, 102, .	1.6	5
9	Neutrino oscillations in supernovae: Angular moments and fast instabilities. Physical Review D, 2020, 101, .	1.6	79
10	Self-interacting sterile neutrino dark matter: The heavy-mediator case. Physical Review D, 2019, 100, .	1.6	20
11	Positrons and 511 keV Radiation as Tracers of Recent Binary Neutron Star Mergers. Physical Review Letters, 2019, 122, 121101.	2.9	13
12	Strange mechanics of the neutrino flavor pendulum. Physical Review D, 2018, 97, .	1.6	14
13	Neutrino Spectra from Nuclear Weak Interactions in sd-Shell Nuclei under Astrophysical Conditions. Astrophysical Journal, 2018, 852, 43.	1.6	7
14	Neutrino burst-generated gravitational radiation from collapsing supermassive stars. Physical Review D, 2018, 98, .	1.6	10
15	Geometric phases in neutrino oscillations with nonlinear refraction. Physical Review D, 2017, 95, .	1.6	14
16	Lepton asymmetry, neutrino spectral distortions, and big bang nucleosynthesis. Physical Review D, 2017, 95, .	1.6	17
17	Neutrino flavor evolution in neutron star mergers. Physical Review D, 2017, 96, .	1.6	27
18	Primordial Black Holes and $\langle \sigma v \rangle$ Process Nucleosynthesis. Physical Review Letters, 2017, 119, 061101.	2.9	68

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19	An optimization-based approach to calculating neutrino flavor evolution. <i>Physical Review D</i> , 2017, 96, .	1.6	12
20	Prospects for neutrino spin coherence in supernovae. <i>Physical Review D</i> , 2017, 95, .	1.6	13
21	Neutrinos from Pre-Collapse Stars. , 2017, , .		0
22	Nuclear neutrino energy spectra in high temperature astrophysical environments. <i>Physical Review C</i> , 2016, 94, .	1.1	12
23	The surprising influence of late charged current weak interactions on Big Bang Nucleosynthesis. <i>Nuclear Physics B</i> , 2016, 911, 955-973.	0.9	16
24	Neutrino flavor transformation in the lepton-asymmetric universe. <i>Physical Review D</i> , 2016, 94, .	1.6	31
25	Probing neutrino physics with a self-consistent treatment of the weak decoupling, nucleosynthesis, and photon decoupling epochs. <i>Journal of Cosmology and Astroparticle Physics</i> , 2015, 2015, 017-017.	1.9	22
26	Diluted equilibrium sterile neutrino dark matter. <i>Physical Review D</i> , 2015, 92, .	1.6	52
27	A new spin on neutrino quantum kinetics. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2015, 747, 27-35.	1.5	50
28	Modification of the Brink-Axel hypothesis for high-temperature nuclear weak interactions. <i>Physical Review C</i> , 2014, 90, .	1.1	34
29	Neutrino quantum kinetics. <i>Physical Review D</i> , 2014, 89, .	1.6	128
30	Neutrino-pair emission from hot nuclei during stellar collapse. <i>Physical Review C</i> , 2013, 88, .	1.1	10
31	Halo modification of a supernova neutronization neutrino burst. <i>Physical Review D</i> , 2013, 87, .	1.6	56
32	Dark matter studies entrain nuclear physics. <i>Progress in Particle and Nuclear Physics</i> , 2013, 71, 167-184.	5.6	14
33	Neutrino luminosity and matter-induced modification of collective neutrino flavor oscillations in supernovae. <i>Physical Review D</i> , 2012, 85, .	1.6	18
34	Neutrino Scattering and Flavor Transformation in Supernovae. <i>Physical Review Letters</i> , 2012, 108, 261104.	2.9	97
35	Density fluctuation effects on collective neutrino oscillations in O-Ne-Mg core-collapse supernovae. <i>Physical Review D</i> , 2011, 84, .	1.6	19
36	Multiangle simulation of flavor evolution in the neutronization neutrino burst from an O-Ne-Mg core-collapse supernova. <i>Physical Review D</i> , 2010, 82, .	1.6	27

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37	Weak interaction rate Coulomb corrections in big bang nucleosynthesis. Physical Review D, 2010, 81, .	1.6	8
38	Nuclear weak interaction rates in primordial nucleosynthesis. Physical Review D, 2010, 82, .	1.6	8
39	New nuclear physics for big bang nucleosynthesis. Physical Review D, 2010, 82, .	1.6	50
40	Collective Neutrino Oscillations. Annual Review of Nuclear and Particle Science, 2010, 60, 569-594.	3.5	440
41	Heavy sterile neutrinos and supernova explosions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 670, 281-284.	1.5	53
42	Big bang nucleosynthesis with independent neutrino distribution functions. Physical Review D, 2009, 79, .	1.6	16
43	Quantum Coherence of Relic Neutrinos. Physical Review Letters, 2009, 102, 201303.	2.9	17
44	Lepton-number-driven sterile neutrino production in the early universe. Physical Review D, 2008, 78, .	1.6	34
45	Stepwise spectral swapping with three neutrino flavors. Physical Review D, 2008, 77, .	1.6	73
46	Flavor Evolution of the Neutronization Neutrino Burst From an O-Ne-Mg Core-Collapse Supernova. Physical Review Letters, 2008, 100, 021101.	2.9	84
47	Neutrino Mass Hierarchy and Stepwise Spectral Swapping of Supernova Neutrino Flavors. Physical Review Letters, 2007, 99, 241802.	2.9	109
48	Neutrino Accelerated Hot Hydrogen Burning. Astrophysical Journal, 2007, 656, 1104-1108.	1.6	0
49	Analysis of collective neutrino flavor transformation in supernovae. Physical Review D, 2007, 75, .	1.6	134
50	Bulk viscosity, decaying dark matter, and the cosmic acceleration. Physical Review D, 2007, 75, .	1.6	62
51	Stellar collapse dynamics with neutrino flavor changing neutral currents. Physical Review D, 2007, 75, .	1.6	14
52	Simple picture for neutrino flavor transformation in supernovae. Physical Review D, 2007, 76, .	1.6	79
53	Sterile neutrino-enhanced supernova explosions. Physical Review D, 2007, 76, .	1.6	55
54	Simultaneous flavor transformation of neutrinos and antineutrinos with dominant potentials from neutrino-neutrino forward scattering. Physical Review D, 2006, 73, .	1.6	71

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55	Light element signatures of sterile neutrinos and cosmological lepton numbers. Physical Review D, 2006, 74, .	1.6	32
56	Dark matter sterile neutrinos in stellar collapse: Alteration of energy/lepton number transport, and a mechanism for supernova explosion enhancement. Physical Review D, 2006, 74, .	1.6	59
57	Collective neutrino flavor transformation in supernovae. Physical Review D, 2006, 74, .	1.6	226
58	Neutrino Flavor Changing Neutral Currents and Stellar Collapse. AIP Conference Proceedings, 2006, , .	0.3	0
59	Coherent Active-Sterile Neutrino Flavor Transformation in the Early Universe. Physical Review Letters, 2006, 97, 141301.	2.9	31
60	Simulation of coherent nonlinear neutrino flavor transformation in the supernova environment: Correlated neutrino trajectories. Physical Review D, 2006, 74, .	1.6	351
61	Coherent Development of Neutrino Flavor in the Supernova Environment. Physical Review Letters, 2006, 97, 241101.	2.9	154
62	Flavor changing supersymmetry interactions in a supernova. Astroparticle Physics, 2005, 24, 160-182.	1.9	30
63	Cosmological lepton asymmetry, primordial nucleosynthesis and sterile neutrinos. Physical Review D, 2005, 72, .	1.6	60
64	Pulsar kicks from a dark-matter sterile neutrino. Physical Review D, 2003, 68, .	1.6	150
65	Estimates of Stellar Weak Interaction Rates for Nuclei in the Mass Range $A \approx 65$ -80. Astrophysical Journal, Supplement Series, 2003, 149, 189-203.	3.0	73
66	The Extremely Metal-poor, Neutron Capture-rich Star CS 22892-052: A Comprehensive Abundance Analysis. Astrophysical Journal, 2003, 591, 936-953.	1.6	430
67	Bulk QCD thermodynamics and sterile neutrino dark matter. Physical Review D, 2002, 66, .	1.6	65
68	The Chemical Composition and Age of the Metal-poor Halo Star BD +17o3248. Astrophysical Journal, 2002, 572, 861-879.	1.6	267
69	Europium Isotopic Abundances in Very Metal Poor Stars. Astrophysical Journal, 2002, 566, L25-L28.	1.6	66
70	Light-Element Synthesis in High-Entropy Relativistic Flows Associated with Gamma-Ray Bursts. Astrophysical Journal, 2002, 580, 368-373.	1.6	27
71	Sterile neutrino hot, warm, and cold dark matter. Physical Review D, 2001, 64, .	1.6	406
72	Direct Detection of Warm Dark Matter in the X-Ray. Astrophysical Journal, 2001, 562, 593-604.	1.6	261

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73	New connection between central engine weak physics and the dynamics of gamma-ray burst fireballs. <i>Physical Review D</i> , 2001, 64, .	1.6	15
74	On Steady State Neutrino-Heated Ultrarelativistic Winds from Compact Objects. <i>Astrophysical Journal</i> , 2001, 561, 957-963.	1.6	10
75	Neutrino Flavor Transformation in Supernovae and the Early Universe. , 2001, , 255-285.		0
76	Evidence of Multiple [CLC][ITAL]r[/ITAL][[/CLC]-Process Sites in the Early Galaxy: New Observations of CS 22892 $\hat{\wedge}$ 052. <i>Astrophysical Journal</i> , 2000, 533, L139-L142.	1.6	209
77	Can a Large Neutron Excess Help Solve the Baryon Loading Problem in Gamma-Ray Burst Fireballs?. <i>Physical Review Letters</i> , 2000, 85, 2673-2676.	2.9	33
78	Increase in the primordial $^4\text{He}$ yield in the two-doublet four-neutrino mixing scheme. <i>Physical Review D</i> , 2000, 62, .	1.6	8
79	Sterile neutrinos and supernova nucleosynthesis. <i>Physical Review D</i> , 2000, 61, .	1.6	72
80	Neutrino masses and mixings: Big Bang and Supernova nucleosynthesis and neutrino dark matter. , 1999, , .		0
81	Big bang nucleosynthesis and active-sterile neutrino mixing: Evidence for maximal $\hat{\wedge}^{\wedge}1/2\hat{\wedge}^{\wedge}1/4\hat{\wedge}^{\wedge}1/2\hat{\wedge}$ mixing in Super Kamiokande?. <i>Physical Review D</i> , 1999, 59, .	1.6	14
82	Prospects for detecting supernova neutrino flavor oscillations. <i>Physical Review D</i> , 1999, 59, .	1.6	97
83	Neutrino-mixing-generated lepton asymmetry and the primordial $^4\text{He}$ abundance. <i>Physical Review D</i> , 1999, 60, .	1.6	21
84	Leptonic Domains in the Early Universe and Their Implications. <i>Physical Review Letters</i> , 1999, 83, 3120-3123.	2.9	32
85	New Dark Matter Candidate: Nonthermal Sterile Neutrinos. <i>Physical Review Letters</i> , 1999, 82, 2832-2835.	2.9	582
86	Neutrino capture and r-process nucleosynthesis. <i>Physical Review C</i> , 1998, 58, 3696-3710.	1.1	102
87	Supermassive Objects as Gamma-Ray Bursters. <i>Astrophysical Journal</i> , 1998, 502, L5-L8.	1.6	15
88	Neutrino oscillations in curved spacetime: A heuristic treatment. <i>Physical Review D</i> , 1997, 55, 7960-7966.	1.6	137
89	General Relativistic Effects in the Neutrino-driven Wind and [CLC][ITAL]r[/ITAL][[/CLC]-Process Nucleosynthesis. <i>Astrophysical Journal</i> , 1997, 486, L111-L114.	1.6	83
90	Intermediate baseline appearance experiments and three-neutrino mixing schemes. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1997, 413, 246-252.	1.5	8

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91	Is Deuterium in High-Redshift Lyman Limit Systems Primordial?. <i>Astrophysical Journal</i> , 1997, 483, 560-564.	1.6	21
92	Weak Charge-changing Flow in Expanding-Process Environments. <i>Astrophysical Journal</i> , 1997, 489, 766-771.	1.6	15
93	Neutrino Production of Deuterium in Supermassive Stars and Possible Implications for Deuterium Detections in Lyman-Limit Systems. <i>Astrophysical Journal</i> , 1997, 487, L25-L28.	1.6	9
94	Evidence for an Intense Neutrino Flux during [ITAL]r[/ITAL]-Process Nucleosynthesis?. <i>Astrophysical Journal</i> , 1996, 464, L143-L146.	1.6	22
95	Neutrino gravitational redshift and the electron fraction above nascent neutron stars. <i>Nuclear Physics A</i> , 1996, 606, 167-172.	0.6	17
96	Three-generation neutrino mixing and $\nu_{\text{dark}}$ dark matter neutrinos. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 1996, 51, 259-263.	0.5	3
97	Can a "natural" three-generation neutrino mixing scheme satisfy everything?. <i>Physical Review D</i> , 1996, 53, 4421-4429.	1.6	59
98	Limits on active-sterile neutrino mixing and the primordial deuterium abundance. <i>Physical Review D</i> , 1996, 54, R1260-R1263.	1.6	18
99	Big Bang Nucleosynthesis in Light of Discordant Deuterium Measurements. <i>Astrophysical Journal</i> , 1996, 472, 435-439.	1.6	21
100	The Influence of Nuclear Composition on the Electron Fraction in the Post-Core Bounce Supernova Environment. <i>Astrophysical Journal</i> , 1996, 472, 440-451.	1.6	61
101	Neutrino-neutrino scattering and matter-enhanced neutrino flavor transformation in supernovae. <i>Physical Review D</i> , 1995, 51, 1479-1494.	1.6	152
102	Do experiments and astrophysical considerations suggest an inverted neutrino mass hierarchy?. <i>Physical Review D</i> , 1995, 52, 1288-1291.	1.6	43
103	Matter-enhanced antineutrino flavor transformation and supernova nucleosynthesis. <i>Physical Review D</i> , 1995, 52, 656-660.	1.6	67
104	Neutrino Capture and Supernova Nucleosynthesis. <i>Astrophysical Journal</i> , 1995, 453, 792.	1.6	130
105	Neutrino Capture on Heavy Nuclei. <i>Astrophysical Journal</i> , 1995, 455, 202.	1.6	29
106	Signature of supernova neutrino flavor mixing in water Cherenkov detectors. <i>Physical Review D</i> , 1994, 49, 1762-1770.	1.6	19
107	Part IV. Neutrino astrophysics. <i>Physics Reports</i> , 1993, 227, 149-155.	10.3	15
108	Connection between flavor-mixing of cosmologically significant neutrinos and heavy element nucleosynthesis in supernovae. <i>Physical Review Letters</i> , 1993, 71, 1965-1968.	2.9	195

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109	Can a closure mass neutrino help solve the supernova shock reheating problem?. Astrophysical Journal, 1992, 389, 517.	1.6	94
110	Astrophysical constraints on Dirac neutrino masses. AIP Conference Proceedings, 1991, , .	0.3	0
111	Neutrino oscillations and the leptonic charge of the universe. Astrophysical Journal, 1991, 368, 1.	1.6	48
112	New cosmological limit on neutrino mass. Physical Review D, 1991, 43, 3136-3139.	1.6	20
113	High-temperature neutrino-nucleus processes in stellar collapse. Astrophysical Journal, 1991, 376, 701.	1.6	57
114	Gamow-Teller electron capture strength distributions in stars: Unblocked iron and nickel isotopes. Nuclear Physics A, 1985, 440, 511-530.	0.6	43