

# Brian D Fields

## List of Publications by Year in descending order

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111  
papers

7,007  
citations

66343

42  
h-index

56724

83  
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111  
docs citations

111  
times ranked

6183  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimal state-determination by mutually unbiased measurements. <i>Annals of Physics</i> , 1989, 191, 363-381.	2.8	1,005
2	Big bang nucleosynthesis: Present status. <i>Reviews of Modern Physics</i> , 2016, 88, .	45.6	662
3	The Primordial Lithium Problem. <i>Annual Review of Nuclear and Particle Science</i> , 2011, 61, 47-68.	10.2	319
4	New BBN limits on physics beyond the standard model from 4He. <i>Astroparticle Physics</i> , 2005, 23, 313-323.	4.3	308
5	Updated nucleosynthesis constraints on unstable relic particles. <i>Physical Review D</i> , 2003, 67, .	4.7	307
6	Primordial Lithium and Big Bang Nucleosynthesis. <i>Astrophysical Journal</i> , 2000, 530, L57-L60.	4.5	265
7	An update on the big bang nucleosynthesis prediction for ${}^7\text{Li}$ : the problem worsens. <i>Journal of Cosmology and Astroparticle Physics</i> , 2008, 2008, 012.	5.4	262
8	Primordial nucleosynthesis in light of WMAP. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2003, 567, 227-234.	4.1	230
9	Big-Bang Nucleosynthesis after Planck. <i>Journal of Cosmology and Astroparticle Physics</i> , 2020, 2020, 010-010.	5.4	221
10	Bound-state effects on light-element abundances in gravitino dark matter scenarios. <i>Journal of Cosmology and Astroparticle Physics</i> , 2006, 2006, 014-014.	5.4	126
11	The NACRE thermonuclear reaction compilation and big bang nucleosynthesis. <i>New Astronomy</i> , 2001, 6, 215-238.	1.8	125
12	Geological Isotope Anomalies as Signatures of Nearby Supernovae. <i>Astrophysical Journal</i> , 1996, 470, 1227.	4.5	109
13	The Guaranteed Gamma-Ray Background. <i>Astrophysical Journal</i> , 2002, 575, L5-L8.	4.5	99
14	On the Evolution of Helium in Blue Compact Galaxies. <i>Astrophysical Journal</i> , 1998, 506, 177-190.	4.5	95
15	THE IMPLICATIONS OF A HIGH COSMIC-RAY IONIZATION RATE IN DIFFUSE INTERSTELLAR CLOUDS. <i>Astrophysical Journal</i> , 2009, 694, 257-267.	4.5	86
16	The evolution of in standard cosmic-ray nucleosynthesis. <i>New Astronomy</i> , 1999, 4, 255-263.	1.8	85
17	COSMIC GAMMA-RAY BACKGROUND FROM STAR-FORMING GALAXIES. <i>Astrophysical Journal Letters</i> , 2010, 722, L199-L203.	8.3	82
18	Nucleosynthesis constraints on a massive gravitino in neutralino dark matter scenarios. <i>Journal of Cosmology and Astroparticle Physics</i> , 2009, 2009, 021-021.	5.4	81

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19	Primordial nucleosynthesis and the abundances of beryllium and boron. <i>Astrophysical Journal</i> , 1993, 406, 569.	4.5	80
20	The Revival of Galactic Cosmic-Ray Nucleosynthesis?. <i>Astrophysical Journal</i> , 1999, 516, 797-810.	4.5	76
21	Solar neutrino constraints on the BBN production of Li. <i>Physical Review D</i> , 2004, 69, .	4.7	74
22	Galactic Center Gamma-Ray Excess from Dark Matter Annihilation: Is There a Black Hole Spike?. <i>Physical Review Letters</i> , 2014, 113, 151302.	7.8	74
23	INVESTIGATING THE COSMIC-RAY IONIZATION RATE NEAR THE SUPERNOVA REMNANT IC 443 THROUGH $H^{+3}$ OBSERVATIONS,. <i>Astrophysical Journal</i> , 2010, 724, 1357-1365.	4.5	72
24	Primordial nucleosynthesis with CMB inputs: probing the early universe and light element astrophysics. <i>Astroparticle Physics</i> , 2002, 17, 87-100.	4.3	68
25	New bounds for axions and axion-like particles with keV-GeV masses. <i>Physical Review D</i> , 2015, 92, .	4.7	67
26	Resonant destruction as a possible solution to the cosmological lithium problem. <i>Physical Review D</i> , 2011, 83, .	4.7	66
27	Observation of interstellar lithium in the low-metallicity Small Magellanic Cloud. <i>Nature</i> , 2012, 489, 121-123.	27.8	60
28	Model independent predictions of big bang nucleosynthesis from He and Li: consistency and implications. <i>New Astronomy</i> , 1996, 1, 77-96.	1.8	59
29	Diffuse Gamma Rays from Local Group Galaxies. <i>Astrophysical Journal</i> , 2001, 558, 63-71.	4.5	59
30	ASTROPHYSICAL SHRAPNEL: DISCRIMINATING AMONG NEAR-EARTH STELLAR EXPLOSION SOURCES OF LIVE RADIOACTIVE ISOTOPES. <i>Astrophysical Journal</i> , 2015, 800, 71.	4.5	57
31	On the Baryometric Status of ${}^3\text{He}$ . <i>Astrophysical Journal</i> , 2003, 585, 611-616.	4.5	57
32	Radioactive Probes of the Supernova-contaminated Solar Nebula: Evidence that the Sun Was Born in a Cluster. <i>Astrophysical Journal</i> , 2006, 652, 1755-1762.	4.5	56
33	LiBeB Production by Nuclei and Neutrinos. <i>Astrophysical Journal</i> , 1996, 468, 199.	4.5	54
34	Constraining strong baryon-dark-matter interactions with primordial nucleosynthesis and cosmic rays. <i>Physical Review D</i> , 2002, 65, .	4.7	52
35	Population II Li-6 as a probe of nucleosynthesis and stellar structure and evolution. <i>Astrophysical Journal</i> , 1993, 415, L35.	4.5	50
36	The impact of new $d(p,{}^3\text{H})$ rates on Big Bang Nucleosynthesis. <i>Journal of Cosmology and Astroparticle Physics</i> , 2021, 2021, 046.	5.4	48

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37	Big bang nucleosynthesis. Nuclear Physics A, 2006, 777, 208-225.	1.5	46
38	RADIOACTIVE IRON RAIN: TRANSPORTING $^{60}\text{Fe}$ IN SUPERNOVA DUST TO THE OCEAN FLOOR. Astrophysical Journal, 2016, 827, 48.	4.5	46
39	Effect of neutrino heating on primordial nucleosynthesis. Physical Review D, 1993, 47, 4309-4314.	4.7	45
40	Deep-Ocean Crusts as Telescopes: Using Live Radioisotopes to Probe Supernova Nucleosynthesis. Astrophysical Journal, 2005, 621, 902-907.	4.5	45
41	Testing Spallation Processes with Beryllium and Boron. Astrophysical Journal, 2000, 540, 930-945.	4.5	44
42	Nuclear reaction uncertainties, massive gravitino decays and the cosmological lithium problem. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 032-032.	5.4	44
43	Are starburst galaxies proton calorimeters?. Monthly Notices of the Royal Astronomical Society, 2018, 474, 4073-4088.	4.4	42
44	Production of Lithium, Beryllium, and Boron from Baryon inhomogeneous primordial nucleosynthesis. Astrophysical Journal, 1994, 430, 291.	4.5	40
45	Supernova Collisions with the Heliosphere. Astrophysical Journal, 2008, 678, 549-562.	4.5	39
46	Chemical Abundance Constraints on White Dwarfs as Halo Dark Matter. Astrophysical Journal, 2000, 534, 265-276.	4.5	38
47	On Nonprimordial Deuterium Production by Accelerated Particles. Astrophysical Journal, 2003, 597, 48-56.	4.5	37
48	Synoptic sky surveys and the diffuse supernova neutrino background: Removing astrophysical uncertainties and revealing invisible supernovae. Physical Review D, 2010, 81, .	4.7	37
49	Supernova triggers for end-Devonian extinctions. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21008-21010.	7.1	37
50	Model-independent predictions of big bang nucleosynthesis. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 368, 103-111.	4.1	36
51	On deep-ocean as a fossil of a near-earth supernova. New Astronomy, 1999, 4, 419-430.	1.8	36
52	A Simple Model for $\alpha$ -Process Scatter and Halo Evolution. Astrophysical Journal, 2002, 575, 845-854.	4.5	35
53	Cosmic-ray models for early Galactic Lithium, Beryllium, and Boron production. Astrophysical Journal, 1994, 435, 185.	4.5	34
54	Cosmic core-collapse supernovae from upcoming sky surveys. Journal of Cosmology and Astroparticle Physics, 2009, 2009, 047-047.	5.4	33

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55	Gravitino decays and the cosmological lithium problem in light of the LHC Higgs and supersymmetry searches. <i>Journal of Cosmology and Astroparticle Physics</i> , 2013, 2013, 014-014.	5.4	32
56	Implications of a New Temperature Scale for Halo Dwarfs on LiBeB and Chemical Evolution. <i>Astrophysical Journal</i> , 2005, 623, 1083-1091.	4.5	31
57	On the Evolution of the Light Elements. I. D, $^3\text{He}$ , and $^4\text{He}$ . <i>Astrophysical Journal</i> , 1996, 456, 478.	4.5	31
58	Halo White Dwarfs and the Hot Intergalactic Medium. <i>Astrophysical Journal</i> , 1997, 483, 625-637.	4.5	31
59	Massive compact halo objects viewed from a cosmological perspective: contribution to the baryonic mass density of the universe. <i>New Astronomy</i> , 1998, 3, 347-361.	1.8	30
60	On the Possible Sources of D/H Dispersion at High Redshift. <i>Astrophysical Journal</i> , 2001, 563, 653-659.	4.5	28
61	Black Hole Window into $p\bar{p}$ -Wave Dark Matter Annihilation. <i>Physical Review Letters</i> , 2015, 115, 231302.	7.8	26
62	The deuterium abundance in the local interstellar medium. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , no-no.	4.4	24
63	Production of Lithium, Beryllium, and Boron by Hypernovae and the Possible Hypernova $\gamma$ -Ray Burst Connection. <i>Astrophysical Journal</i> , 2002, 581, 389-395.	4.5	23
64	INVERSE-COMPTON CONTRIBUTION TO THE STAR-FORMING EXTRAGALACTIC GAMMA-RAY BACKGROUND. <i>Astrophysical Journal</i> , 2013, 773, 104.	4.5	23
65	Magnetic Imprisonment of Dusty Pinballs by a Supernova Remnant. <i>Astrophysical Journal</i> , 2020, 894, 109.	4.5	22
66	Discovery of an Old, Nearby, and Overlooked Supernova Remnant Centered on the Southern Constellation Antlia Pneumatica. <i>Astrophysical Journal</i> , 2002, 576, L41-L44.	4.5	21
67	$^6\text{Li}$ and Gamma Rays: Complementary Constraints on Cosmic $\gamma$ -Ray History. <i>Astrophysical Journal</i> , 2005, 623, 877-888.	4.5	19
68	Superluminous Supernovae: No Threat from $i\hat{1}$ Carinae. <i>Astrobiology</i> , 2008, 8, 9-16.	3.0	18
69	Analytical Models for the Energetics of Cosmic Accretion Shocks, Their Cosmological Evolution, and the Effect of Environment. <i>Astrophysical Journal</i> , 2006, 642, 734-745.	4.5	16
70	FUSE deuterium observations: a strong case for galactic infall. <i>Journal of Cosmology and Astroparticle Physics</i> , 2008, 2008, 003.	5.4	16
71	r-Process Radioisotopes from Near-Earth Supernovae and Kilonovae. <i>Astrophysical Journal</i> , 2021, 923, 219.	4.5	15
72	Live radioisotopes as signatures of nearby supernovae. <i>New Astronomy Reviews</i> , 2004, 48, 119-123.	12.8	14

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73	Probing Primordial and Pre-Galactic Lithium with High-Velocity Clouds. <i>Astrophysical Journal</i> , 2004, 616, L115-L118.	4.5	14
74	RADIO SUPERNOVAE IN THE GREAT SURVEY ERA. <i>Astrophysical Journal</i> , 2011, 740, 23.	4.5	14
75	Nuclear and Gamma-Ray Production by Supernova Ejecta. <i>Astrophysical Journal</i> , 1996, 462, 276.	4.5	14
76	Halo star abundances and r-process synthesis. <i>Nuclear Physics A</i> , 2001, 688, 330-339.	1.5	13
77	Probing the Earth's Interior with the LENA Detector. <i>Earth, Moon and Planets</i> , 2007, 99, 253-264.	0.6	13
78	Probing the Earth's interior with a large-volume liquid scintillator detector. <i>Astroparticle Physics</i> , 2007, 27, 21-29.	4.3	13
79	Cosmic chemical evolution with an early population of intermediate-mass stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 413, 2987-3002.	4.4	13
80	Limits on the Boron Isotopic Ratio in HD 76932. <i>Astrophysical Journal</i> , 1998, 507, 387-397.	4.5	12
81	Double distribution of dark matter halos with respect to mass and local overdensity. <i>Physical Review D</i> , 2005, 71, .	4.7	11
82	THE SEARCH FOR EXTRAGALACTIC LITHIUM HYDRIDE. <i>Astrophysical Journal</i> , 2011, 738, 37.	4.5	11
83	Nucleosynthesis limits on the mass of long lived tau and muon neutrinos. <i>Astroparticle Physics</i> , 1997, 6, 169-185.	4.3	10
84	The pionic contribution to diffuse $\hat{1}^3$ -rays: upper limits. <i>Astroparticle Physics</i> , 2004, 21, 627-635.	4.3	10
85	Cosmological cosmic rays: Sharpening the primordial lithium problem. <i>Physical Review D</i> , 2007, 76, .	4.7	10
86	Imaging the Earth's Interior: the Angular Distribution of Terrestrial Neutrinos. <i>Earth, Moon and Planets</i> , 2007, 99, 155-181.	0.6	10
87	A Peculiar Linear Radio Feature in the Supernova Remnant N206. <i>Astronomical Journal</i> , 2002, 124, 2135-2144.	4.7	10
88	Can Galactic Cosmic Rays Account for Solar 6 Li without Overproducing Gamma Rays?. <i>Astrophysical Journal</i> , 2006, 645, L125-L128.	4.5	8
89	SPATIAL AND SPECTRAL MODELING OF THE GAMMA-RAY DISTRIBUTION IN THE LARGE MAGELLANIC CLOUD. <i>Astrophysical Journal</i> , 2015, 808, 44.	4.5	8
90	Using gamma ray monitoring to avoid missing the next Milky Way Type Ia supernova. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 486, 2910-2918.	4.4	8

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91	Sandblasting the r-process: Spallation of Ejecta from Neutron Star Mergers. <i>Astrophysical Journal</i> , 2020, 893, 92.	4.5	8
92	Simulations of $^{60}\text{Fe}$ entrained in ejecta from a near-Earth supernova: effects of observer motion. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 512, 712-727.	4.4	8
93	THE DIFFUSE GAMMA-RAY BACKGROUND FROM TYPE Ia SUPERNOVAE. <i>Astrophysical Journal</i> , 2012, 747, 120.	4.5	7
94	Implications of a high population 2 B/Be ratio. <i>Astrophysical Journal</i> , 1995, 439, 854.	4.5	7
95	Quark matter and cosmology. <i>Nuclear Physics A</i> , 1992, 544, 267-278.	1.5	6
96	Unidentified EGRET sources and the extragalactic gamma-ray background. <i>Astrophysics and Space Science</i> , 2007, 309, 81-87.	1.4	6
97	Climate change via $\text{CO}_2$ drawdown from astrophysically initiated atmospheric ionization?. <i>International Journal of Astrobiology</i> , 2020, 19, 349-352.	1.6	6
98	Witnessing history: sky distribution, detectability, and rates of naked-eye Milky Way supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 927-943.	4.4	6
99	Enhanced cosmological $^{6}\text{Li}$ abundance as a potential signature of residual dark matter annihilations. <i>Physical Review D</i> , 2011, 84, .	4.7	5
100	The origin of the elements: a century of progress. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190301.	3.4	5
101	Testing the Relation between the Local and Cosmic Star Formation Histories. <i>Astrophysical Journal</i> , 1999, 515, 603-609.	4.5	4
102	Population studies of the unidentified EGRET sources. <i>Astrophysics and Space Science</i> , 2007, 309, 43-49.	1.4	2
103	Cosmic-ray induced gamma-ray emission from the starburst galaxy NGC 253. , 2014, , .		2
104	Primordial element production studied beneath a mountain. <i>Nature</i> , 2020, 587, 203-204.	27.8	1
105	Death of Stellar Baryonic Dark Matter. , 2001, , 159-167.		1
106	Death of Stellar Baryonic Dark Matter. , 2001, , .		1
107	The pionic contribution to diffuse $\gamma$ -rays: upper limits. <i>Astroparticle Physics</i> , 2004, 21, 627-627.	4.3	0
108	Lithium-6 and Gamma-Rays: Constraints on Primordial Lithium, Cosmic Rays and Cosmic Star Formation. <i>Nuclear Physics A</i> , 2005, 758, 799-802.	1.5	0

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109	Big Bang Nucleosynthesis in the New Cosmology. AIP Conference Proceedings, 2008, , .	0.4	0
110	(Un)true deuterium abundance in the Galactic disk. Proceedings of the International Astronomical Union, 2009, 5, 65-70.	0.0	0
111	Spallation of r-Process Nuclei Ejected from a Neutron Star Merger. Journal of Physics: Conference Series, 2020, 1668, 012049.	0.4	0