

# David M Smith

## List of Publications by Year in descending order

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91  
papers

29,736  
citations

66315

42  
h-index

49868

87  
g-index

94  
all docs

94  
docs citations

94  
times ranked

22171  
citing authors

#	ARTICLE	IF	CITATIONS
1	Geant4—a simulation toolkit. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 506, 250-303.	0.7	17,893
2	Geant4 developments and applications. IEEE Transactions on Nuclear Science, 2006, 53, 270-278.	1.2	4,869
3	THE NUCLEAR SPECTROSCOPIC TELESCOPE ARRAY (NuSTAR) HIGH-ENERGY X-RAY MISSION. Astrophysical Journal, 2013, 770, 103.	1.6	1,627
4	Terrestrial Gamma-Ray Flashes Observed up to 20 MeV. Science, 2005, 307, 1085-1088.	6.0	400
5	The Space Physics Environment Data Analysis System (SPEDAS). Space Science Reviews, 2019, 215, 9.	3.7	332
6	High-Energy Atmospheric Physics: Terrestrial Gamma-Ray Flashes and Related Phenomena. Space Science Reviews, 2012, 173, 133-196.	3.7	257
7	A comparison between Monte Carlo simulations of runaway breakdown and terrestrial gamma-ray flash observations. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	237
8	First results on terrestrial gamma ray flashes from the Fermi Gamma-ray Burst Monitor. Journal of Geophysical Research, 2010, 115, .	3.3	218
9	The MESSENGER Gamma-Ray and Neutron Spectrometer. Space Science Reviews, 2007, 131, 339-391.	3.7	175
10	Measurements and implications of the relationship between lightning and terrestrial gamma ray flashes. Geophysical Research Letters, 2005, 32, .	1.5	165
11	A link between terrestrial gamma-ray flashes and intracloud lightning discharges. Geophysical Research Letters, 2006, 33, .	1.5	153
12	First Gamma-Ray Images of a Solar Flare. Astrophysical Journal, 2003, 595, L77-L80.	1.6	152
13	Gamma-Ray Imaging of the 2003 October/November Solar Flares. Astrophysical Journal, 2006, 644, L93-L96.	1.6	132
14	X-ray observations of MeV electron precipitation with a balloon-borne germanium spectrometer. Geophysical Research Letters, 2002, 29, 47-1-47-4.	1.5	128
15	Precipitation of relativistic electrons by interaction with electromagnetic ion cyclotron waves. Journal of Geophysical Research, 2000, 105, 5381-5389.	3.3	126
16	Lightning mapping observation of a terrestrial gamma-ray flash. Geophysical Research Letters, 2010, 37, .	1.5	123
17	Electron-positron beams from terrestrial lightning observed with Fermi GBM. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	123
18	A closer examination of terrestrial gamma-ray flash-related lightning processes. Journal of Geophysical Research, 2010, 115, .	3.3	116

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19	High-energy electron beams launched into space by thunderstorms. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	108
20	First RHESSI terrestrial gamma ray flash catalog. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	107
21	RHESSI OBSERVATIONS OF THE PROPORTIONAL ACCELERATION OF RELATIVISTIC $>0.3$ MeV ELECTRONS AND $>30$ MeV PROTONS IN SOLAR FLARES. <i>Astrophysical Journal</i> , 2009, 698, L152-L157.	1.6	96
22	Lightning flashes conducive to the production and escape of gamma radiation to space. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	95
23	Associations between Fermi Gamma-ray Burst Monitor terrestrial gamma ray flashes and sferics from the World Wide Lightning Location Network. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	92
24	Observation of relativistic electron precipitation during a rapid decrease of trapped relativistic electron flux. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	83
25	Spectral dependence of terrestrial gamma-ray flashes on source distance. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	78
26	Investigation of EMIC wave scattering as the cause for the BARREL 17 January 2013 relativistic electron precipitation event: A quantitative comparison of simulation with observations. <i>Geophysical Research Letters</i> , 2014, 41, 8722-8729.	1.5	78
27	The Balloon Array for RBSP Relativistic Electron Losses (BARREL). <i>Space Science Reviews</i> , 2013, 179, 503-530.	3.7	76
28	Terrestrial gamma ray flashes correlated to storm phase and tropopause height. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	74
29	Estimation of the fluence of high-energy electron bursts produced by thunderclouds and the resulting radiation doses received in aircraft. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	73
30	Massive disturbance of the daytime lower ionosphere by the giant $\gamma$ -ray flare from magnetar SGR 1806-20. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	72
31	Characteristics of broadband lightning emissions associated with terrestrial gamma ray flashes. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	66
32	A summary of the BARREL campaigns: Technique for studying electron precipitation. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 4922-4935.	0.8	65
33	Time evolution of terrestrial gamma ray flashes. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	64
34	First detection of a terrestrial MeV X-ray burst. <i>Geophysical Research Letters</i> , 1998, 25, 4109-4112.	1.5	59
35	Terrestrial gamma ray flashes and lightning discharges. <i>Geophysical Research Letters</i> , 2006, 33, n/a-n/a.	1.5	59
36	Relativistic electron avalanches as a thunderstorm discharge competing with lightning. <i>Nature Communications</i> , 2015, 6, 7845.	5.8	58

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37	Microflare Heating of a Solar Active Region Observed with NuSTAR, Hinode/XRT, and SDO/AIA. <i>Astrophysical Journal</i> , 2017, 844, 132.	1.6	56
38	A terrestrial gamma ray flash observed from an aircraft. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	54
39	Gamma Ray Signatures of Neutrons From a Terrestrial Gamma Ray Flash. <i>Geophysical Research Letters</i> , 2017, 44, 10,063.	1.5	54
40	Thunderstorm characteristics associated with RHESSI identified terrestrial gamma ray flashes. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	53
41	THE FIRST FOCUSED HARD X-RAY IMAGES OF THE SUN WITH NuSTAR. <i>Astrophysical Journal</i> , 2016, 826, 20.	1.6	45
42	Accelerated Electrons Observed Down to $\sim 7$ keV in a NuSTAR Solar Microflare. <i>Astrophysical Journal Letters</i> , 2020, 891, L34.	3.0	45
43	THE FIRST X-RAY IMAGING SPECTROSCOPY OF QUIESCENT SOLAR ACTIVE REGIONS WITH NuSTAR. <i>Astrophysical Journal Letters</i> , 2016, 820, L14.	3.0	44
44	The rarity of terrestrial gamma-ray flashes. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	42
45	A new method reveals more TGFs in the RHESSI data. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	41
46	A new analysis of the short-duration, hard-spectrum GRB 051103, a possible extragalactic soft gamma repeater giant flare. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, 403, 342-352.	1.6	40
47	Termination of Electron Acceleration in Thundercloud by Intracloud/Intercloud Discharge. <i>Geophysical Research Letters</i> , 2018, 45, 5700-5707.	1.5	38
48	Dusk-side relativistic electron precipitation as measured by SAMPEX: A statistical survey. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 5050-5058.	0.8	36
49	Positron clouds within thunderstorms. <i>Journal of Plasma Physics</i> , 2015, 81, .	0.7	35
50	NuSTAR Hard X-Ray Observation of a Sub-A Class Solar Flare. <i>Astrophysical Journal</i> , 2017, 845, 122.	1.6	32
51	NuSTAR Detection of X-Ray Heating Events in the Quiet Sun. <i>Astrophysical Journal Letters</i> , 2018, 856, L32.	3.0	30
52	Characterizing Upward Lightning With and Without a Terrestrial Gamma Ray Flash. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 11,321.	1.2	28
53	Rapid fluctuations of stratospheric electric field following a solar energetic particle event. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	27
54	Earth scale defined by modern satellite ranging observations. <i>Geophysical Research Letters</i> , 1999, 26, 1489-1492.	1.5	23

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55	INTERPLANETARY NETWORK LOCALIZATIONS OF KONUS SHORT GAMMA-RAY BURSTS. <i>Astrophysical Journal, Supplement Series</i> , 2013, 207, 38.	3.0	23
56	Broadband RF Interferometric Mapping and Polarization (BIMAP) Observations of Lightning Discharges: Revealing New Physics Insights Into Breakdown Processes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 10,326.	1.2	23
57	A Terrestrial Gamma-Ray Flash inside the Eyewall of Hurricane Patricia. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 4977-4987.	1.2	23
58	Joint X-Ray, EUV, and UV Observations of a Small Microflare. <i>Astrophysical Journal</i> , 2019, 881, 109.	1.6	20
59	A Statistical Study of the Spatial Extent of Relativistic Electron Precipitation With Polar Orbiting Environmental Satellites. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 11,274.	0.8	19
60	The structure of X-ray emissions from triggered lightning leaders measured by a pinhole-type X-ray camera. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 982-1002.	1.2	18
61	NuSTAR Observation of a Minuscule Microflare in a Solar Active Region. <i>Astrophysical Journal Letters</i> , 2020, 893, L40.	3.0	18
62	NuSTAR Observation of Energy Release in 11 Solar Microflares. <i>Astrophysical Journal</i> , 2021, 908, 29.	1.6	18
63	Radio emissions from double RHESSI TGFs. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 8006-8022.	1.2	17
64	The rarity of terrestrial gamma-ray flashes: 2. RHESSI stacking analysis. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 11,382.	1.2	16
65	Characterizing the source properties of terrestrial gamma ray flashes. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 8915-8932.	0.8	16
66	NuSTAR observations of a repeatedly microflaring active region. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 3936-3951.	1.6	16
67	EVIDENCE OF SIGNIFICANT ENERGY INPUT IN THE LATE PHASE OF A SOLAR FLARE FROM NuSTAR X-RAY OBSERVATIONS. <i>Astrophysical Journal</i> , 2017, 835, 6.	1.6	15
68	Hard X-Ray Constraints on Small-scale Coronal Heating Events. <i>Astrophysical Journal</i> , 2018, 864, 5.	1.6	15
69	High-resolution spectra of 20-300 Kev hard X-rays from electron precipitation over Antarctica. <i>Journal of Geophysical Research</i> , 1995, 100, 19675.	3.3	14
70	Relativistic Electron Precipitation Near Midnight: Drivers, Distribution, and Properties. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	14
71	A study of thunderstorm microphysical properties and lightning flash counts associated with terrestrial gamma-ray flashes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 3453-3464.	1.2	13
72	The causes of the hardest electron precipitation events seen with SAMPEX. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 8600-8613.	0.8	13

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73	Combining Cherenkov and scintillation detector observations with simulations to deduce the nature of high-energy radiation excesses during thunderstorms. <i>Physical Review D</i> , 2019, 100, .	1.6	11
74	First NuSTAR Limits on Quiet Sun Hard X-Ray Transient Events. <i>Astrophysical Journal</i> , 2017, 849, 131.	1.6	9
75	Terrestrial Gamma-Ray Flashes Can Be Detected With Radio Measurements of Energetic In-Cloud Pulses During Thunderstorms. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093627.	1.5	9
76	Fair Weather Neutron Bursts From Photonuclear Reactions by Extensive Air Shower Core Interactions in the Ground and Implications for Terrestrial Gamma-Ray Flash Signatures. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090033.	1.5	7
77	Detecting an Upward Terrestrial Gamma Ray Flash from its Reverse Positron Beam. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD030942.	1.2	6
78	Evidence for Extended Charging Periods Prior to Terrestrial Gamma Ray Flashes. <i>Geophysical Research Letters</i> , 2019, 46, 10619-10626.	1.5	6
79	New Star Observations with NuSTAR: Flares from Young Stellar Objects in the $\rho$ -Ophiuchi Cloud Complex in Hard X-Rays. <i>Astrophysical Journal</i> , 2019, 882, 72.	1.6	4
80	Special Classes of Terrestrial Gamma Ray Flashes From RHESSI. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD033043.	1.2	4
81	The Relationship Between TGF Production in Thunderstorms and Lightning Flash Rates and Amplitudes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034401.	1.2	4
82	Comment on "Terrestrial gamma-ray flashes caused by neutron bursts above thunderclouds". <i>J. Appl. Phys.</i> 105, 083301 (2009)]. <i>Journal of Applied Physics</i> , 2011, 109, 026101.	1.1	3
83	The high-energy Sun - probing the origins of particle acceleration on our nearest star. <i>Experimental Astronomy</i> , 2022, 54, 335-360.	1.6	3
84	The IMB Photomultiplier Test Facility for Proton Decay Studies. <i>IEEE Transactions on Nuclear Science</i> , 1981, 28, 445-450.	1.2	2
85	RHESSI Spectral Fits of Swift GRBs. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	2
86	Puzzles and potential for gamma-ray line observations of solar flare ion acceleration. <i>Experimental Astronomy</i> , 2006, 20, 65-73.	1.6	1
87	Time-Resolved Spectroscopy of RHESSI GRBs. , 2009, , .		1
88	Comment on "Seed electrons from muon decay for runaway mechanism in the terrestrial gamma ray flash production," by Gerson S. Paiva, Antonio C. Pavão, and Cristiano C. Bastos. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	1
89	Fabrication and characterization of THz plasmonic filter. , 0, , .		0
90	Detailed observations of lightning flashes and processes associated with terrestrial gamma ray flashes. , 2011, , .		0

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91	Physics in SportsPhysics in Sports by Michael B. Kruger and Jerzy M. Wrobel, published by JASK Press (Jan. 22, 2016), 158 pages, ISBN-10: 0990632407. Physics Teacher, 2018, 56, 482-482.	0.2	0