David M Smith

List of Publications by Citations

87 papers	23,054 citations	38 h-index	94 g-index
94 ext. papers	26,385 ext. citations	5 avg, IF	5.28 L-index

#	Paper	IF	Citations
87	Geant4 simulation toolkit. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2003**, 506, 250-303	1.2	13788
86	. *IEEE Transactions on Nuclear Science*, **2006**, 53, 270-278	1.7	3723
85	THENUCLEAR SPECTROSCOPIC TELESCOPE ARRAY(NuSTAR) HIGH-ENERGY X-RAY MISSION. *Astrophysical Journal*, **2013**, 770, 103	4.7	1206
84	Terrestrial gamma-ray flashes observed up to 20 MeV. *Science*, **2005**, 307, 1085-8	33.3	330
83	High-Energy Atmospheric Physics: Terrestrial Gamma-Ray Flashes and Related Phenomena. *Space Science Reviews*, **2012**, 173, 133-196	7.5	208
82	The Space Physics Environment Data Analysis System (SPEDAS). *Space Science Reviews*, **2019**, 215, 9	7.5	205
81	A comparison between Monte Carlo simulations of runaway breakdown and terrestrial gamma-ray flash observations. *Geophysical Research Letters*, **2005**, 32, n/a-n/a	4.9	204
80	First results on terrestrial gamma ray flashes from the Fermi Gamma-ray Burst Monitor. *Journal of Geophysical Research*, **2010**, 115,		181
79	The MESSENGER Gamma-Ray and Neutron Spectrometer. *Space Science Reviews*, **2007**, 131, 339-391	7.5	152
78	Measurements and implications of the relationship between lightning and terrestrial gamma ray flashes. *Geophysical Research Letters*, **2005**, 32,	4.9	145
77	A link between terrestrial gamma-ray flashes and intracloud lightning discharges. *Geophysical Research Letters*, **2006**, 33,	4.9	136
76	First Gamma-Ray Images of a Solar Flare. *Astrophysical Journal*, **2003**, 595, L77-L80	4.7	133
75	X-ray observations of MeV electron precipitation with a balloon-borne germanium spectrometer. *Geophysical Research Letters*, **2002**, 29, 47-1-47-4	4.9	121
74	Gamma-Ray Imaging of the 2003 October/November Solar Flares. *Astrophysical Journal*, **2006**, 644, L93-L96	4.7	116
73	Precipitation of relativistic electrons by interaction with electromagnetic ion cyclotron waves. *Journal of Geophysical Research*, **2000**, 105, 5381-5389		116
72	Electron-positron beams from terrestrial lightning observed with Fermi GBM. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	107
71	Lightning mapping observation of a terrestrial gamma-ray flash. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	102

70	High-energy electron beams launched into space by thunderstorms. *Geophysical Research Letters*, **2008**, 35,	4.9	94
69	A closer examination of terrestrial gamma-ray flash-related lightning processes. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		92
68	First RHESSI terrestrial gamma ray flash catalog. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		91
67	Lightning flashes conducive to the production and escape of gamma radiation to space. *Journal of Geophysical Research*, **2006**, 111,		87
66	RHESSI OBSERVATIONS OF THE PROPORTIONAL ACCELERATION OF RELATIVISTIC >0.3 MeV ELECTRONS AND >30 MeV PROTONS IN SOLAR FLARES. *Astrophysical Journal*, **2009**, 698, L152-L157	4.7	83
65	Associations between Fermi Gamma-ray Burst Monitor terrestrial gamma ray flashes and sferics from the World Wide Lightning Location Network. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		79
64	Observation of relativistic electron precipitation during a rapid decrease of trapped relativistic electron flux. *Geophysical Research Letters*, **2007**, 34,	4.9	79
63	Spectral dependence of terrestrial gamma-ray flashes on source distance. *Geophysical Research Letters*, **2009**, 36,	4.9	73
62	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. *Geophysical Research Letters*, **2014**, 41, 8722-8729	4.9	70
61	Terrestrial gamma ray flashes correlated to storm phase and tropopause height. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		63
60	The Balloon Array for RBSP Relativistic Electron Losses (BARREL). *Space Science Reviews*, **2013**, 179, 503-530	7.9	61
59	Time evolution of terrestrial gamma ray flashes. *Geophysical Research Letters*, **2008**, 35,	4.9	60
58	Estimation of the fluence of high-energy electron bursts produced by thunderclouds and the resulting radiation doses received in aircraft. *Journal of Geophysical Research*, **2010**, 115,		57
57	Massive disturbance of the daytime lower ionosphere by the giant γ-ray flare from magnetar SGR 1806−20. *Geophysical Research Letters*, **2007**, 34,	4.9	57
56	Characteristics of broadband lightning emissions associated with terrestrial gamma ray flashes. *Journal of Geophysical Research*, **2011**, 116,		56
55	A summary of the BARREL campaigns: Technique for studying electron precipitation. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 4922-4935	2.6	55
54	First detection of a terrestrial MeV X-ray burst. *Geophysical Research Letters*, **1998**, 25, 4109-4112	4.9	55
53	Terrestrial gamma ray flashes and lightning discharges. *Geophysical Research Letters*, **2006**, 33, n/a-n/a	4.9	53

52	Thunderstorm characteristics associated with RHESSI identified terrestrial gamma ray flashes. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		44
51	Relativistic electron avalanches as a thunderstorm discharge competing with lightning. *Nature Communications*, **2015**, 6, 7845	17.4	42
50	A terrestrial gamma ray flash observed from an aircraft. *Journal of Geophysical Research*, **2011**, 116,		40
49	Gamma Ray Signatures of Neutrons From a Terrestrial Gamma Ray Flash. *Geophysical Research Letters*, **2017**, 44, 10,063	4.9	38
48	A new method reveals more TGFs in the RHESSI data. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	38
47	The rarity of terrestrial gamma-ray flashes. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	38
46	Microflare Heating of a Solar Active Region Observed withNuSTAR,Hinode/XRT, andSDO/AIA. *Astrophysical Journal*, **2017**, 844, 132	4.7	37
45	A new analysis of the short-duration, hard-spectrum GRB 051103, a possible extragalactic soft gamma repeater giant flare. *Monthly Notices of the Royal Astronomical Society*, **2010**, 403, 342-352	4.3	37
44	THE FIRST X-RAY IMAGING SPECTROSCOPY OF QUIESCENT SOLAR ACTIVE REGIONS WITH NuSTAR. *Astrophysical Journal Letters*, **2016**, 820, L14	7.9	37
43	THE FIRST FOCUSED HARD X-RAY IMAGES OF THE SUN WITHNuSTAR. *Astrophysical Journal*, **2016**, 826, 20	4.7	33
42	Duskside relativistic electron precipitation as measured by SAMPEX: A statistical survey. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 5050-5058	2.6	33
41	Positron clouds within thunderstorms. *Journal of Plasma Physics*, **2015**, 81,	2.7	28
40	Termination of Electron Acceleration in Thundercloud by Intracloud/Intercloud Discharge. *Geophysical Research Letters*, **2018**, 45, 5700-5707	4.9	26
39	Accelerated Electrons Observed Down to . *Astrophysical Journal Letters*, **2020**, 891,	7.9	23
38	NuSTARHard X-Ray Observation of a Sub-A Class Solar Flare. *Astrophysical Journal*, **2017**, 845, 122	4.7	22
37	Rapid fluctuations of stratospheric electric field following a solar energetic particle event. *Geophysical Research Letters*, **2006**, 33,	4.9	21
36	INTERPLANETARY NETWORK LOCALIZATIONS OF KONUS SHORT GAMMA-RAY BURSTS. *Astrophysical Journal, Supplement Series*, **2013**, 207, 38	8	20
35	Earth scale defined by modern satellite ranging observations. *Geophysical Research Letters*, **1999**, 26, 1489-1492	4.9	18

34	NuSTAR Detection of X-Ray Heating Events in the Quiet Sun. *Astrophysical Journal Letters*, **2018**, 856, L32	7.9	18
33	Radio emissions from double RHESSI TGFs. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 8006-8022	4.4	16
32	The structure of X-ray emissions from triggered lightning leaders measured by a pinhole-type X-ray camera. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 982-1002	4.4	15
31	Characterizing Upward Lightning With and Without a Terrestrial Gamma Ray Flash. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 11,321	4.4	15
30	A Statistical Study of the Spatial Extent of Relativistic Electron Precipitation With Polar Orbiting Environmental Satellites. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 11,274-11,284	2.6	13
29	High-resolution spectra of 20-300 Kev hard X-rays from electron precipitation over Antarctica. *Journal of Geophysical Research*, **1995**, 100, 19675		13
28	The rarity of terrestrial gamma-ray flashes: 2. RHESSI stacking analysis. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 11,382	4.4	13
27	A Terrestrial Gamma-Ray Flash inside the Eyewall of Hurricane Patricia. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 4977-4987	4.4	12
26	Hard X-Ray Constraints on Small-scale Coronal Heating Events. *Astrophysical Journal*, **2018**, 864, 5	4.7	12
25	Joint X-Ray, EUV, and UV Observations of a Small Microflare. *Astrophysical Journal*, **2019**, 881, 109	4.7	12
24	Broadband RF Interferometric Mapping and Polarization (BIMAP) Observations of Lightning Discharges: Revealing New Physics Insights Into Breakdown Processes. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 10,326	4.4	12
23	EVIDENCE OF SIGNIFICANT ENERGY INPUT IN THE LATE PHASE OF A SOLAR FLARE FROMNuSTARX-RAY OBSERVATIONS. *Astrophysical Journal*, **2017**, 835, 6	4.7	11
22	A study of thunderstorm microphysical properties and lightning flash counts associated with terrestrial gamma-ray flashes. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 3453-3464	4.4	11
21	Characterizing the source properties of terrestrial gamma ray flashes. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 8915-8932	2.6	10
20	NuSTAR Observation of a Minuscule Microflare in a Solar Active Region.. *Astrophysical Journal Letters*, **2020**, 893,	7.9	9
19	The causes of the hardest electron precipitation events seen with SAMPEX. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 8600-8613	2.6	9
18	Combining Cherenkov and scintillation detector observations with simulations to deduce the nature of high-energy radiation excesses during thunderstorms. *Physical Review D*, **2019**, 100,	4.9	7
17	Evidence for Extended Charging Periods Prior to Terrestrial Gamma Ray Flashes. *Geophysical Research Letters*, **2019**, 46, 10619-10626	4.9	5

16	NuSTAR Observation of Energy Release in 11 Solar Microflares.. *Astrophysical Journal*, **2021**, 908,	4.7	5
15	FirstNuSTARLimits on Quiet Sun Hard X-Ray Transient Events. *Astrophysical Journal*, **2017**, 849, 131	4.7	4
14	Fair Weather Neutron Bursts From Photonuclear Reactions by Extensive Air Shower Core Interactions in the Ground and Implications for Terrestrial Gamma-ray Flash Signatures. *Geophysical Research Letters*, **2021**, 48, e2020GL090033	4.9	4
13	Comment on Terrestrial gamma-ray flashes caused by neutron bursts above thunderclouds[J. Appl. Phys. 105, 083301 (2009)]. *Journal of Applied Physics*, **2011**, 109, 026101	2.5	3
12	RHESSI Spectral Fits of Swift GRBs. *AIP Conference Proceedings*, **2008**,	0	2
11	The IMB Photomultiplier Test Facility for Proton Decay Studies. *IEEE Transactions on Nuclear Science* , **1981**, 28, 445-450	1.7	2
10	Terrestrial Gamma-Ray Flashes Can Be Detected With Radio Measurements of Energetic In-Cloud Pulses During Thunderstorms. *Geophysical Research Letters*, **2021**, 48, e2021GL093627	4.9	2
9	Detecting an Upward Terrestrial Gamma Ray Flash from its Reverse Positron Beam. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD030942	4.4	1
8	New Star Observations with : Flares from Young Stellar Objects in the Ophiuchi Cloud Complex in Hard X-Rays.. *Astrophysical Journal*, **2019**, 882,	4.7	1
7	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. *Journal of Geophysical Research*, **2010**, 115,		1
6	Puzzles and potential for gamma-ray line observations of solar flare ion acceleration. *Experimental Astronomy*, **2006**, 20, 65-73	1.3	1
5	The high-energy Sun - probing the origins of particle acceleration on our nearest star. *Experimental Astronomy*,1	1.3	0
4	Special Classes of Terrestrial Gamma Ray Flashes From RHESSI. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2020JD033043	4.4	0
3	The Relationship Between TGF Production in Thunderstorms and Lightning Flash Rates and Amplitudes. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD034401	4.4	0
2	NuSTAR observations of a repeatedly microflaring active region.. *Monthly Notices of the Royal Astronomical Society*, **2021**, 507, 3936-3951	4.3	0
1	Physics in Sports. *Physics Teacher*, **2018**, 56, 482-482	0.4	