Stephen Fuselier

List of Publications by Citations

328 papers	13,642 citations	61 h-index	103 g-index
351 ext. papers	15,386 ext. citations	6 avg, IF	5.93 L-index

#	Paper	IF	Citations
328	First multispacecraft ion measurements in and near the Earth magnetosphere with the identical Cluster ion spectrometry (CIS) experiment. *Annales Geophysicae*, **2001**, 19, 1303-1354	2	846
327	Electron-scale measurements of magnetic reconnection in space. *Science*, **2016**, 352, aaf2939	33.3	418
326	Global observations of the interstellar interaction from the Interstellar Boundary Explorer (IBEX). *Science*, **2009**, 326, 959-62	33.3	382
325	Cometary science. 67P/Churyumov-Gerasimenko, a Jupiter family comet with a high D/H ratio. *Science*, **2015**, 347, 1261952	33.3	314
324	Prebiotic chemicals-amino acid and phosphorus-in the coma of comet 67P/Churyumov-Gerasimenko. *Science Advances*, **2016**, 2, e1600285	14.3	282
323	Rosina Rosetta Orbiter Spectrometer for Ion and Neutral Analysis. *Space Science Reviews*, **2007**, 128, 745-801	7.5	278
322	IBEX Interstellar Boundary Explorer. *Space Science Reviews*, **2009**, 146, 11-33	7.5	252
321	Inventory of the volatiles on comet 67P/Churyumov-Gerasimenko from Rosetta/ROSINA. *Astronomy and Astrophysics*, **2015**, 583, A1	5.1	213
320	Abundant molecular oxygen in the coma of comet 67P/Churyumov-Gerasimenko. *Nature*, **2015**, 526, 678-81	50.4	208
319	Cometary science. Time variability and heterogeneity in the coma of 67P/Churyumov-Gerasimenko. *Science*, **2015**, 347, aaa0276	33.3	197
318	Magnetic spectral signatures in the Earth's magnetosheath and plasma depletion layer. *Journal of Geophysical Research*, **1994**, 99, 5877		196
317	Comparison of Interstellar Boundary Explorer observations with 3D global heliospheric models. *Science*, **2009**, 326, 966-8	33.3	190
316	Molecular nitrogen in comet 67P/Churyumov-Gerasimenko indicates a low formation temperature. *Science*, **2015**, 348, 232-5	33.3	168
315	The Interstellar Boundary Explorer High Energy (IBEX-Hi) Neutral Atom Imager. *Space Science Reviews*, **2009**, 146, 75-103	7.5	168
314	Ion Reflection and transmission during reconnection at the Earth's subsolar magnetopause. *Geophysical Research Letters*, **1991**, 18, 139-142	4.9	152
313	Hot, diamagnetic cavities upstream from the Earth's bow shock. *Journal of Geophysical Research*, **1986**, 91, 2961		149
312	Ion anisotropy instabilities in the magnetosheath. *Journal of Geophysical Research*, **1993**, 98, 1481-1488		146

311	The IBEX-Lo Sensor. *Space Science Reviews*, **2009**, 146, 117-147	7.5	145
310	INTERSTELLAR GAS FLOW PARAMETERS DERIVED FROM INTERSTELLAR BOUNDARY EXPLORER-Lo OBSERVATIONS IN 2009 AND 2010: ANALYTICAL ANALYSIS. *Astrophysical Journal, Supplement Series*, **2012**, 198, 11	8	139
309	Electron-scale dynamics of the diffusion region during symmetric magnetic reconnection in space. *Science*, **2018**, 362, 1391-1395	33.3	139
308	NEUTRAL INTERSTELLAR HELIUM PARAMETERS BASED ON IBEX-Lo OBSERVATIONS AND TEST PARTICLE CALCULATIONS. *Astrophysical Journal, Supplement Series*, **2012**, 198, 12	8	129
307	SEPARATION OF THEINTERSTELLAR BOUNDARY EXPLORERRIBBON FROM GLOBALLY DISTRIBUTED ENERGETIC NEUTRAL ATOM FLUX. *Astrophysical Journal*, **2011**, 731, 56	4.7	126
306	Probing the boundary between antiparallel and component reconnection during southward interplanetary magnetic field conditions. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		119
305	Hot Plasma Composition Analyzer for the Magnetospheric Multiscale Mission. *Space Science Reviews*, **2016**, 199, 407-470	7.5	117
304	Observational test of local proton cyclotron instability in the Earth's magnetosphere. *Journal of Geophysical Research*, **1996**, 101, 21527-21543		115
303	Organics in comet 67P – first comparative analysis of mass spectra from ROSINA-DFMS, COSAC and Ptolemy. *Monthly Notices of the Royal Astronomical Society*, **2017**, 469, S130-S141	4.3	113
302	Magnetospheric Multiscale Science Mission Profile and Operations. *Space Science Reviews*, **2016**, 199, 77-103	7.5	112
301	Continuous magnetic reconnection at Earth's magnetopause. *Nature*, **2003**, 426, 533-7	50.4	111
300	Simultaneous Cluster and IMAGE observations of cusp reconnection and auroral proton spot for northward IMF. *Geophysical Research Letters*, **2003**, 30, n/a-n/a	4.9	111
299	Xenon isotopes in 67P/Churyumov-Gerasimenko show that comets contributed to Earth's atmosphere. *Science*, **2017**, 356, 1069-1072	33.3	110
298	Direct observations of interstellar H, He, and O by the Interstellar Boundary Explorer. *Science*, **2009**, 326, 969-71	33.3	105
297	Sulphur-bearing species in the coma of comet 67P/Churyumov–Gerasimenko. *Monthly Notices of the Royal Astronomical Society*, **2016**, 462, S253-S273	4.3	101
296	LOCAL INTERSTELLAR MEDIUM: SIX YEARS OF DIRECT SAMPLING BY IBEX. *Astrophysical Journal, Supplement Series*, **2015**, 220, 22	8	101
295	THE FIRST THREE YEARS OF IBEX OBSERVATIONS AND OUR EVOLVING HELIOSPHERE. *Astrophysical Journal, Supplement Series*, **2012**, 203, 1	8	99
294	Proton aurora in the cusp. *Journal of Geophysical Research*, **2002**, 107, SMP 2-1		97

293	Electromagnetic ion cyclotron waves observed in the plasma depletion layer. *Geophysical Research Letters*, **1991**, 18, 1955-1958	4.9	95
292	Cusp aurora dependence on interplanetary magnetic field Bz. *Journal of Geophysical Research*, **2002**, 107, SIA 6-1		91
291	On the origin of hot diamagnetic cavities near the Earth's bow shock. *Journal of Geophysical Research*, **1988**, 93, 11311		89
290	The downshift of electron plasma oscillations in the electron foreshock region. *Journal of Geophysical Research*, **1985**, 90, 3935		88
289	Bounded anisotropy fluid model for ion temperatures. *Journal of Geophysical Research*, **1994**, 99, 11225		86
288	Electron and ion signatures of field line topology at the low-shear magnetopause. *Journal of Geophysical Research*, **1997**, 102, 4847-4863		85
287	Stability of the high-latitude reconnection site for steady northward IMF. *Geophysical Research Letters*, **2000**, 27, 473-476	4.9	85
286	WARMER LOCAL INTERSTELLAR MEDIUM: A POSSIBLE RESOLUTION OF THEULYSSES-IBEXENIGMA. *Astrophysical Journal*, **2015**, 801, 28	4.7	82
285	Evolving outer heliosphere: Large-scale stability and time variations observed by the Interstellar Boundary Explorer. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		79
284	Particle signatures of magnetic topology at the magnetopause: AMPTE/CCE observations. *Journal of Geophysical Research*, **1995**, 100, 11805		79
283	Influence of spacecraft outgassing on the exploration of tenuous atmospheres with in situ mass spectrometry. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		78
282	INTERSTELLAR NEUTRAL HELIUM IN THE HELIOSPHERE FROM IBEX OBSERVATIONS. III. MACH NUMBER OF THE FLOW, VELOCITY VECTOR, AND TEMPERATURE FROM THE FIRST SIX YEARS OF MEASUREMENTS. *Astrophysical Journal, Supplement Series*, **2015**, 220, 28	8	77
281	SEPARATION OF THE RIBBON FROM GLOBALLY DISTRIBUTED ENERGETIC NEUTRAL ATOM FLUX USING THE FIRST FIVE YEARS OF IBEX OBSERVATIONS. *Astrophysical Journal, Supplement Series*, **2014**, 215, 13	8	75
280	IBEX : THE FIRST FIVE YEARS (2009-2013). *Astrophysical Journal, Supplement Series*, **2014**, 213, 20	8	75
279	Direct Simulation Monte Carlo modelling of the major species in the coma of comet 67P/Churyumov-Gerasimenko. *Monthly Notices of the Royal Astronomical Society*, **2016**, 462, S156-S169	4.3	75
278	Detection of argon in the coma of comet 67P/Churyumov-Gerasimenko. *Science Advances*, **2015**, 1, e1500377	4.7	73
277	Properties of Near-Earth Magnetic Reconnection from In-Situ Observations. *Space Science Reviews*, **2011**, 160, 95-121	7.5	71
276	Short wavelength ion waves upstream of the Earth's bow shock. *Journal of Geophysical Research*, **1984**, 89, 91-103		70

275	Response of thermal ions to electromagnetic ion cyclotron waves. *Journal of Geophysical Research*, **1994**, 99, 19413		66
274	Structure and properties of the subsolar magnetopause for northward interplanetary magnetic field: Multiple-instrument particle observations. *Journal of Geophysical Research*, **1993**, 98, 11319		66
273	MMS observations of large guide field symmetric reconnection between colliding reconnection jets at the center of a magnetic flux rope at the magnetopause. *Geophysical Research Letters*, **2016**, 43, 5536-5544	4.9	65
272	Currents and associated electron scattering and bouncing near the diffusion region at Earth's magnetopause. *Geophysical Research Letters*, **2016**, 43, 3042-3050	4.9	65
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270	The location of reconnection at the magnetopause: Testing the maximum magnetic shear model with THEMIS observations. *Journal of Geophysical Research*, **2012**, 117,		64
269	Location of the reconnection line at the magnetopause during southward IMF conditions. *Geophysical Research Letters*, **2007**, 34,	4.9	64
268	WARM BREEZE FROM THE STARBOARD BOW: A NEW POPULATION OF NEUTRAL HELIUM IN THE HELIOSPHERE. *Astrophysical Journal, Supplement Series*, **2014**, 213, 29	8	62
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265	Composition-dependent outgassing of comet 67P/Churyumov-Gerasimenko from ROSINA/DFMS. *Astronomy and Astrophysics*, **2015**, 583, A4	5.1	59
264	Interstellar Mapping and Acceleration Probe (IMAP): A New NASA Mission. *Space Science Reviews*, **2018**, 214, 1	7.5	59
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262	Generation of transient dayside subauroral proton precipitation. *Journal of Geophysical Research*, **2004**, 109,		57
261	INTERSTELLAR NEUTRAL HELIUM IN THE HELIOSPHERE FROM IBEX OBSERVATIONS. IV. FLOW VECTOR, MACH NUMBER, AND ABUNDANCE OF THE WARM BREEZE. *Astrophysical Journal, Supplement Series*, **2016**, 223, 25	8	57
260	Energetic neutral atoms from the Earth's subsolar magnetopause. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	56
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258	Ion distributions in the Earth's foreshock upstream from the bow shock. *Advances in Space Research* , **1995**, 15, 43-52	2.4	55

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255	Evidence of component merging equatorward of the cusp. *Journal of Geophysical Research*, **1999**, 104, 22623-22633		52
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249	On determining polarization characteristics of ion cyclotron wave magnetic field fluctuations. *Journal of Geophysical Research*, **1996**, 101, 13195-13213		49
248	Neutral atom imaging of the magnetospheric cusps. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		48
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245	INTERSTELLAR FLOW AND TEMPERATURE DETERMINATION WITH IBEX : ROBUSTNESS AND SENSITIVITY TO SYSTEMATIC EFFECTS. *Astrophysical Journal, Supplement Series*, **2015**, 220, 24	8	47
244	ESTIMATION OF THE NEON/OXYGEN ABUNDANCE RATIO AT THE HELIOSPHERIC TERMINATION SHOCK AND IN THE LOCAL INTERSTELLAR MEDIUM FROM IBEX OBSERVATIONS. *Astrophysical Journal, Supplement Series*, **2012**, 198, 13	8	47
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241	How Accurately Can We Measure the Reconnection Rate for the MMS Diffusion Region Event of 11 July 2017?. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 9130-9149	2.6	46
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239	Low-frequency magnetic fluctuation spectra in the magnetosheath and plasma depletion layer. *Journal of Geophysical Research*, **1994**, 99, 5893		45
238	He2+ and H+ dynamics in the subsolar magnetosheath and plasma depletion layer. *Journal of Geophysical Research*, **1991**, 96, 21095		45
237	Ion and electron velocity distributions within flux transfer events. *Journal of Geophysical Research*, **1987**, 92, 12127		45
236	Origins of energetic ions in the cusp. *Journal of Geophysical Research*, **2001**, 106, 5967-5976		44
235	Electromagnetic ion cyclotron waves in the high-altitude cusp: Polar observations. *Journal of Geophysical Research*, **2001**, 106, 19067-19079		44
234	Solar wind sputtering of dust on the surface of 67P/Churyumov-Gerasimenko. *Astronomy and Astrophysics*, **2015**, 583, A22	5.1	43
233	Two Wide-Angle Imaging Neutral-Atom Spectrometers and Interstellar Boundary Explorer energetic neutral atom imaging of the 5 April 2010 substorm. *Journal of Geophysical Research*, **2012** , 117, n/a-n/a		43
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231	DO and HDS in the coma of 67P/Churyumov-Gerasimenko. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2017**, 375,	3	41
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228	On the origins of energetic ions in the Earth's dayside magnetosheath. *Journal of Geophysical Research*, **1991**, 96, 47		40
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225	MMS Observations and Hybrid Simulations of Surface Ripples at a Marginally Quasi-Parallel Shock. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 11,003-11,017	2.6	39
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220	REVISITING THE ISN FLOW PARAMETERS, USING A VARIABLEIBEXPOINTING STRATEGY. *Astrophysical Journal*, **2015**, 804, 42	4.7	36
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216	Cluster observations of □crater□flux transfer events at the dayside high-latitude magnetopause. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		34
215	Computing the reconnection rate at the Earth's magnetopause using two spacecraft observations. *Journal of Geophysical Research*, **2005**, 110,		33
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198	High-Resolution Measurements of the Cross-Shock Potential, Ion Reflection, and Electron Heating at an Interplanetary Shock by MMS. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 3961-3978	2.6	28
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193	INTERSTELLAR NEUTRAL HELIUM IN THE HELIOSPHERE FROM IBEX OBSERVATIONS. I. UNCERTAINTIES AND BACKGROUNDS IN THE DATA AND PARAMETER DETERMINATION METHOD. *Astrophysical Journal, Supplement Series*, **2015**, 220, 26	8	27
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188	THE ROLL-OVER OF HELIOSPHERIC NEUTRAL HYDROGEN BELOW 100 eV: OBSERVATIONS AND IMPLICATIONS. *Astrophysical Journal*, **2016**, 821, 107	4.7	25
187	Time Dependence of the IBEX Ribbon and the Globally Distributed Energetic Neutral Atom Flux Using the First 9 Years of Observations. *Astrophysical Journal, Supplement Series*, **2018**, 239, 1	8	25
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172	Evidence for depletion of heavy silicon isotopes at comet 67P/Churyumov-Gerasimenko. *Astronomy and Astrophysics*, **2017**, 601, A123	5.1	21
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