Michael Collier

List of Publications by Citations

114 papers	2,960 citations	29 h-index	51 g-index
123 ext. papers	3,210 ext. citations	4 avg, IF	4.56 L-index

#	Paper	IF	Citations
114	IBEX□nterstellar Boundary Explorer. *Space Science Reviews*, **2009**, 146, 11-33	7.5	252
113	Predicting interplanetary magnetic field (IMF) propagation delay times using the minimum variance technique. *Journal of Geophysical Research*, **2003**, 108,		189
112	XMM-NewtonObservation of Solar Wind Charge Exchange Emission. *Astrophysical Journal*, **2004**, 610, 1182-1190	4.7	187
111	Neon-20, oxygen-16, and helium-4 densities, temperatures, and suprathermal tails in the solar wind determined with WIND/MASS. *Geophysical Research Letters*, **1996**, 23, 1191-1194	4.9	139
110	Ionospheric mass ejection in response to a CME. *Geophysical Research Letters*, **1999**, 26, 2339-2342	4.9	124
109	On generating Kappa-like distribution functions using velocity space L□y flights. *Geophysical Research Letters*, **1993**, 20, 1531-1534	4.9	119
108	The suprathermal seed population for corotating interaction region ions at 1 AU deduced from composition and spectra of H+, He++, and He+ observed on Wind. *Journal of Geophysical Research*, **2000**, 105, 23107-23122		99
107	Timing accuracy for the simple planar propagation of magnetic field structures in the solar wind. *Geophysical Research Letters*, **1998**, 25, 2509-2512	4.9	97
106	Variable time delays in the propagation of the interplanetary magnetic field. *Journal of Geophysical Research*, **2002**, 107, SMP 29-1-SMP 29-15		77
105	Overwhelming O+ contribution to the plasma sheet energy density during the October 2003 superstorm: Geotail/EPIC and IMAGE/LENA observations. *Journal of Geophysical Research*, **2005**, 110,		74
104	Variability of the ring current source population. *Geophysical Research Letters*, **1998**, 25, 3481-3484	4.9	62
103	The origin of the local 1/4-keV X-ray flux in both charge exchange and a hot bubble. *Nature*, **2014**, 512, 171-3	50.4	59
102	Are magnetospheric suprathermal particle distributions (□functions) inconsistent with maximum entropy considerations?. *Advances in Space Research*, **2004**, 33, 2108-2112	2.4	56
101	The relationship between kappa and temperature in energetic ion spectra at Jupiter. *Geophysical Research Letters*, **1995**, 22, 303-306	4.9	56
100	Observations of neutral atoms from the solar wind. *Journal of Geophysical Research*, **2001**, 106, 24893-24906		54
99	Dependence of lunar surface charging on solar wind plasma conditions and solar irradiation. *Planetary and Space Science*, **2014**, 90, 10-27	2	52
98	Anticipated electrical environment within permanently shadowed lunar craters. *Journal of Geophysical Research*, **2010**, 115,		52

97	On the role of dust in the lunar ionosphere. *Planetary and Space Science*, **2011**, 59, 1659-1664	2	49
96	Ion outflow observed by IMAGE: Implications for source regions and heating mechanisms. *Geophysical Research Letters*, **2001**, 28, 1163-1166	4.9	45
95	THE STRUCTURE OF THE LOCAL HOT BUBBLE. *Astrophysical Journal*, **2017**, 834, 33	4.7	43
94	X-ray emission from the terrestrial magnetosheath including the cusps. *Journal of Geophysical Research*, **2006**, 111,		42
93	Low energy neutral atoms in the magnetosphere. *Geophysical Research Letters*, **2001**, 28, 1143-1146	4.9	41
92	Multispacecraft observations of sudden impulses in the magnetotail caused by solar wind pressure discontinuities: Wind and IMP 8. *Journal of Geophysical Research*, **1998**, 103, 17293-17305		36
91	Loss of solar wind plasma neutrality and affect on surface potentials near the lunar terminator and shadowed polar regions. *Geophysical Research Letters*, **2008**, 35,	4.9	35
90	The adiabatic transport of superthermal distributions modelled by Kappa Functions. *Geophysical Research Letters*, **1995**, 22, 2673-2676	4.9	35
89	Evolution of kappa distributions under velocity space diffusion: A model for the observed relationship between their spectral parameters. *Journal of Geophysical Research*, **1999**, 104, 28559-28564		33
88	Oxygen 16 to oxygen 18 abundance ratio in the solar wind observed by Wind/MASS. *Journal of Geophysical Research*, **1998**, 103, 7-13		32
87	Cluster observations of sudden impulses in the magnetotail caused by interplanetary shocks and pressure increases. *Annales Geophysicae*, **2005**, 23, 609-624	2	30
86	Effects of protons reflected by lunar crustal magnetic fields on the global lunar plasma environment. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 6095-6105	2.6	29
85	OBSERVATION OF SOLAR WIND CHARGE EXCHANGE EMISSION FROM EXOSPHERIC MATERIAL IN AND OUTSIDE EARTH'S MAGNETOSHEATH 2008 SEPTEMBER 25. *Astrophysical Journal*, **2009**, 691, 372-381	4.7	29
84	Localized ion outflow in response to a solar wind pressure pulse. *Journal of Geophysical Research*, **2002**, 107, SMP 26-1-SMP 26-9		29
83	Imaging Plasma Density Structures in the Soft X-Rays Generated by Solar Wind Charge Exchange with Neutrals. *Space Science Reviews*, **2018**, 214, 1	7.5	28
82	Concerning the dissipation of electrically charged objects in the shadowed lunar polar regions. *Geophysical Research Letters*, **2008**, 35,	4.9	27
81	Low-energy neutral atom signatures of magnetopause motion in response to southward Bz. *Journal of Geophysical Research*, **2005**, 110,		27
80	An unexplained 10–40° shift in the location of some diverse neutral atom data at 1 AU. *Advances in Space Research*, **2004**, 34, 166-171	2.4	25

79	SOLAR WIND CHARGE EXCHANGE EMISSION FROM THE HELIUM FOCUSING CONE: MODEL TO DATA COMPARISON. *Astrophysical Journal*, **2009**, 697, 1214-1225	4.7	23
78	THE SOLAR WIND CHARGE-EXCHANGE PRODUCTION FACTOR FOR HYDROGEN. *Astrophysical Journal*, **2015**, 808, 143	4.7	22
77	PRESSURE EQUILIBRIUM BETWEEN THE LOCAL INTERSTELLAR CLOUDS AND THE LOCAL HOT BUBBLE. *Astrophysical Journal Letters*, **2014**, 791, L14	7.9	22
76	AXIOM: advanced X-ray imaging of the magnetosphere. *Experimental Astronomy*, **2012**, 33, 403-443	1.3	21
75	On lunar exospheric column densities and solar wind access beyond the terminator from ROSAT soft X-ray observations of solar wind charge exchange. *Journal of Geophysical Research E: Planets*, **2014**, 119, 1459-1478	4.1	20
74	Prototyping a global soft X-ray imaging instrument for heliophysics, planetary science, and astrophysics science. *Astronomische Nachrichten*, **2012**, 333, 378-382	0.7	19
73	Reconnection remnants in the magnetic cloud of October 18–19, 1995: A shock, monochromatic wave, heat flux dropout, and energetic ion beam. *Journal of Geophysical Research*, **2001**, 106, 15985-16000		18
72	Invited Article: First flight in space of a wide-field-of-view soft x-ray imager using lobster-eye optics: Instrument description and initial flight results. *Review of Scientific Instruments*, **2015**, 86, 071301	1.7	17
71	Is the electron avalanche process in a martian dust devil self-quenching?. *Icarus*, **2015**, 254, 333-337	3.8	16
70	Neutral atom imaging of solar wind interaction with the Earth and Venus. *Journal of Geophysical Research*, **2004**, 109,		16
69	Response of neutral atom emissions in the low-latitude and high-latitude magnetosheath direction to the magnetopause motion under extreme solar wind conditions. *Journal of Geophysical Research*, **2004**, 109,		16
68	Response of ions of ionospheric origin to storm time substorms: Coordinated observations over the ionosphere and in the plasma sheet. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		15
67	Solar Wind Sputtering Rates of Small Bodies and Ion Mass Spectrometry Detection of Secondary Ions. *Journal of Geophysical Research E: Planets*, **2017**, 122, 1968-1983	4.1	14
66	Oscillations of magnetospheric boundaries driven by IMF rotations. *Geophysical Research Letters*, **1998**, 25, 3007-3010	4.9	14
65	Wide field-of-view soft X-ray imaging for solar wind-magnetosphere interactions. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 3353-3361	2.6	14
64	DXL: a sounding rocket mission for the study of solar wind charge exchange and local hot bubble X-ray emission. *Experimental Astronomy*, **2011**, 32, 83-99	1.3	12
63	Astrophysics Noise: A Space Weather Signal. *Eos*, **2010**, 91, 213-214	1.5	12
62	A statistical study of interplanetary shocks and pressure pulses internal to magnetic clouds. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		12

61	Acoustic density fluctuation waves in suprathermal function fluids. *Advances in Space Research*, **2008**, 41, 1704-1709	2.4	12
60	Monitoring the high-altitude cusp with the Low Energy Neutral Atom imager: Simultaneous observations from IMAGE and Polar. *Journal of Geophysical Research*, **2005**, 110,		12
59	The Low-Energy Neutral Atom Imager for Image **2000**, 155-195		12
58	Magnetopause Surface Reconstruction From Tangent Vector Observations. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 10,189	2.6	11
57	Latitude-associated differences in the Low Energy Charged Particle activity at Voyagers 1 and 2 during 1991 to early 1994. *Space Science Reviews*, **1995**, 72, 347-352	7.5	10
56	Lunar surface electric potential changes associated with traversals through the Earth foreshock. *Planetary and Space Science*, **2011**, 59, 1727-1743	2	9
55	Estimation of magnetopause motion from low-energy neutral atom emission. *Journal of Geophysical Research*, **2008**, 113,		9
54	Dust in the wind: The dust geometric cross section at 1 AU based on neutral solar wind observations. *AIP Conference Proceedings*, **2003**,	0	9
53	Case study of solar wind pressure variations and neutral atom emissions observed by IMAGE/LENA. *Journal of Geophysical Research*, **2003**, 108,		9
52	One-up on L1: Can X-rays provide longer advanced warning of solar wind flux enhancements than upstream monitors?. *Advances in Space Research*, **2005**, 35, 2157-2161	2.4	9
51	SOLAR WIND CHARGE EXCHANGE CONTRIBUTION TO THEROSATALL SKY SURVEY MAPS. *Astrophysical Journal*, **2016**, 829, 83	4.7	8
50	Neutral solar wind generated by lunar exospheric dust at the terminator. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		8
49	Extended solar wind helium distribution functions in high-speed streams. *Journal of Geophysical Research*, **1998**, 103, 17441-17445		8
48	Density variations in the Earth magnetospheric cusps. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 2131-2142	2.6	7
47	Conjugate observations of ENA signals in the high-altitude cusp and proton auroral spot in the low-altitude cusp with IMAGE spacecraft. *Geophysical Research Letters*, **2008**, 35,	4.9	7
46	Neutral atom emission in the direction of the high-latitude magnetopause for northward IMF: Simultaneous observations from IMAGE spacecraft and SuperDARN radar. *Geophysical Research Letters*, **2006**, 33,	4.9	7
45	Possible Origin of the Secondary Stream of Neutral Fluxes at 1 AU. *AIP Conference Proceedings*, **2004**,	0	7
44	Kinetic temperature ratios of O6+ and He2+: Observations from Wind/MASS and Ulysses/SWICS. *Geophysical Research Letters*, **1996**, 23, 1187-1190	4.9	7

43	The Feynman inverse sprinkler problem: A demonstration and quantitative analysis. *American Journal of Physics*, **1989**, 57, 654-657	0.7	7
42	The Isotopic Composition of Iron in the Solar Wind: First Measurements with the MASS Sensor on the [ITAL]Wind[/ITAL] Spacecraft. *Astrophysical Journal*, **1997**, 474, L69-L72	4.7	7
41	Moving mesoscale plasma precipitation in the cusp. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		6
40	The Heliospheric Contribution to the Soft X-ray Background Emission **2009**,		6
39	Correlative variations of the neutral atom emission in the high-altitude cusp and the fast anti-sunward convection in the low-altitude cusp. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		6
38	On the origin of reverse polarity TCRs. *Geophysical Research Letters*, **2001**, 28, 1925-1928	4.9	6
37	Energetic particle impact on X-ray imaging with XMM-Newton. *Space Weather*, **2014**, 12, 387-394	3.7	5
36	VISIONS remote observations of a spatially-structured filamentary source of energetic neutral atoms near the polar cap boundary during an auroral substorm. *Advances in Space Research*, **2015**, 56, 2097-2105	2.4	5
35	Solar wind charge exchange during geomagnetic storms. *Astronomische Nachrichten*, **2012**, 333, 309-312	0.7	5
34	Solar wind charge exchange observed through the lunar exosphere. *Geophysical Research Letters*, **2009**, 36,	4.9	5
33	HF radar polar patch and its relation with the cusp during BY-dominated IMF: Simultaneous observations at two altitudes. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		5
32	Storm phase dependence of ion outflow: Statistical signatures obtained by IMAGE/LENA. *Geophysical Research Letters*, **2007**, 34,	4.9	5
31	The Feynman inverse sprinkler problem: A detailed kinematic study. *American Journal of Physics*, **1991**, 59, 349-355	0.7	5
30	Soft X-ray and ENA Imaging of the Earth Dayside Magnetosphere. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA028816	2.6	5
29	Solar wind charge exchange and local hot bubble X-ray emission with the DXL sounding rocket experiment. *Astronomische Nachrichten*, **2012**, 333, 383-387	0.7	4
28	The DXL and STORM sounding rocket mission **2013**,		4
27	Scattering of neutral hydrogen at energies less than 1 keV from tungsten and diamondlike carbon surfaces. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2009**, 27, 1188-1195	2.9	4
26	The Lunar X-ray Observatory (LXO) **2008**,		4

25	Abundance of solar wind magnesium isotopes determined with WIND/MASS. *AIP Conference Proceedings*, **1996**,	0	4
24	Jovian magnetopause breathing. *Planetary and Space Science*, **1996**, 44, 187-197	2	4
23	Helioradius Dependence of Interplanetary Carbon and Oxygen Abundances during 1991 Solar Activity. *Astrophysical Journal*, **1996**, 468, L123-L126	4.7	4
22	Science of opportunity: Heliophysics on the FASTSAT mission and STP-S26 **2011**,		3
21	Evidence of different magnetotail responses to small solar wind pressure pulses depending on IMF Bz polarity. *Geophysical Research Letters*, **2001**, 28, 4163-4166	4.9	3
20	Tethered lunar subsatellites for multipoint and low altitude measurements. *Acta Astronautica*, **2016**, 128, 464-472	2.9	2
19	The lunar dust pendulum. *Advances in Space Research*, **2013**, 52, 251-261	2.4	2
18	Regarding the possible generation of a lunar nightside exo-ionosphere. *Icarus*, **2011**, 216, 169-172	3.8	2
17	A mathematical model of habituation and addiction. *Substance Use and Misuse*, **1993**, 28, 175-85		2
16	New Device Lets You Un-Water Your Lawn!. *Physics Today*, **1990**, 43, 13-13	0.9	2
15	Stair-step particle flux spectra on the lunar surface: Evidence for nonmonotonic potentials?. *Geophysical Research Letters*, **2017**, 44, 79-87	4.9	1
14	AXIOM: Advanced X-ray imaging of the magnetosheath. *Astronomische Nachrichten*, **2012**, 333, 388-392	0.7	1
13	Solar wind charge exchange and Earth magnetosheath **2013**,		1
12	Two azimuthally separated regions of cusp ion injection observed via energetic neutral atoms. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		1
11	The Lunar X-ray Observatory (LXO) Magnetosheath Explorer in X-rays (MagEX) **2009**,		1
10	SWCX Emission from the Helium Focusing Cone Preliminary Results **2009**,		1
9	Mars Express/ASPERA-3/NPI and IMAGE/LENA observations of energetic neutral atoms in Earth and Mars orbit. *Advances in Space Research*, **2008**, 41, 343-350	2.4	1
8	Correlations between neutral and ionized solar wind. *Advances in Space Research*, **2005**, 35, 2152-2156	2.4	1

7	Heliosphere-Geosphere Interactions Using Low Energy Neutral Atom Imaging **2003**, 351-371		1
6	A K-Means Clustering Analysis of the Jovian and Terrestrial Magnetopauses: A Technique to Classify Global Magnetospheric Behavior. *Journal of Geophysical Research E: Planets*, **2020**, 125, e2019JE006366	4.1	1
5	The Cusp Plasma Imaging Detector (CuPID) CubeSat Observatory: Mission Overview. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA029015	2.6	1
4	Neutral Densities in the Outer Exosphere Near the Subsolar Magnetopause. *Geophysical Research Letters*, **2021**, 48, e2021GL093383	4.9	0
3	Tomographic imaging of electron distributions: Leveraging computing power advances to produce inexpensive, low-power, lightweight, and robust instrumentation. *Review of Scientific Instruments*, **2003**, 74, 1002-1007	1.7	
2	Cusp Dynamics and Ionospheric Outflow **2003**, 285-312		
1	Terminator Double Layer Explorer (TerDLE): Examining the Near-Moon Lunar Wake. *Planetary Science Journal*, **2021**, 2, 61	2.9	