Mark D Looper

List of Publications by Year
in descending order

75 papers	3,860 citations	136950 32 h-index	123424 61 g-index
75 all docs	75 docs citations	75 times ranked	2226 citing authors

#	Article	IF	Citations
1	The Magnetic Electron Ion Spectrometer (MagEIS) Instruments Aboard the Radiation Belt Storm Probes (RBSP) Spacecraft. Space Science Reviews, 2013, 179, 383-421.	8.1	491
2	Multisatellite observations of the outer zone electron variation during the November 3â€“4, 1993, magnetic storm. Journal of Geophysical Research, 1997, 102, 14123-14140.	3.3	274
3	Energization of relativistic electrons in the presence of ULF power and MeV microbursts: Evidence for dual ULF and VLF acceleration. Journal of Geophysical Research, 2003, 108, .	3.3	242
4	Proton, helium, and electron spectra during the large solar particle events of October-November 2003. Journal of Geophysical Research, 2005, 110, .	3.3	187
5	Quantification of relativistic electron microburst losses during the GEM storms. Geophysical Research Letters, 2004, 31, .	4.0	158
6	Long term measurements of radiation belts by SAMPEX and their variations. Geophysical Research Letters, 2001, 28, 3827-3830.	4.0	154
7	Energy Spectra, Composition, and Other Properties of Ground-Level Events During Solar Cycle 23. Space Science Reviews, 2012, 171, 97-120.	8.1	139
8	CRaTER: The Cosmic Ray Telescope for the Effects ofÂRadiation Experiment on the Lunar Reconnaissance Orbiter Mission. Space Science Reviews, 2010, 150, 243-284.	8.1	123
9	New high temporal and spatial resolution measurements by SAMPEX of the precipitation of relativistic electrons. Advances in Space Research, 1996, 18, 171-186.	2.6	113
10	Are energetic electrons in the solar wind the source of the outer radiation belt?. Geophysical Research Letters, 1997, 24, 923-926.	4.0	110
11	A theoretical model of the inner proton radiation belt. Space Weather, 2007, 5, n/a-n/a.	3.7	108
12	Relativistic electron microbursts during the GEM storms. Geophysical Research Letters, 2001, 28, 2573-2576.	4.0	95
13	Charge states of solar energetic particles using the geomagnetic cutoff technique: SAMPEX measurements in the 6 November 1997 solar particle event. Geophysical Research Letters, 1999, 26, 173-176.	4.0	89
14	The Ionic Charge of Solar Energetic Particles with Energies of 0.3â€“70 MeV per Nucleon. Astrophysical Journal, 1997, 477, 495-501.	4.5	87
15	Global MHD test particle simulations of >10 MeV radiation belt electrons during storm sudden commencement. Journal of Geophysical Research, 2007, 112, .	3.3	84
16	A background correction algorithm for Van Allen Probes MagEIS electron flux measurements. Journal of Geophysical Research: Space Physics, 2015, 120, 5703-5727.	2.4	78
17	Multisatellite observations of MeV ion injections during storms. Journal of Geophysical Research, 2002, 107, SMP 7-1.	3.3	73
18	Radiation Hardness of ${m TiO}_{2}$ Memristive Junctions. IEEE Transactions on Nuclear Science, 2010, 57, 1640-1643.	2.0	67

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19	Response of the inner radiation belt to the violent Sun-Earth connection events of Octoberâ€“November 2003. Geophysical Research Letters, 2005, 32, .	4.0	65
20	First results from CSSWE CubeSat: Characteristics of relativistic electrons in the nearâ€Earth environment during the October 2012 magnetic storms. Journal of Geophysical Research: Space Physics, 2013, 118, 6489-6499.	2.4	65
21	Charge State Measurements of Solar Energetic Particles Observed with SAMPEX. Astrophysical Journal, 1995, 452, 901.	4.5	64
22	Quantification of the precipitation loss of radiation belt electrons observed by SAMPEX. Journal of Geophysical Research, 2010, 115, .	3.3	61
23	Observation of relativistic electron microbursts in conjunction with intense radiation belt whistler-mode waves. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	61
24	Charge state of anomalous cosmic-ray nitrogen, oxygen, and neon: SAMPEX observations. Astrophysical Journal, 1995, 442, L69.	4.5	50
25	Understanding large SEP events with the PATH code: Modeling of the 13 December 2006 SEP event. Journal of Geophysical Research, 2010, 115, .	3.3	49
26	New measurements of total ionizing dose in the lunar environment. Space Weather, 2011, 9, .	3.7	45
27	Update on the Worsening Particle Radiation Environment Observed by CRaTER and Implications for Future Human Deepâ€Space Exploration. Space Weather, 2018, 16, 289-303.	3.7	44
28	Observations of the remnants of the ultrarelativistic electrons injected by the strong SSC of 24 March 1991. Geophysical Research Letters, 1994, 21, 2079-2082.	4.0	41
29	The hidden dynamics of relativistic electrons (0.7â€“1.5ÂMeV) in the inner zone and slot region. Journal of Geophysical Research: Space Physics, 2017, 122, 3127-3144.	2.4	38
30	The Relativistic Proton Spectrometer (RPS) for the Radiation Belt Storm Probes Mission. Space Science Reviews, 2013, 179, 221-261.	8.1	36
31	Energetic Charged Particles in the Magnetosphere of Neptune. Science, 1989, 246, 1489-1494.	12.6	35
32	A Revised Look at Relativistic Electrons in the Earth's Inner Radiation Zone and Slot Region. Journal of Geophysical Research: Space Physics, 2019, 124, 934-951.	2.4	32
33	Displacement Damage in TiO<formula formulatype="inline"> <tex Notation="TeX">$_{2}$</tex></formula> Memristor Devices. IEEE Transactions on Nuclear Science, 2013, 60, 1379-1383.	2.0	30
34	The radiation environment near the lunar surface: CRaTER observations and Geant4 simulations. Space Weather, 2013, 11, 142-152.	3.7	28
35	Relative contributions of galactic cosmic rays and lunar proton â€œalbedoâ€•to dose and dose rates near the Moon. Space Weather, 2013, 11, 643-650.	3.7	26
36	Sampex observations of energetic hydrogen isotopes in the inner zone. Radiation Measurements, 1996, 26, 967-978.	1.4	25

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37	Signatures of volatiles in the lunar proton albedo. Icarus, 2016, 273, 25-35.	2.5	22
38	Analog and digital single-event effects experiments in space. IEEE Transactions on Nuclear Science, 2001, 48, 1841-1848.	2.0	19
39	Low-altitude distribution of radiation belt electrons. Journal of Geophysical Research, 2004, 109, .	3.3	19
40	Measurements of galactic cosmic ray shielding with the CRaTER instrument. Space Weather, 2013, 11, 284-296.	3.7	19
41	Solar Energetic Proton Access to the Magnetosphere During the 10â€“14 September 2017 Particle Event. Space Weather, 2018, 16, 2022-2037.	3.7	19
42	Anomalous cosmic ray argon and other rare elements at 1-4 MeV/nucleon trapped within the Earth's magnetosphere. Journal of Geophysical Research, 2000, 105, 21015-21023.	3.3	18
43	How Efficient are Coronal Mass Ejections at Accelerating Solar Energetic Particles?. AIP Conference Proceedings, 2008, , .	0.4	18
44	The deep space galactic cosmic ray lineal energy spectrum at solar minimum. Space Weather, 2013, 11, 361-368.	3.7	18
45	The Magnetic Electron Ion Spectrometer: A Review of On-Orbit Sensor Performance, Data, Operations, and Science. Space Science Reviews, 2021, 217, 80.	8.1	18
46	Geomagnetically trapped antiprotons. Geophysical Research Letters, 2007, 34, .	4.0	16
47	Global MHD test particle simulations of solar energetic electron trapping in the Earth's radiation belts. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 1727-1737.	1.6	16
48	Update on Radiation Dose From Galactic and Solar Protons at the Moon Using the LRO/CRaTER Microdosimeter. Space Weather, 2015, 13, 363-364.	3.7	16
49	SAMPEX observations of the South Atlantic anomaly secular drift during solar cycles 22â€“24. Space Weather, 2017, 15, 44-52.	3.7	16
50	Maps of hydrogen isotopes at low altitudes in the inner zone from sampex observations. Advances in Space Research, 1998, 21, 1679-1682.	2.6	15
51	The first cosmic ray albedo proton map of the Moon. Journal of Geophysical Research, 2012, 117, .	3.3	12
52	Radiation effects studies on thin film TiO<inf>2</inf> memristor devices. , 2013, , .		11
53	Diagnosis of ULF Waveâ€Particle Interactions With Megaelectron Volt Electrons: The Importance of Ultrahighâ€Resolution Energy Channels. Geophysical Research Letters, 2018, 45, 10,883.	4.0	11
54	Trapped anomalous cosmic rays near the geomagnetic cutoff. Journal of Geophysical Research, 1996, 101, 24747-24753.	3.3	9

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55	Using proton radiation from the moon to search for diurnal variation of regolith hydrogenation. Planetary and Space Science, 2018, 162, 113-132.	1.7	9
56	On the use of drift echoes to characterize onâ€orbit sensor discrepancies. Journal of Geophysical Research: Space Physics, 2015, 120, 2076-2087.	2.4	8
57	Update on Galactic Cosmic Ray Integral Flux Measurements in Lunar Orbit With CRaTER. Space Weather, 2019, 17, 1011.	3.7	8
58	Solar modulation of the deep space galactic cosmic ray lineal energy spectrum measured by CRaTER, 2009â€“2014. Space Weather, 2016, 14, 247-258.	3.7	7
59	Ulysses observations of short-period (â‰30 Days) modulation of the galactic cosmic rays. Geophysical Research Letters, 1997, 24, 671-674.	4.0	6
60	Modulation of Jovian electrons at 1 AU during solar cycles 22-23. Geophysical Research Letters, 2003, 30, .	4.0	6
61	LEEM: A new empirical model of radiationâ€belt electrons in the lowâ€Earthâ€orbit region. Journal of Geophysical Research, 2012, 117, .	3.3	6
62	Jovian, Solar, and other Possible Sources of Radiation Belt Particles. Geophysical Monograph Series, 0, , 49-55.	0.1	6
63	Absorbed doses from GCR and albedo particles emitted by the lunar surface. Acta Astronautica, 2020, 175, 185-189.	3.2	6
64	A model of the secondary radiation belt. Journal of Geophysical Research, 2008, 113, .	3.3	5
65	Large anisotropies of >60â€‰MeV protons throughout the inner belt observed with the Van Allen Probes mission. Geophysical Research Letters, 2014, 41, 3738-3743.	4.0	5
66	Large-Amplitude Whistler Waves and Electron Acceleration in the Earth's Radiation Belts: A Review of Stereo and Wind Observations. Geophysical Monograph Series, 0, , 41-52.	0.1	4
67	Using <scp>Polarâ€orbiting Environmental Satellite</scp> data to specify the radiation environment up to 1200 km altitude. Space Weather, 2015, 13, 434-445.	3.7	4
68	Longâ€Term Variations of Quasiâ€Trapped and Trapped Electrons in the Inner Radiation Belt Observed by DEMETER and SAMPEX. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028086.	2.4	4
69	Evidence for Energetic Neutral Hydrogen Emission from Solar Particle Events. Astrophysical Journal, 2021, 923, 195.	4.5	4
70	Statistical analysis of SAMPEX PET proton measurements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 449, 378-382.	1.6	3
71	Precise Detections of Solar Particle Events and a New View of the Moon. Geophysical Research Letters, 2020, 47, e2019GL085522.	4.0	3
72	Longâ€Term Observations of Galactic Cosmic Ray LET Spectra in Lunar Orbit by LRO/CRaTER. Space Weather, 2020, 18, e2020SW002543.	3.7	3

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73	Characterization and Calibration of Highâ€Energy Electron Instruments Onboard the Arase Satellite. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029110.	2.4	2
74	First On-Orbit Results from the AeroCube-10 Space Solar Cell Experiment. , 2020, , .		1
75	Modeling the Albedo Neutron Decay Source of Radiation Belt Electrons and Protons. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	1