Alex Glocer

List of Publications by Year
in descending order

84 papers	3,454 citations	159585 30 h-index	149698 56 g-index
98 all docs	98 docs citations	98 times ranked	2864 citing authors

#	ARTICLE	IF	CITATIONS
1	Adaptive numerical algorithms in space weather modeling. Journal of Computational Physics, 2012, 231, 870-903.	3.8	560
2	Prebiotic chemistry and atmospheric warming of early Earth by an active young Sun. Nature Geoscience, 2016, 9, 452-455.	12.9	213
3	How Hospitable Are Space Weather Affected Habitable Zones? The Role of Ion Escape. Astrophysical Journal Letters, 2017, 836, L3.	8.3	185
4	Impact of space weather on climate and habitability of terrestrial-type exoplanets. International Journal of Astrobiology, 2020, 19, 136-194.	1.6	125
5	MAGNETOSPHERIC STRUCTURE AND ATMOSPHERIC JOULE HEATING OF HABITABLE PLANETS ORBITING M-DWARF STARS. Astrophysical Journal, 2014, 790, 57.	4.5	124
6	Modeling ionospheric outflows and their impact on the magnetosphere, initial results. Journal of Geophysical Research, 2009, 114, .	3.3	114
7	On the Magnetic Protection of the Atmosphere of Proxima Centauri b. Astrophysical Journal Letters, 2017, 844, L13.	8.3	107
8	The Comprehensive Inner Magnetosphereâ€Ionosphere Model. Journal of Geophysical Research: Space Physics, 2014, 119, 7522-7540.	2.4	106
9	Multifluid Blockâ€Adaptiveâ€Tree Solar wind Roeâ€type Upwind Scheme: Magnetospheric composition and dynamics during geomagnetic stormsâ€"Initial results. Journal of Geophysical Research, 2009, 114, .	3.3	103
10	Simulation of the 23 July 2012 extreme space weather event: What if this extremely rare CME was Earth directed?. Space Weather, 2013, 11, 671-679.	3.7	87
11	Extended magnetohydrodynamics with embedded particleâ€inâ€cell simulation of Ganymede's magnetosphere. Journal of Geophysical Research: Space Physics, 2016, 121, 1273-1293.	2.4	78
12	Modeling extreme â€œCarringtonâ€typeâ€space weather events using threeâ€dimensional global MHD simulations. Journal of Geophysical Research: Space Physics, 2014, 119, 4456-4474.	2.4	74
13	CRCM + BATSâ€'Râ€'US twoâ€'way coupling. Journal of Geophysical Research: Space Physics, 2013, 118, 1635-1650.	2.4	72
14	Geospace environment modeling 2008â€"2009 challenge: <i>D</i>_{st} index. Space Weather, 2013, 11, 187-205.	3.7	69
15	THE INTERACTION OF VENUS-LIKE, M-DWARF PLANETS WITH THE STELLAR WIND OF THEIR HOST STAR. Astrophysical Journal, 2015, 806, 41.	4.5	65
16	Recent developments in the radiation belt environment model. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 1435-1443.	1.6	63
17	The effects of dynamic ionospheric outflow on the ring current. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	58
18	Atmospheric Escape Processes and Planetary Atmospheric Evolution. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027639.	2.4	58

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19	Modeling solar zenith angle effects on the polar wind. Journal of Geophysical Research, 2012, 117, .	3.3	56
20	Magnetosphereâ€ionosphere energy interchange in the electron diffuse aurora. Journal of Geophysical Research: Space Physics, 2014, 119, 171-184.	2.4	47
21	Polar wind outflow model: Saturn results. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	45
22	Dynamics of ring current and electric fields in the inner magnetosphere during disturbed periods: CRCMâ€"BATSâ€Râ€US coupled model. Journal of Geophysical Research, 2010, 115, .	3.3	42
23	Pitch Angle Scattering of Subâ€MeV Relativistic Electrons by Electromagnetic Ion Cyclotron Waves. Journal of Geophysical Research: Space Physics, 2019, 124, 5610-5626.	2.4	41
24	AMBIPOLAR ELECTRIC FIELD, PHOTOELECTRONS, AND THEIR ROLE IN ATMOSPHERIC ESCAPE FROM HOT JUPITERS. Astrophysical Journal Letters, 2012, 753, L4.	8.3	40
25	Electron distribution function formation in regions of diffuse aurora. Journal of Geophysical Research: Space Physics, 2015, 120, 9891-9915.	2.4	40
26	Electric Mars: The first direct measurement of an upper limit for the Martian â€œpolar windâ€• electric potential. Geophysical Research Letters, 2015, 42, 9128-9134.	4.0	38
27	Tracing magnetic separators and their dependence on IMF clock angle in global magnetospheric simulations. Journal of Geophysical Research: Space Physics, 2013, 118, 4998-5007.	2.4	36
28	The role of the Hall effect in the global structure and dynamics of planetary magnetospheres: Ganymede as a case study. Journal of Geophysical Research: Space Physics, 2015, 120, 5377-5392.	2.4	35
29	Separator reconnection at the magnetopause for predominantly northward and southward IMF: Techniques and results. Journal of Geophysical Research: Space Physics, 2016, 121, 140-156.	2.4	34
30	The twoâ€way relationship between ionospheric outflow and the ring current. Journal of Geophysical Research: Space Physics, 2015, 120, 4338-4353.	2.4	33
31	What sustained multi-disciplinary research can achieve: The space weather modeling framework. Journal of Space Weather and Space Climate, 2021, 11, 42.	3.3	32
32	Rapid rebuilding of the outer radiation belt. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	31
33	The electric wind of Venus: A global and persistent â€œpolar windâ€â€like ambipolar electric field sufficient for the direct escape of heavy ionospheric ions. Geophysical Research Letters, 2016, 43, 5926-5934.	4.0	31
34	Integration of the radiation belt environment model into the space weather modeling framework. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 1653-1663.	1.6	29
35	Flux estimates of ions from the lunar exosphere. Geophysical Research Letters, 2012, 39, .	4.0	29
36	Communityâ€wide validation of geospace model local Kâ€index predictions to support model transition to operations. Space Weather, 2016, 14, 469-480.	3.7	27

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37	Impacts of Ionospheric Ions on Magnetic Reconnection and Earth's Magnetosphere Dynamics. Reviews of Geophysics, 2021, 59, e2020RG000707.	23.0	26
38	Photoelectrons in the quiet polar wind. Journal of Geophysical Research: Space Physics, 2017, 122, 6708-6726.	2.4	25
39	Pressure anisotropy in global magnetospheric simulations: Coupling with ring current models. Journal of Geophysical Research: Space Physics, 2013, 118, 5639-5658.	2.4	24
40	A Case Study on the Origin of Nearâ€Earth Plasma. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028205.	2.4	23
41	Including Kinetic Ion Effects in the Coupled Global Ionospheric Outflow Solution. Journal of Geophysical Research: Space Physics, 2018, 123, 2851-2871.	2.4	21
42	Mass Loading the Earth's Dayside Magnetopause Boundary Layer and Its Effect on Magnetic Reconnection. Geophysical Research Letters, 2019, 46, 6204-6213.	4.0	21
43	Ionospheric Ambipolar Electric Fields of Mars and Venus: Comparisons Between Theoretical Predictions and Direct Observations of the Electric Potential Drop. Geophysical Research Letters, 2019, 46, 1168-1176.	4.0	21
44	The Unknown Hydrogen Exosphere: Space Weather Implications. Space Weather, 2018, 16, 205-215.	3.7	20
45	New Results From <i>Galileo</i>'s First Flyby of Ganymede: Reconnectionâ€Driven Flows at the Lowâ€Latitude Magnetopause Boundary, Crossing the Cusp, and Icy Ionospheric Escape. Geophysical Research Letters, 2018, 45, 3382-3392.	4.0	20
46	Simulation of a rapid dropout event for highly relativistic electrons with the RBE model. Journal of Geophysical Research: Space Physics, 2016, 121, 4092-4102.	2.4	19
47	Energy Dissipation in the Upper Atmospheres of TRAPPIST-1 Planets. Astrophysical Journal Letters, 2018, 856, L11.	8.3	19
48	Global view of inner magnetosphere composition during storm time. Journal of Geophysical Research: Space Physics, 2013, 118, 7074-7084.	2.4	18
49	Electric Mars: A large transâ€terminator electric potential drop on closed magnetic field lines above Utopia Planitia. Journal of Geophysical Research: Space Physics, 2017, 122, 2260-2271.	2.4	16
50	An Energetic Electron Flux Dropout Due to Magnetopause Shadowing on 1 June 2013. Journal of Geophysical Research: Space Physics, 2018, 123, 1178-1190.	2.4	16
51	Convective growth of electromagnetic ion cyclotron waves from realistic ring current ion distributions. Journal of Geophysical Research: Space Physics, 2016, 121, 10,966.	2.4	14
52	Highâ€density O⁺ in Earth's outer magnetosphere and its effect on dayside magnetopause magnetic reconnection. Journal of Geophysical Research: Space Physics, 2019, 124, 10257-10269.	2.4	14
53	The Formation of Electron Heat Flux in the Region of Diffuse Aurora. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028175.	2.4	13
54	Superthermal electron magnetosphere-ionosphere coupling in the diffuse aurora in the presence of ECH waves. Journal of Geophysical Research: Space Physics, 2015, 120, 445-459.	2.4	12

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55	Electron Drift Resonance in the MHDâ€Coupled Comprehensive Inner Magnetosphereâ€Ionosphere Model. Journal of Geophysical Research: Space Physics, 2017, 122, 12,006.	2.4	12
56	Growth and nonlinear saturation of electromagnetic ion cyclotron waves in multiâ€ion species magnetospheric plasma. Journal of Geophysical Research: Space Physics, 2017, 122, 6469-6484.	2.4	10
57	Estimating Maximum Extent of Auroral Equatorward Boundary Using Historical and Simulated Surface Magnetic Field Data. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028284.	2.4	10
58	The Space Environment and Atmospheric Joule Heating of the Habitable Zone Exoplanet TOI 700 d. Astrophysical Journal, 2020, 897, 101.	4.5	9
59	The global context of the 14 November 2012 storm event. Journal of Geophysical Research: Space Physics, 2015, 120, 1939-1956.	2.4	8
60	Ionosphereâ€magnetosphere energy interplay in the regions of diffuse aurora. Journal of Geophysical Research: Space Physics, 2016, 121, 6661-6673.	2.4	8
61	Exoplanet Modulation of Stellar Coronal Radio Emission. Astronomical Journal, 2018, 156, 202.	4.7	8
62	Magnetosphere dynamics during the 14ÂNovember 2012 storm inferred from TWINS, AMPERE, Van Allen Probes, and BATS-R-USâ€“CRCM. Annales Geophysicae, 2018, 36, 107-124.	1.6	8
63	The Contribution of N⁺ Ions to Earth's Polar Wind. Geophysical Research Letters, 2020, 47, e2020GL089321.	4.0	8
64	New Developments in the Comprehensive Inner Magnetosphereâ€Ionosphere Model. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028987.	2.4	8
65	Recreating the Horizontal Magnetic Field at Colaba During the Carrington Event With Geospace Simulations. Space Weather, 2021, 19, e2020SW002585.	3.7	8
66	Superthermal electron energy interchange in the ionosphereâ€plasmasphere system. Journal of Geophysical Research: Space Physics, 2013, 118, 925-934.	2.4	7
67	Multipoint observations of the openâ€closed field line boundary as observed by the Van Allen Probes and geostationary satellites during the 14 November 2012 geomagnetic storm. Journal of Geophysical Research: Space Physics, 2015, 120, 6596-6613.	2.4	7
68	A hybrid electrostatic retarding potential analyzer for the measurement of plasmas at extremely high energy resolution. Review of Scientific Instruments, 2018, 89, 113306.	1.3	7
69	How Magnetically Conjugate Atmospheres and the Magnetosphere Participate in the Formation of Lowâ€Energy Electron Precipitation in the Region of Diffuse Aurora. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028057.	2.4	7
70	Electron Energy Interplay in the Geomagnetic Trap Below the Auroral Acceleration Region. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028811.	2.4	7
71	Depleted Plasma Densities in the Ionosphere of Venus Near Solar Minimum From <i>Parker Solar Probe</i> Observations of Upper Hybrid Resonance Emission. Geophysical Research Letters, 2021, 48, e2020GL092243.	4.0	7
72	The Precipitated Electrons in the Region of Diffuse Aurora Driven by Ionosphereâ€Thermosphere Collisional Processes. Geophysical Research Letters, 2021, 48, e2021GL094583.	4.0	6

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73	Kinetic description of ionospheric outflows based on the exact form of Fokkerâ€Planck collision operator: Electrons. Journal of Geophysical Research, 2012, 117, .	3.3	5
74	Quantification of Cold-Ion Beams in a Magnetic Reconnection Jet. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	4
75	Geomagnetic Storms: First-Principles Models for Extreme Geospace Environment. , 2018, , 231-258.		3
76	On formation flying in low earth mirrored orbits â€" A case study. Acta Astronautica, 2021, 184, 142-149.	3.2	3
77	The Key Role of Cold Ionospheric Ions As a Source of Hot Magnetospheric Plasma and As a Driver of the Dynamics of Substorms and Storms. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	3
78	The early Earth under a superflare and super-CME attack: prospects for life. Proceedings of the International Astronomical Union, 2015, 11, 409-415.	0.0	2
79	Reply to Comments by Tsurutani et al. on â€œModeling Extreme â€˜Carrington-Typeâ€™ Space Weather Events Using Three-Dimensional Global MHD Simulationsâ€. Journal of Geophysical Research: Space Physics, 2018, 123, 1393-1395.	2.4	2
80	The Endurance Rocket Mission. Space Science Reviews, 2022, 218, .	8.1	2
81	CCMC Modeling of Magnetic Reconnection in Electron Diffusion Region Events. Proceedings of the International Astronomical Union, 2017, 13, 142-146.	0.0	1
82	Wave-induced particle precipitation into the ionosphere from the inner magnetosphere. , 2019, , .		0
83	Collisionless relaxation of the ion ring distribution in space plasma. Planetary and Space Science, 2019, 165, 75-84.	1.7	0
84	Impact of Solar Wind on the Earth Magnetosphere: Recent Progress in the Modeling of Ring Current and Radiation Belts. , 0, , .		0