

Christopher C Chaston

List of Publications by Year in descending order

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84
papers

6,065
citations

87888

38
h-index

69250

77
g-index

86
all docs

86
docs citations

86
times ranked

2680
citing authors

#	ARTICLE	IF	CITATIONS
1	The FIELDS Instrument Suite for Solar Probe Plus. <i>Space Science Reviews</i> , 2016, 204, 49-82.	8.1	521
2	FAST satellite observations of large-amplitude solitary structures. <i>Geophysical Research Letters</i> , 1998, 25, 2041-2044.	4.0	504
3	The Electric Field and Waves Instruments on the Radiation Belt Storm Probes Mission. <i>Space Science Reviews</i> , 2013, 179, 183-220.	8.1	421
4	Highly structured slow solar wind emerging from an equatorial coronal hole. <i>Nature</i> , 2019, 576, 237-242.	27.8	401
5	IDENTIFICATION OF KINETIC ALFVÉN WAVE TURBULENCE IN THE SOLAR WIND. <i>Astrophysical Journal Letters</i> , 2012, 745, L9.	8.3	250
6	FAST satellite observations of electric field structures in the auroral zone. <i>Geophysical Research Letters</i> , 1998, 25, 2025-2028.	4.0	248
7	FAST Observations of Inertial Alfvén Waves in the Dayside Aurora. <i>Geophysical Research Letters</i> , 1999, 26, 647-650.	4.0	188
8	FAST satellite wave observations in the AKR source region. <i>Geophysical Research Letters</i> , 1998, 25, 2061-2064.	4.0	177
9	Properties of small-scale Alfvén waves and accelerated electrons from FAST. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	160
10	FAST observations of electron distributions within AKR source regions. <i>Geophysical Research Letters</i> , 1998, 25, 2069-2072.	4.0	145
11	Auroral ion acceleration in dispersive Alfvén waves. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	137
12	Driven Alfvén waves and electron acceleration: A FAST case study. <i>Geophysical Research Letters</i> , 2002, 29, 30-1.	4.0	121
13	Energy deposition by Alfvén waves into the dayside auroral oval: Cluster and FAST observations. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	113
14	How important are dispersive Alfvén waves for auroral particle acceleration?. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	113
15	FAST observations of VLF waves in the auroral zone: Evidence of very low plasma densities. <i>Geophysical Research Letters</i> , 1998, 25, 2065-2068.	4.0	105
16	Alfvén Waves, Density Cavities and Electron Acceleration Observed from the FAST Spacecraft. <i>Physica Scripta</i> , 2000, T84, 64.	2.5	103
17	Ionospheric erosion by Alfvén waves. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	102
18	The Turbulent Alfvénic Aurora. <i>Physical Review Letters</i> , 2008, 100, 175003.	7.8	102

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19	Electron acceleration in the ionospheric Alfvén resonator. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 41-1.	3.3	101
20	Drift-Kinetic Alfvén Waves Observed near a Reconnection X Line in the Earth's Magnetopause. <i>Physical Review Letters</i> , 2005, 95, 065002.	7.8	93
21	Kinetic Alfvén Wave Turbulence and Transport through a Reconnection Diffusion Region. <i>Physical Review Letters</i> , 2009, 102, 015001.	7.8	87
22	Mode Conversion and Anomalous Transport in Kelvin-Helmholtz Vortices and Kinetic Alfvén Waves at the Earth's Magnetopause. <i>Physical Review Letters</i> , 2007, 99, 175004.	7.8	83
23	Switchbacks in the Solar Magnetic Field: Their Evolution, Their Content, and Their Effects on the Plasma. <i>Astrophysical Journal, Supplement Series</i> , 2020, 246, 68.	7.7	83
24	Quasi-parallel whistler mode waves observed by THEMIS during near-earth dipolarizations. <i>Annales Geophysicae</i> , 2009, 27, 2259-2275.	1.6	83
25	Review of Solar Wind Entry into and Transport Within the Plasma Sheet. <i>Space Science Reviews</i> , 2014, 184, 33-86.	8.1	82
26	Width and brightness of auroral arcs driven by inertial Alfvén waves. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	72
27	Observations of kinetic scale field line resonances. <i>Geophysical Research Letters</i> , 2014, 41, 209-215.	4.0	69
28	Electron modulation and ion cyclotron waves observed by FAST. <i>Geophysical Research Letters</i> , 1998, 25, 2045-2048.	4.0	68
29	Ion-scale Electromagnetic Waves in the Inner Heliosphere. <i>Astrophysical Journal, Supplement Series</i> , 2020, 246, 66.	7.7	67
30	Multiscale Coherent Structures and Broadband Waves due to Parallel Inhomogeneous Flows. <i>Physical Review Letters</i> , 2000, 85, 4285-4288.	7.8	65
31	Megavolt Parallel Potentials Arising from Double-Layer Streams in the Earth's Outer Radiation Belt. <i>Physical Review Letters</i> , 2013, 111, 235002.	7.8	64
32	Broadband low-frequency electromagnetic waves in the inner magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 8603-8615.	2.4	56
33	Energy transport by kinetic-scale electromagnetic waves in fast plasma sheet flows. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	55
34	Kinetic effects in the acceleration of auroral electrons in small scale Alfvén waves: A FAST case study. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	51
35	Non-Maxwellian particle distributions and electromagnetic ion cyclotron instabilities in the near-Earth magnetotail. <i>Geophysical Research Letters</i> , 1997, 24, 2913-2916.	4.0	42
36	Sheared flows and small-scale Alfvén wave generation in the auroral acceleration region. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	41

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37	Electromagnetic waves on ion gyro-radii scales across the magnetopause. Geophysical Research Letters, 2011, 38, .	4.0	41
38	Large parallel electric fields, currents, and density cavities in dispersive Alfvén waves above the aurora. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	39
39	Ion temperature effects on magnetotail Alfvén wave propagation and electron energization. Journal of Geophysical Research: Space Physics, 2015, 120, 5623-5632.	2.4	39
40	Extreme ionospheric ion energization and electron heating in Alfvén waves in the storm time inner magnetosphere. Geophysical Research Letters, 2015, 42, 10,531.	4.0	38
41	Driving ionospheric outflows and magnetospheric O ⁺ energy density with Alfvén waves. Geophysical Research Letters, 2016, 43, 4825-4833.	4.0	37
42	Time development of field-aligned currents, potential drops, and plasma associated with an auroral poleward boundary intensification. Journal of Geophysical Research, 2010, 115, .	3.3	36
43	Electromagnetic ion cyclotron waves at proton cyclotron harmonics. Journal of Geophysical Research, 2002, 107, SMP 8-1.	3.3	34
44	Ion gyroradius effects on particle trapping in kinetic Alfvén waves along auroral field lines. Journal of Geophysical Research: Space Physics, 2016, 121, 10,831.	2.4	31
45	Localized parallel electric fields associated with inertial Alfvén waves. Physics of Plasmas, 2005, 12, 072901.	1.9	29
46	Small and meso-scale properties of a substorm onset auroral arc. Journal of Geophysical Research, 2010, 115, .	3.3	29
47	Cross-scale coupling in the auroral acceleration region. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	29
48	Observations of plasma waves in the colliding jet region of a magnetic flux rope flanked by two active X lines at the subsolar magnetopause. Journal of Geophysical Research: Space Physics, 2014, 119, 6256-6272.	2.4	29
49	Small-scale auroral current sheet structuring. Journal of Geophysical Research, 2010, 115, .	3.3	28
50	Heating of the plasma sheet by broadband electromagnetic waves. Geophysical Research Letters, 2014, 41, 8185-8192.	4.0	28
51	Correction to "Energy transport by kinetic-scale electromagnetic waves in fast plasma sheet flows". Journal of Geophysical Research, 2012, 117, .	3.3	27
52	Ion heating by broadband electromagnetic waves in the magnetosheath and across the magnetopause. Journal of Geophysical Research: Space Physics, 2013, 118, 5579-5591.	2.4	27
53	Characteristics of electromagnetic proton cyclotron waves along auroral field lines observed by FAST in regions of upward current. Geophysical Research Letters, 1998, 25, 2057-2060.	4.0	23
54	Motion of aurorae. Geophysical Research Letters, 2010, 37, .	4.0	23

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55	Dispersive Alfvén Wave Control of O ⁺ Ion Outflow and Energy Densities in the Inner Magnetosphere. <i>Geophysical Research Letters</i> , 2019, 46, 8597-8606.	4.0	23
56	ULF Waves and Auroral Electrons. <i>Geophysical Monograph Series</i> , 2006, , 239-257.	0.1	21
57	Pitch Angle Scattering and Loss of Radiation Belt Electrons in Broadband Electromagnetic Waves. <i>Geophysical Research Letters</i> , 2018, 45, 9344-9352.	4.0	21
58	CME-associated Energetic Ions at 0.23 au: Consideration of the Auroral Pressure Cooker Mechanism Operating in the Low Corona as a Possible Energization Process. <i>Astrophysical Journal, Supplement Series</i> , 2020, 246, 59.	7.7	21
59	Electron Distributions in Kinetic Scale Field Line Resonances: A Comparison of Simulations and Observations. <i>Geophysical Research Letters</i> , 2018, 45, 5826-5835.	4.0	19
60	Radial transport of radiation belt electrons in kinetic field-line resonances. <i>Geophysical Research Letters</i> , 2017, 44, 8140-8148.	4.0	18
61	Correlations Between Dispersive Alfvén Wave Activity, Electron Energization, and Ion Outflow in the Inner Magnetosphere. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088985.	4.0	18
62	IMF Control of Alfvénic Energy Transport and Deposition at High Latitudes. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 12,189.	2.4	17
63	MHD Mode Composition in the Inner Heliosphere from the Parker Solar Probe's First Perihelion. <i>Astrophysical Journal, Supplement Series</i> , 2020, 246, 71.	7.7	17
64	Inverse ion-cyclotron damping: Laboratory demonstration and space ramifications. <i>Physics of Plasmas</i> , 2003, 10, 1605-1613.	1.9	15
65	The Alfvénic surge at substorm onset/expansion and the formation of Inverted V Cluster and IMAGE observations. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 3978-4004.	2.4	14
66	Radiation Belt Dropouts and Drift-Bounce Resonances in Broadband Electromagnetic Waves. <i>Geophysical Research Letters</i> , 2018, 45, 2128-2137.	4.0	14
67	Alfvén wave-driven ionospheric mass outflow and electron precipitation during storms. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 7828-7846.	2.4	13
68	Generation of short-burst radiation through Alfvénic acceleration of auroral electrons. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	12
69	Small-Scale Dynamic Aurora. <i>Space Science Reviews</i> , 2021, 217, 17.	8.1	10
70	Magnetic reconnection in the auroral acceleration region. <i>Geophysical Research Letters</i> , 2015, 42, 1646-1653.	4.0	9
71	Storm phase-partitioned rates and budgets of global Alfvénic energy deposition, electron precipitation, and ion outflow. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2018, 167, 1-12.	1.6	8
72	Filamentary Currents and Alfvénic Vortices in the Inner Magnetosphere. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086318.	4.0	8

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73	Electromagnetic Ion Cyclotron Waves Observed in the Near Earth Plasma Sheet Boundary Layer.. Journal of Geomagnetism and Geoelectricity, 1994, 46, 987-995.	0.9	8
74	MAVEN Observations of Low Frequency Steepened Magnetosonic Waves and Associated Heating of the Martian Nightside Ionosphere. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029615.	2.4	8
75	Reply to "Comment by P. K. Shukla and L. Stenflo on "Kinetic effects in the acceleration of auroral electrons in small scale Alfvén waves: A FAST case study", Geophysical Research Letters, 2004, 31, .	4.0	6
76	Quasilinear evolution of the ion cyclotron beam-anisotropy instability in a current carrying plasma. Physics of Plasmas, 1999, 6, 2588-2597.	1.9	5
77	Inferring Source Properties of Monoenergetic Electron Precipitation From Kappa and Maxwellian Moment-Voltage Relationships. Journal of Geophysical Research: Space Physics, 2019, 124, 1548-1567.	2.4	3
78	Turbulent Wavefield Morphology and Ion Scattering in the Magnetosheath. Geophysical Research Letters, 2020, 47, e2020GL089613.	4.0	3
79	Ion Scattering and Energization in Filamentary Structures Through Earth's Magnetosheath. Geophysical Research Letters, 2021, 48, e2021GL094029.	4.0	3
80	Nonthermal Limit of Monoenergetic Precipitation in the Auroral Acceleration Region. Geophysical Research Letters, 2018, 45, 10,167-10,176.	4.0	2
81	An Auroral Alfvén Wave Cascade. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	2
82	Fluid-Kinetic Variations in the Storm-Time Inner Magnetosphere. Geophysical Research Letters, 2022, 49, .	4.0	2
83	Electron Energization Signatures in Traveling Kinetic Alfvén Waves at Storm Time Injection Fronts. Geophysical Research Letters, 2022, 49, .	4.0	2
84	Evidence for a Multi-scale Aurora. , 2011, , 271-280.		1