

Colin L Waters

List of Publications by Year in descending order

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102
papers

3,462
citations

126708

33
h-index

161609

54
g-index

121
all docs

121
docs citations

121
times ranked

1782
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimation of global field aligned currents using the iridium [®] System magnetometer data. <i>Geophysical Research Letters</i> , 2001, 28, 2165-2168.	1.5	187
2	The resonance structure of low latitude Pc3 geomagnetic pulsations. <i>Geophysical Research Letters</i> , 1991, 18, 2293-2296.	1.5	167
3	Development of large-scale Birkeland currents determined from the Active Magnetosphere and Planetary Electrodynamics Response Experiment. <i>Geophysical Research Letters</i> , 2014, 41, 3017-3025.	1.5	156
4	Propagation of electromagnetic ion cyclotron wave energy in the magnetosphere. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	145
5	Statistical Birkeland current distributions from magnetic field observations by the Iridium constellation. <i>Annales Geophysicae</i> , 2008, 26, 671-687.	0.6	132
6	Geomagnetically induced currents in the New Zealand power network. <i>Space Weather</i> , 2012, 10, .	1.3	103
7	Monitoring spatial and temporal variations in the dayside plasmasphere using geomagnetic field line resonances. <i>Journal of Geophysical Research</i> , 1999, 104, 19955-19969.	3.3	100
8	Birkeland current system key parameters derived from Iridium observations: Method and initial validation results. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 11-1.	3.3	91
9	Relativistic electron loss due to ultralow frequency waves and enhanced outward radial diffusion. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	83
10	The temporal variation of the frequency of high latitude field line resonances. <i>Journal of Geophysical Research</i> , 1995, 100, 7987.	3.3	78
11	Variation of plasmatrough density derived from magnetospheric field line resonances. <i>Journal of Geophysical Research</i> , 1996, 101, 24737-24745.	3.3	66
12	The detailed spatial structure of field-aligned currents comprising the substorm current wedge. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 7714-7727.	0.8	63
13	Low latitude geomagnetic field line resonance: Experiment and modeling. <i>Journal of Geophysical Research</i> , 1994, 99, 17547.	3.3	61
14	Real-time imaging of density ducts between the plasmasphere and ionosphere. <i>Geophysical Research Letters</i> , 2015, 42, 3707-3714.	1.5	61
15	Seasonal and interplanetary magnetic field dependence of the field-aligned currents for both Northern and Southern Hemispheres. <i>Annales Geophysicae</i> , 2009, 27, 1701-1715.	0.6	60
16	Field line resonances and waveguide modes at low latitudes: 1. Observations. <i>Journal of Geophysical Research</i> , 2000, 105, 7747-7761.	3.3	59
17	A preliminary risk assessment of the Australian region power network to space weather. <i>Space Weather</i> , 2011, 9, .	1.3	58
18	Statistical relationship between large-scale upward field-aligned currents and electron precipitation. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 6715-6731.	0.8	58

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19	Detection of ultralow-frequency cavity modes using spacecraft data. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 7-1.	3.3	52
20	Refractive index effects on the scatter volume location and Doppler velocity estimates of ionospheric HF backscatter echoes. <i>Annales Geophysicae</i> , 2009, 27, 4207-4219.	0.6	50
21	Field line resonances and waveguide modes at low latitudes: 2. A model. <i>Journal of Geophysical Research</i> , 2000, 105, 7763-7774.	3.3	49
22	Spectral width of SuperDARN echoes: measurement, use and physical interpretation. <i>Annales Geophysicae</i> , 2006, 24, 115-128.	0.6	47
23	Observations of geomagnetically induced currents in the Australian power network. <i>Space Weather</i> , 2013, 11, 6-16.	1.3	47
24	Propagation of ULF waves through the ionosphere: Analytic solutions for oblique magnetic fields. <i>Journal of Geophysical Research</i> , 2002, 107, SIA 11-1.	3.3	45
25	Statistical analysis of the dependence of large-scale Birkeland currents on solar wind parameters. <i>Annales Geophysicae</i> , 2010, 28, 515-530.	0.6	45
26	Monitoring the plasmopause using geomagnetic field line resonances. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	44
27	Visualization of ULF waves in SuperDARN data. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	43
28	Modeling of the ionospheric Alfvén resonator in dipolar geometry. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 1514-1528.	0.8	42
29	Propagation of ULF waves through the ionosphere: Inductive effect for oblique magnetic fields. <i>Annales Geophysicae</i> , 2004, 22, 1155-1169.	0.6	40
30	The modulation of electromagnetic ion cyclotron waves by Pc 5 ULF waves. <i>Annales Geophysicae</i> , 2009, 27, 121-130.	0.6	37
31	Fine structure in the spectra of low latitude field line resonances. <i>Geophysical Research Letters</i> , 1995, 22, 2111-2114.	1.5	36
32	Spectral analysis of pipe-to-soil potentials with variations of the Earth's magnetic field in the Australian region. <i>Space Weather</i> , 2010, 8, n/a-n/a.	1.3	36
33	Comparison of predictive estimates of high-latitude electrodynamics with observations of global-scale Birkeland currents. <i>Space Weather</i> , 2017, 15, 352-373.	1.3	35
34	High-latitude Poynting flux from combined Iridium and SuperDARN data. <i>Annales Geophysicae</i> , 2004, 22, 2861-2875.	0.6	34
35	A numerical model to investigate the polarisation azimuth of ULF waves through an ionosphere with oblique magnetic fields. <i>Annales Geophysicae</i> , 2005, 23, 3457-3471.	0.6	32
36	High-latitude electromagnetic and particle energy flux during an event with sustained strongly northward IMF. <i>Annales Geophysicae</i> , 2005, 23, 1295-1310.	0.6	31

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37	Quarter-wave modes of standing Alfvén waves detected by cross-phase analysis. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	30
38	Propagation of Pi2 pulsations in a dipole model of the magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 355-367.	0.8	30
39	On the use of geomagnetic indices and ULF waves for earthquake precursor signatures. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 992-1003.	0.8	29
40	Science Data Products for AMPERE. , 2020, , 141-165.		28
41	Comparison of large-scale Birkeland currents determined from Iridium and SuperDARN data. <i>Annales Geophysicae</i> , 2006, 24, 941-959.	0.6	27
42	Spatial structure of ULF waves: Comparison of magnetometer and Super Dual Auroral Radar Network data. <i>Journal of Geophysical Research</i> , 2001, 106, 10509-10517.	3.3	26
43	Pc3-4 ULF waves observed by the SuperDARN TIGER radar. <i>Annales Geophysicae</i> , 2005, 23, 1271-1280.	0.6	26
44	Field line resonant frequencies and ionospheric conductance: Results from a 2D MHD model. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	26
45	A technique to investigate plasma mass density in the topside ionosphere using ULF waves. <i>Journal of Geophysical Research</i> , 1999, 104, 12723-12732.	3.3	25
46	Reduction in field-aligned currents preceding and local to auroral substorm onset. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	24
47	Monitoring cusp/cleft topology using Pc5 ULF waves. <i>Geophysical Research Letters</i> , 1998, 25, 1507-1510.	1.5	23
48	Ground magnetometer observation of a cross-phase reversal at a steep plasmopause. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	23
49	Factors determining spectral width of HF echoes from high latitudes. <i>Annales Geophysicae</i> , 2007, 25, 675-687.	0.6	23
50	Global maps of ground magnetometer data. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 9651-9660.	0.8	23
51	Phase structure of low-latitude Pc3-4 pulsations. <i>Planetary and Space Science</i> , 1991, 39, 569-582.	0.9	22
52	Plasmaspheric dynamics resulting from the Hallowe'en 2003 geomagnetic storms. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	22
53	Remote sensing the plasmasphere, plasmopause, plumes and other features using ground-based magnetometers. <i>Journal of Space Weather and Space Climate</i> , 2014, 4, A34.	1.1	22
54	Temporal and Spatial Development of Global Birkeland Currents. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 4785-4808.	0.8	22

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55	Plasma mass density in the plasmatrough: Comparison using ULF waves and CRRES. <i>Geophysical Research Letters</i> , 1999, 26, 3277-3280.	1.5	21
56	Revised time-of-flight calculations for high-latitude geomagnetic pulsations using a realistic magnetospheric magnetic field model. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	21
57	Technique: Large-scale ionospheric conductance estimated from combined satellite and ground-based electromagnetic data. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	21
58	Resonance structure and mode transition of quarter-wave ULF pulsations around the dawn terminator. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 4194-4212.	0.8	21
59	On the occurrence and motion of decametre-scale irregularities in the sub-auroral, auroral, and polar cap ionosphere. <i>Annales Geophysicae</i> , 2003, 21, 1847-1868.	0.6	21
60	The 8 June 2000 ULF wave activity: A case study. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	20
61	Phase coherence analysis of a field line resonance and solar wind oscillation. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	19
62	Effects of mixed scatter on SuperDARN convection maps. <i>Annales Geophysicae</i> , 2008, 26, 1517-1523.	0.6	19
63	On the coupling of fast and shear Alfvén wave modes by the ionospheric Hall conductance. <i>Earth, Planets and Space</i> , 2013, 65, 385-396.	0.9	19
64	Ground Measurements of Low Latitude Magnetospheric Field Line Resonances. <i>Geophysical Monograph Series</i> , 2013, , 299-310.	0.1	19
65	The role of Pc1-2 waves in spectral broadening of SuperDARN echoes from high latitudes. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	18
66	Remote sensing the magnetosphere using ground-based observations of ULF waves. <i>Geophysical Monograph Series</i> , 2006, , 319-340.	0.1	15
67	Observations of Pi2 pulsations by the Wallops HF radar in association with substorm expansion. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	15
68	ULF wave attenuation in the high latitude ionospheric waveguide. <i>Advances in Space Research</i> , 2000, 25, 1559-1565.	1.2	13
69	The phase structure of very low latitude ULF waves across dawn. <i>Journal of Geophysical Research</i> , 2001, 106, 15599-15607.	3.3	13
70	A finite difference construction of the spheroidal wave functions. <i>Computer Physics Communications</i> , 2014, 185, 244-253.	3.0	13
71	Survey of ULF wave signatures seen in the Tasman International Geospace Environment Radars data. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 949-963.	0.8	13
72	Deriving Global Convection Maps From SuperDARN Measurements. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 2902-2915.	0.8	13

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73	Coordinated ISTP satellite and ground observations of morningside Pc5 waves. <i>Journal of Geophysical Research</i> , 1999, 104, 2381-2397.	3.3	12
74	Modulation of radio frequency signals by ULF waves. <i>Annales Geophysicae</i> , 2007, 25, 1113-1124.	0.6	12
75	Global observations of electromagnetic and particle energy flux for an event during northern winter with southward interplanetary magnetic field. <i>Annales Geophysicae</i> , 2008, 26, 1415-1430.	0.6	11
76	Upstream Pc4 waves: Experimental evidence of propagation to the nightside plasmopause/plasmatrough. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	11
77	ULF wave effects on high frequency signal propagation through the ionosphere. <i>Annales Geophysicae</i> , 2009, 27, 2779-2788.	0.6	11
78	ULF Doppler oscillations in the low latitude ionosphere. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	10
79	Electrodynamic context of magnetopause dynamics observed by magnetospheric multiscale. <i>Geophysical Research Letters</i> , 2016, 43, 5988-5996.	1.5	10
80	Multifrequency compressional magnetic field oscillations and their relation to multiharmonic toroidal mode standing Alfvén waves. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 10,384.	0.8	9
81	FedSat – An Australian research microsatellite. <i>Advances in Space Research</i> , 2000, 25, 1325-1336.	1.2	8
82	Relationship between ULF wave mode mix, equatorial electric fields, and ground magnetometer data. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	8
83	Energization of outer radiation belt electrons during storm recovery phase. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 10,845.	0.8	8
84	Ionospheric signatures of ULF waves: Passive radar techniques. <i>Geophysical Monograph Series</i> , 2006, , 259-271.	0.1	7
85	Transition of Pi2 ULF wave polarization structure from the ionosphere to the ground. <i>Geophysical Research Letters</i> , 2013, 40, 1474-1478.	1.5	7
86	Numerical Investigations of Interhemispheric Asymmetry due to Ionospheric Conductance. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA027866.	0.8	7
87	Effect of the ionosphere on the interaction between ULF waves and radiation belt electrons. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 8572-8585.	0.8	6
88	SuperDARN backscatter during intense geomagnetic storms. <i>Radio Science</i> , 2016, 51, 814-825.	0.8	6
89	Statistical Correlation Analysis of Field-Aligned Currents Measured by Swarm. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 8170-8184.	0.8	6
90	The importance of non-uniform geoelectric fields in calculating GIC distributions. , 2013, , .		5

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91	A comparison of small-scale magnetic fluctuations in the Region 1 and 2 field-aligned current systems. Journal of Geophysical Research: Space Physics, 2017, 122, 3277-3290.	0.8	5
92	Field-Aligned and Ionospheric Currents by AMPERE and SuperMAG During HSS/SIR-Driven Storms. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029437.	0.8	5
93	Ponderomotive force driven density modifications parallel to B ₀ on the LAPD. Physics of Plasmas, 2022, 29, 042508.	0.7	5
94	An auroral westward flow channel (AWFC) and its relationship to field-aligned current, ring current, and plasmopause location determined using multiple spacecraft observations. Annales Geophysicae, 2007, 25, 59-76.	0.6	3
95	FDTD modeling of ULF waves in the magnetosphere and ionosphere. , 2010, , .		1
96	On the Estimation of the Ratio of ULF Wave Electric Fields in Space and the Magnetic Fields at the Ground. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA029052.	0.8	1
97	Monitoring Magnetospheric Waves from the Ground. , 2016, , 170-191.		1
98	Observations and modelling of the wave mode evolution of an impulse-driven 3 mHz ULF wave. Annales Geophysicae, 2010, 28, 1723-1735.	0.6	0
99	Waves in the sky: Probing the ionosphere with the Murchison Widefield Array. , 2015, , .		0
100	A 1D coupled transport/cold plasma wave model for parallel ponderomotive density modification near RF actuators. AIP Conference Proceedings, 2020, , .	0.3	0
101	Field-Aligned Current During an Interval of B _Y -Dominated Interplanetary Field; Modeled-to-Observed Comparisons. Journal of Geophysical Research: Space Physics, 2021, 126, .	0.8	0
102	On the Estimation of Resonance Widths of Field Line Resonances Using Ground Magnetometer Data. Frontiers in Astronomy and Space Sciences, 2022, 9, .	1.1	0