

David J Southwood

List of Publications by Year in descending order

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88
papers

7,987
citations

66315

42
h-index

53190

85
g-index

94
all docs

94
docs citations

94
times ranked

2201
citing authors

#	ARTICLE	IF	CITATIONS
1	Some features of field line resonances in the magnetosphere. <i>Planetary and Space Science</i> , 1974, 22, 483-491.	0.9	1,099
2	The screening of micropulsation signals by the atmosphere and ionosphere. <i>Journal of Geophysical Research</i> , 1976, 81, 3234-3240.	3.3	444
3	The Cassini Magnetic Field Investigation. <i>Space Science Reviews</i> , 2004, 114, 331-383.	3.7	434
4	Coupling of global magnetospheric MHD eigenmodes to field line resonances. <i>Journal of Geophysical Research</i> , 1986, 91, 4345-4351.	3.3	373
5	Discovery of Ganymede's magnetic field by the Galileo spacecraft. <i>Nature</i> , 1996, 384, 537-541.	13.7	348
6	The hydromagnetic stability of the magnetospheric boundary. <i>Planetary and Space Science</i> , 1968, 16, 587-605.	0.9	337
7	Resonant ULF waves: A new interpretation. <i>Geophysical Research Letters</i> , 1985, 12, 49-52.	1.5	331
8	Bounce resonant interaction between pulsations and trapped particles. <i>Planetary and Space Science</i> , 1969, 17, 349-361.	0.9	265
9	Alfven wave resonances in a realistic magnetospheric magnetic field geometry. <i>Journal of Geophysical Research</i> , 1981, 86, 4589-4596.	3.3	248
10	The Variable Rotation Period of the Inner Region of Saturn's Plasma Disk. <i>Science</i> , 2007, 316, 442-445.	6.0	223
11	A general approach to low-frequency instability in the ring current plasma. <i>Journal of Geophysical Research</i> , 1976, 81, 3340-3348.	3.3	222
12	Cassini Magnetometer Observations During Saturn Orbit Insertion. <i>Science</i> , 2005, 307, 1266-1270.	6.0	211
13	Charged particle behavior in low-frequency geomagnetic pulsations 1. Transverse waves. <i>Journal of Geophysical Research</i> , 1981, 86, 5643-5655.	3.3	178
14	Charged particle behavior in low-frequency geomagnetic pulsations, 2. Graphical approach. <i>Journal of Geophysical Research</i> , 1982, 87, 1707-1710.	3.3	155
15	A new perspective concerning the influence of the solar wind on the Jovian magnetosphere. <i>Journal of Geophysical Research</i> , 2001, 106, 6123-6130.	3.3	148
16	Warping of Saturn's magnetospheric and magnetotail current sheets. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	148
17	Dynamical consequences of two modes of centrifugal instability in Jupiter's outer magnetosphere. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	140
18	Mirror instability II: The mechanism of nonlinear saturation. <i>Journal of Geophysical Research</i> , 1996, 101, 17365-17371.	3.3	131

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19	Origin of Saturn's aurora: Simultaneous observations by Cassini and the Hubble Space Telescope. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	127
20	Saturnian magnetospheric dynamics: Elucidation of a camshaft model. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	121
21	Magnetospheric interchange instability. <i>Journal of Geophysical Research</i> , 1987, 92, 109-116.	3.3	120
22	Io and its plasma environment. <i>Journal of Geophysical Research</i> , 1980, 85, 5959-5968.	3.3	119
23	Ultra low frequency waves in the magnetosphere. <i>Space Science Reviews</i> , 1970, 10, 672.	3.7	114
24	Rapid energy dissipation and variability of the Io-Jupiter electrodynamic circuit. <i>Nature</i> , 1996, 379, 323-325.	13.7	114
25	Saturn's magnetic field revealed by the Cassini Grand Finale. <i>Science</i> , 2018, 362, .	6.0	108
26	Hydromagnetic waves and the ionosphere. <i>Geophysical Research Letters</i> , 1988, 15, 1271-1274.	1.5	105
27	Magnetospheric interchange motions. <i>Journal of Geophysical Research</i> , 1989, 94, 299-308.	3.3	95
28	The effect of parallel inhomogeneity on magnetospheric hydromagnetic wave coupling. <i>Journal of Geophysical Research</i> , 1986, 91, 6871-6876.	3.3	93
29	Planetary period oscillations in Saturn's magnetosphere: Evolution of magnetic oscillation properties from southern summer to post-equinox. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	88
30	On the form of the flow in the magnetosheath. <i>Journal of Geophysical Research</i> , 1992, 97, 2873-2879.	3.3	78
31	Storm-associated Pc 5 micropulsation events observed at the synchronous equatorial orbit. <i>Journal of Geophysical Research</i> , 1972, 77, 143-158.	3.3	77
32	How can Saturn impose its rotation period in a nonrotating magnetosphere?. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	73
33	Approximations for the study of drift boundaries in the magnetosphere. <i>Journal of Geophysical Research</i> , 1975, 80, 3528-3534.	3.3	70
34	Saturn's dynamic magnetotail: A comprehensive magnetic field and plasma survey of plasmoids and traveling compression regions and their role in global magnetospheric dynamics. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 5465-5494.	0.8	69
35	An approximate analytic description of plasma bulk parameters, and pitch angle anisotropy under adiabatic flow, in a dipolar magnetospheric field. <i>Journal of Geophysical Research</i> , 1975, 80, 2069-2073.	3.3	59
36	Reanalysis of Saturn's magnetospheric field data view of spin-periodic perturbations. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	56

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37	The origin of Saturn's magnetic periodicities: Northern and southern current systems. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 1563-1571.	0.8	55
38	Local time variations of particle flux produced by an electrostatic field in the magnetosphere. <i>Journal of Geophysical Research</i> , 1975, 80, 56-65.	3.3	54
39	Charged particle behavior in low-frequency geomagnetic pulsations: 4. Compressional waves. <i>Journal of Geophysical Research</i> , 1985, 90, 1486-1498.	3.3	54
40	Magnetospheres of the Galilean Satellites. <i>Science</i> , 1979, 205, 491-493.	6.0	51
41	Absence of an internal magnetic field at Callisto. <i>Nature</i> , 1997, 387, 262-264.	13.7	51
42	Magnetosheath flow near the subsolar magnetopause: Zwan-Wolf and Southwood-Kivelson theories reconciled. <i>Geophysical Research Letters</i> , 1995, 22, 3275-3278.	1.5	48
43	The source of Saturn's periodic radio emission. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	43
44	Direct evidence of differences in magnetic rotation rate between Saturn's northern and southern polar regions. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	41
45	Charged particle behavior in low-frequency geomagnetic pulsations: 3. Spin phase dependence. <i>Journal of Geophysical Research</i> , 1983, 88, 174-182.	3.3	40
46	Effect of atmosphere and ionosphere on magnetospheric micropulsation signals. <i>Nature</i> , 1974, 248, 493-495.	13.7	33
47	Evolution of ion cyclotron instability in the plasma convection system of the magnetosphere. <i>Journal of Geophysical Research</i> , 1979, 84, 6397-6406.	3.3	27
48	Solar wind interaction with small bodies: 2. What can Galileo's detection of magnetic rotations tell us about Gaspra and Ida. <i>Advances in Space Research</i> , 1995, 16, 59-68.	1.2	23
49	Null fields in the outer Jovian magnetosphere: Ulysses observations. <i>Geophysical Research Letters</i> , 1994, 21, 405-408.	1.5	21
50	First evidence of IMF control of Jovian magnetospheric boundary locations: Cassini and Galileo magnetic field measurements compared. <i>Planetary and Space Science</i> , 2003, 51, 891-898.	0.9	21
51	Magnetic Field Studies of the Solar Wind Interaction with Venus from the Galileo Flyby. <i>Science</i> , 1991, 253, 1518-1522.	6.0	20
52	Field-Aligned Currents in Saturn's Magnetosphere: Observations From the Ring Orbits. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 3806-3821.	0.8	20
53	Discovery of Atmospheric-Wind-Driven Electric Currents in Saturn's Magnetosphere in the Gap Between Saturn and its Rings. <i>Geophysical Research Letters</i> , 2018, 45, 10,068.	1.5	18
54	Magnetometer measurements from the Cassini Earth swing-by. <i>Journal of Geophysical Research</i> , 2001, 106, 30109-30128.	3.3	17

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55	Magnetopause ripples going against the flow form azimuthally stationary surface waves. Nature Communications, 2021, 12, 5697.	5.8	17
56	Correlations between magnetic field and electron density observations during the inbound Ulysses Jupiter flyby. Planetary and Space Science, 1993, 41, 919-930.	0.9	16
57	Saturn's quasiperiodic magnetohydrodynamic waves. Geophysical Research Letters, 2016, 43, 11,102.	1.5	16
58	Solar wind interaction with small bodies: 1. Whistler wing signatures near Galileo's closest approach to Gaspra and Ida. Advances in Space Research, 1995, 16, 47-57.	1.2	14
59	Frequency doubling in ultralow frequency wave signals. Journal of Geophysical Research, 1997, 102, 27151-27158.	3.3	13
60	High-latitude circulation in giant planet magnetospheres. Journal of Geophysical Research: Space Physics, 2016, 121, 5394-5403.	0.8	13
61	Relations between polarization and the structure of ULF waves in the magnetosphere. Journal of Geophysical Research, 1984, 89, 5523-5529.	3.3	12
62	Theory and Observation of Magnetosheath Waves. Geophysical Monograph Series, 2013, , 147-158.	0.1	12
63	Note on the electric splitting of drift shells. Journal of Geophysical Research, 1975, 80, 3525-3527.	3.3	11
64	Vortex motion in the ionosphere and nonlinear transport. Journal of Geophysical Research, 1993, 98, 11459-11466.	3.3	10
65	How a Realistic Magnetosphere Alters the Polarizations of Surface, Fast Magnetosonic, and Alfvén Waves. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	10
66	Saturn's Planetary Period Oscillations During the Closest Approach of Cassini's Ring-Grazing Orbits. Geophysical Research Letters, 2018, 45, 4692-4700.	1.5	9
67	Phase delays in transverse disturbances in the Earth's magnetosheath. Geophysical Research Letters, 1990, 17, 2249-2252.	1.5	8
68	The Formation of Slow Mode Fronts in the Magnetosheath. Geophysical Monograph Series, 2013, , 109-114.	0.1	8
69	Stagnation of Saturn's auroral emission at noon. Journal of Geophysical Research: Space Physics, 2017, 122, 6078-6087.	0.8	7
70	Magnetosphere: First success for a space mission and a comet for Christmas. Nature, 1984, 312, 594-594.	13.7	6
71	Relationships between phase structure and energy flux in magnetohydrodynamic waves in the magnetosphere. Journal of Geophysical Research, 2000, 105, 27701-27706.	3.3	6
72	Magnetic phase structure of Saturn's 10.7%h oscillations. Journal of Geophysical Research: Space Physics, 2015, 120, 2631-2648.	0.8	6

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73	Neglected Plasma Instability involving Bounce Resonance. <i>Nature</i> , 1968, 219, 56-57.	13.7	4
74	Currents Associated With Saturn's Intra-CD Ring Azimuthal Field Perturbations. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 5675-5691.	0.8	4
75	Discovery of Alfvén Waves Planetward of Saturn's Rings. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028473.	0.8	4
76	From the Carrington Storm to the Dungey Magnetosphere. <i>Thirty Years of Astronomical Discovery With UKIRT</i> , 2015, , 253-271.	0.3	4
77	Magnetopause pressure pulses as a source of localized field-aligned currents in the magnetosphere. <i>Geophysical Monograph Series</i> , 1990, , 619-625.	0.1	3
78	Galileo flybys of earth: The nature of the distant shock. <i>Advances in Space Research</i> , 1995, 16, 197-204.	1.2	3
79	Saturn's Auroral Field-Aligned Currents: Observations From the Northern Hemisphere Dawn Sector During Cassini's Proximal Orbits. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027683.	0.8	3
80	Evaluating the Ionospheric Mass Source for Jupiter's Magnetosphere: An Ionospheric Outflow Model for the Auroral Regions. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027727.	0.8	2
81	Ionospheric Signatures of Localized Magnetospheric Perturbations. <i>Journal of Geomagnetism and Geoelectricity</i> , 1991, 43, 129-140.	0.8	2
82	When international partnerships go wrong. <i>Nature</i> , 2012, 488, 451-453.	13.7	1
83	Norway's most celebrated scientist. <i>Astronomy and Geophysics</i> , 2017, 58, 5.28-5.31.	0.1	1
84	An Improbable Collaboration. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028407.	0.8	1
85	MHD Wave Propagation in the Magnetosheath: Recent Results.. <i>Journal of Geomagnetism and Geoelectricity</i> , 1991, 43, 631-644.	0.8	1
86	Astrophysics: Plasma motion near comet cores. <i>Nature</i> , 1985, 317, 12-12.	13.7	0
87	Troitskaya honored for crucial role in ULF wave research. <i>Eos</i> , 1996, 77, 417.	0.1	0
88	Reply to the comment by Cowley et al. on "Magnetic phase structure of Saturn's 10.7%h oscillations". <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 5691-5693.	0.8	0