Christopher Arridge

List of Publications by Citations

139 papers	4,789 citations	41 h-index	62 g-index
143 ext. papers	5,008 ext. citations	4.7 avg, IF	5.02 L-index

#	Paper	IF	Citations
139	Cassini magnetometer observations during Saturn orbit insertion. *Science*, **2005**, 307, 1266-70	33.3	196
138	A new form of Saturn's magnetopause using a dynamic pressure balance model, based on in situ, multi-instrument Cassini measurements. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		134
137	Warping of Saturn's magnetospheric and magnetotail current sheets. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		132
136	Titan's magnetic field signature during the first Cassini encounter. *Science*, **2005**, 308, 992-5	33.3	130
135	Modeling the size and shape of Saturn's magnetopause with variable dynamic pressure. *Journal of Geophysical Research*, **2006**, 111,		126
134	Origin of Saturn's aurora: Simultaneous observations by Cassini and the Hubble Space Telescope. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		117
133	Cassini observations of the variation of Saturn's ring current parameters with system size. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		104
132	Ionospheric electrons in Titan's tail: Plasma structure during the Cassini T9 encounter. *Geophysical Research Letters*, **2007**, 34,	4.9	96
131	Cassini observations of a Kelvin-Helmholtz vortex in Saturn's outer magnetosphere. *Journal of Geophysical Research*, **2010**, 115,		91
130	Strong rapid dipolarizations in Saturn's magnetotail: In situ evidence of reconnection. *Geophysical Research Letters*, **2007**, 34,	4.9	91
129	Saturn's magnetodisc current sheet. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		86
128	Large-scale dynamics of Saturn's magnetopause: Observations by Cassini. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		83
127	Periodic motion of Saturn's nightside plasma sheet. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		82
126	Plasma in Saturn's nightside magnetosphere and the implications for global circulation. *Planetary and Space Science*, **2009**, 57, 1714-1722	2	82
125	Polarization and phase of planetary-period magnetic field oscillations on high-latitude field lines in Saturn's magnetosphere. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		82
124	Fine jet structure of electrically charged grains in Enceladus' plume. *Geophysical Research Letters*, **2009**, 36,	4.9	79
123	Derivation of density and temperature from the Cassini–Huygens CAPS electron spectrometer. *Planetary and Space Science*, **2008**, 56, 901-912	2	79

122	Titan's near magnetotail from magnetic field and electron plasma observations and modeling: Cassini flybys TA, TB, and T3. *Journal of Geophysical Research*, **2006**, 111,		77
121	Sources of rotational signals in Saturn's magnetosphere. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		70
120	Dual periodicities in planetary-period magnetic field oscillations in Saturn's tail. *Journal of Geophysical Research*, **2012**, 117,		67
119	A model of force balance in Saturn's magnetodisc. *Monthly Notices of the Royal Astronomical Society* , **2010**, 401, 2349-2371	4.3	67
118	Surface waves on Saturn's dawn flank magnetopause driven by the Kelvin–Helmholtz instability. *Planetary and Space Science*, **2009**, 57, 1769-1778	2	65
117	Properties of Saturn kilometric radiation measured within its source region. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	64
116	Auroral current systems in Saturn's magnetosphere: comparison of theoretical models with Cassini and HST observations. *Annales Geophysicae*, **2008**, 26, 2613-2630	2	57
115	Saturn's inner magnetospheric convection pattern: Further evidence. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		56
114	Mass of Saturn's magnetodisc: Cassini observations. *Geophysical Research Letters*, **2007**, 34,	4.9	55
113	Particle pressure, inertial force, and ring current density profiles in the magnetosphere of Saturn, based on Cassini measurements. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	54
112	The variability of Titan's magnetic environment. *Planetary and Space Science*, **2009**, 57, 1813-1820	2	53
111	Magnetic field structure of Saturn's dayside magnetosphere and its mapping to the ionosphere: Results from ring current modeling. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		53
110	Solar Cycle Effects on the Dynamics of Jupiter's and Saturn's Magnetospheres. *Solar Physics*, **2011**, 274, 481-502	2.6	50
109	The evolution of solar wind strahl with heliospheric distance. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 3858-3874	2.6	49
108	Reconnection at the magnetopause of Saturn: Perspective from FTE occurrence and magnetosphere size. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		48
107	Auroral signatures of multiple magnetopause reconnection at Saturn. *Geophysical Research Letters*, **2013**, 40, 4498-4502	4.9	48
106	Magnetopause oscillations near the planetary period at Saturn: Occurrence, phase, and amplitude. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		48
105	Upstream of Saturn and Titan. *Space Science Reviews*, **2011**, 162, 25-83	7.5	47

104	A multi-instrument view of tail reconnection at Saturn. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		47
103	Orientation, location, and velocity of Saturn's bow shock: Initial results from the Cassini spacecraft. *Journal of Geophysical Research*, **2006**, 111,		46
102	Cassini observations of ion and electron beams at Saturn and their relationship to infrared auroral arcs. *Journal of Geophysical Research*, **2012**, 117,		44
101	An empirical model of Saturn's bow shock: Cassini observations of shock location and shape. *Journal of Geophysical Research*, **2008**, 113,		44
100	Nature of magnetic fluctuations in Saturn's middle magnetosphere. *Journal of Geophysical Research* , **2006**, 111,		44
99	Characterization of auroral current systems in Saturn's magnetosphere: High-latitude Cassini observations. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		42
98	The science case for an orbital mission to Uranus: Exploring the origins and evolution of ice giant planets. *Planetary and Space Science*, **2014**, 104, 122-140	2	41
97	Northward field excursions in Saturn's magnetotail and their relationship to magnetospheric periodicities. *Geophysical Research Letters*, **2009**, 36,	4.9	40
96	Complex structure within Saturn's infrared aurora. *Nature*, **2008**, 456, 214-7	50.4	40
95	Thermal electron periodicities at 20RS in Saturn's magnetosphere. *Geophysical Research Letters*, **2008**, 35,	4.9	40
94	Saturn's Magnetospheric Configuration **2009**, 203-255		40
93	Cassini in Titan's tail: CAPS observations of plasma escape. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		39
92	Mapping Magnetospheric Equatorial Regions at Saturn from Cassini Prime Mission Observations. *Space Science Reviews*, **2011**, 164, 1-83	7.5	39
91	Dynamics and seasonal variations in Saturn's magnetospheric plasma sheet, as measured by Cassini. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		38
90	Plasma electrons in Saturn's magnetotail: Structure, distribution and energisation. *Planetary and Space Science*, **2009**, 57, 2032-2047	2	38
89	Large-Scale Structure and Dynamics of the Magnetotails of Mercury, Earth, Jupiter and Saturn. *Space Science Reviews*, **2014**, 182, 85-154	7.5	36
88	Internally driven large-scale changes in the size of Saturn's magnetosphere. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 7289-7306	2.6	36
87	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. *Experimental Astronomy* , **2012**, 33, 753-791	1.3	36

86	Saturn's ring current: Local time dependence and temporal variability. *Journal of Geophysical Research*, **2011**, 116,		36
85	Signatures of field-aligned currents in Saturn's nightside magnetosphere. *Geophysical Research Letters*, **2009**, 36,	4.9	36
84	Solar Wind and Internally Driven Dynamics: Influences on Magnetodiscs and Auroral Responses. *Space Science Reviews*, **2015**, 187, 51-97	7.5	35
83	Statistical properties of the magnetic field in the Kronian magnetotail lobes and current sheet. *Journal of Geophysical Research*, **2011**, 116,		35
82	Statistical characteristics of field-aligned currents in Saturn's nightside magnetosphere. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		34
81	The effect of spacecraft radiation sources on electron moments from the Cassini CAPS electron spectrometer. *Planetary and Space Science*, **2009**, 57, 854-869	2	32
80	Cassini in situ observations of long-duration magnetic reconnection in Saturn magnetotail. *Nature Physics*, **2016**, 12, 268-271	16.2	31
79	Cusp observation at Saturn's high-latitude magnetosphere by the Cassini spacecraft. *Geophysical Research Letters*, **2014**, 41, 1382-1388	4.9	31
78	Influence of hot plasma pressure on the global structure of Saturn magnetodisk. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	31
77	Flux transfer event observation at Saturn's dayside magnetopause by the Cassini spacecraft. *Geophysical Research Letters*, **2016**, 43, 6713-6723	4.9	31
76	Cassini multi-instrument assessment of Saturn's polar cap boundary. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 8161-8177	2.6	30
75	The calibration of the Cassini Huygens CAPS Electron Spectrometer. *Planetary and Space Science*, **2010**, 58, 427-436	2	30
74	Electron beams as the source of whistler-mode auroral hiss at Saturn. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	29
73	Extraordinary field-aligned current signatures in Saturn's high-latitude magnetosphere: Analysis of Cassini data during Revolution 89. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		29
72	Analysis of a coronal mass ejection and corotating interaction region as they travel from the Sun passing Venus, Earth, Mars, and Saturn. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 1566-1588	2.6	28
71	Comparative magnetotail flapping: an overview of selected events at Earth, Jupiter and Saturn. *Annales Geophysicae*, **2013**, 31, 817-833	2	28
70	Auroral electron distributions within and close to the Saturn kilometric radiation source region. *Journal of Geophysical Research*, **2011**, 116,		28
69	Hot flow anomalies at Saturn's bow shock. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		28

68	The geometric factor of electrostatic plasma analyzers: a case study from the Fast Plasma Investigation for the Magnetospheric Multiscale mission. *Review of Scientific Instruments*, **2012**, 83, 033303	1.7	27
67	Outer magnetospheric structure: Jupiter and Saturn compared. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		27
66	Nature of the ring current in Saturn's dayside magnetosphere. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		27
65	CMI growth rates for Saturnian kilometric radiation. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	26
64	In situ observations of the effect of a solar wind compression on Saturn's magnetotail. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		26
63	Electron optical study of the Venus Express ASPERA-4 Electron Spectrometer (ELS) top-hat electrostatic analyser. *Measurement Science and Technology*, **2009**, 20, 055204	2	25
62	Formation of Saturn's ring spokes by lightning-induced electron beams. *Geophysical Research Letters*, **2006**, 33,	4.9	25
61	Rotationally driven magnetic reconnection in Saturn's dayside. *Nature Astronomy*, **2018**, 2, 640-645	12.1	24
60	Supercorotating return flow from reconnection in Saturn's magnetotail. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	22
59	Identification of Saturn's magnetospheric regions and associated plasma processes: Synopsis of Cassini observations during orbit insertion. *Reviews of Geophysics*, **2008**, 46,	23.1	22
58	Polar confinement of Saturn's magnetosphere revealed by in situ Cassini observations. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 2858-2875	2.6	21
57	Cassini observations of ionospheric photoelectrons at large distances from Titan: Implications for Titan's exospheric environment and magnetic tail. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		21
56	Field dipolarization in Saturn's magnetotail with planetward ion flows and energetic particle flow bursts: Evidence of quasi-steady reconnection. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 3603-3617	2.6	19
55	Cassini encounters with hot flow anomaly-like phenomena at Saturn's bow shock. *Geophysical Research Letters*, **2008**, 35,	4.9	18
54	Titan's plasma environment during a magnetosheath excursion: Real-time scenarios for Cassini's T32 flyby from a hybrid simulation. *Annales Geophysicae*, **2009**, 27, 669-685	2	16
53	Cassini observations of ionospheric plasma in Saturn's magnetotail lobes. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 338-357	2.6	16
52	Asymmetries observed in Saturn's magnetopause geometry. *Geophysical Research Letters*, **2015**, 42, 6890-6898	4.9	14
51	Excitation of electron cyclotron harmonic waves in the inner Saturn magnetosphere within local plasma injections. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		14

50	Sources of Local Time Asymmetries in Magnetodiscs. *Space Science Reviews*, **2015**, 187, 301-333	7.5	13
49	Saturn's auroral/polar H3+ infrared emission: The effect of solar wind compression. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		13
48	The Cassini Enceladus encounters 2005–2010 in the view of energetic electron measurements. *Icarus*, **2012**, 218, 433-447	3.8	13
47	Modeling the compressibility of Saturn's magnetosphere in response to internal and external influences. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 1572-1589	2.6	12
46	Statistical ring current of Saturn. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		12
45	Photoelectrons in the Enceladus plume. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 5099-5108	2.6	12
44	Cassini observations of Saturn's southern polar cusp. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 3006-3030	2.6	12
43	Reconnection Acceleration in Saturn's Dayside Magnetodisk: A Multicase Study with Cassini. *Astrophysical Journal Letters*, **2018**, 868, L23	7.9	12
42	Electric field variability and classifications of Titan's magnetoplasma environment. *Annales Geophysicae*, **2011**, 29, 1253-1258	2	11
41	Recurrent Magnetic Dipolarization at Saturn: Revealed by Cassini. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 8502-8517	2.6	11
40	A combined model of pressure variations in Titan's plasma environment. *Geophysical Research Letters*, **2014**, 41, 8730-8735	4.9	10
39	An indication of the existence of a solar wind strahl at 10 AU. *Geophysical Research Letters*, **2013**, 40, 2495-2499	4.9	10
38	Global configuration of Saturn's magnetic field derived from observations. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	10
37	Ice giant magnetospheres. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2020**, 378, 20190480	3	9
36	An isolated, bright cusp aurora at Saturn. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 6121–6138	2.6	9
35	Cassini observations of aperiodic waves on Saturn's magnetodisc. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 8063-8077	2.6	8
34	Source region and growth analysis of narrowband Z-mode emission at Saturn. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 11,929	2.6	8
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31	Magnetotails of Uranus and Neptune. *Geophysical Monograph Series*, **2015**, 119-133	1.1	7
30	Ice giant system exploration in the 2020s: an introduction. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2020**, 378, 20190473	3	7
29	Local Time Asymmetries in Jupiter's Magnetodisc Currents. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027455	2.6	6
28	The Periodic Flapping and Breathing of Saturn's Magnetodisk During Equinox. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 8292-8316	2.6	5
27	Survey of Thermal Plasma Composition in Saturn's Magnetosphere Using Time-of-Flight Data From Cassini/CAPS. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 6494-6513	2.6	5
26	Electromagnetic induction in the icy satellites of Uranus. *Icarus*, **2021**, 367, 114562	3.8	5
25	Long-standing Small-scale Reconnection Processes at Saturn Revealed by Cassini. *Astrophysical Journal Letters*, **2019**, 884, L14	7.9	4
24	The Role of Intense Upper Hybrid Resonance Emissions in the Generation of Saturn Narrowband Emission. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 5709-5718	2.6	4
23	Tracking Counterpart Signatures in Saturn's Auroras and ENA Imagery During Large-Scale Plasma Injection Events. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027542	2.6	4
22	Local Time Variation in the Large-Scale Structure of Saturn's Magnetosphere. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 7425-7441	2.6	4
21	Diamagnetic depression observations at Saturn's magnetospheric cusp by the Cassini spacecraft. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 6283-6303	2.6	4
20	The magnetospheres of Jupiter and Saturn and their lessons for the Earth. *Advances in Space Research*, **2008**, 41, 1310-1318	2.4	4
19	Mapping Saturn's Nightside Plasma Sheet Using Cassini's Proximal Orbits. *Geophysical Research Letters*, **2018**, 45, 6798-6804	4.9	4
18	Current Density in Saturn's Equatorial Current Sheet: Cassini Magnetometer Observations. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 279-292	2.6	3
17	Distribution and Properties of Magnetic Flux Ropes in Titan's Ionosphere. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027570	2.6	3
16	Giant Planet Magnetodiscs and Auroræ: An Introduction. *Space Science Reviews*, **2015**, 187, 1-3	7.5	2
15	Current Sheets at the Giant Planets. *Geophysical Monograph Series*, **2018**, 191-205	1.1	2

14	Asymmetrical Magnetospheres. *Geophysical Monograph Series*, **2021**, 515-534	1.1	2
13	The Statistical Morphology of Saturn Equatorial Energetic Neutral Atom Emission. *Geophysical Research Letters*, **2021**, 48, e2020GL091595	4.9	2
12	Trapped Particle Motion in Magnetodisk Fields. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2020JA027827	2.6	1
11	Modeling Non-Force-Free and Deformed Flux Ropes in Titan's Ionosphere. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027571	2.6	1
10	AXIOM: Advanced X-ray imaging of the magnetosheath. *Astronomische Nachrichten*, **2012**, 333, 388-392	0.7	1
9	Future Missions to the Giant Planets that Can Advance Atmospheric Science Objectives. *Space Science Reviews*, **2020**, 216, 1	7.5	1
8	The Case for a New Frontiers Class Uranus Orbiter: System Science at an Underexplored and Unique World with a Mid-scale Mission. *Planetary Science Journal*, **2022**, 3, 58	2.9	1
7	Sources of Local Time Asymmetries in Magnetodiscs. *Space Sciences Series of ISSI*, **2016**, 301-333	0.1	0
6	Vertical Current Density Structure of Saturn's Equatorial Current Sheet. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 5097-5106	2.6	
5	Cassini tracks Saturn's equatorial current sheet. *Astronomy and Geophysics*, **2017**, 58, 1.17-1.20	0.2	
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3	Large-Scale Structure in the Magnetospheres of Jupiter and Saturn **2011**, 343-358		
2	Magnetotails throughout the solar system. *Astronomy and Geophysics*, **2010**, 51, 6.28-6.30	0.2	
1	Upstream of Saturn and Titan. *Space Sciences Series of ISSI*, **2011**, 25-83	0.1	