

Nicholas A Achilleos

List of Publications by Year in descending order

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116
papers

4,614
citations

76326

40
h-index

110387

64
g-index

127
all docs

127
docs citations

127
times ranked

2180
citing authors

#	ARTICLE	IF	CITATIONS
1	Asteroseismology of the DOV star PG 1159 - 035 with the Whole Earth Telescope. <i>Astrophysical Journal</i> , 1991, 378, 326.	4.5	223
2	Cassini Magnetometer Observations During Saturn Orbit Insertion. <i>Science</i> , 2005, 307, 1266-1270.	12.6	211
3	Warping of Saturn's magnetospheric and magnetotail current sheets. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	148
4	Titan's Magnetic Field Signature During the First Cassini Encounter. <i>Science</i> , 2005, 308, 992-995.	12.6	133
5	Modeling the size and shape of Saturn's magnetopause with variable dynamic pressure. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	133
6	The Magnetic Memory of Titan's Ionized Atmosphere. <i>Science</i> , 2008, 321, 1475-1478.	12.6	119
7	Interplanetary magnetic field at $\sim 1/9$ AU during the declining phase of the solar cycle and its implications for Saturn's magnetospheric dynamics. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	114
8	JIM: A time-dependent, three-dimensional model of Jupiter's thermosphere and ionosphere. <i>Journal of Geophysical Research</i> , 1998, 103, 20089-20112.	3.3	107
9	The role of H ₃ ⁺ in planetary atmospheres. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2000, 358, 2485-2502.	3.4	106
10	Cassini observations of a Kelvin-Helmholtz vortex in Saturn's outer magnetosphere. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	100
11	EChO. <i>Experimental Astronomy</i> , 2012, 34, 311-353.	3.7	98
12	Understanding the Cool DA White Dwarf Pulsator, G29 α 38. <i>Astrophysical Journal</i> , 1998, 495, 424-434.	4.5	98
13	Strong rapid dipolarizations in Saturn's magnetotail: In situ evidence of reconnection. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	93
14	A Baseline Spectroscopic Study of the Infrared Auroras of Jupiter. <i>Icarus</i> , 1997, 127, 379-393.	2.5	92
15	Saturn's magnetodisc current sheet. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	89
16	Large-scale dynamics of Saturn's magnetopause: Observations by Cassini. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	86
17	Titan's near magnetotail from magnetic field and electron plasma observations and modeling: Cassini flybys TA, TB, and T3. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	82
18	TandEM: Titan and Enceladus mission. <i>Experimental Astronomy</i> , 2009, 23, 893-946.	3.7	77

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19	A model of force balance in Saturn's magnetodisc. Monthly Notices of the Royal Astronomical Society, 2010, 401, 2349-2371.	4.4	73
20	Mid-to-Low Latitude H ₃ Emission from Jupiter. Icarus, 1997, 130, 57-67.	2.5	72
21	Saturn's dynamic magnetotail: A comprehensive magnetic field and plasma survey of plasmoids and traveling compression regions and their role in global magnetospheric dynamics. Journal of Geophysical Research: Space Physics, 2014, 119, 5465-5494.	2.4	69
22	Collision of comet Shoemaker-Levy 9 with Jupiter observed by the NASA infrared telescope facility. Science, 1995, 267, 1277-1282.	12.6	68
23	Surface waves on Saturn's dawn flank magnetopause driven by the Kelvin-Helmholtz instability. Planetary and Space Science, 2009, 57, 1769-1778.	1.7	68
24	Supersonic winds in Jupiter's aurorae. Nature, 1999, 399, 121-124.	27.8	60
25	Global MHD simulations of Saturn's magnetosphere at the time of Cassini approach. Geophysical Research Letters, 2005, 32, .	4.0	57
26	Mass of Saturn's magnetodisc: Cassini observations. Geophysical Research Letters, 2007, 34, .	4.0	57
27	The variability of Titan's magnetic environment. Planetary and Space Science, 2009, 57, 1813-1820.	1.7	56
28	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.	1.7	56
29	Auroral counterpart of magnetic field dipolarizations in Saturn's tail. Planetary and Space Science, 2013, 82-83, 34-42.	1.7	53
30	On the dynamics of the jovian ionosphere and thermosphere.. Icarus, 2005, 173, 200-211.	2.5	51
31	An empirical model of Saturn's bow shock: Cassini observations of shock location and shape. Journal of Geophysical Research, 2008, 113, .	3.3	51
32	Earth-based detection of Uranus' aurorae. Geophysical Research Letters, 2012, 39, .	4.0	51
33	Magnetism, X-rays and accretion rates in WD 1145+017 and other polluted white dwarf systems. Monthly Notices of the Royal Astronomical Society, 2018, 474, 947-960.	4.4	51
34	Orientation, location, and velocity of Saturn's bow shock: Initial results from the Cassini spacecraft. Journal of Geophysical Research, 2006, 111, .	3.3	50
35	A multi-instrument view of tail reconnection at Saturn. Journal of Geophysical Research, 2008, 113, .	3.3	48
36	Cassini observations of ion and electron beams at Saturn and their relationship to infrared auroral arcs. Journal of Geophysical Research, 2012, 117, .	3.3	47

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37	IONIZATION OF EXTRASOLAR GIANT PLANET ATMOSPHERES. <i>Astrophysical Journal</i> , 2010, 722, 178-187.	4.5	44
38	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. <i>Experimental Astronomy</i> , 2012, 33, 753-791.	3.7	44
39	Jovian-like aurorae on Saturn. <i>Nature</i> , 2008, 453, 1083-1085.	27.8	43
40	Complex structure within Saturn's infrared aurora. <i>Nature</i> , 2008, 456, 214-217.	27.8	42
41	Thermal electron periodicities at 20 R_S in Saturn's magnetosphere. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	41
42	No sodium in the vapour plumes of Enceladus. <i>Nature</i> , 2009, 459, 1102-1104.	27.8	41
43	Saturn's auroral/polar H+3 infrared emission. <i>Icarus</i> , 2007, 189, 1-13.	2.5	40
44	Internally driven large-scale changes in the size of Saturn's magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 7289-7306.	2.4	39
45	Surface waves on Saturn's magnetopause. <i>Planetary and Space Science</i> , 2012, 65, 109-121.	1.7	36
46	Electron heating at Saturn's bow shock. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	35
47	Response of the Jovian thermosphere to a transient pulse in solar wind pressure. <i>Planetary and Space Science</i> , 2014, 91, 27-44.	1.7	34
48	Neptune and Triton: Essential pieces of the Solar System puzzle. <i>Planetary and Space Science</i> , 2014, 104, 108-121.	1.7	34
49	A model of force balance in Jupiter's magnetodisc including hot plasma pressure anisotropy. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 10,185.	2.4	34
50	Interplanetary conditions and magnetospheric dynamics during the Cassini orbit insertion fly-through of Saturn's magnetosphere. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	33
51	Influence of hot plasma pressure on the global structure of Saturn's magnetodisk. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	33
52	Analysis of a coronal mass ejection and corotating interaction region as they travel from the Sun passing Venus, Earth, Mars, and Saturn. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 1566-1588.	2.4	33
53	Effects of radial motion on interchange injections at Saturn. <i>Icarus</i> , 2016, 264, 342-351.	2.5	33
54	Local time variations in Jupiter's magnetosphere-ionosphere coupling system. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 4740-4751.	2.4	32

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55	1. Transport of Mass, Momentum and Energy in Planetary Magnetodisc Regions. <i>Space Science Reviews</i> , 2015, 187, 229-299.	8.1	32
56	Asteroseismology of RXJ2117+3412, the hottest pulsating PG1159 star. <i>Astronomy and Astrophysics</i> , 2002, 381, 122-150.	5.1	32
57	Latitudinal Profiles of the Jovian IR Emissions of H ₃ at 4 μ m with the NASA Infrared Telescope Facility: Energy Inputs and Thermal Balance. <i>Icarus</i> , 2000, 147, 366-385.	2.5	31
58	The EChO science case. <i>Experimental Astronomy</i> , 2015, 40, 329-391.	3.7	31
59	Outer magnetospheric structure: Jupiter and Saturn compared. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	30
60	Saturn's auroral/polar H ₃ infrared emission. <i>Icarus</i> , 2007, 191, 678-690.	2.5	29
61	Location of Saturn's northern infrared aurora determined from Cassini VIMS images. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	28
62	VESPA: A community-driven Virtual Observatory in Planetary Science. <i>Planetary and Space Science</i> , 2018, 150, 65-85.	1.7	28
63	Whole earth telescope observations of the white dwarf G29-38 - Phase variations of the 615 second period. <i>Astrophysical Journal</i> , 1990, 357, 630.	4.5	26
64	UKIRT Observations of the Impact and Consequences of Comet Shoemaker-Levy 9 on Jupiter. <i>Icarus</i> , 1997, 126, 107-125.	2.5	24
65	The aurorae of Uranus past equinox. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 3997-4008.	2.4	24
66	A dynamical model of Jupiter's auroral electrojet. <i>New Journal of Physics</i> , 2001, 3, 3-3.	2.9	23
67	Identification of Saturn's magnetospheric regions and associated plasma processes: Synopsis of Cassini observations during orbit insertion. <i>Reviews of Geophysics</i> , 2008, 46, .	23.0	23
68	Influence of upstream solar wind on thermospheric flows at Jupiter. <i>Planetary and Space Science</i> , 2012, 61, 15-31.	1.7	23
69	Polar confinement of Saturn's magnetosphere revealed by in situ Cassini observations. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 2858-2875.	2.4	21
70	Variability in Saturn's bow shock and magnetopause from Pioneer and Voyager: Probabilistic predictions and initial observations by Cassini. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	19
71	Low-frequency waves in the foreshock of Saturn: First results from Cassini. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	18
72	Asymmetries observed in Saturn's magnetopause geometry. <i>Geophysical Research Letters</i> , 2015, 42, 6890-6898.	4.0	18

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73	The effect of the impact of comet Shoemaker Levy-9 on Jupiter's aurorae. <i>Geophysical Research Letters</i> , 1995, 22, 1629-1632.	4.0	17
74	Cassini observations of Saturn's southern polar cusp. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 3006-3030.	2.4	17
75	Jupiter's X-ray Emission During the 2007 Solar Minimum. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027219.	2.4	17
76	Saturn's quasiperiodic magnetohydrodynamic waves. <i>Geophysical Research Letters</i> , 2016, 43, 11,102.	4.0	16
77	Statistical ring current of Saturn. <i>Journal of Geophysical Research</i> , 2012, 117, n/a-n/a.	3.3	14
78	The effect of including field-aligned potentials in the coupling between Jupiter's thermosphere, ionosphere, and magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 6987-7005.	2.4	14
79	Saturn's auroral/polar H ₃ ⁺ infrared emission: The effect of solar wind compression. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	13
80	Axial symmetry breaking of Saturn's thermosphere. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 422, 1460-1488.	4.4	13
81	Modeling the compressibility of Saturn's magnetosphere in response to internal and external influences. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 1572-1589.	2.4	13
82	Virtual Planetary Space Weather Services offered by the Europlanet H2020 Research Infrastructure. <i>Planetary and Space Science</i> , 2018, 150, 50-59.	1.7	13
83	Electric field variability and classifications of Titan's magnetoplasma environment. <i>Annales Geophysicae</i> , 2011, 29, 1253-1258.	1.6	12
84	Global configuration of Saturn's magnetic field derived from observations. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	11
85	Structure of the interplanetary magnetic field during the interval spanning the first Cassini fly-through of Saturn's magnetosphere and its implications for Saturn's magnetospheric dynamics. <i>Advances in Space Research</i> , 2005, 36, 2120-2126.	2.6	10
86	Kronos: exploring the depths of Saturn with probes and remote sensing through an international mission. <i>Experimental Astronomy</i> , 2009, 23, 947-976.	3.7	10
87	A combined model of pressure variations in Titan's plasma environment. <i>Geophysical Research Letters</i> , 2014, 41, 8730-8735.	4.0	10
88	Response of the Jovian thermosphere to variations in solar EUV flux. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 3664-3682.	2.4	9
89	Magnetosphere-Ionosphere-Thermosphere Coupling at Jupiter Using a Three-Dimensional Atmospheric General Circulation Model. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA026792.	2.4	9
90	A test of the planet-star unipolar inductor for magnetic white dwarfs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 503, 3743-3758.	4.4	9

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91	Magnetic signatures of Jupiter's bow shock during the Cassini flyby. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	8
92	Dusk-brightening Event in Saturn's H ⁺ Aurora. <i>Astrophysical Journal</i> , 2008, 673, L203-L206.	4.5	8
93	Infrared spectroscopic studies of the jovian ionosphere and aurorae. <i>Advances in Space Research</i> , 2000, 26, 1477-1488.	2.6	7
94	Large-scale solar wind flow around Saturn's nonaxisymmetric magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9198-9206.	2.4	7
95	Thermospheric general circulation models for the giant planets: The Jupiter case. <i>Geophysical Monograph Series</i> , 2002, , 289-298.	0.1	6
96	Local Time Variation in the Large-Scale Structure of Saturn's Magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 7425-7441.	2.4	6
97	Tracking Counterpart Signatures in Saturn's Auroras and ENA Imagery During Large-Scale Plasma Injection Events. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027542.	2.4	6
98	The science of EChO. <i>Proceedings of the International Astronomical Union</i> , 2010, 6, 359-370.	0.0	5
99	The Periodic Flapping and Breathing of Saturn's Magnetodisk During Equinox. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 8292-8316.	2.4	5
100	An Initial Study Into the Long-Term Influence of Solar Wind Dynamic Pressure on Jupiter's Thermosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 9357-9369.	2.4	5
101	Mapping Saturn's Nightside Plasma Sheet Using Cassini's Proximal Orbits. <i>Geophysical Research Letters</i> , 2018, 45, 6798-6804.	4.0	4
102	Trapped Particle Motion in Magnetodisk Fields. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA027827.	2.4	4
103	Constraining the Temporal Variability of Neutral Winds in Saturn's Low-Latitude Ionosphere Using Magnetic Field Measurements. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006578.	3.6	4
104	Giant Planet Magnetodisks and Aurorae—An Introduction. <i>Space Science Reviews</i> , 2015, 187, 1-3.	8.1	3
105	Magnetopause Compressibility at Saturn with Internal Drivers. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086438.	4.0	3
106	A Rotating Azimuthally Distributed Auroral Current System on Saturn Revealed by the Cassini Spacecraft. <i>Astrophysical Journal Letters</i> , 2021, 919, L25.	8.3	3
107	Bow Shock and Upstream Waves at Jupiter and Saturn: Cassini Magnetometer Observations. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	2
108	The VOISE algorithm: a versatile tool for automatic segmentation of astronomical images. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 398, 1254-1262.	4.4	2

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109	A Self-Regulating Equilibrium Magnetopause Model With Applications to Saturn. Journal of Geophysical Research: Space Physics, 2019, 124, 6833-6849.	2.4	2
110	The Cushion Region and Dayside Magnetodisc Structure at Saturn. Geophysical Research Letters, 2021, 48, e2020GL091796.	4.0	2
111	A magnetodisc model service for planetary space weather studies. Journal of Space Weather and Space Climate, 2019, 9, A24.	3.3	1
112	Seasonal Dependence of the Magnetospheric Drag Torque on Saturn's Northern and Southern Polar Thermospheres and its Relation to the Periods of Planetary Period Oscillations. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028247.	2.4	1
113	Dawn-Dusk Asymmetry in Energetic (>20 keV) Particles Adjacent to Saturn's Magnetopause. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028264.	2.4	1
114	Electron Bulk Heating at Saturn's Magnetopause. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028800.	2.4	1
115	Enceladus and Titan: emerging worlds of the Solar System. Experimental Astronomy, 0, , 1.	3.7	1
116	Transport of Mass, Momentum and Energy in Planetary Magnetodisc Regions. Space Sciences Series of ISSI, 2016, , 229-299.	0.0	0