Sarah Victoria Badman

List of Publications by Year
in descending order

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Version: 2024-02-01

85	2,525	159358	223531
papers	citations	30 h-index	46 g-index

86	86	86	940
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Science goals and new mission concepts for future exploration of Titanâ€™s atmosphere, geology and habitability: titan POlar scout/orbitEr and in situ lake lander and DrONe explorer (POSEIDON). Experimental Astronomy, 2022, 54, 911-973.	1.6	5
2	Saturn's Weatherâ€Driven Aurorae Modulate Oscillations in the Magnetic Field and Radio Emissions. Geophysical Research Letters, 2022, 49, .	1.5	9
3	The Statistical Morphology of Saturnâ€™s Equatorial Energetic Neutral Atom Emission. Geophysical Research Letters, 2021, 48, e2020GL091595.	1.5	3
4	A Complete Data Set of Equatorial Projections of Saturn's Energetic Neutral Atom Emissions Observed by Cassiniâ€INCA. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028908.	0.8	2
5	A Rotating Azimuthally Distributed Auroral Current System on Saturn Revealed by the Cassini Spacecraft. Astrophysical Journal Letters, 2021, 919, L25.	3.0	3
6	The Morphology of Saturn's Aurorae Observed During the Cassini Grand Finale. Geophysical Research Letters, 2020, 47, e2019GL085800.	1.5	5
7	Jupiter's Xâ€ray Emission During the 2007 Solar Minimum. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027219.	0.8	17
8	Inflow Speed Analysis of Interchange Injections in Saturn's Magnetosphere. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028299.	0.8	7
9	Comparisons Between Jupiter's Xâ€ray, UV and Radio Emissions and Inâ€Situ Solar Wind Measurements During 2007. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027222.	0.8	24
10	Distribution and Properties of Magnetic Flux Ropes in Titan's Ionosphere. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027570.	0.8	3
11	Modeling Nonâ€Forceâ€Free and Deformed Flux Ropes in Titan's Ionosphere. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027571.	0.8	2
12	Energetic Particle Signatures Above Saturn's Aurorae. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027403.	0.8	5
13	Tracking Counterpart Signatures in Saturn's Auroras and ENA Imagery During Largeâ€Scale Plasma Injection Events. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027542.	0.8	6
14	Why is the H ₃ ⁺ hot spot above Jupiter's Great Red Spot so hot?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180407.	1.6	6
15	Auroral Beads at Saturn and the Driving Mechanism: Cassini Proximal Orbits. Astrophysical Journal Letters, 2019, 885, L16.	3.0	10
16	On the Relation Between Jovian Aurorae and the Loading/Unloading of the Magnetic Flux: Simultaneous Measurements From Juno, Hubble Space Telescope, and Hisaki. Geophysical Research Letters, 2019, 46, 11632-11641.	1.5	32
17	The Dynamics of Saturn's Main Aurorae. Geophysical Research Letters, 2019, 46, 10283-10294.	1.5	12
18	Local-time averaged maps of H ₃ ⁺ emission, temperature and ion winds. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180405.	1.6	11

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19	Close-range remote sensing of Saturnâ€™s rings during Cassiniâ€™s ring-grazing orbits and Grand Finale. Science, 2019, 364, .	6.0	17
20	Observations of Continuous Quasiperiodic Auroral Pulsations on Saturn in High Timeâ€Resolution UV Auroral Imagery. Journal of Geophysical Research: Space Physics, 2019, 124, 2451-2465.	0.8	12
21	Modulations of Saturn's UV Auroral Oval Location by Planetary Period Oscillations. Journal of Geophysical Research: Space Physics, 2019, 124, 952-970.	0.8	12
22	Saturn's Openâ€Closed Field Line Boundary: A Cassini Electron Survey at Saturn's Magnetosphere. Journal of Geophysical Research: Space Physics, 2019, 124, 10018-10035.	0.8	9
23	Response of Jupiter's Aurora to Plasma Mass Loading Rate Monitored by the Hisaki Satellite During Volcanic Eruptions at Io. Journal of Geophysical Research: Space Physics, 2018, 123, 1885-1899.	0.8	27
24	Variation of Jupiter's Aurora Observed by Hisaki/EXCEED: 3. Volcanic Control of Jupiter's Aurora. Geophysical Research Letters, 2018, 45, 71-79.	1.5	12
25	Jupiter's Aurora Observed With HST During Juno Orbits 3 to 7. Journal of Geophysical Research: Space Physics, 2018, 123, 3299-3319.	0.8	53
26	Statistical Planetary Period Oscillation Signatures in Saturn's UV Auroral Intensity. Journal of Geophysical Research: Space Physics, 2018, 123, 8459-8472.	0.8	15
27	Saturn's Northern Aurorae at Solstice From HST Observations Coordinated With Cassini's Grand Finale. Geophysical Research Letters, 2018, 45, 9353-9362.	1.5	24
28	Recurrent Magnetic Dipolarization at Saturn: Revealed by Cassini. Journal of Geophysical Research: Space Physics, 2018, 123, 8502-8517.	0.8	14
29	Saturn's Northern Auroras and Their Modulation by Rotating Current Systems During Late Northern Spring in Early 2014. Journal of Geophysical Research: Space Physics, 2018, 123, 6289-6306.	0.8	7
30	Similarity of the Jovian satellite footprints: Spots multiplicity and dynamics. Icarus, 2017, 292, 208-217.	1.1	23
31	Transient brightening of Jupiter's aurora observed by the Hisaki satellite and Hubble Space Telescope during approach phase of the Juno spacecraft. Geophysical Research Letters, 2017, 44, 4523-4531.	1.5	30
32	Response of Jupiter's auroras to conditions in the interplanetary medium as measured by the Hubble Space Telescope and Juno. Geophysical Research Letters, 2017, 44, 7643-7652.	1.5	68
33	The aurorae of Uranus past equinox. Journal of Geophysical Research: Space Physics, 2017, 122, 3997-4008.	0.8	24
34	The tails of the satellite auroral footprints at Jupiter. Journal of Geophysical Research: Space Physics, 2017, 122, 7985-7996.	0.8	57
35	Energy-banded ions in Saturn's magnetosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 5181-5202.	0.8	3
36	Characterization of Jupiter's secondary auroral oval and its response to hot plasma injections. Journal of Geophysical Research: Space Physics, 2017, 122, 6415-6429.	0.8	7

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37	An isolated, bright cusp aurora at Saturn. Journal of Geophysical Research: Space Physics, 2017, 122, 6121-6138.	0.8	9
38	Mechanisms of Saturn's Nearâ€Noon Transient Aurora: In Situ Evidence From Cassini Measurements. Geophysical Research Letters, 2017, 44, 11,217.	1.5	10
39	Dawn Auroral Breakup at Saturn Initiated by Auroral Arcs: UVIS/Cassini Beginning of Grand Finale Phase. Journal of Geophysical Research: Space Physics, 2017, 122, 12,111.	0.8	8
40	Variation of Jupiter's aurora observed by Hisaki/EXCEED: 1. Observed characteristics of the auroral electron energies compared with observations performed using HST/STIS. Journal of Geophysical Research: Space Physics, 2016, 121, 4041-4054.	0.8	14
41	Dynamics of the flares in the active polar region of Jupiter. Geophysical Research Letters, 2016, 43, 11,963.	1.5	19
42	Jupiter's Xâ€ray and EUV auroras monitored by Chandra, XMMâ€Newton, and Hisaki satellite. Journal of Geophysical Research: Space Physics, 2016, 121, 2308-2320.	0.8	34
43	Weakening of Jupiter's main auroral emission during January 2014. Geophysical Research Letters, 2016, 43, 988-997.	1.5	50
44	Auroral evidence of radial transport at Jupiter during January 2014. Journal of Geophysical Research: Space Physics, 2016, 121, 9972-9984.	0.8	27
45	Variation of Jupiter's aurora observed by Hisaki/EXCEED: 2. Estimations of auroral parameters and magnetospheric dynamics. Journal of Geophysical Research: Space Physics, 2016, 121, 4055-4071.	0.8	27
46	Recurrent pulsations in Saturnâ€™s high latitude magnetosphere. Icarus, 2016, 263, 94-100.	1.1	32
47	Saturnâ€™s auroral morphology and field-aligned currents during a solar wind compression. Icarus, 2016, 263, 83-93.	1.1	26
48	Effects of radial motion on interchange injections at Saturn. Icarus, 2016, 264, 342-351.	1.1	33
49	Saturnâ€™s northern auroras as observed using the Hubble Space Telescope. Icarus, 2016, 263, 17-31.	1.1	20
50	Quasi-periodic injections of relativistic electrons in Saturnâ€™s outer magnetosphere. Icarus, 2016, 263, 101-116.	1.1	36
51	Cassini VIMS observations of H 3 + emission on the nightside of Jupiter. Journal of Geophysical Research: Space Physics, 2015, 120, 6948-6973.	0.8	12
52	Field dipolarization in Saturn's magnetotail with planetward ion flows and energetic particle flow bursts: Evidence of quasiâ€steady reconnection. Journal of Geophysical Research: Space Physics, 2015, 120, 3603-3617.	0.8	20
53	The far-ultraviolet main auroral emission at Jupiter â€“ Part 1: Dawnâ€“dusk brightness asymmetries. Annales Geophysicae, 2015, 33, 1203-1209.	0.6	22
54	Transient internally driven aurora at Jupiter discovered by Hisaki and the Hubble Space Telescope. Geophysical Research Letters, 2015, 42, 1662-1668.	1.5	53

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55	Auroral Processes at the Giant Planets: Energy Deposition, Emission Mechanisms, Morphology and Spectra. Space Science Reviews, 2015, 187, 99-179.	3.7	86
56	Dynamic auroral storms on Saturn as observed by the Hubble Space Telescope. Geophysical Research Letters, 2014, 41, 3323-3330.	1.5	43
57	Open flux in Saturnâ€™s magnetosphere. Icarus, 2014, 231, 137-145.	1.1	43
58	The plasma depletion layer in Saturn's magnetosheath. Journal of Geophysical Research: Space Physics, 2014, 119, 121-130.	0.8	15
59	Vertical emissivity profiles of Jupiter's northern H₃⁺ and H₂ infrared auroras observed by Subaru/IRCS. Journal of Geophysical Research: Space Physics, 2014, 119, 10,219.	0.8	20
60	Cassini nightside observations of the oscillatory motion of Saturn's northern auroral oval. Journal of Geophysical Research: Space Physics, 2014, 119, 3528-3543.	0.8	17
61	Saturn's dayside ultraviolet auroras: Evidence for morphological dependence on the direction of the upstream interplanetary magnetic field. Journal of Geophysical Research: Space Physics, 2014, 119, 1994-2008.	0.8	25
62	Auroral counterpart of magnetic field dipolarizations in Saturn's tail. Planetary and Space Science, 2013, 82-83, 34-42.	0.9	53
63	Multispectral simultaneous diagnosis of Saturn's aurorae throughout a planetary rotation. Journal of Geophysical Research: Space Physics, 2013, 118, 4817-4843.	0.8	74
64	Longâ€term modulations of Saturn's auroral radio emissions by the solar wind and seasonal variations controlled by the solar ultraviolet flux. Journal of Geophysical Research: Space Physics, 2013, 118, 7019-7035.	0.8	28
65	Asymmetric distribution of reconnection jet fronts in the Jovian nightside magnetosphere. Journal of Geophysical Research: Space Physics, 2013, 118, 375-384.	0.8	45
66	Extreme densities in Titan's ionosphere during the T85 magnetosheath encounter. Geophysical Research Letters, 2013, 40, 2879-2883.	1.5	27
67	Bursty magnetic reconnection at Saturn's magnetopause. Geophysical Research Letters, 2013, 40, 1027-1031.	1.5	73
68	Rotational modulation and local time dependence of Saturn's infrared H₃⁺ auroral intensity. Journal of Geophysical Research, 2012, 117, .	3.3	33
69	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
70	Supercorotating return flow from reconnection in Saturn's magnetotail. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	24
71	Location of Saturn's northern infrared aurora determined from Cassini VIMS images. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	28
72	Simultaneous Cassini VIMS and UVIS observations of Saturn's southern aurora: Comparing emissions from H, H₂ and H₃⁺ at a high spatial resolution. Geophysical Research Letters, 2011, 38, .	1.5	37

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73	Cassini VIMS observations of latitudinal and hemispheric variations in Saturnâ€™s infrared auroral intensity. Icarus, 2011, 216, 367-375.	1.1	23
74	UV and IR auroral emission model for the outer planets: Jupiter and Saturn comparison. Icarus, 2011, 213, 581-592.	1.1	57
75	Saturn's equinoctial auroras. Geophysical Research Letters, 2009, 36, .	1.5	37
76	Magnetosonic Mach number dependence of the efficiency of reconnection between planetary and interplanetary magnetic fields. Journal of Geophysical Research, 2009, 114, .	3.3	39
77	Complex structure within Saturnâ€™s infrared aurora. Nature, 2008, 456, 214-217.	13.7	42
78	Comment on â€œJupiter: A fundamentally different magnetospheric interaction with the solar windâ€•by D. J. McComas and F. Bagenal. Geophysical Research Letters, 2008, 35, .	1.5	46
79	Dependence of the open-closed field line boundary in Saturn's ionosphere on both the IMF and solar wind dynamic pressure: comparison with the UV auroral oval observed by the HST. Annales Geophysicae, 2008, 26, 159-166.	0.6	23
80	Relationship between solar wind corotating interaction regions and the phasing and intensity of Saturn kilometric radiation bursts. Annales Geophysicae, 2008, 26, 3641-3651.	0.6	35
81	Significance of Dungey-cycle flows in Jupiter's and Saturn's magnetospheres, and their identification on closed equatorial field lines. Annales Geophysicae, 2007, 25, 941-951.	0.6	97
82	A statistical analysis of the location and width of Saturn's southern auroras. Annales Geophysicae, 2006, 24, 3533-3545.	0.6	82
83	Reconnection in a rotation-dominated magnetosphere and its relation to Saturn's auroral dynamics. Journal of Geophysical Research, 2005, 110, .	3.3	151
84	Signature of Saturn's auroral cusp: Simultaneous Hubble Space Telescope FUV observations and upstream solar wind monitoring. Journal of Geophysical Research, 2005, 110, .	3.3	52
85	Open flux estimates in Saturn's magnetosphere during the January 2004 Cassini-HST campaign, and implications for reconnection rates. Journal of Geophysical Research, 2005, 110, .	3.3	92