Bertrand Bonfond

List of Publications by Year
in descending order

121	3,927	94433	155660
papers	citations	37 h-index	55 g-index

149	149	149	1089
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnetospheric Science Objectives of the Juno Mission. Space Science Reviews, 2017, 213, 219-287.	8.1	163
2	Auroral evidence of Io's control over the magnetosphere of Jupiter. Geophysical Research Letters, 2012, 39, .	4.0	111
3	Jupiterâ€™s magnetosphere and aurorae observed by the Juno spacecraft during its first polar orbits. Science, 2017, 356, 826-832.	12.6	109
4	The Ultraviolet Spectrograph on NASAâ€™s Juno Mission. Space Science Reviews, 2017, 213, 447-473.	8.1	109
5	Model of the Jovian magnetic field topology constrained by the Io auroral emissions. Journal of Geophysical Research, 2011, 116, .	3.3	100
6	Improved mapping of Jupiter's auroral features to magnetospheric sources. Journal of Geophysical Research, 2011, 116, .	3.3	98
7	Auroral evidence of a localized magnetic anomaly in Jupiter's northern hemisphere. Journal of Geophysical Research, 2008, 113, .	3.3	89
8	UV Io footprint leading spot: A key feature for understanding the UV Io footprint multiplicity?. Geophysical Research Letters, 2008, 35, .	4.0	84
9	Power transmission and particle acceleration along the Io flux tube. Journal of Geophysical Research, 2010, 115, .	3.3	83
10	Altitude of Saturn's aurora and its implications for the characteristic energy of precipitated electrons. Geophysical Research Letters, 2009, 36, .	4.0	81
11	Discrete and broadband electron acceleration in Jupiterâ€™s powerful aurora. Nature, 2017, 549, 66-69.	27.8	79
12	The Io UV footprint: Location, interâ€spot distances and tail vertical extent. Journal of Geophysical Research, 2009, 114, .	3.3	77
13	Bifurcations of the main auroral ring at Saturn: ionospheric signatures of consecutive reconnection events at the magnetopause. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	69
14	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.	4.0	68
15	Conversion from HST ACS and STIS auroral counts into brightness, precipitated power, and radiated power for H₂ giant planets. Journal of Geophysical Research, 2012, 117, .	3.3	60
16	The tails of the satellite auroral footprints at Jupiter. Journal of Geophysical Research: Space Physics, 2017, 122, 7985-7996.	2.4	57
17	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
18	Small-scale structures in Saturn's ultraviolet aurora. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	55

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19	Morphology of the UV aurorae Jupiter during Juno's first perijove observations. Geophysical Research Letters, 2017, 44, 4463-4471.	4.0	54
20	Auroral polar dawn spots: Signatures of internally driven reconnection processes at Jupiter's magnetotail. Geophysical Research Letters, 2008, 35, .	4.0	53
21	Quasi-periodic polar flares at Jupiter: A signature of pulsed dayside reconnections?. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	53
22	Transient internally driven aurora at Jupiter discovered by Hisaki and the Hubble Space Telescope. Geophysical Research Letters, 2015, 42, 1662-1668.	4.0	53
23	Jupiter's Aurora Observed With HST During Juno Orbits 3 to 7. Journal of Geophysical Research: Space Physics, 2018, 123, 3299-3319.	2.4	53
24	Juno observations of spot structures and a split tail in Io-induced aurorae on Jupiter. Science, 2018, 361, 774-777.	12.6	53
25	Discontinuity in Jupiter's main auroral oval. Journal of Geophysical Research, 2008, 113, .	3.3	52
26	Auroral signatures of multiple magnetopause reconnection at Saturn. Geophysical Research Letters, 2013, 40, 4498-4502.	4.0	50
27	Weakening of Jupiter's main auroral emission during January 2014. Geophysical Research Letters, 2016, 43, 988-997.	4.0	50
28	Diverse Electron and Ion Acceleration Characteristics Observed Over Jupiter's Main Aurora. Geophysical Research Letters, 2018, 45, 1277-1285.	4.0	49
29	In Situ Observations Connected to the Io Footprint Tail Aurora. Journal of Geophysical Research E: Planets, 2018, 123, 3061-3077.	3.6	48
30	Mapping the electron energy in Jupiter's aurora: Hubble spectral observations. Journal of Geophysical Research: Space Physics, 2014, 119, 9072-9088.	2.4	47
31	Energetic Particles and Acceleration Regions Over Jupiter's Polar Cap and Main Aurora: A Broad Overview. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027699.	2.4	47
32	Auroral footprint of Ganymede. Journal of Geophysical Research, 2009, 114, .	3.3	44
33	On the origin of Saturn's outer auroral emission. Journal of Geophysical Research, 2010, 115, .	3.3	44
34	Nightside reconnection at Jupiter: Auroral and magnetic field observations from 26 July 1998. Journal of Geophysical Research, 2011, 116, .	3.3	43
35	Precipitating Electron Energy Flux and Characteristic Energies in Jupiter's Main Auroral Region as Measured by Juno/JEDI. Journal of Geophysical Research: Space Physics, 2018, 123, 7554-7567.	2.4	42
36	Jupiterâ€™s changing auroral location. Journal of Geophysical Research, 2008, 113, .	3.3	41

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37	Characteristics of north jovian aurora from STIS FUV spectral images. Icarus, 2016, 268, 215-241.	2.5	38
38	Energy Flux and Characteristic Energy of Electrons Over Jupiter's Main Auroral Emission. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027693.	2.4	37
39	Lead angles and emitting electron energies of Io-controlled decameter radio arcs. Planetary and Space Science, 2010, 58, 1188-1198.	1.7	36
40	Solar Wind and Internally Driven Dynamics: Influences on Magnetodiscs and Auroral Responses. Space Science Reviews, 2015, 187, 51-97.	8.1	36
41	Transient auroral features at Saturn: Signatures of energetic particle injections in the magnetosphere. Journal of Geophysical Research, 2009, 114, .	3.3	35
42	Jupiter's equatorward auroral features: Possible signatures of magnetospheric injections. Journal of Geophysical Research: Space Physics, 2014, 119, 10,068.	2.4	35
43	Magnetosphereâ€ionosphere mapping at Jupiter: Quantifying the effects of using different internal field models. Journal of Geophysical Research: Space Physics, 2015, 120, 2584-2599.	2.4	35
44	Intervals of Intense Energetic Electron Beams Over Jupiter's Poles. Journal of Geophysical Research: Space Physics, 2018, 123, 1989-1999.	2.4	35
45	Waveâ€Particle Interactions Associated With Io's Auroral Footprint: Evidence of AlfvÃ©n, Ion Cyclotron, and Whistler Modes. Geophysical Research Letters, 2020, 47, e2020GL088432.	4.0	34
46	Auroral signatures of flow bursts released during magnetotail reconnection at Jupiter. Journal of Geophysical Research, 2010, 115, .	3.3	32
47	When Moons Create Aurora: The Satellite Footprints on Giant Planets. Geophysical Monograph Series, 0, , 133-140.	0.1	32
48	Evolution of the Io footprint brightness I: Far-UV observations. Planetary and Space Science, 2013, 88, 64-75.	1.7	32
49	Signatures of magnetospheric injections in Saturn's aurora. Journal of Geophysical Research: Space Physics, 2013, 118, 1922-1933.	2.4	32
50	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.	4.0	32
51	The multiple spots of the Ganymede auroral footprint. Geophysical Research Letters, 2013, 40, 4977-4981.	4.0	31
52	How Jupiterâ€™s unusual magnetospheric topology structures its aurora. Science Advances, 2021, 7, .	10.3	31
53	Location and spatial shape of electron beams in Io's wake. Journal of Geophysical Research, 2010, 115, .	3.3	29
54	Auroral evidence of radial transport at Jupiter during January 2014. Journal of Geophysical Research: Space Physics, 2016, 121, 9972-9984.	2.4	27

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55	Reconnectionâ€•and Dipolarizationâ€Driven Auroral Dawn Storms and Injections. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027663.	2.4	27
56	Junoâ€UVS approach observations of Jupiter's auroras. Geophysical Research Letters, 2017, 44, 7668-7675.	4.0	25
57	A New Framework to Explain Changes in Io's Footprint Tail Electron Fluxes. Geophysical Research Letters, 2020, 47, e2020GL089267.	4.0	25
58	AlfvÃ©nic Acceleration Sustains Ganymede's Footprint Tail Aurora. Geophysical Research Letters, 2020, 47, e2019GL086527.	4.0	25
59	Are Dawn Storms Jupiter's Auroral Substorms?. AGU Advances, 2021, 2, e2020AV000275.	5.4	25
60	Revealing the source of Jupiterâ€™s x-ray auroral flares. Science Advances, 2021, 7, .	10.3	25
61	Effects of methane on giant planetâ€™s UV emissions and implications for the auroral characteristics. Journal of Molecular Spectroscopy, 2013, 291, 108-117.	1.2	24
62	Jupiter's aurora in ultraviolet and infrared: Simultaneous observations with the Hubble Space Telescope and the NASA Infrared Telescope Facility. Journal of Geophysical Research: Space Physics, 2013, 118, 2286-2295.	2.4	24
63	AlfvÃ©n Wave Propagation in the Io Plasma Torus. Geophysical Research Letters, 2019, 46, 1242-1249.	4.0	24
64	A sublimated water atmosphere on Ganymede detected from Hubble Space Telescope observations. Nature Astronomy, 2021, 5, 1043-1051.	10.1	24
65	Evolution of the Io footprint brightness II: Modeling. Planetary and Space Science, 2013, 88, 76-85.	1.7	23
66	Similarity of the Jovian satellite footprints: Spots multiplicity and dynamics. Icarus, 2017, 292, 208-217.	2.5	23
67	Evidence for Auroral Emissions From Callisto's Footprint in HST UV Images. Journal of Geophysical Research: Space Physics, 2018, 123, 364-373.	2.4	23
68	Six Pieces of Evidence Against the Corotation Enforcement Theory to Explain the Main Aurora at Jupiter. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028152.	2.4	23
69	The 3â€Ð extent of the Io UV footprint on Jupiter. Journal of Geophysical Research, 2010, 115, .	3.3	22
70	The far-ultraviolet main auroral emission at Jupiter â€“ Part 1: Dawnâ€“dusk brightness asymmetries. Annales Geophysicae, 2015, 33, 1203-1209.	1.6	22
71	Contemporaneous Observations of Jovian Energetic Auroral Electrons and Ultraviolet Emissions by the Juno Spacecraft. Journal of Geophysical Research: Space Physics, 2019, 124, 8298-8317.	2.4	22
72	A multi-scale magnetotail reconnection event at Saturn and associated flows: Cassini/UVIS observations. Icarus, 2016, 263, 75-82.	2.5	21

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73	Ultraviolet Io footprint short timescale dynamics. Geophysical Research Letters, 2007, 34, .	4.0	20
74	Hubble observations of Jupiterâ€™s northâ€“south conjugate ultraviolet aurora. Icarus, 2013, 226, 1559-1567.	2.5	20
75	Io's volcanism controls Jupiter's radio emissions. Geophysical Research Letters, 2013, 40, 671-675.	4.0	19
76	Dynamics of the flares in the active polar region of Jupiter. Geophysical Research Letters, 2016, 43, 11,963.	4.0	19
77	Junoâ€UVS Observation of the Io Footprint During Solar Eclipse. Journal of Geophysical Research: Space Physics, 2019, 124, 5184-5199.	2.4	19
78	Spatial Distribution of the Pedersen Conductance in the Jovian Aurora From Junoâ€UVS Spectral Images. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028142.	2.4	19
79	Concurrent ultraviolet and infrared observations of the north Jovian aurora during Juno's first perijove. Icarus, 2018, 312, 145-156.	2.5	18
80	In-flight Characterization and Calibration of the Juno-ultraviolet Spectrograph (Juno-UVS). Astronomical Journal, 2019, 157, 90.	4.7	18
81	Proton Acceleration by Io's AlfvÃ©nic Interaction. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027314.	2.4	18
82	A brightening of Jupiterâ€™s auroral 7.8-Î¼m CH4 emission during a solar-wind compression. Nature Astronomy, 2019, 3, 607-613.	10.1	17
83	Saturn's elusive nightside polar arc. Geophysical Research Letters, 2014, 41, 6321-6328.	4.0	15
84	Morphology of the Auroral Tail of Io, Europa, and Ganymede From JIRAM Lâ€Band Imager. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029450.	2.4	15
85	Bar Code Events in the Junoâ€UVS Data: Signature â^¼10ÂMeV Electron Microbursts at Jupiter. Geophysical Research Letters, 2018, 45, 12,108.	4.0	14
86	The color ratio-intensity relation in the Jovian aurora: Hubble observations of auroral components. Planetary and Space Science, 2016, 131, 14-23.	1.7	13
87	Possible Transient Luminous Events Observed in Jupiter's Upper Atmosphere. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006659.	3.6	13
88	Ultralowâ€Frequency Waves in Driving Jovian Aurorae Revealed by Observations From HST and Juno. Geophysical Research Letters, 2021, 48, e2020GL091579.	4.0	13
89	Transient smallâ€scale structure in the main auroral emission at Jupiter. Journal of Geophysical Research: Space Physics, 2014, 119, 9931-9938.	2.4	12
90	The far-ultraviolet main auroral emission at Jupiter â€“ Part 2: Vertical emission profile. Annales Geophysicae, 2015, 33, 1211-1219.	1.6	12

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91	Remote sensing of the energy of auroral electrons in Saturnâ€™s atmosphere: Hubble and Cassini spectral observations. Icarus, 2013, 223, 211-221.	2.5	11
92	Evolution of the Auroral Signatures of Jupiter's Magnetospheric Injections. Journal of Geophysical Research: Space Physics, 2018, 123, 8489-8501.	2.4	11
93	A Preliminary Study of Magnetosphereâ€Ionosphereâ€Thermosphere Coupling at Jupiter: Juno Multiâ€Instrument Measurements and Modeling Tools. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029469.	2.4	11
94	How could the Io footprint disappear?. Planetary and Space Science, 2013, 89, 102-110.	1.7	10
95	Mechanisms of Saturn's Nearâ€Noon Transient Aurora: In Situ Evidence From Cassini Measurements. Geophysical Research Letters, 2017, 44, 11,217.	4.0	10
96	Auroral Beads at Saturn and the Driving Mechanism: Cassini Proximal Orbits. Astrophysical Journal Letters, 2019, 885, L16.	8.3	10
97	Auroral spirals at Saturn. Journal of Geophysical Research: Space Physics, 2015, 120, 8633-8643.	2.4	9
98	Detection of a Bolide in Jupiter's Atmosphere With Juno UVS. Geophysical Research Letters, 2021, 48, e2020GL091797.	4.0	9
99	Local Time Dependence of Jupiter's Polar Auroral Emissions Observed by Juno UVS. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006954.	3.6	9
100	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.	2.4	8
101	A Comprehensive Set of Juno In Situ and Remote Sensing Observations of the Ganymede Auroral Footprint. Geophysical Research Letters, 2022, 49, .	4.0	8
102	Stagnation of Saturn's auroral emission at noon. Journal of Geophysical Research: Space Physics, 2017, 122, 6078-6087.	2.4	7
103	Jupiterâ€™s X-ray aurora during UV dawn storms and injections as observed byXMMâ€“Newton, Hubble, andHisaki. Monthly Notices of the Royal Astronomical Society, 2021, 507, 1216-1228.	4.4	7
104	Simultaneous Observation of an Auroral Dawn Storm With the Hubble Space Telescope and Juno. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028717.	2.4	6
105	Jupiter's Xâ€Ray and UV Dark Polar Region. Geophysical Research Letters, 2022, 49, .	4.0	6
106	Morphology of Jupiter's Polar Auroral Bright Spot Emissions via Junoâ€UVS Observations. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028586.	2.4	5
107	A Statistical Survey of Lowâ€Frequency Magnetic Fluctuations at Saturn. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028387.	2.4	5
108	Meridional Variations of C₂H₂ in Jupiter's Stratosphere From Juno UVS Observations. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006928.	3.6	5

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109	Detection and Characterization of Circular Expanding UVâ€Emissions Observed in Jupiter's Polar Auroral Regions. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028971.	2.4	4
110	Variation of Jupiter's Aurora Observed by Hisaki/EXCEED: 4. Quasiâ€Periodic Variation. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028575.	2.4	3
111	Jupiter's Doubleâ€Arc Aurora as a Signature of Magnetic Reconnection: Simultaneous Observations From HST and Juno. Geophysical Research Letters, 2021, 48, e2021GL093964.	4.0	3
112	Magnetospheric Science Objectives of the Juno Mission. , 2014, , 39-107.		3
113	Simultaneous UV Images and Highâ€Latitude Particle and Field Measurements During an Auroral Dawn Storm at Jupiter. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029679.	2.4	3
114	Correction to â€œEquatorward diffuse auroral emissions at Jupiter: Simultaneous HST and Galileo observationsâ€• Geophysical Research Letters, 2009, 36, .	4.0	2
115	Solar Wind and Internally Driven Dynamics: Influences on Magnetodiscs and Auroral Responses. Space Sciences Series of ISSI, 2016, , 51-97.	0.0	2
116	The Ultraviolet Spectrograph on NASAâ€™s Juno Mission. , 2014, , 325-351.		2
117	In-flight characterization and calibration of the Juno-Ultraviolet Spectrograph (Juno-UVS). , 2018, , .		2
118	Variability of Jupiter's Main Auroral Emission and Satellite Footprints Observed With HST During the Galileo Era. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	2
119	Variability and Hemispheric Symmetry of the Pedersen Conductance in the Jovian Aurora. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028949.	2.4	1
120	Jupiter. , 2021, , 108-122.		0
121	Jupiter System Observatory at Sun-Jupiter Lagrangian Point One. , 2021, 53, .		0