Sebastien Lg HeÃ

List of Publications by Year
in descending order

67 papers	1,916 citations	218381 26 h-index	276539 41 g-index
67 all docs	67 docs citations	67 times ranked	1551 citing authors

#	Article	IF	Citations
1	Threeâ€dimensional Martian ionosphere model: I. The photochemical ionosphere below 180 km. Journal of Geophysical Research E: Planets, 2013, 118, 2105-2123.	1.5	118
2	Model of the Jovian magnetic field topology constrained by the Io auroral emissions. Journal of Geophysical Research, 2011, 116, .	3.3	100
3	Auroral Processes at the Giant Planets: Energy Deposition, Emission Mechanisms, Morphology and Spectra. Space Science Reviews, 2015, 187, 99-179.	3.7	86
4	Power transmission and particle acceleration along the Io flux tube. Journal of Geophysical Research, 2010, 115, .	3.3	83
5	Variability of the hydrogen in the martian upper atmosphere as simulated by a 3D atmosphereâ€"exosphere coupling. Icarus, 2015, 245, 282-294.	1.1	77
6	Modeling the radio signature of the orbital parameters, rotation, and magnetic field of exoplanets. Astronomy and Astrophysics, 2011, 531, A29.	2.1	75
7	Planetary and exoplanetary low frequency radio observations from the Moon. Planetary and Space Science, 2012, 74, 156-166.	0.9	68
8	Modeling of Ioâ€Jupiter decameter arcs, emission beaming and energy source. Geophysical Research Letters, 2008, 35, .	1.5	61
9	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.	0.9	56
10	Marsâ€solar wind interaction: LatHyS, an improved parallel 3â€D multispecies hybrid model. Journal of Geophysical Research: Space Physics, 2016, 121, 6378-6399.	0.8	54
11	Modeling of Saturn kilometric radiation arcs and equatorial shadow zone. Journal of Geophysical Research, 2008, 113, .	3.3	52
12	Mars exospheric thermal and non-thermal components: Seasonal and local variations. Icarus, 2012, 221, 682-693.	1.1	51
13	Three-dimensional Martian ionosphere model: II. Effect of transport processes due to pressure gradients. Journal of Geophysical Research E: Planets, 2014, 119, 1614-1636.	1.5	51
14	Ioâ€"Jupiter interaction, millisecond bursts and field-aligned potentials. Planetary and Space Science, 2007, 55, 89-99.	0.9	48
15	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. Experimental Astronomy, 2012, 33, 753-791.	1.6	44
16	A global hybrid model for Mercury's interaction with the solar wind: Case study of the dipole representation. Journal of Geophysical Research, 2012, 117, .	3.3	43
17	Generation of the jovian radio decametric arcs from the Io Flux Tube. Journal of Geophysical Research, 2008, 113, .	3.3	40
18	Jovian <i>S</i> burst generation by AlfvÃ©n waves. Journal of Geophysical Research, 2007, 112, .	3.3	39

#	Article	IF	Citations
19	Electric potential jumps in the Io-Jupiter flux tube. Planetary and Space Science, 2009, 57, 23-33.	0.9	36
20	Lead angles and emitting electron energies of Io-controlled decameter radio arcs. Planetary and Space Science, 2010, 58, 1188-1198.	0.9	36
21	Multi-instrument study of the Jovian radio emissions triggered by solar wind shocks and inferred magnetospheric subcorotation rates. Planetary and Space Science, 2014, 99, 136-148.	0.9	36
22	Comparative study of the power transferred from satellite-magnetosphere interactions to auroral emissions. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	35
23	Natural radio emission of Jupiter as interferences for radar investigations of the icy satellites of Jupiter. Planetary and Space Science, 2012, 61, 32-45.	0.9	35
24	Evolution of the Io footprint brightness I: Far-UV observations. Planetary and Space Science, 2013, 88, 64-75.	0.9	32
25	The multiple spots of the Ganymede auroral footprint. Geophysical Research Letters, 2013, 40, 4977-4981.	1.5	31
26	Solar wind pressure effects on Jupiter decametric radio emissions independent of Io. Planetary and Space Science, 2012, 70, 114-125.	0.9	30
27	Effect of electric potential structures on Jovian Sâ€burst morphology. Geophysical Research Letters, 2009, 36, .	1.5	27
28	Longitudinal modulation of hot electrons in the Io plasma torus. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	27
29	ExPRES: an Exoplanetary and Planetary Radio Emissions Simulator. Astronomy and Astrophysics, 2019, 627, A30.	2.1	26
30	Evolution of the Io footprint brightness II: Modeling. Planetary and Space Science, 2013, 88, 76-85.	0.9	23
31	Ioâ€Jupiter decametric arcs observed by Juno/Waves compared to ExPRES simulations. Geophysical Research Letters, 2017, 44, 9225-9232.	1.5	22
32	Fast and slow frequency-drifting millisecond bursts in Jovian decametric radio emissions. Astronomy and Astrophysics, 2014, 568, A53.	2.1	21
33	Effects of the Crustal Magnetic Fields and Changes in the IMF Orientation on the Magnetosphere of Mars: MAVEN Observations and LatHyS Results. Journal of Geophysical Research: Space Physics, 2018, 123, 5315-5333.	0.8	21
34	Explanation of dominant oblique radio emission at Jupiter and comparison to the terrestrial case. Planetary and Space Science, 2010, 58, 1414-1422.	0.9	20
35	New SPIS Capabilities to Simulate Dust Electrostatic Charging, Transport, and Contamination of Lunar Probes. IEEE Transactions on Plasma Science, 2015, 43, 2799-2807.	0.6	20
36	Detection of Jupiter decametric emissions controlled by Europa and Ganymede with Voyager/PRA and Cassini/RPWS. Journal of Geophysical Research: Space Physics, 2017, 122, 9228-9247.	0.8	20

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37	Modelling the Ioâ€related DAM emission by modifying the beaming angle. Journal of Geophysical Research, 2008, 113, .	3.3	19
38	Science data visualization in planetary and heliospheric contexts with 3DView. Planetary and Space Science, 2018, 150, 111-130.	0.9	18
39	The SPASE Data Model: A Metadata Standard for Registering, Finding, Accessing, and Using Heliophysics Data Obtained From Observations and Modeling. Space Weather, 2018, 16, 1899-1911.	1.3	18
40	Existence of non-Landau solutions for Langmuir waves. Physics of Plasmas, 2008, 15, 052310.	0.7	17
41	Imaging Jupiterâ€™s radiation belts down to 127 MHz with LOFAR. Astronomy and Astrophysics, 2016, 587, A3.	2.1	17
42	Numerical modelling of the Luna-Glob lander electric charging on the lunar surface with SPIS-DUST. Planetary and Space Science, 2018, 156, 62-70.	0.9	16
43	SPIS 5: New Modeling Capabilities and Methods for Scientific Missions. IEEE Transactions on Plasma Science, 2015, 43, 2789-2798.	0.6	15
44	3D magnetospheric parallel hybrid multi-grid method applied to planetâ€"plasma interactions. Journal of Computational Physics, 2016, 309, 295-313.	1.9	15
45	Severe Geostationary Environments: Numerical Estimation of Spacecraft Surface Charging from Flight Data. Journal of Spacecraft and Rockets, 2016, 53, 304-316.	1.3	12
46	Growth of the Langmuir cavity eigenmodes in the solar wind. Journal of Geophysical Research, 2010, 115, .	3.3	11
47	Detecting exoplanets with FAST?. Research in Astronomy and Astrophysics, 2019, 19, 023.	0.7	11
48	How could the Io footprint disappear?. Planetary and Space Science, 2013, 89, 102-110.	0.9	10
49	Lunar dust simulant charging and transport under UV irradiation in vacuum: Experiments and numerical modeling. Journal of Geophysical Research: Space Physics, 2016, 121, 103-116.	0.8	10
50	The LatHyS database for planetary plasma environment investigations: Overview and a case study of data/model comparisons. Planetary and Space Science, 2018, 150, 13-21.	0.9	10
51	Multiscale Modeling of Dust Charging in Simulated Lunar Environment Conditions. IEEE Transactions on Plasma Science, 2019, 47, 3710-3716.	0.6	10
52	Landau and non-Landau linear damping: Physics of the dissipation. Physics of Plasmas, 2009, 16, .	0.7	9
53	Size and amplitude of Langmuir waves in the solar wind. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	9
54	AlfvÃ©n: magnetosphereâ€"ionosphere connection explorers. Experimental Astronomy, 2012, 33, 445-489.	1.6	9

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55	Satellite-Induced Electron Acceleration and Related Auroras. Geophysical Monograph Series, 2013, , 295-304.	0.1	8
56	Joining the yellow hub: Uses of the Simple Application Messaging Protocol in Space Physics analysis tools. Astronomy and Computing, 2014, 7-8, 62-70.	0.8	6
57	How to improve the diagnosis of kinetic energy in Î´f PIC codes. Journal of Computational Physics, 2009, 228, 6670-6681.	1.9	4
58	Radio goniopolarimetry: Dealing with multiple or 1-D extended sources. Radio Science, 2010, 45, n/a-n/a.	0.8	3
59	A Study of Solar Orbiter Spacecraftâ€“Plasma Interactions Effects on Electric Field and Particle Measurements. IEEE Transactions on Plasma Science, 2017, 45, 2578-2587.	0.6	3
60	Spacecraft Worst Case Surface Charging: On the Importance of Measuring the Electron Emission Yield Under Representative Environmental Conditions. IEEE Transactions on Plasma Science, 2019, 47, 3790-3795.	0.6	3
61	Landau and Non-Landau Linear Damping: Physics of the Dissipation. Transport Theory and Statistical Physics, 2011, 40, 419-424.	0.4	2
62	Reply to comment â€œOn the hydrogen escape: Comment to variability of the hydrogen in the Martian upper atmosphere as simulated by a 3D atmosphere-exosphere coupling by J.-Y. Chaufray etÂ al.â€• by V. Krasnopolsky, Icarus, 281, 262. Icarus, 2018, 301, 132-135.	1.1	2
63	A model of the Jovian internal field derived from in-situ and auroral constraints. , 0, , .		2
64	Flash-over propagation simulation upon spacecrafts solar panels. Journal of Applied Physics, 2021, 130, 223302.	1.1	2
65	Coupled Fluid-Kinetic Numerical Method to Model Spacecraft Charging in LEO. IEEE Transactions on Plasma Science, 2018, 46, 651-658.	0.6	1
66	Comment on â€œJovian slowâ€drift shadow eventsâ€• by T. Koshida et al.. Journal of Geophysical Research, 2012, 117, .	3.3	0
67	Cassiniâ€Plasma Interaction Simulations Revealing the Cassini Ion Wake Characteristics: Implications for Inâ€Situ Data Analyses and Ion Temperature Estimates. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA029026.	0.8	0