## Joachim Saur

List of Publications by Year in descending order

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66336 88628 6,234 143 42 70 citations h-index g-index papers 161 161 161 3120 docs citations times ranked citing authors all docs

#	Article	IF	Citations
1	Enceladus as a potential oasis for life: Science goals and investigations for future explorations. Experimental Astronomy, 2022, 54, 809-847.	3.7	5
2	Alternating Emission Features in Io's Footprint Tail: Magnetohydrodynamical Simulations of Possible Causes. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	9
3	Juno Plasma Wave Observations at Ganymede. Geophysical Research Letters, 2022, 49, .	4.0	13
4	Mapping the Brightness of Ganymede's Ultraviolet Aurora Using Hubble Space Telescope Observations. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	3
5	Plasma Observations During the 7 June 2021 Ganymede Flyby From the Jovian Auroral Distributions Experiment (JADE) on Juno. Geophysical Research Letters, 2022, 49, .	4.0	16
6	Automated Noninvasive Central Blood Pressure Measurements by Oscillometric Radial Pulse Wave Analysis: Results of the MEASURE-cBP Validation Studies. American Journal of Hypertension, 2021, 34, 383-393.	2.0	6
7	Multiple breath washout (MBW) testing using sulfur hexafluoride: reference values and influence of anthropometric parameters. Thorax, 2021, 76, 380-386.	<b>5.</b> 6	3
8	Turbulence in the Magnetospheres of the Outer Planets. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	6
9	A sublimated water atmosphere on Ganymede detected from Hubble Space Telescope observations. Nature Astronomy, 2021, 5, 1043-1051.	10.1	24
10	Brown dwarfs as ideal candidates for detecting UV aurora outside the Solar System: <i>Hubble</i> Space Telescope observations of 2MASS J1237+6526. Astronomy and Astrophysics, 2021, 655, A75.	5.1	8
11	Electron Partial Density and Temperature Over Jupiter's Main Auroral Emission Using Juno Observations. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029426.	2.4	11
12	An entropy stable nodal discontinuous Galerkin method for the resistive MHD equations. Part I: Theory and numerical verification. Journal of Computational Physics, 2020, 422, 108076.	3.8	30
13	Proton Acceleration by Io's Alfvénic Interaction. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027314.	2.4	18
14	A New Framework to Explain Changes in Io's Footprint Tail Electron Fluxes. Geophysical Research Letters, 2020, 47, e2020GL089267.	4.0	25
15	Waveâ€Particle Interactions Associated With Io's Auroral Footprint: Evidence of Alfvén, Ion Cyclotron, and Whistler Modes. Geophysical Research Letters, 2020, 47, e2020GL088432.	4.0	34
16	An attempt to detect transient changes in lo's SO <mml:math altimg="si51.svg" display="inline" id="d1e1100" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>	2 <b>.</b> 5	16
17	Icarus, 2020, 350, 113925.  First Report of Electron Measurements During a Europa Footprint Tail Crossing by Juno. Geophysical Research Letters, 2020, 47, e2020GL089732.	4.0	17
18	An Analysis of the Statistics and Systematics of Limb Anomaly Detections in HST/STIS Transit Images of Europa. Astronomical Journal, 2020, 159, 155.	4.7	10

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19	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
20	Joint Europa Mission (JEM): a multi-scale study of Europa to characterize its habitability and search for extant life. Planetary and Space Science, 2020, 193, 104960.	1.7	15
21	Ice-Ocean Exchange Processes in the Jovian and Saturnian Satellites. Space Science Reviews, 2020, 216, 1.	8.1	43
22	Alfvénic Acceleration Sustains Ganymede's Footprint Tail Aurora. Geophysical Research Letters, 2020, 47, e2019GL086527.	4.0	25
23	Feasibility and clinical applications of multiple breath wash-out (MBW) testing using sulphur hexafluoride in adults with bronchial asthma. Scientific Reports, 2020, 10, 1527.	3.3	7
24	Large Ocean Worlds with High-Pressure Ices. Space Science Reviews, 2020, 216, 1.	8.1	62
25	Experimental and Simulation Efforts in the Astrobiological Exploration of Exooceans. Space Science Reviews, 2020, 216, 9.	8.1	25
26	Energetic Proton Acceleration Associated With Io's Footprint Tail. Geophysical Research Letters, 2020, 47, e2020GL090839.	4.0	16
27	Birkeland currents in Jupiter's magnetosphere observed by the polar-orbiting Juno spacecraft. Nature Astronomy, 2019, 3, 904-909.	10.1	40
28	Junoâ€UVS Observation of the Io Footprint During Solar Eclipse. Journal of Geophysical Research: Space Physics, 2019, 124, 5184-5199.	2.4	19
29	Time-variable Electromagnetic Star–Planet Interaction: The TRAPPIST-1 System as an Exemplary Case. Astrophysical Journal, 2019, 872, 113.	4.5	21
30	Cardiovascular Comorbidities in Chronic Obstructive Pulmonary Disease (COPD)â€"Current Considerations for Clinical Practice. Journal of Clinical Medicine, 2019, 8, 69.	2.4	40
31	Towards a Global Unified Model of Europa's Tenuous Atmosphere. Space Science Reviews, 2018, 214, 1.	8.1	36
32	Modeling Magnetospheric Fields in the Jupiter System. Astrophysics and Space Science Library, 2018, , 153-182.	2.7	2
33	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
34	The UV Spectrum of the Ultracool Dwarf LSR J1835+3259 Observed with the Hubble Space Telescope. Astrophysical Journal, 2018, 859, 74.	4.5	8
35	MHD Modeling of the Plasma Interaction With Io's Asymmetric Atmosphere. Journal of Geophysical Research: Space Physics, 2018, 123, 9286-9311.	2.4	36
36	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

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37	Small Airway Disease in Pulmonary Hypertensionâ€"Additional Diagnostic Value of Multiple Breath Washout and Impulse Oscillometry. Journal of Clinical Medicine, 2018, 7, 532.	2.4	9
38	Electromagnetic Coupling in Star-Planet Systems. , 2018, , 1877-1893.		2
39	Waveâ€Particle Interaction of Alfvén Waves in Jupiter's Magnetosphere: Auroral and Magnetospheric Particle Acceleration. Journal of Geophysical Research: Space Physics, 2018, 123, 9560-9573.	2.4	64
40	In Situ Observations Connected to the Io Footprint Tail Aurora. Journal of Geophysical Research E: Planets, 2018, 123, 3061-3077.	3.6	48
41	The Farâ€UV Albedo of Europa From HST Observations. Journal of Geophysical Research E: Planets, 2018, 123, 1327-1342.	3.6	7
42	Juno observations of spot structures and a split tail in lo-induced aurorae on Jupiter. Science, 2018, 361, 774-777.	12.6	53
43	Time to Exhale: Additional Value of Expiratory Chest CT in Chronic Obstructive Pulmonary Disease. Canadian Respiratory Journal, 2018, 2018, 1-9.	1.6	13
44	Similarity of the Jovian satellite footprints: Spots multiplicity and dynamics. Icarus, 2017, 292, 208-217.	2.5	23
45	How is the Jovian main auroral emission affected by the solar wind?. Journal of Geophysical Research: Space Physics, 2017, 122, 1960-1978.	2.4	39
46	A Model for Dissipation of Solar Wind Magnetic Turbulence by Kinetic Alfv $\tilde{A}$ ©n Waves at Electron Scales: Comparison with Observations. Astrophysical Journal, 2017, 835, 133.	4.5	13
47	Morphology of Ganymede's FUV auroral ovals. Journal of Geophysical Research: Space Physics, 2017, 122, 2855-2876.	2.4	12
48	Constraints on lo's interior from auroral spot oscillations. Journal of Geophysical Research: Space Physics, 2017, 122, 1903-1927.	2.4	23
49	Spatial Distribution and Properties of 0.1–100ÂkeV Electrons in Jupiter's Polar Auroral Region. Geophysical Research Letters, 2017, 44, 9199-9207.	4.0	34
50	Energetic particle signatures of magnetic fieldâ€aligned potentials over Jupiter's polar regions. Geophysical Research Letters, 2017, 44, 8703-8711.	4.0	41
51	Phase-coherence classification: A new wavelet-based method to separate local field potentials into local (in)coherent and volume-conducted components. Journal of Neuroscience Methods, 2017, 291, 198-212.	2.5	3
52	The tails of the satellite auroral footprints at Jupiter. Journal of Geophysical Research: Space Physics, 2017, 122, 7985-7996.	2.4	57
53	Induction signals from Callisto's ionosphere and their implications on a possible subsurface ocean. Journal of Geophysical Research: Space Physics, 2017, 122, 11,677.	2.4	35
54	New constraints on Ganymede's hydrogen corona: Analysis of Lyman- α emissions observed by HST/STIS between 1998 and 2014. Planetary and Space Science, 2017, 148, 35-44.	1.7	20

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55	The Uncertainty of Local Background Magnetic Field Orientation in Anisotropic Plasma Turbulence. Astrophysical Journal, 2017, 843, 5.	4.5	11
56	Structure and density of Callisto's atmosphere from a fluid-kinetic model of its ionosphere: Comparison with Hubble Space Telescope and Galileo observations. Icarus, 2017, 282, 237-259.	2.5	23
57	Electromagnetic Coupling in Star-Planet Systems. , 2017, , 1-17.		0
58	Multiple breath washout testing in adults with pulmonary disease and healthy controls $\hat{a} \in \text{``can fewer measurements eventually be more?. BMC Pulmonary Medicine, 2017, 17, 185.}$	2.0	5
59	Comparison of Bioreactance Non-Invasive Cardiac Output Measurements with Cardiac Magnetic Resonance Imaging. Anaesthesia and Intensive Care, 2016, 44, 769-776.	0.7	9
60	Constraints on an exosphere at Ceres from Hubble Space Telescope observations. Geophysical Research Letters, 2016, 43, 2465-2472.	4.0	19
61	Europa's far ultraviolet oxygen aurora from a comprehensive set of HST observations. Journal of Geophysical Research: Space Physics, 2016, 121, 2143-2170.	2.4	54
62	Europa's plasma interaction with an inhomogeneous atmosphere: Development of Alfvén winglets within the Alfvén wings. Journal of Geophysical Research: Space Physics, 2016, 121, 9794-9828.	2.4	36
63	Longitudinal and local time asymmetries of magnetospheric turbulence in Saturn's plasma sheet. Journal of Geophysical Research: Space Physics, 2016, 121, 4119-4134.	2.4	10
64	Comparison of electrical velocimetry and cardiac magnetic resonance imaging for the non-invasive determination of cardiac output. Journal of Clinical Monitoring and Computing, 2016, 30, 399-408.	1.6	19
65	Simulations of the Earth's magnetosphere embedded in subâ€Alfvénic solar wind on 24 and 25 May 2002. Journal of Geophysical Research: Space Physics, 2015, 120, 8517-8528.	2.4	15
66	The search for a subsurface ocean in Ganymede with Hubble Space Telescope observations of its auroral ovals. Journal of Geophysical Research: Space Physics, 2015, 120, 1715-1737.	2.4	128
67	FORWARD MODELING OF REDUCED POWER SPECTRA FROM THREE-DIMENSIONAL K-SPACE. Astrophysical Journal, 2015, 806, 116.	4.5	10
68	Turbulent magnetic field fluctuations in Saturn's magnetosphere. Journal of Geophysical Research: Space Physics, 2014, 119, 2797-2818.	2.4	41
69	Discontinuities in the magnetic field near Enceladus. Geophysical Research Letters, 2014, 41, 3359-3366.	4.0	13
70	Consistent boundary conditions at nonconducting surfaces of planetary bodies: Applications in a new Ganymede MHD model. Journal of Geophysical Research: Space Physics, 2014, 119, 4412-4440.	2.4	38
71	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
72	Orbital apocenter is not a sufficient condition for HST/STIS detection of Europa's water vapor aurora. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5123-32.	7.1	65

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73	A phenomenological model of Io's UV aurora based on HST/STIS observations. Icarus, 2014, 228, 386-406.	2.5	24
74	Transient Water Vapor at Europa's South Pole. Science, 2014, 343, 171-174.	12.6	401
75	Ion densities and magnetic signatures of dust pickup at Enceladus. Journal of Geophysical Research: Space Physics, 2014, 119, 2740-2774.	2.4	38
76	Evolution of the Io footprint brightness I: Far-UV observations. Planetary and Space Science, 2013, 88, 64-75.	1.7	32
77	Exospheric O2 densities at Europa during different orbital phases. Planetary and Space Science, 2013, 88, 42-52.	1.7	40
78	Structure of Titan's induced magnetosphere under varying background magnetic field conditions: Survey of Cassini magnetometer data from flybys TA–T85. Journal of Geophysical Research: Space Physics, 2013, 118, 1679-1699.	2.4	30
79	Modeling Jupiter's magnetosphere: Influence of the internal sources. Journal of Geophysical Research: Space Physics, 2013, 118, 2157-2172.	2.4	45
80	Energetic aspects of Enceladus' magnetospheric interaction. Journal of Geophysical Research: Space Physics, 2013, 118, 3430-3445.	2.4	8
81	Aurora on Ganymede. Journal of Geophysical Research: Space Physics, 2013, 118, 2043-2054.	2.4	58
82	Magnetic energy fluxes in sub-Alfvà @nic planet star and moon planet interactions. Astronomy and Astrophysics, 2013, 552, A119.	5.1	128
83	Observational evidence of Alfv $ ilde{A}$ ©n wings at the Earth. Journal of Geophysical Research, 2012, 117, .	3.3	33
84	OSS (Outer Solar System): a fundamental and planetary physics mission to Neptune, Triton and the Kuiper Belt. Experimental Astronomy, 2012, 34, 203-242.	3.7	37
85	Analysis of Cassini magnetic field observations over the poles of Rhea. Journal of Geophysical Research, 2012, 117, .	3.3	30
86	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. Experimental Astronomy, 2012, 33, 753-791.	3.7	44
87	Influence of negatively charged plume grains and hemisphere coupling currents on the structure of Enceladus' AlfvA $\otimes$ n wings: Analytical modeling of Cassini magnetometer observations. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	50
88	Magnetic signatures of a tenuous atmosphere at Dione. Geophysical Research Letters, 2011, 38, .	4.0	31
89	Influence of negatively charged plume grains on the structure of Enceladus' Alfvén wings: Hybrid simulations versus Cassini Magnetometer data. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	56
90	<i>HUBBLE SPACE TELESCOPE</i> /ADVANCED CAMERA FOR SURVEYS OBSERVATIONS OF EUROPA'S ATMOSPHERIC ULTRAVIOLET EMISSION AT EASTERN ELONGATION. Astrophysical Journal, 2011, 738, 153.	4.5	34

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91	The auroral footprint of Enceladus on Saturn. Nature, 2011, 472, 331-333.	27.8	82
92	Multi-frequency electromagnetic sounding of the Galilean moons. Icarus, 2011, 214, 477-494.	2.5	46
93	Simulation of Io's auroral emission: Constraints on the atmosphere in eclipse. Icarus, 2011, 214, 495-509.	2.5	26
94	Induced Magnetic Fields in Solar System Bodies. Space Science Reviews, 2010, 152, 391-421.	8.1	58
95	Titan's highly dynamic magnetic environment: A systematic survey of Cassini magnetometer observations from flybys TA–T62. Planetary and Space Science, 2010, 58, 1230-1251.	1.7	68
96	Magnetic field fossilization and tail reconfiguration in Titan's plasma environment during a magnetopause passage: 3D adaptive hybrid code simulations. Planetary and Space Science, 2010, 58, 1526-1546.	1.7	18
97	Solar wind turbulent spectrum from MHD to electron scales. AIP Conference Proceedings, 2010, , .	0.4	12
98	Location and spatial shape of electron beams in Io's wake. Journal of Geophysical Research, 2010, 115, .	3.3	29
99	Energetic neutral atoms from Titan: Particle simulations in draped magnetic and electric fields. Journal of Geophysical Research, 2010, 115, .	3.3	13
100	Azimuthal plasma flow in the Kronian magnetosphere. Journal of Geophysical Research, 2010, 115, .	3.3	32
101	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.	1.6	18
102	Universality of Solar-Wind Turbulent Spectrum from MHD to Electron Scales. Physical Review Letters, 2009, 103, 165003.	7.8	355
103	TandEM: Titan and Enceladus mission. Experimental Astronomy, 2009, 23, 893-946.	3.7	77
104	The plasma interaction of Enceladus: 3D hybrid simulations and comparison with Cassini MAG data. Planetary and Space Science, 2009, 57, 2113-2122.	1.7	51
105	Plasma wake of Tethys: Hybrid simulations versus Cassini MAG data. Geophysical Research Letters, 2009, 36, .	4.0	35
106	Ion conics and electron beams associated with auroral processes on Saturn. Journal of Geophysical Research, 2009, 114, .	3.3	81
107	Auroral Processes. , 2009, , 333-374.		34
108	Induced Magnetic Fields in Solar System Bodies. Space Sciences Series of ISSI, 2009, , 391-421.	0.0	5

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109	UV Io footprint leading spot: A key feature for understanding the UV Io footprint multiplicity?. Geophysical Research Letters, 2008, 35, .	4.0	84
110	Influence of the internally induced magnetic field on the plasma interaction of Europa. Journal of Geophysical Research, 2008, $113$ , .	3.3	39
111	Alfvén vortices in Saturn's magnetosheath: Cassini observations. Geophysical Research Letters, 2008, 35, .	4.0	27
112	Evidence for temporal variability of Enceladus' gas jets: Modeling of Cassini observations. Geophysical Research Letters, 2008, 35, .	4.0	78
113	The Dust Halo of Saturn's Largest Icy Moon, Rhea. Science, 2008, 319, 1380-1384.	12.6	53
114	lo's Atmospheric Response to Eclipse: UV Aurorae Observations. Science, 2007, 318, 237-240.	12.6	41
115	Ultraviolet Io footprint short timescale dynamics. Geophysical Research Letters, 2007, 34, .	4.0	20
116	lo's nonlinear MHD-wave field in the heterogeneous Jovian magnetosphere. Geophysical Research Letters, 2007, 34, .	4.0	52
117	Equatorial electron beams and auroral structuring at Jupiter. Journal of Geophysical Research, 2007, 112, .	3.3	37
118	Hemisphere coupling in Enceladus' asymmetric plasma interaction. Journal of Geophysical Research, 2007, 112, .	3.3	35
119	Time-varying interaction of Europa with the jovian magnetosphere: Constraints on the conductivity of Europa's subsurface ocean. Icarus, 2007, 192, 41-55.	2.5	71
120	Titan's near magnetotail from magnetic field and electron plasma observations and modeling: Cassini flybys TA, TB, and T3. Journal of Geophysical Research, 2006, $111$ , .	3.3	82
121	Identification of a Dynamic Atmosphere at Enceladus with the Cassini Magnetometer. Science, 2006, 311, 1406-1409.	12.6	338
122	Anti-planetward auroral electron beams at Saturn. Nature, 2006, 439, 699-702.	27.8	40
123	Atmospheres and Plasma Interactions at Saturn's Largest Inner Icy Satellites. Astrophysical Journal, 2005, 620, L115-L118.	4.5	32
124	Dynamics of Saturn's Magnetosphere from MIMI During Cassini's Orbital Insertion. Science, 2005, 307, 1270-1273.	12.6	166
125	Energetic particle injections in Saturn's magnetosphere. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	109
126	Evidence of Enceladus and Tethys microsignatures. Geophysical Research Letters, 2005, 32, .	4.0	27

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127	Cassini observations of lo's visible aurorae. Icarus, 2004, 172, 127-140.	2.5	55
128	Relative contributions of sublimation and volcanoes to lo's atmosphere inferred from its plasma interaction during solar eclipse. Icarus, 2004, 171, 411-420.	2.5	39
129	A model of Io's local electric field for a combined Alfv $ ilde{A}$ ©nic and unipolar inductor far-field coupling. Journal of Geophysical Research, 2004, 109, .	3 <b>.</b> 3	44
130	A model for the azimuthal plasma velocity in Saturn's magnetosphere. Journal of Geophysical Research, 2004, 109, .	3.3	48
131	Turbulent Heating of Jupiter's Middle Magnetosphere. Astrophysical Journal, 2004, 602, L137-L140.	4.5	41
132	The ion mass loading rate at lo. Icarus, 2003, 163, 456-468.	2.5	42
133	An acceleration mechanism for the generation of the main auroral oval on Jupiter. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	33
134	Correction to "An acceleration mechanism for the generation of the main auroral oval on Jupiter― Geophysical Research Letters, 2003, 30, .	4.0	11
135	[ITAL]Hubble Space Telescope[/ITAL] Space Telescope Imaging Spectrograph Search for an Atmosphere on Callisto: A Jovian Unipolar Inductor. Astrophysical Journal, 2002, 581, L51-L54.	4.5	40
136	Interpretation of Galileo's Io plasma and field observations: IO, I24, and I27 flybys and close polar passes. Journal of Geophysical Research, 2002, 107, SMP 5-1-SMP 5-18.	3.3	56
137	Evidence for weak MHD turbulence in the middle magnetosphere of Jupiter. Astronomy and Astrophysics, 2002, 386, 699-708.	5.1	86
138	lo's ultraviolet aurora: Remote sensing of lo's interaction. Geophysical Research Letters, 2000, 27, 2893-2896.	4.0	43
139	Geometry of low-frequency solar wind magnetic turbulence: Evidence for radially aligned Alfvénic fluctuations. Journal of Geophysical Research, 1999, 104, 9975-9988.	3.3	55
140	Three-dimensional plasma simulation of lo's interaction with the lo plasma torus: Asymmetric plasma flow. Journal of Geophysical Research, 1999, 104, 25105-25126.	3.3	126
141	Interaction of the Jovian magnetosphere with Europa: Constraints on the neutral atmosphere. Journal of Geophysical Research, 1998, 103, 19947-19962.	3.3	175
142	A Case for Electron-Astrophysics. Experimental Astronomy, 0, , 1.	3.7	11
143	Enceladus and Titan: emerging worlds of the Solar System. Experimental Astronomy, 0, , 1.	3.7	1