

J-E Wahlund

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3404643/publications.pdf>

Version: 2024-02-01

137
papers

6,192
citations

71102

41
h-index

76900

74
g-index

155
all docs

155
docs citations

155
times ranked

2834
citing authors

#	ARTICLE	IF	CITATIONS
1	Empirical Photochemical Modeling of Saturn's Ionization Balance Including Grain Charging. Planetary Science Journal, 2022, 3, 49.	3.6	3
2	Ambipolar electrostatic field in negatively charged dusty plasma. Journal of Plasma Physics, 2022, 88, .	2.1	3
3	Constraining the Positive Ion Composition in Saturn's Lower Ionosphere with the Effective Recombination Coefficient. Planetary Science Journal, 2021, 2, 39.	3.6	4
4	Re-analysis of the Cassini RPWS/LP Data in Titan's Ionosphere: 1. Detection of Several Electron Populations. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028412.	2.4	4
5	Re-analysis of the Cassini RPWS/LP Data in Titan's Ionosphere: 2. Statistics on 57 Flybys. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028413.	2.4	2
6	Calibration of the JUICE RWI antennas by numerical simulation. Radio Science, 2021, 56, e2021RS007309.	1.6	1
7	Mio's First Comprehensive Exploration of Mercury's Space Environment: Mission Overview. Space Science Reviews, 2020, 216, 1.	8.1	28
8	Saturn's near-equatorial ionospheric conductivities from in situ measurements. Scientific Reports, 2020, 10, 7932.	3.3	10
9	The MEFISTO and WPT Electric Field Sensors of the Plasma Wave Investigation on the BepiColombo Mio Spacecraft. Space Science Reviews, 2020, 216, 1.	8.1	7
10	Plasma Wave Investigation (PWI) Aboard BepiColombo Mio on the Trip to the First Measurement of Electric Fields, Electromagnetic Waves, and Radio Waves Around Mercury. Space Science Reviews, 2020, 216, 1.	8.1	20
11	Mission Data Processor Aboard the BepiColombo Mio Spacecraft: Design and Scientific Operation Concept. Space Science Reviews, 2020, 216, 1.	8.1	9
12	Distribution in Saturn's Inner Magnetosphere From 2.4 to 10 R_S : A Diffusive Equilibrium Model. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027545.	2.4	9
13	Plasma Transport in Saturn's Low-Latitude Ionosphere: Cassini Data. Journal of Geophysical Research: Space Physics, 2019, 124, 4881-4888.	2.4	3
14	Saturn's Dusty Ionosphere. Journal of Geophysical Research: Space Physics, 2019, 124, 1679-1697.	2.4	27
15	The Structure of Planetary Period Oscillations in Saturn's Equatorial Magnetosphere: Results From the Cassini Mission. Journal of Geophysical Research: Space Physics, 2019, 124, 8361-8395.	2.4	9
16	The Ion Composition of Saturn's Equatorial Ionosphere as Observed by Cassini. Geophysical Research Letters, 2019, 46, 6315-6321.	4.0	22
17	Electron Density Distributions in Saturn's Ionosphere. Geophysical Research Letters, 2019, 46, 3061-3068.	4.0	27
18	Saturn's Ionosphere: Electron Density Altitude Profiles and Ring Interaction From The Cassini Grand Finale. Geophysical Research Letters, 2019, 46, 9362-9369.	4.0	20

#	ARTICLE	IF	CITATIONS
19	The Dusty Plasma Disk Around the Janus/Epimetheus Ring. Journal of Geophysical Research: Space Physics, 2018, 123, 4668-4678.	2.4	8
20	Analysis of Intense ν -Mode Emission Observed During the Cassini Proximal Orbits. Geophysical Research Letters, 2018, 45, 6766-6772.	4.0	8
21	In situ measurements of Saturn's ionosphere show that it is dynamic and interacts with the rings. Science, 2018, 359, 66-68.	12.6	40
22	Dust Observations by the Radio and Plasma Wave Science Instrument During Cassini's Grand Finale. Geophysical Research Letters, 2018, 45, 10,101.	4.0	16
23	Models of Saturn's Equatorial Ionosphere Based on In Situ Data From Cassini's Grand Finale. Geophysical Research Letters, 2018, 45, 9398-9407.	4.0	26
24	Titan's Variable Ionosphere During the T118 and T119 Cassini Flybys. Geophysical Research Letters, 2018, 45, 8721-8728.	4.0	2
25	The low-frequency source of Saturn's kilometric radiation. Science, 2018, 362, .	12.6	22
26	Dust grains fall from Saturn's D-ring into its equatorial upper atmosphere. Science, 2018, 362, .	12.6	37
27	Chemical interactions between Saturn's atmosphere and its rings. Science, 2018, 362, .	12.6	73
28	Ring Shadowing Effects on Saturn's Ionosphere: Implications for Ring Opacity and Plasma Transport. Geophysical Research Letters, 2018, 45, 10,084.	4.0	17
29	Enhanced Airglow Signature Observed at Titan in Response to its Fluctuating Magnetospheric Environment. Geophysical Research Letters, 2018, 45, 8864-8870.	4.0	1
30	The Cassini RPWS/LP Observations of Dusty Plasma in the Kronian System. Proceedings of the International Astronomical Union, 2018, 14, 415-416.	0.0	0
31	Saturn's Plasma Density Depletions Along Magnetic Field Lines Connected to the Main Rings. Geophysical Research Letters, 2018, 45, 8104-8110.	4.0	6
32	Development of a Double Hemispherical Probe for Improved Space Plasma Measurements. Journal of Geophysical Research: Space Physics, 2018, 123, 2916-2925.	2.4	3
33	Cassini RPWS Dust Observation Near the Janus/Epimetheus Orbit. Journal of Geophysical Research: Space Physics, 2018, 123, 4952-4960.	2.4	9
34	Ion trapping by dust grains: Simulation applications to the Enceladus plume. Journal of Geophysical Research E: Planets, 2017, 122, 729-743.	3.6	5
35	Thermal ion imagers and Langmuir probes in the Swarm electric field instruments. Journal of Geophysical Research: Space Physics, 2017, 122, 2655-2673.	2.4	183
36	Carbon Chain Anions and the Growth of Complex Organic Molecules in Titan's Ionosphere. Astrophysical Journal Letters, 2017, 844, L18.	8.3	45

#	ARTICLE	IF	CITATIONS
37	Photoionization Modeling of Titan's Dayside Ionosphere. <i>Astrophysical Journal Letters</i> , 2017, 850, L26.	8.3	3
38	Titan's ionosphere: A survey of solar EUV influences. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 7491-7503.	2.4	17
39	Density Structures, Dynamics, and Seasonal and Solar Cycle Modulations of Saturn's Inner Plasma Disk. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 12,258.	2.4	8
40	Ion and aerosol precursor densities in Titan's ionosphere: A multi-instrument case study. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 10075-10090.	2.4	23
41	Solar cycle variations in ion composition in the dayside ionosphere of Titan. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 8013-8037.	2.4	10
42	Transport and chemical loss rates in Saturn's inner plasma disk. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 2321-2334.	2.4	3
43	SUPRATHERMAL ELECTRONS IN TITAN'S SUNLIT IONOSPHERE: MODEL-OBSERVATION COMPARISONS. <i>Astrophysical Journal</i> , 2016, 826, 131.	4.5	8
44	Spatial distribution of low-energy plasma around comet 67P/CG from Rosetta measurements. <i>Geophysical Research Letters</i> , 2015, 42, 4263-4269.	4.0	74
45	SWARM observations of equatorial electron densities and topside GPS track losses. <i>Geophysical Research Letters</i> , 2015, 42, 2088-2092.	4.0	66
46	Effects of Saturn's magnetospheric dynamics on Titan's ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 8884-8898.	2.4	11
47	Survey of Saturn's Z -mode emission. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 6176-6187.	2.4	12
48	Plasma regions, charged dust and field-aligned currents near Enceladus. <i>Planetary and Space Science</i> , 2015, 117, 453-469.	1.7	16
49	Ionization balance in Titan's nightside ionosphere. <i>Icarus</i> , 2015, 248, 539-546.	2.5	22
50	Titan's magnetospheric and plasma environment. , 2014, , 419-458.		2
51	Titan's ionosphere. , 2014, , 376-418.		16
52	Dayside/nightside asymmetry of ion densities and velocities in Saturn's inner magnetosphere. <i>Geophysical Research Letters</i> , 2014, 41, 3717-3723.	4.0	16
53	Deriving the characteristics of warm electrons (100-500 eV) in the magnetosphere of Saturn with the Cassini Langmuir probe. <i>Planetary and Space Science</i> , 2014, 104, 173-184.	1.7	1
54	INCREASING POSITIVE ION NUMBER DENSITIES BELOW THE PEAK OF ION-ELECTRON PAIR PRODUCTION IN TITAN'S IONOSPHERE. <i>Astrophysical Journal</i> , 2014, 786, 69.	4.5	9

#	ARTICLE	IF	CITATIONS
55	First results from the Langmuir Probes on the Swarm satellites. , 2014, , .		1
56	An estimate of the dust pickup current at Enceladus. Icarus, 2014, 239, 217-221.	2.5	8
57	Electron density inside Enceladus plume inferred from plasma oscillations excited by dust impacts. Journal of Geophysical Research: Space Physics, 2014, 119, 3373-3380.	2.4	22
58	Cassini multi-instrument assessment of Saturn's polar cap boundary. Journal of Geophysical Research: Space Physics, 2014, 119, 8161-8177.	2.4	31
59	Outflow and plasma acceleration in Titan's induced magnetotail: Evidence of magnetic tension forces. Journal of Geophysical Research: Space Physics, 2014, 119, 9992.	2.4	4
60	Negative ion densities in the ionosphere of Titan—Cassini RPWS/LP results. Planetary and Space Science, 2013, 84, 153-162.	1.7	73
61	On the thermal electron balance in Titan's sunlit upper atmosphere. Icarus, 2013, 223, 234-251.	2.5	35
62	The thermal structure of Titan's upper atmosphere, I: Temperature profiles from Cassini INMS observations. Icarus, 2013, 226, 552-582.	2.5	72
63	Aerosol growth in Titan's ionosphere. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2729-2734.	7.1	126
64	The influence of the secondary electrons induced by energetic electrons impacting the Cassini Langmuir probe at Saturn. Journal of Geophysical Research: Space Physics, 2013, 118, 7054-7073.	2.4	11
65	Extreme densities in Titan's ionosphere during the T85 magnetosheath encounter. Geophysical Research Letters, 2013, 40, 2879-2883.	4.0	27
66	Solar cycle modulation of Titan's ionosphere. Journal of Geophysical Research: Space Physics, 2013, 118, 5255-5264.	2.4	38
67	Detection of negative ions in the deep ionosphere of Titan during the Cassini T70 flyby. Geophysical Research Letters, 2012, 39, .	4.0	48
68	Ion densities and composition of Titan's upper atmosphere derived from the Cassini Ion Neutral Mass Spectrometer: Analysis methods and comparison of measured ion densities to photochemical model simulations. Journal of Geophysical Research, 2012, 117, .	3.3	67
69	Ion densities and velocities in the inner plasma torus of Saturn. Planetary and Space Science, 2012, 73, 151-160.	1.7	36
70	Charged nanograins in the Enceladus plume. Journal of Geophysical Research, 2012, 117, .	3.3	71
71	The detection of energetic electrons with the Cassini Langmuir probe at Saturn. Journal of Geophysical Research, 2012, 117, .	3.3	8
72	Titan's ionospheric composition and structure: Photochemical modeling of Cassini INMS data. Journal of Geophysical Research, 2012, 117, .	3.3	60

#	ARTICLE	IF	CITATIONS
73	The observed composition of ions outflowing from Titan. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	12
74	EnVision: taking the pulse of our twin planet. <i>Experimental Astronomy</i> , 2012, 33, 337-363.	3.7	23
75	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. <i>Experimental Astronomy</i> , 2012, 33, 753-791.	3.7	44
76	The electromagnetic pickup of submicron-sized dust above Enceladus's northern hemisphere. <i>Icarus</i> , 2012, 219, 498-501.	2.5	12
77	Investigating magnetospheric interaction effects on Titan's ionosphere with the Cassini orbiter Ion Neutral Mass Spectrometer, Langmuir Probe and magnetometer observations during targeted flybys. <i>Icarus</i> , 2012, 219, 534-555.	2.5	15
78	Detection of currents and associated electric fields in Titan's ionosphere from Cassini data. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	23
79	The rotation of the plasmopause-like boundary at high latitudes in Saturn's magnetosphere and its relation to the eccentric rotation of the northern and southern auroral ovals. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	16
80	Cassini Plasma Spectrometer and hybrid model study on Titan's interaction: Effect of oxygen ions. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	14
81	Energetics of Titan's ionosphere: Model comparisons with Cassini data. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	27
82	The importance of thermal electron heating in Titan's ionosphere: Comparison with Cassini T34 flyby. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	11
83	Dusty plasma in the vicinity of Enceladus. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	89
84	Recent Results from Titan's Ionosphere. <i>Space Science Reviews</i> , 2011, 162, 85-111.	8.1	14
85	Structured ionospheric outflow during the Cassini T55-T59 Titan flybys. <i>Planetary and Space Science</i> , 2011, 59, 788-797.	1.7	34
86	Characteristics of the dust-plasma interaction near Enceladus's South Pole. <i>Planetary and Space Science</i> , 2011, 59, 17-25.	1.7	43
87	Electron temperatures in Saturn's plasma disc. <i>Planetary and Space Science</i> , 2010, 58, 1018-1025.	1.7	32
88	Statistical analysis of the energetic ion and ENA data for the Titan environment. <i>Planetary and Space Science</i> , 2010, 58, 1811-1822.	1.7	32
89	On the interpretation of Langmuir probe data inside a spacecraft sheath. <i>Review of Scientific Instruments</i> , 2010, 81, 105106.	1.3	19
90	Ion transport in Titan's upper atmosphere. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	38

#	ARTICLE	IF	CITATIONS
91	Dynamical and magnetic field time constants for Titan's ionosphere: Empirical estimates and comparisons with Venus. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	34
92	Ionization sources in Titan's deep ionosphere. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	44
93	A plasmapause-like density boundary at high latitudes in Saturn's magnetosphere. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	38
94	Electron density and temperature measurements in the cold plasma environment of Titan: Implications for atmospheric escape. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	38
95	Modification of the plasma in the nearvicinity of Enceladus by the enveloping dust. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	26
96	The electron density of Saturn's magnetosphere. <i>Annales Geophysicae</i> , 2009, 27, 2971-2991.	1.6	73
97	Titan's ionosphere in the magnetosheath: Cassini RPWS results during the T32 flyby. <i>Annales Geophysicae</i> , 2009, 27, 4257-4272.	1.6	25
98	Characteristics of charged dust inferred from the Cassini RPWS measurements in the vicinity of Enceladus. <i>Planetary and Space Science</i> , 2009, 57, 1807-1812.	1.7	49
99	Model-data comparisons for Titan's nightside ionosphere. <i>Icarus</i> , 2009, 199, 174-188.	2.5	108
100	Cassini Langmuir probe measurements in the inner magnetosphere of Saturn. <i>Planetary and Space Science</i> , 2009, 57, 48-52.	1.7	21
101	Titan ionospheric conductivities from Cassini measurements. <i>Planetary and Space Science</i> , 2009, 57, 1828-1833.	1.7	30
102	Detection of dusty plasma near the E-ring of Saturn. <i>Planetary and Space Science</i> , 2009, 57, 1795-1806.	1.7	104
103	Negative ion chemistry in Titan's upper atmosphere. <i>Planetary and Space Science</i> , 2009, 57, 1558-1572.	1.7	240
104	On the ionospheric structure of Titan. <i>Planetary and Space Science</i> , 2009, 57, 1821-1827.	1.7	119
105	On the amount of heavy molecular ions in Titan's ionosphere. <i>Planetary and Space Science</i> , 2009, 57, 1857-1865.	1.7	96
106	Diurnal variations of Titan's ionosphere. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	69
107	Electron density dropout near Enceladus in the context of water vapor and water ice. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	42
108	Time-dependent global MHD simulations of Cassini T32 flyby: From magnetosphere to magnetosheath. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	41

#	ARTICLE	IF	CITATIONS
109	A diffusive equilibrium model for the plasma density in Saturn's magnetosphere. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	85
110	Mass unloading along the inner edge of the Enceladus plasma torus. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	16
111	The lower exosphere of Titan: Energetic neutral atoms absorption and imaging. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	18
112	The Magnetic Memory of Titan's Ionized Atmosphere. <i>Science</i> , 2008, 321, 1475-1478.	12.6	119
113	Far plasma wake of Titan from the RPWS observations: A case study. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	22
114	Plasma environment in the wake of Titan from hybrid simulation: A case study. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	39
115	Cold ionospheric plasma in Titan's magnetotail. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	25
116	Structure of Titan's mid-range magnetic tail: Cassini magnetometer observations during the T9 flyby. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	34
117	3D global multi-species Hall-MHD simulation of the Cassini T9 flyby. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	58
118	RPC-LAP: The Rosetta Langmuir Probe Instrument. <i>Space Science Reviews</i> , 2007, 128, 729-744.	8.1	116
119	On magnetospheric electron impact ionisation and dynamics in Titan's ram-side and polar ionosphere – a Cassini case study. <i>Annales Geophysicae</i> , 2007, 25, 2359-2369.	1.6	78
120	Charging of the Freja Satellite in the Auroral Zone. <i>IEEE Transactions on Plasma Science</i> , 2006, 34, 2038-2045.	1.3	28
121	Composition of Titan's ionosphere. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	191
122	Comparisons between MHD model calculations and observations of Cassini flybys of Titan. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	95
123	Electron temperature of Titan's sunlit ionosphere. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	61
124	Cassini Measurements of Cold Plasma in the Ionosphere of Titan. <i>Science</i> , 2005, 308, 986-989.	12.6	178
125	Radio and Plasma Wave Observations at Saturn from Cassini's Approach and First Orbit. <i>Science</i> , 2005, 307, 1255-1259.	12.6	236
126	The inner magnetosphere of Saturn: Cassini RPWS cold plasma results from the first encounter. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	67

#	ARTICLE	IF	CITATIONS
127	Titan's ionosphere: Model comparisons with Cassini Ta data. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	81
128	The Cassini Radio and Plasma Wave Investigation. Space Science Reviews, 2004, 114, 395-463.	8.1	455
129	Cluster observations of lower hybrid turbulence within thin layers at the magnetopause. Geophysical Research Letters, 2004, 31, .	4.0	92
130	The Cassini Radio and Plasma Wave Investigation. , 2004, , 395-463.		14
131	What high altitude observations tell us about the auroral acceleration: A Cluster/DMSP conjunction. Geophysical Research Letters, 2003, 30, .	4.0	27
132	Observations of auroral broadband emissions by CLUSTER. Geophysical Research Letters, 2003, 30, .	4.0	22
133	Electron signatures and Alfvén waves. Journal of Geophysical Research, 2002, 107, SMP 15-1.	3.3	41
134	Small Scale Alfvénic Structure in the Aurora. Space Science Reviews, 2000, 92, 423-533.	8.1	431
135	Scattering of electromagnetic waves from a plasma: Enhanced ion acoustic fluctuations due to ion-ion two-stream instabilities. Geophysical Research Letters, 1992, 19, 1919-1922.	4.0	56
136	EISCAT observations of strong ion outflows from the F-region ionosphere during auroral activity: Preliminary results. Geophysical Research Letters, 1989, 16, 727-730.	4.0	47
137	Enceladus and Titan: emerging worlds of the Solar System. Experimental Astronomy, 0, , 1.	3.7	1