

Niklas Edberg

List of Publications by Year in descending order

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81
papers

2,210
citations

185998

28
h-index

243296

44
g-index

99
all docs

99
docs citations

99
times ranked

1571
citing authors

#	ARTICLE	IF	CITATIONS
1	Birth of a comet magnetosphere: A spring of water ions. <i>Science</i> , 2015, 347, aaa0571.	6.0	107
2	Statistical analysis of the location of the Martian magnetic pileup boundary and bow shock and the influence of crustal magnetic fields. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	93
3	Pumping out the atmosphere of Mars through solar wind pressure pulses. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	88
4	Interplanetary coronal mass ejection observed at STEREO, Mars, comet 67P/Churyumov-Gerasimenko, Saturn, and New Horizons en route to Pluto: Comparison of its Forbush decreases at 1.4, 3.1, and 9.9 AU. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 7865-7890.	0.8	87
5	Evolution of the ion environment of comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2015, 583, A20.	2.1	76
6	Spatial distribution of low-energy plasma around comet 67P/CG from Rosetta measurements. <i>Geophysical Research Letters</i> , 2015, 42, 4263-4269.	1.5	74
7	Plasma boundary variability at Mars as observed by Mars Global Surveyor and Mars Express. <i>Annales Geophysicae</i> , 2009, 27, 3537-3550.	0.6	70
8	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. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	67
9	RPC observation of the development and evolution of plasma interaction boundaries at 67P/Churyumov-Gerasimenko. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 462, S9-S22.	1.6	62
10	Atmospheric erosion of Venus during stormy space weather. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	60
11	Evolution of the plasma environment of comet 67P from spacecraft potential measurements by the Rosetta Langmuir probe instrument. <i>Geophysical Research Letters</i> , 2015, 42, 10,126.	1.5	49
12	Suprathermal electrons near the nucleus of comet 67P/Churyumov-Gerasimenko at 3 AU: Model comparisons with Rosetta data. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 5815-5836.	0.8	49
13	Detection of negative ions in the deep ionosphere of Titan during the Cassini T70 flyby. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	48
14	Mass-loading, pile-up, and mirror-mode waves at comet 67P/Churyumov-Gerasimenko. <i>Annales Geophysicae</i> , 2016, 34, 1-15.	0.6	46
15	Control of the topside Martian ionosphere by crustal magnetic fields. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 3042-3058.	0.8	45
16	Carbon Chain Anions and the Growth of Complex Organic Molecules in Titan's Ionosphere. <i>Astrophysical Journal Letters</i> , 2017, 844, L18.	3.0	45
17	Annual variations in the Martian bow shock location as observed by the Mars Express mission. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 11,474.	0.8	44
18	The Morphology of the Topside Martian Ionosphere: Implications on Bulk Ion Flow. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 734-751.	1.5	43

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19	Mars ionospheric response to solar wind variability. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 6558-6587.	0.8	42
20	CME impact on comet 67P/Churyumov-Gerasimenko. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 462, S45-S56.	1.6	42
21	Titan's interaction with the supersonic solar wind. <i>Geophysical Research Letters</i> , 2015, 42, 193-200.	1.5	40
22	In situ measurements of Saturn's ionosphere show that it is dynamic and interacts with the rings. <i>Science</i> , 2018, 359, 66-68.	6.0	40
23	Magnetosonic Mach number effect of the position of the bow shock at Mars in comparison to Venus. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	39
24	Electron density and temperature measurements in the cold plasma environment of Titan: Implications for atmospheric escape. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	38
25	Determination of local plasma densities with the MARSIS radar: Asymmetries in the high-altitude Martian ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 6228-6242.	0.8	38
26	Solar cycle modulation of Titan's ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 5255-5264.	0.8	38
27	Solar wind interaction with comet 67P: Impacts of corotating interaction regions. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 949-965.	0.8	33
28	ON THE ELECTRON-TO-NEUTRAL NUMBER DENSITY RATIO IN THE COMA OF COMET 67P/CHURYUMOV-GERASIMENKO: GUIDING EXPRESSION AND SOURCES FOR DEVIATIONS. <i>Astrophysical Journal</i> , 2015, 812, 54.	1.6	31
29	The 67P/Churyumov-Gerasimenko observation campaign in support of the Rosetta mission. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160249.	1.6	29
30	Effective ion speeds at $\sim 1/4200 \sim 250$ km from comet 67P/Churyumov-Gerasimenko near perihelion. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, S142-S148.	1.6	29
31	Extreme densities in Titan's ionosphere during the T85 magnetosheath encounter. <i>Geophysical Research Letters</i> , 2013, 40, 2879-2883.	1.5	27
32	Evaluating Local Ionization Balance in the Nightside Martian Upper Atmosphere during MAVEN Deep Dip Campaigns. <i>Astrophysical Journal Letters</i> , 2019, 876, L12.	3.0	27
33	Saturn's Dusty Ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 1679-1697.	0.8	27
34	Cometary plasma response to interplanetary corotating interaction regions during 2016 June-September: a quantitative study by the Rosetta Plasma Consortium. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 480, 4544-4556.	1.6	26
35	MODEL-OBSERVATION COMPARISONS OF ELECTRON NUMBER DENSITIES IN THE COMA OF 67P/CHURYUMOV-GERASIMENKO DURING 2015 JANUARY. <i>Astronomical Journal</i> , 2016, 152, 59.	1.9	24
36	Rosetta photoelectron emission and solar ultraviolet flux at comet 67P. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, S626-S635.	1.6	24

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37	Density fluctuations associated with turbulence and waves. <i>Astronomy and Astrophysics</i> , 2021, 656, A19.	2.1	24
38	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
39	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.	0.8	23
40	Impact of a cometary outburst on its ionosphere. <i>Astronomy and Astrophysics</i> , 2017, 607, A34.	2.1	21
41	Rosetta and Mars Express observations of the influence of high solar wind pressure on the Martian plasma environment. <i>Annales Geophysicae</i> , 2009, 27, 4533-4545.	0.6	21
42	Saturn's Ionosphere: Electron Density Altitude Profiles and Ring Interaction From The Cassini Grand Finale. <i>Geophysical Research Letters</i> , 2019, 46, 9362-9369.	1.5	20
43	An empirical approach to modeling ion production rates in Titan's ionosphere I: Ion production rates on the dayside and globally. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 1264-1280.	0.8	18
44	Titan's ionosphere: A survey of solar EUV influences. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 7491-7503.	0.8	17
45	Ring Shadowing Effects on Saturn's Ionosphere: Implications for Ring Opacity and Plasma Transport. <i>Geophysical Research Letters</i> , 2018, 45, 10,084.	1.5	17
46	Hybrid simulation of Titan's interaction with the supersonic solar wind during Cassini's T96 flyby. <i>Geophysical Research Letters</i> , 2016, 43, 35-42.	1.5	16
47	Cold and warm electrons at comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 0, , .	2.1	15
48	Ultraviolet Observations of Coronal Mass Ejection Impact on Comet 67P/Churyumov-Gerasimenko by Rosetta Alice. <i>Astronomical Journal</i> , 2018, 156, 16.	1.9	15
49	Solar Orbiter's first Venus flyby: Observations from the Radio and Plasma Wave instrument. <i>Astronomy and Astrophysics</i> , 2021, 656, A18.	2.1	14
50	Tracking corotating interaction regions from the Sun through to the orbit of Mars using ACE, MEX, VEX, and STEREO. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	13
51	Solar wind current sheets and deHoffmann-Teller analysis. First results from Solar Orbiter's DC electric field measurements. <i>Astronomy and Astrophysics</i> , 0, , .	2.1	13
52	Kinetic electrostatic waves and their association with current structures in the solar wind. <i>Astronomy and Astrophysics</i> , 2021, 656, A23.	2.1	12
53	Effects of Saturn's magnetospheric dynamics on Titan's ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 8884-8898.	0.8	11
54	Statistical features of the global polarity reversal of the Venusian induced magnetosphere in response to the polarity change in interplanetary magnetic field. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 3951-3962.	0.8	11

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55	Observations of high-plasma density region in the inner coma of 67P/Churyumov-Gerasimenko during early activity. Monthly Notices of the Royal Astronomical Society, 2016, 462, S33-S44.	1.6	11
56	Current sheets in comet 67P/Churyumov-Gerasimenko's coma. Journal of Geophysical Research: Space Physics, 2017, 122, 3308-3321.	0.8	11
57	Reduced proton and alpha particle precipitations at Mars during solar wind pressure pulses: Mars Express results. Journal of Geophysical Research: Space Physics, 2013, 118, 3421-3429.	0.8	10
58	Solar cycle variations in ion composition in the dayside ionosphere of Titan. Journal of Geophysical Research: Space Physics, 2016, 121, 8013-8037.	0.8	10
59	Plasma observations during the Mars atmospheric "plume" event of March-April 2012. Journal of Geophysical Research: Space Physics, 2016, 121, 3139-3154.	0.8	10
60	Unusually high magnetic fields in the coma of 67P/Churyumov-Gerasimenko during its high-activity phase. Astronomy and Astrophysics, 2019, 630, A38.	2.1	10
61	Plasma densities, flow, and solar EUV flux at comet 67P. Astronomy and Astrophysics, 2021, 653, A128.	2.1	9
62	First observations and performance of the RPW instrument on board the Solar Orbiter mission. Astronomy and Astrophysics, 2021, 656, A41.	2.1	9
63	SUPRATHERMAL ELECTRONS IN TITAN'S SUNLIT IONOSPHERE: MODEL-OBSERVATION COMPARISONS. Astrophysical Journal, 2016, 826, 131.	1.6	8
64	A Single Deformed Bow Shock for Titan-Saturn System. Journal of Geophysical Research: Space Physics, 2017, 122, 11,058.	0.8	7
65	The Evolution of the Electron Number Density in the Coma of Comet 67P at the Location of Rosetta from 2015 November through 2016 March. Astrophysical Journal, 2019, 881, 6.	1.6	7
66	The Convective Electric Field Influence on the Cold Plasma and Diamagnetic Cavity of Comet 67P. Astronomical Journal, 2019, 158, 71.	1.9	7
67	Implications from secondary emission from neutral impact on Cassini plasma and dust measurements. Monthly Notices of the Royal Astronomical Society, 2022, 515, 2340-2350.	1.6	6
68	Statistical study of electron density turbulence and ion-cyclotron waves in the inner heliosphere: Solar Orbiter observations. Astronomy and Astrophysics, 2021, 656, A16.	2.1	5
69	Analysis of multiscale structures at the quasi-perpendicular Venus bow shock. Astronomy and Astrophysics, 2022, 660, A64.	2.1	5
70	Outflow and plasma acceleration in Titan's induced magnetotail: Evidence of magnetic tension forces. Journal of Geophysical Research: Space Physics, 2014, 119, 9992.	0.8	4
71	Solar flares observed by Rosetta at comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2019, 630, A49.	2.1	4
72	Mars Express Observations of Cold Plasma Structures in the Martian Magnetotail. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028056.	0.8	4

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73	Re-analysis of the Cassini RPWS/LP Data in Titan's Ionosphere: 1. Detection of Several Electron Populations. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028412.	0.8	4
74	Dynamic field line draping at comet 67P/Churyumov-Gerasimenko during the Rosetta dayside excursion. <i>Astronomy and Astrophysics</i> , 2019, 630, A44.	2.1	4
75	Photoionization Modeling of Titan's Dayside Ionosphere. <i>Astrophysical Journal Letters</i> , 2017, 850, L26.	3.0	3
76	Radial distribution of plasma at comet 67P. <i>Astronomy and Astrophysics</i> , 2022, 663, A42.	2.1	3
77	Titan's Variable Ionosphere During the T118 and T119 Cassini Flybys. <i>Geophysical Research Letters</i> , 2018, 45, 8721-8728.	1.5	2
78	MARSIS Observations of Field-Aligned Irregularities and Ducted Radio Propagation in the Martian Ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 6251-6263.	0.8	2
79	Re-analysis of the Cassini RPWS/LP Data in Titan's Ionosphere: 2. Statistics on 57 Flybys. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028413.	0.8	2
80	A Two-Spacecraft Study of Mars' Induced Magnetosphere's Response to Upstream Conditions. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	2
81	The Science Case for a Titan Flagship-class Orbiter with Probes. , 2021, 53, .		0