Jan J Sojka

List of Publications by Year
in descending order

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111 papers	3,592 citations	172457 29 h-index	144013 57 g-index
116 all docs	116 docs citations	116 times ranked	1929 citing authors

#	Article	IF	Citations
1	Global Assimilation of Ionospheric Measurements (GAIM). Radio Science, 2004, 39, n/a-n/a.	1.6	309
2	Parameterized ionospheric model: A global ionospheric parameterization based on first principles models. Radio Science, 1995, 30, 1499-1510.	1.6	234
3	How Hospitable Are Space Weather Affected Habitable Zones? The Role of Ion Escape. Astrophysical Journal Letters, 2017, 836, L3.	8.3	185
4	A theoretical study of the highâ€latitude winter F region at solar minimum for low magnetic activity. Journal of Geophysical Research, 1981, 86, 609-621.	3.3	159
5	Development of a physics-based reduced state Kalman filter for the ionosphere. Radio Science, 2004, 39, n/a-n/a.	1.6	129
6	Global scale, physical models of the <i>F</i> region ionospere. Reviews of Geophysics, 1989, 27, 371-403.	23.0	128
7	Ionosphere-thermosphere space weather issues. Journal of Atmospheric and Solar-Terrestrial Physics, 1996, 58, 1527-1574.	0.9	123
8	Modeling polar cap <i>F</i>â€region patches using time varying convection. Geophysical Research Letters, 1993, 20, 1783-1786.	4.0	122
9	Utah State University Global Assimilation of Ionospheric Measurements Gauss-Markov Kalman filter model of the ionosphere: Model description and validation. Journal of Geophysical Research, 2006, 111, .	3.3	111
10	Storm time density enhancements in the middleâ€latitude dayside ionosphere. Journal of Geophysical Research, 2009, 114, .	3.3	106
11	Theoretical predictions for ion composition in the highâ€latitude winter Fâ€region for solar minimum and low magnetic activity. Journal of Geophysical Research, 1981, 86, 2206-2216.	3.3	97
12	Theoretical study of the electron temperature in the highâ€latitude ionosphere for solar maximum and winter conditions. Journal of Geophysical Research, 1986, 91, 12041-12054.	3.3	93
13	Patches in the polar ionosphere: UT and seasonal dependence. Journal of Geophysical Research, 1994, 99, 14959.	3.3	91
14	Ion temperature variations in the daytime highâ€latitude <i>F</i> region. Journal of Geophysical Research, 1982, 87, 5169-5183.	3.3	89
15	CEDAR Electrodynamics Thermosphere Ionosphere (ETI) Challenge for systematic assessment of ionosphere/thermosphere models: NmF2, hmF2, and vertical drift using groundâ€based observations. Space Weather, 2011, 9, .	3.7	71
16	Intercomparison of physical models and observations of the ionosphere. Journal of Geophysical Research, 1998, 103, 2179-2192.	3.3	70
17	Plasma density features associated with strong convection in the winter highâ€latitude F region. Journal of Geophysical Research, 1981, 86, 6908-6916.	3.3	65
18	CEDAR Electrodynamics Thermosphere Ionosphere (ETI) Challenge for systematic assessment of ionosphere/thermosphere models: Electron density, neutral density, NmF2, and hmF2 using space based observations. Space Weather, 2012, 10, .	3.7	65

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19	Stable â€˜pancakeâ€™ distributions of low energy electrons in the plasma trough. Nature, 1979, 279, 512-514.	27.8	55
20	Energization of ionospheric ions by electrostatic hydrogen cyclotron waves. Geophysical Research Letters, 1981, 8, 1249-1252.	4.0	53
21	A modeling study of the longitudinal dependence of storm time midlatitude dayside total electron content enhancements. Journal of Geophysical Research, 2012, 117, .	3.3	48
22	Seasonal variations of the highâ€latitude <i>F</i> region for strong convection. Journal of Geophysical Research, 1982, 87, 187-198.	3.3	46
23	Observations of ionospheric heating during the passage of solar coronal hole fast streams. Geophysical Research Letters, 2009, 36, .	4.0	43
24	Ionospheric Weather Forecasting on the Horizon. Space Weather, 2005, 3, n/a-n/a.	3.7	41
25	Testing for lack of dependence in the functional linear model. Canadian Journal of Statistics, 2008, 36, 207-222.	0.9	39
26	Macroscale modeling and mesoscale observations of plasma density structures in the polar cap. Geophysical Research Letters, 1995, 22, 881-884.	4.0	38
27	Recent approaches to modeling ionospheric weather. Advances in Space Research, 2003, 31, 819-828.	2.6	36
28	Theoretical study of the seasonal behavior of the global ionosphere at solar maximum. Journal of Geophysical Research, 1989, 94, 6739-6749.	3.3	31
29	Ionospheric hot spot at high latitudes. Geophysical Research Letters, 1982, 9, 1045-1048.	4.0	30
30	Ionospheric photoelectrons observed in the magnetosphere at distances up to 7 earth radii. Planetary and Space Science, 1985, 33, 1267-1275.	1.7	30
31	Relationship of theoretical patch climatology to polar cap patch observations. Radio Science, 1996, 31, 635-644.	1.6	28
32	Assimilation Ionosphere Model: Development and testing with Combined Ionospheric Campaign Caribbean measurements. Radio Science, 2001, 36, 247-259.	1.6	27
33	Lunar atmospheric tidal effects in the plasma drifts observed by the Low-Latitude Ionospheric Sensor Network. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	26
34	Modeling the ionospheric <i>E</i> and <i>F1</i> regions: Using SDOâ€EVE observations as the solar irradiance driver. Journal of Geophysical Research: Space Physics, 2013, 118, 5379-5391.	2.4	26
35	Ensemble Modeling with Data Assimilation Models: A New Strategy for Space Weather Specifications, Forecasts, and Science. Space Weather, 2014, 12, 123-126.	3.7	26
36	Space weather forecasting with a Multimodel Ensemble Prediction System (MEPS). Radio Science, 2016, 51, 1157-1165.	1.6	26

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37	Polar cap patches and the tongue of ionization: A survey of GPS TEC maps from 2009 to 2015. Geophysical Research Letters, 2016, 43, 2422-2428.	4.0	26
38	Global Assimilation of Ionospheric Measurementsâ€Gauss Markov model: Improved specifications with multiple data types. Space Weather, 2014, 12, 675-688.	3.7	25
39	Space weather effects on midlatitude HF propagation paths: Observations and a data-drivenDregion model. Space Weather, 2005, 3, n/a-n/a.	3.7	23
40	The PFISR IPY observations of ionospheric climate and weather. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 771-785.	1.6	23
41	Field-aligned suprathermal electron fluxes below 270 km in the auroral zone. Planetary and Space Science, 1977, 25, 5-13.	1.7	22
42	Validation of Ionospheric Specifications During Geomagnetic Storms: TEC and foF2 During the 2013 March Storm Event. Space Weather, 2018, 16, 1686-1701.	3.7	22
43	Diurnal variation of the dayside, ionospheric, mid-latitude trough in the southern hemisphere at 800 km: Model and measurement comparison. Planetary and Space Science, 1985, 33, 1375-1382.	1.7	21
44	GPS normalization and preliminary modeling results of total electron content during a midlatitude space weather event. Radio Science, 2001, 36, 351-361.	1.6	21
45	Thermal protons in the morning magnetosphere: Filling and heating near the equatorial plasmapause. Planetary and Space Science, 1984, 32, 351-363.	1.7	20
46	Gradient drift instability growth rates from global-scale modeling of the polar ionosphere. Radio Science, 1998, 33, 1915-1928.	1.6	19
47	Ionospheric Specification and Forecast Modeling. Journal of Spacecraft and Rockets, 2002, 39, 314-324.	1.9	17
48	CEDARâ€GEM Challenge for Systematic Assessment of Ionosphere/Thermosphere Models in Predicting TEC During the 2006 December Storm Event. Space Weather, 2017, 15, 1238-1256.	3.7	17
49	A study of plasmaspheric density distributions for diffusive equilibrium conditions. Planetary and Space Science, 1983, 31, 1315-1327.	1.7	16
50	VLF Measurements and Modeling of the D-Region Response to the 2017 Total Solar Eclipse. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 7613-7622.	6.3	16
51	Modelled ionospheric Te profiles at mid-latitudes for possible IRI application. Advances in Space Research, 1987, 7, 107-110.	2.6	15
52	Ionospheric response to traveling convection twin vortices. Geophysical Research Letters, 1994, 21, 1759-1762.	4.0	15
53	USU global ionospheric data assimilation models. , 2004, , .		15
54	Validation study of the Ionosphere Forecast Model using the TOPEX total electron content measurements. Radio Science, 2006, 41, .	1.6	15

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55	Influence of horizontal inhomogeneity in the ionosphere on the reflection of AlfvÃ©n waves. Geophysical Research Letters, 1993, 20, 313-316.	4.0	14
56	Cyclotron resonance effects on stochastic acceleration of light ionospheric ions. Geophysical Research Letters, 1982, 9, 1053-1056.	4.0	13
57	Singleâ€day dayside density enhancements over Europe: A survey of a halfâ€century of ionosonde data. Journal of Geophysical Research, 2010, 115, .	3.3	13
58	A comparison of foF2 obtained from a time-dependent ionospheric model with Argentine Islands' data for quiet conditions. Journal of Atmospheric and Solar-Terrestrial Physics, 1988, 50, 1027-1039.	0.9	12
59	AnomalousFregion response to moderate solar flares. Radio Science, 2006, 41, .	1.6	12
60	First results of mapping sporadic <i>E</i> with a passive observing network. Space Weather, 2011, 9, .	3.7	12
61	Modeling Sun-aligned polar cap arcs. Radio Science, 1994, 29, 269-281.	1.6	11
62	Ionospheric modelâ€observation comparisons: <i>E</i> layer at Arecibo Incorporation of SDOâ€EVE solar irradiances. Journal of Geophysical Research: Space Physics, 2014, 119, 3844-3856.	2.4	11
63	A high resolution, low energy electrostatic analyser for rocket payloads. Planetary and Space Science, 1976, 24, 115-129.	1.7	9
64	Model study of multiple polar cap arcs: Occurrence and spacing. Geophysical Research Letters, 1994, 21, 649-652.	4.0	9
65	Response of the topside ionosphere to high-speed solar wind streams. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	9
66	Hemispherical Shifted Symmetry in Polar Cap Patch Occurrence: A Survey of GPS TEC Maps From 2015â€"2018. Geophysical Research Letters, 2019, 46, 10726-10734.	4.0	9
67	Predicted diurnal variations of electron density for three highâ€latitude incoherent scatter radars. Geophysical Research Letters, 1982, 9, 143-146.	4.0	8
68	Diurnal transport effects on the F-region plasma at chatanika under quiet and disturbed conditions. Planetary and Space Science, 1984, 32, 47-61.	1.7	8
69	Ionospheric response to an auroral substorm. Geophysical Research Letters, 1997, 24, 1979-1982.	4.0	8
70	Recent developments in ionosphereâ€"thermosphere modeling with an emphasis on solar-variability. Advances in Space Research, 2006, 37, 369-379.	2.6	8
71	Ionospheric challenges of the International Polar Year. Eos, 2007, 88, 171-171.	0.1	8
72	A beam/plasma interaction in the high-altitude auroral ionosphere. Planetary and Space Science, 1980, 28, 467-474.	1.7	7

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73	Mapping electrostatic potentials from the ionosphere to the magnetosphere. Planetary and Space Science, 1983, 31, 1329-1338.	1.7	7
74	Approaches to ionospheric modelling, simulation and prediction. Advances in Space Research, 1992, 12, 317-326.	2.6	7
75	How uncertainty in the neutral wind limits the accuracy of ionospheric modeling and forecasting. Journal of Geophysical Research: Space Physics, 2016, 121, 519-528.	2.4	7
76	High latitude plasma convection: Predictions for Eiscat and Sondre Stromfjord. Geophysical Research Letters, 1979, 6, 877-880.	4.0	6
77	A Test of convection models for IMF Bz North. Planetary and Space Science, 1990, 38, 1077-1089.	1.7	6
78	A flare sensitive 3 h solar flux radio index for space weather applications. Space Weather, 2011, 9, .	3.7	6
79	Sources of uncertainty in ionospheric modeling: The neutral wind. Journal of Geophysical Research: Space Physics, 2014, 119, 6792-6805.	2.4	6
80	High-latitude ionospheric model. Advances in Space Research, 1991, 11, 11-14.	2.6	5
81	Theoretical study of polar cap arcs: Time-dependent model and its applications. Radio Science, 1994, 29, 283-292.	1.6	5
82	Locations Where Space Weather Energy Impacts the Atmosphere. Space Science Reviews, 2017, 212, 1041-1067.	8.1	5
83	An intense wave/particle event in the auroral ionosphere. Geophysical Research Letters, 1981, 8, 389-392.	4.0	4
84	Modeling the evolution of mesoâ€scale ionospheric irregularites at high latitudes. Geophysical Research Letters, 2000, 27, 3595-3598.	4.0	4
85	Indo-German low-latitude project deos: plasma bubbles in the post sunset and nighttime sector. Advances in Space Research, 2001, 27, 1065-1069.	2.6	4
86	Polar F-layer model-observation comparisons: a neutral wind surprise. Annales Geophysicae, 2005, 23, 191-199.	1.6	4
87	Challenges in Specifying and Predicting Space Weather. Space Weather, 2021, 19, e2019SW002404.	3.7	4
88	A firstâ€principle derivation of the highâ€latitude total electron content distribution. Radio Science, 1993, 28, 49-61.	1.6	3
89	24/7 Solar minimum polar cap and auroral ion temperature observations. Advances in Space Research, 2011, 48, 1-11.	2.6	3
90	Ionospheric Induced Scintillation: A Space Weather Enigma. Space Weather, 2013, 11, 134-137.	3.7	3

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91	Terminator fieldâ€aligned currents: A new finding from the Ionospheric Dynamics and Electrodynamics Data Assimilation Model. Journal of Geophysical Research: Space Physics, 2014, 119, 4752-4757.	2.4	3
92	GEOS-2 measurements of cold ions in the magnetosheath. Planetary and Space Science, 1985, 33, 675-684.	1.7	2
93	Comparison of measured high latitude F-region ion composition climatological variability with models. Advances in Space Research, 1998, 22, 885-894.	2.6	2
94	Multiple arcs: Evidence for an active ionospheric role in the M-I coupling. Advances in Space Research, 2006, 38, 1702-1706.	2.6	2
95	A Frequencyâ€Agile Distributed Sensor System to address space weather effects upon ionospherically dependent systems. Radio Science, 2009, 44, .	1.6	2
96	Ionospheric ion temperature forecasting in multiples of 27â€‰days. Space Weather, 2014, 12, 148-160.	3.7	2
97	Historical comparisons of IRI and early ionograms. Advances in Space Research, 2015, 55, 2003-2011.	2.6	2
98	Electrostatic analyser measurements made in a laboratory 'ionospheric' plasma. Journal of Physics E: Scientific Instruments, 1981, 14, 432-438.	0.7	1
99	Ionospheric Physics. Reviews of Geophysics, 1991, 29, 1166-1186.	23.0	1
100	Effect of convection vortices on the ionosphere. Advances in Space Research, 1998, 22, 1365-1368.	2.6	1
101	Dynamical effects of ionospheric conductivity on the formation of polar cap arcs. Radio Science, 1998, 33, 1929-1937.	1.6	1
102	An observation-driven model of the equatorial ionosphere - DEOS rocket campaign study. Advances in Space Research, 2002, 29, 899-905.	2.6	1
103	Characterizing the pre-Space Age ionosphere over Washington, DC. Radio Science, 2014, 49, 616-629.	1.6	1
104	Polar Topside Ionosphere During Geomagnetic Storms: Comparison of ISISâ€II With TDIM. Radio Science, 2018, 53, 906-920.	1.6	1
105	Surfactant-free liquid films under gravity and microgravity conditions. Journal of Spacecraft and Rockets, 1992, 29, 153-154.	1.9	0
106	Theoretical storm variability in the ionosphere. Advances in Space Research, 1997, 20, 1789.	2.6	0
107	Effects of thermospheric gravity waves on the polar ionosphere. Advances in Space Research, 1998, 22, 1373-1376.	2.6	0
108	Polar wind density variations during storms. Advances in Space Research, 1998, 22, 1377-1380.	2.6	0

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109	Modelâ€Based Properties of the Dayside Open/Closed Boundary: Is There a UTâ€Dependent Variation?. Space Weather, 2019, 17, 1639-1649.	3.7	0
110	Is TEC a viable ionospheric servo input?. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 220, 105667.	1.6	0
111	Locations Where Space Weather Energy Impacts the Atmosphere. Space Sciences Series of ISSI, 2017, , 461-487.	0.0	0