Norbert Jakowski

List of Publications by Year
in descending order

155	4,712	87723	118652
papers	citations	38 h-index	62 g-index

159	159	159	2513
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Understanding space weather to shield society: A global road map for 2015â€“2025 commissioned by COSPAR and ILWS. Advances in Space Research, 2015, 55, 2745-2807.	1.2	256
2	The Potential of Low-Frequency SAR Systems for Mapping Ionospheric TEC Distributions. IEEE Geoscience and Remote Sensing Letters, 2006, 3, 560-564.	1.4	189
3	GPS radio occultation measurements of the ionosphere from CHAMP: Early results. Geophysical Research Letters, 2002, 29, 95-1-95-4.	1.5	156
4	The Radio Occultation Experiment aboard CHAMP: Operational Data Analysis and Validation of Vertical Atmospheric Profiles. Journal of the Meteorological Society of Japan, 2004, 82, 381-395.	0.7	155
5	A new global TEC model for estimating transionospheric radio wave propagation errors. Journal of Geodesy, 2011, 85, 965-974.	1.6	144
6	Total electron content models and their use in ionosphere monitoring. Radio Science, 2011, 46, .	0.8	130
7	A new method for reconstruction of the vertical electron density distribution in the upper ionosphere and plasmasphere. Journal of Geophysical Research, 2003, 108, .	3.3	125
8	Ionospheric behavior over Europe during the solar eclipse of 3 October 2005. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 836-853.	0.6	117
9	Sounding of the topside ionosphere/plasmasphere based on GPS measurements from CHAMP: Initial results. Geophysical Research Letters, 2002, 29, 44-1-44-4.	1.5	101
10	GPS Radio Occultation: Results from CHAMP, GRACE and FORMOSAT-3/COSMIC. Terrestrial, Atmospheric and Oceanic Sciences, 2009, 20, 35.	0.3	96
11	Higher order ionospheric effects in precise GNSS positioning. Journal of Geodesy, 2007, 81, 259-268.	1.6	95
12	Title is missing!. Surveys in Geophysics, 2000, 21, 47-87.	2.1	94
13	Estimate of higher order ionospheric errors in GNSS positioning. Radio Science, 2008, 43, .	0.8	93
14	Total electron content of the ionosphere during thegeomagnetic storm on 10 January 1997. Journal of Atmospheric and Solar-Terrestrial Physics, 1999, 61, 299-307.	0.6	87
15	Ionospheric Response to the X9.3 Flare on 6 September 2017 and Its Implication for Navigation Services Over Europe. Space Weather, 2018, 16, 1604-1615.	1.3	84
16	A new global model for the ionospheric F2 peak height for radio wave propagation. Annales Geophysicae, 2012, 30, 797-809.	0.6	82
17	GPS/GLONASS-based TEC measurements as a contributor for space weather forecast. Journal of Atmospheric and Solar-Terrestrial Physics, 2002, 64, 729-735.	0.6	76
18	Monitoring, tracking and forecasting ionospheric perturbations using GNSS techniques. Journal of Space Weather and Space Climate, 2012, 2, A22.	1.1	75

#	Article	IF	Citations
19	Storm induced large scale TIDs observed in GPS derived TEC. Annales Geophysicae, 2009, 27, 1605-1612.	0.6	72
20	Comparative testing of four ionospheric models driven with GPS measurements. Radio Science, 2011, 46, .	0.8	72
21	Solar activity impact on the Earthâ€™s upper atmosphere. Journal of Space Weather and Space Climate, 2013, 3, A06.	1.1	72
22	Radio occultation data analysis by the radioholographic method. Journal of Atmospheric and Solar-Terrestrial Physics, 1999, 61, 1169-1177.	0.6	69
23	Comparison of ionospheric ionization measurements over Athens using ground ionosonde and GPS-derived TEC values. Radio Science, 2003, 38, n/a-n/a.	0.8	68
24	Plasmaspheric electron content derived from GPS TEC and digisonde ionograms. Advances in Space Research, 2004, 33, 833-837.	1.2	63
25	Introducing a disturbance ionosphere index. Radio Science, 2012, 47, .	0.8	56
26	Solar activity control of ionospheric and thermospheric processes. Journal of Atmospheric and Solar-Terrestrial Physics, 1991, 53, 1125-1130.	0.9	55
27	Ionospheric stormsâ€”A challenge for empirical forecast of the total electron content. Journal of Geophysical Research: Space Physics, 2015, 120, 3175-3186.	0.8	54
28	Topside ionospheric scale height analysis and modelling based on radio occultation measurements. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 134-162.	0.6	53
29	Operational space weather service for GNSS precise positioning. Annales Geophysicae, 2005, 23, 3071-3079.	0.6	52
30	Comparison of the topside ionosphere scale height determined by topside sounders model and bottomside digisonde profiles. Advances in Space Research, 2006, 37, 963-966.	1.2	48
31	An alternative ionospheric correction model for global navigation satellite systems. Journal of Geodesy, 2015, 89, 391-406.	1.6	46
32	Mitigation of higher order ionospheric effects on GNSS users in Europe. GPS Solutions, 2008, 12, 87-97.	2.2	45
33	On developing a new ionospheric perturbation index for space weather operations. Advances in Space Research, 2006, 38, 2596-2600.	1.2	44
34	A new global empirical NmF2 model for operational use in radio systems. Radio Science, 2011, 46, .	0.8	44
35	Relationships between GPS-signal propagation errors and EISCAT observations. Annales Geophysicae, 1996, 14, 1429-1436.	0.6	43
36	About the nature of the Night-time Winter Anomaly effect (NWA) in the F-region of the ionosphere. Planetary and Space Science, 1995, 43, 603-612.	0.9	42

#	Article	IF	Citations
37	Ionospheric GPS radio occultation measurements on board CHAMP. GPS Solutions, 2005, 9, 88-95.	2.2	42
38	Scintillations of the GPS, GLONASS, and Galileo signals at equatorial latitude. Journal of Space Weather and Space Climate, 2014, 4, A22.	1.1	39
39	Reconstruction of topside density profile by using the topside sounder model profiler and digisonde data. Advances in Space Research, 2009, 43, 1683-1687.	1.2	38
40	GPS-based TEC observations in comparison with IRI95 and the European TEC model NTCM2. Advances in Space Research, 1998, 22, 803-806.	1.2	37
41	Spectral analysis of planetary waves seen in ionospheric total electron content (TEC): First results using GPS differential TEC and stratospheric reanalyses. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 2442-2451.	0.6	35
42	Higher order ionospheric propagation effects on GPS radio occultation signals. Advances in Space Research, 2010, 46, 162-173.	1.2	34
43	Ionospheric space weather effects monitored by simultaneous ground and space based GNSS signals. Journal of Atmospheric and Solar-Terrestrial Physics, 2005, 67, 1074-1084.	0.6	33
44	Large-scale ionospheric gradients over Europe observed in October 2003. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 1894-1903.	0.6	33
45	Monitoring the generation and propagation of ionospheric disturbances and effects on Global Navigation Satellite System positioning. Radio Science, 2006, 41, n/a-n/a.	0.8	32
46	The persistence of the NWA effect during the low solar activity period 2007â€“2009. Journal of Geophysical Research: Space Physics, 2015, 120, 9148-9160.	0.8	31
47	The nighttime winter anomaly (NWA) effect in the american sector as a consequence of interhemispheric ionospheric coupling. Pure and Applied Geophysics, 1988, 127, 447-471.	0.8	30
48	Night-time enhancements of the F2-layer ionization over Havana, Cuba. Journal of Atmospheric and Solar-Terrestrial Physics, 1991, 53, 1131-1138.	0.9	30
49	Space weather monitoring by GPS measurements on board CHAMP. Space Weather, 2007, 5, .	1.3	30
50	Solar Radio Burst Events on 6 September 2017 and Its Impact on GNSS Signal Frequencies. Space Weather, 2019, 17, 816-826.	1.3	30
51	November 2004 space weather events: Real-time observations and forecasts. Space Weather, 2007, 5, n/a-n/a.	1.3	29
52	Progress in space weather modeling in an operational environment. Journal of Space Weather and Space Climate, 2013, 3, A17.	1.1	28
53	Seasonal variations of the columnar electron content of the ionosphere observed in Havana from July 1974 to April 1975. Journal of Atmospheric and Solar-Terrestrial Physics, 1981, 43, 7-11.	0.9	27
54	Comparison of high latitude electron density profiles obtained with the GPS radio occultation technique and EISCAT measurements. Annales Geophysicae, 2004, 22, 2015-2022.	0.6	27

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55	Enhanced E-layer ionization in the auroral zones observed by radio occultation measurements onboard CHAMP and Formosat-3/COSMIC. Annales Geophysicae, 2009, 27, 1207-1212.	0.6	27
56	Ionospheric response over Europe during the solar eclipse of March 20, 2015. Journal of Space Weather and Space Climate, 2016, 6, A36.	1.1	27
57	An ionospheric index suitable for estimating the degree of ionospheric perturbations. Journal of Space Weather and Space Climate, 2018, 8, A19.	1.1	27
58	Ionospheric effects on GNSS reference network integrity. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 485-499.	0.6	25
59	Analysis of scintillation recorded during the PRIS measurement campaign. Radio Science, 2009, 44, .	0.8	24
60	A new electron density model of the plasmasphere for operational applications and services. Journal of Space Weather and Space Climate, 2018, 8, A16.	1.1	24
61	Fast ionospheric correction using Galileo Az coefficients and the NTCM model. GPS Solutions, 2019, 23, 1.	2.2	24
62	Forcing of the ionosphere from above and below during the Arctic winter of 2005/2006. Journal of Atmospheric and Solar-Terrestrial Physics, 2010, 72, 193-205.	0.6	23
63	On the dynamics of largeâ€scale traveling ionospheric disturbances over Europe on 20 November 2003. Journal of Geophysical Research: Space Physics, 2017, 122, 1199-1211.	0.8	23
64	Estimation of Spatial Gradients and Temporal Variations of the Total Electron Content Using Groundâ€Based GNSS Measurements. Space Weather, 2019, 17, 339-356.	1.3	23
65	Ionospheric bending correction for GNSS radio occultation signals. Radio Science, 2011, 46, .	0.8	22
66	Reconstruction of F2 layer peak electron density based on operational vertical total electron content maps. Annales Geophysicae, 2013, 31, 1241-1249.	0.6	22
67	A GPS based three-dimensional ionospheric imaging tool: Process and assessment. Advances in Space Research, 2006, 38, 2313-2317.	1.2	21
68	Topside plasma scale height retrieved from radio occultation measurements. Advances in Space Research, 2006, 37, 958-962.	1.2	20
69	The ionospheric response to perturbation electric fields during the onset phase of geomagnetic storms. Canadian Journal of Physics, 1992, 70, 575-581.	0.4	19
70	Scintillation measurements at Bahir Dar during the high solar activity phase of solar cycle 24. Annales Geophysicae, 2017, 35, 97-106.	0.6	19
71	From the Sun to the Earth: impact of the 27-28 May 2003 solar events on the magnetosphere, ionosphere and thermosphere. Annales Geophysicae, 2006, 24, 129-151.	0.6	18
72	Ionospheric correction using NTCM driven by GPS Klobuchar coefficients for GNSS applications. GPS Solutions, 2017, 21, 1563-1572.	2.2	18

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73	Atmospheric Signal Propagation. , 2017, , 165-193.		18
74	3-Dimensional ionospheric electron density reconstruction based on gps measurements. Advances in Space Research, 2003, 31, 1965-1970.	1.2	17
75	GPS TEC forecasting based on auto-correlation analysis. Acta Geodaetica Et Geophysica Hungarica, 2004, 39, 1-14.	0.4	17
76	Satellite technology glimpses ionospheric response to solar eclipse. Eos, 1999, 80, 621-626.	0.1	15
77	Plasmaspheric electron density reconstruction based on the topside sounder model profiler. Acta Geophysica, 2010, 58, 420-431.	1.0	15
78	Global ionospheric flare detection system (GIFDS). Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 138-139, 233-242.	0.6	15
79	Assessment of the capabilities and applicability of ionospheric perturbation indices provided in Europe. Advances in Space Research, 2020, 66, 546-562.	1.2	15
80	Delayed response of the global total electron content to solar EUV variations. Advances in Radio Science, 0, 14, 175-180.	0.7	15
81	Global equivalent slab thickness model of the Earthâ€™s ionosphere. Journal of Space Weather and Space Climate, 2021, 11, 10.	1.1	14
82	Predicted and measured total electron content over Havana. Journal of Atmospheric and Solar-Terrestrial Physics, 1997, 59, 591-596.	0.6	13
83	Positioning performance of the NTCM model driven by GPS Klobuchar model parameters. Journal of Space Weather and Space Climate, 2018, 8, A20.	1.1	13
84	Delayed response of the ionosphere to solar EUV variability. Advances in Radio Science, 0, 16, 149-155.	0.7	13
85	GPS ionospheric imaging of the north polar ionosphere on 30 October 2003. Advances in Space Research, 2005, 36, 2201-2206.	1.2	12
86	Verification of the TSMP-assisted digisonde topside profiling technique. Acta Geophysica, 2010, 58, 432-452.	1.0	12
87	Equivalent slab thickness of the ionosphere over Europe as an indicator of long-term temperature changes in the thermosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 163, 91-102.	0.6	12
88	Relationships between GPS-signal propagation errors and EISCAT observations. Annales Geophysicae, 1996, 14, 1429.	0.6	12
89	A new climatological electron density model for supporting space weather services. Journal of Space Weather and Space Climate, 2022, 12, 1.	1.1	12
90	Regional modeling of ionospheric peak parameters using GNSS dataâ€”An update for IRI. Advances in Space Research, 2015, 55, 1981-1993.	1.2	11

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91	Spatial and seasonal effects on the delayed ionospheric response to solar EUV changes. Annales Geophysicae, 2020, 38, 149-162.	0.6	11
92	Use of Global and Regional Ionosphere Maps for Single-Frequency Precise Point Positioning. International Association of Geodesy Symposia, 2009, , 759-769.	0.2	11
93	Comparison of the CHAMP radio occultation data with the Canadian advanced digital ionosonde in the Polar Regions. Advances in Space Research, 2009, 44, 1304-1308.	1.2	10
94	Where does the Thermospheric Ionospheric GEospheric Research (TIGER) Program go?. Advances in Space Research, 2015, 56, 1547-1577.	1.2	10
95	Plasmaspheric response to the geomagnetic storm period March 20â€“23, 1990, observed by the ACTIVNY (MAGION-2) satellite. Canadian Journal of Physics, 1992, 70, 569-574.	0.4	9
96	TEC monitoring by GPS - a possible contribution to space weather monitoring. Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science, 2001, 26, 609-613.	0.2	9
97	Space weather effects on transionospheric radio wave propagationÂ on 6 April 2000. Acta Geodaetica Et Geophysica Hungarica, 2002, 37, 213-220.	0.4	9
98	Indexing the local ionospheric response to magnetic activity by using total electron content measurements. Acta Geodaetica Et Geophysica Hungarica, 2006, 41, 1-15.	0.4	9
99	Ionosphere monitoring and inter-frequency bias determination using Galileo: First results and future prospects. Advances in Space Research, 2011, 47, 859-866.	1.2	9
100	Validation of plasmasphere electron density reconstructions derived from data on board CHAMP by IMAGE/RPI data. Advances in Space Research, 2015, 55, 170-183.	1.2	9
101	Effects on satellite navigation. , 2007, , 383-402.		9
102	The CPW-TEC project: Planetary waves in the middle atmosphere and ionosphere. Advances in Radio Science, 0, 5, 393-397.	0.7	9
103	Surface states on thin SiO2 layers induced by oxygen adsorption. Thin Solid Films, 1976, 36, 195-198.	0.8	8
104	Reconstruction of ion and electron density profiles from space-based measurements of the upper electron content. Planetary and Space Science, 2005, 53, 945-957.	0.9	8
105	Radio tomographic imaging of the northern high-latitude ionosphere on a wide geographic scale. Radio Science, 2005, 40, n/a-n/a.	0.8	8
106	Remote sensing of the ionosphere by space-based GNSS observations. Advances in Space Research, 2006, 38, 2337-2343.	1.2	8
107	Application of SWACI products as ionospheric correction for single-point positioning: a comparative study. Journal of Geodesy, 2014, 88, 463-478.	1.6	8
108	Imaging high-latitude plasma density irregularities resulting from particle precipitation: spaceborne L-band SAR and EISCAT observations. Earth, Planets and Space, 2018, 70, .	0.9	8

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109	Ionospheric scintillation monitoring and modelling. Annals of Geophysics, 2009, 52, .	0.5	8
110	Comparison of ionospheric radio occultation CHAMP data with IRI 2001. Advances in Radio Science, 0, 2, 275-279.	0.7	8
111	Validation of GPS Ionospheric Radio Occultation results onboard CHAMP by Vertical Sounding Observations in Europe. , 2005, , 447-452.		7
112	Differential Code Bias of GPS Receivers in Low Earth Orbit: An Assessment for CHAMP and SAC-C. , 2005, , 465-470.		7
113	Evaluation of ionospheric models for Central and South Americas. Advances in Space Research, 2019, 64, 2125-2136.	1.2	7
114	Evaluation of E Layer Dominated Ionosphere Events Using COSMIC/FORMOSAT-3 and CHAMP Ionospheric Radio Occultation Data. Remote Sensing, 2020, 12, 333.	1.8	7
115	About the Use of GPS Measurements for Ionospheric Studies. International Association of Geodesy Symposia, 1996, , 248-252.	0.2	7
116	A dynamically configurable system for operational processing of space weather data. Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science, 2001, 26, 601-604.	0.2	6
117	Medium- and small-scale ionospheric irregularities detected by GPS radio occultation method. Geophysical Research Letters, 2005, 32, .	1.5	6
118	A Method for Automatic Detection of Plasma Depletions by Using GNSS Measurements. Radio Science, 2020, 55, e2019RS006978.	0.8	6
119	Studies of the ionospheric ionization over Athens using ground ionosonde and GPS derived TEC values. Acta Geodaetica Et Geophysica Hungarica, 2002, 37, 163-170.	0.4	5
120	About the Potential of GPS Radio Occultation Measurements for Exploring the Ionosphere. , 2005, , 441-446.		5
121	Electron density profiles deduced from GPS TEC, O+-H+ transition height and ionosonde data. Acta Geodaetica Et Geophysica Hungarica, 2002, 37, 171-181.	0.4	5
122	Ionospheric range error correction models. , 2012, , .		4
123	A long-lived band of plasma density enhancement at mid-latitudes during the 2003 Halloween magnetic storm. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 80, 100-110.	0.6	4
124	E Layer Dominated Ionosphere Occurrences as a Function of Geophysical and Space Weather Conditions. Remote Sensing, 2020, 12, 4109.	1.8	4
125	On the Relationship between Low Latitude Scintillation Onset and Sunset Terminator over Africa. Remote Sensing, 2021, 13, 2087.	1.8	4
126	Verification of CHAMP Radio-Occultation Observations in the Ionosphere Using MIDAS. , 2003, , 545-550.		4

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127	Ionospheric Radio Occultation Measurements and Space Weather. , 2004, , 383-392.		4
128	Fast Ionospheric Correction Algorithm for Galileo Single Frequency Users. , 2020, , .		4
129	Ionospheric electron content and space weather: Some examples. Physics and Chemistry of the Earth, 2000, 25, 629-634.	0.6	3
130	Ionosphere/Plasmasphere Imaging Based on GPS Navigation Measurements from CHAMP and SAC-C. , 2005, , 471-476.		3
131	Methods for Small Scale Ionospheric TEC Mapping from Broadband L-Band SAR Data. , 2006, , .		3
132	Ionospheric Effects on GNSS Performance. , 2012, , .		3
133	Ionosphere Monitoring. , 2017, , 1139-1162.		3
134	Transionospheric Microwave Propagation: Higher-Order Effects up to 100 GHz. , 0, , .		3
135	Status of Ionospheric Radio Occultation CHAMP Data Analysis and Validation of Higher Level Data Products. , 2003, , 462-472.		3
136	Three-Dimensional Monitoring of the Polar Ionosphere with Ground- and Space-Based GPS. , 2005, , 477-482.		2
137	Earthquake Signatures in the Ionosphere Deduced from Ground and Space Based GPS Measurements. , 2006, , 43-53.		2
138	Variation of TEC and related parameters over the Indian EIA region from ground and space based GPS observations during the low solar activity period of May 2007â€“April 2008. Advances in Space Research, 2017, 59, 1223-1233.	1.2	2
139	GLONASS Observation of Artificial Fieldâ€Aligned Plasma Irregularities Near Magnetic Zenith During EISCAT HF Experiment. Geophysical Research Letters, 2021, 48, e2020GL091673.	1.5	2
140	A High Latitude Model for the E Layer Dominated Ionosphere. Remote Sensing, 2021, 13, 3769.	1.8	2
141	Positioning performance of the Neustrelitz total electron content model driven by Galileo Az coefficients. GPS Solutions, 2022, 26, .	2.2	2
142	Determination of horizontal gradients of ionization over Argentina with differential Doppler measurements. Advances in Space Research, 1999, 24, 1613-1617.	1.2	1
143	Comparison of Electron Density Profiles from CHAMP Data with NeQuick Model. , 2005, , 483-488.		1
144	Monitoring the Dynamics of the Ionosphereâ€“Plasmasphere System by Ground-Based ULF Wave Observations. Earth, Moon and Planets, 2009, 104, 25-27.	0.3	1

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145	Analysis of the IMAGE RPI electron density data and CHAMP plasmasphere electron density reconstructions with focus on plasmasphere modelling. Advances in Space Research, 2016, 58, 856-866.	1.2	1
146	Performance Comparison of Selected Ionospheric Models for GNSS Positioning. , 2018, , .		1
147	Modeling Of The Delayed Ionospheric Response With The TIE-GCM Model. , 2020, , .		1
148	Climatology of Medium-Scale Traveling Ionospheric Disturbances (MSTIDs) Observed with GPS Networks in the North African Region. Pure and Applied Geophysics, 2022, 179, 2501-2522.	0.8	1
149	Proposal for an ionosphere/plasmasphere monitoring system. Annales Geophysicae, 1994, 12, 431-437.	0.6	0
150	Scintillation of GNSS signals at equatorial latitudes. , 2015, , .		0
151	Das IonosphÃrenwetter. Physik in Unserer Zeit, 2016, 47, 12-19.	0.0	0
152	GFZ and DLR Contribution to a GPS Ground Network to Support the CHAMP Mission. International Association of Geodesy Symposia, 2000, , 222-224.	0.2	0
153	The Nighttime Winter Anomaly (NWA) Effect in the American Sector as a Consequence of Interhemispheric Ionospheric Coupling. , 1988, , 447-471.		0
154	A New Approach for Ionospheric TEC Prediction at a GPS Station. , 0, , .		0
155	Topside Plasma Scale Height Modelling Based on CHAMP Measurements: First Results. , 2005, , 459-464.		0