

# Olga P Verkhoglyadova

## List of Publications by Year in descending order

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117  
papers

2,983  
citations

147566

31  
h-index

189595

50  
g-index

124  
all docs

124  
docs citations

124  
times ranked

2765  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electromagnetic energy input and dissipation. , 2022, , 301-355.		2
2	On the North-South Asymmetry of Co-Seismic Ionospheric Disturbances During the 16 September 2015 Illapel M8.3 Earthquake. Geophysical Research Letters, 2022, 49, .	1.5	2
3	Understanding Large-Scale Structure in Global Ionospheric Maps With Visual and Statistical Analyses. Frontiers in Astronomy and Space Sciences, 2022, 9, .	1.1	2
4	Polar Topside TEC Enhancement Revealed by Jason-2 Measurements. Earth and Space Science, 2021, 8, e2020EA001429.	1.1	1
5	Addressing Gaps in Space Weather Operations and Understanding With Small Satellites. Space Weather, 2021, 19, e2020SW002566.	1.3	5
6	Classification of High Density Regions in Global Ionospheric Maps With Neural Networks. Earth and Space Science, 2021, 8, e2021EA001639.	1.1	3
7	Quantifying Contributions of External Drivers to the Global Ionospheric State. Space Weather, 2021, 19, e2021SW002752.	1.3	4
8	Auroral heating of plasma patches due to high-latitude reconnection. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029657.	0.8	0
9	Impact of space weather on climate and habitability of terrestrial-type exoplanets. International Journal of Astrobiology, 2020, 19, 136-194.	0.9	125
10	A New Framework to Incorporate High-Latitude Input for Mesoscale Electrodynamics. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027562.	0.8	7
11	Thermosphere-Ionosphere Modeling With Forecastable Inputs: Case Study of the June 2012 High-Speed Stream Geomagnetic Storm. Space Weather, 2020, 18, e2019SW002352.	1.3	3
12	Medium-Range Forecasting of Solar Wind: A Case Study of Building Regression Model With Space Weather Forecast Testbed (SWFT). Space Weather, 2020, 18, e2019SW002433.	1.3	2
13	Evaluation of Total Electron Content Prediction Using Three Ionosphere-Thermosphere Models. Space Weather, 2020, 18, e2020SW002452.	1.3	6
14	Modeling of Ionospheric Responses to Atmospheric Acoustic and Gravity Waves Driven by the 2015 Nepal 7.8 Gorkha Earthquake. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027200.	0.8	12
15	Advantages of Geostationary Satellites for Ionospheric Anomaly Studies: Ionospheric Plasma Depletion Following a Rocket Launch. Remote Sensing, 2019, 11, 1734.	1.8	26
16	Upper Atmospheric Responses to Surface Disturbances: An Observational Perspective. Radio Science, 2019, 54, 1076-1098.	0.8	46
17	Temperature Trends and Anomalies in Modern Satellite Data: Infrared Sounding and GPS Radio Occultation. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,431-11,444.	1.2	11
18	Physics-Based Modeling of Earthquake-Induced Ionospheric Disturbances. Journal of Geophysical Research: Space Physics, 2018, 123, 8021-8038.	0.8	22

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19	Semianalytical Estimation of Energy Deposition in the Ionosphere by Monochromatic Alfvén Waves. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 5210-5222.	0.8	12
20	The variometric approach to real-time high-frequency geodesy. <i>Rendiconti Lincei</i> , 2018, 29, 95-108.	1.0	18
21	Multiinstrument observations of a geomagnetic storm and its effects on the Arctic ionosphere: A case study of the 19 February 2014 storm. <i>Radio Science</i> , 2017, 52, 146-165.	0.8	15
22	Nonlinear ionospheric responses to large-amplitude infrasonic acoustic waves generated by undersea earthquakes. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 2272-2291.	0.8	32
23	Real-Time Detection of Tsunami Ionospheric Disturbances with a Stand-Alone GNSS Receiver: A Preliminary Feasibility Demonstration. <i>Scientific Reports</i> , 2017, 7, 46607.	1.6	86
24	Geospace system responses to the St. Patrick's Day storms in 2013 and 2015. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 6901-6906.	0.8	51
25	Satellite-based observations of tsunami-induced mesosphere airglow perturbations. <i>Geophysical Research Letters</i> , 2017, 44, 522-532.	1.5	13
26	Modeling Particle Acceleration and Transport at a CME-Driven Shock. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,938.	0.8	44
27	Revisiting Ionosphere-Thermosphere Responses to Solar Wind Driving in Superstorms of November 2003 and 2004. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,824.	0.8	21
28	Ionosphere-thermosphere energy budgets for the ICME storms of March 2013 and 2015 estimated with GITM and observational proxies. <i>Space Weather</i> , 2017, 15, 1102-1124.	1.3	18
29	Finding multiscale connectivity in our geospace observational system: Network analysis of total electron content. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 7683-7697.	0.8	12
30	Scientific challenges in thermosphere-ionosphere forecasting – conclusions from the October 2014 NASA JPL community workshop. <i>Journal of Space Weather and Space Climate</i> , 2016, 6, E01.	1.1	8
31	Statistical characterization of ionosphere anomalies and their relationship to space weather events. <i>Journal of Space Weather and Space Climate</i> , 2016, 6, A5.	1.1	17
32	On forecasting ionospheric total electron content responses to high-speed solar wind streams. <i>Journal of Space Weather and Space Climate</i> , 2016, 6, A19.	1.1	9
33	Estimation of energy budget of ionosphere-thermosphere system during two CIR-HSS events: observations and modeling. <i>Journal of Space Weather and Space Climate</i> , 2016, 6, A20.	1.1	12
34	Solar wind driving of ionosphere-thermosphere responses in three storms near St. Patrick's Day in 2012, 2013, and 2015. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 8900-8923.	0.8	48
35	Review and perspectives: Understanding natural-generated ionospheric perturbations using GPS measurements and coupled modeling. <i>Radio Science</i> , 2016, 51, 951-961.	0.8	53
36	Nighttime mesospheric hydroxyl enhancements during SEP events and accompanying geomagnetic storms: Ionization rate modeling and Aura satellite observations. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 6017-6030.	0.8	5

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37	Evaluation of CMIP5 upper troposphere and lower stratosphere geopotential height with GPS radio occultation observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 1678-1689.	1.2	10
38	A new physics-based modeling approach for tsunami-ionosphere coupling. <i>Geophysical Research Letters</i> , 2015, 42, 4736-4744.	1.5	32
39	Effect of small-scale ionospheric variability on GNSS radio occultation data quality. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 7937-7951.	0.8	3
40	Intermediate-scale plasma irregularities in the polar ionosphere inferred from GPS radio occultation. <i>Geophysical Research Letters</i> , 2015, 42, 688-696.	1.5	13
41	Use of radio occultation to probe the high-latitude ionosphere. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 2789-2800.	1.2	8
42	Effects of two large solar energetic particle events on middle atmosphere nighttime odd hydrogen and ozone content: Aura/MLS and TIMED/SABER measurements. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 12-29.	0.8	10
43	Localized thermosphere ionization events during the high-speed stream interval of 29 April to 5 May 2011. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 675-696.	0.8	9
44	Medium-Range Thermosphere-Ionosphere Storm Forecasts. <i>Space Weather</i> , 2015, 13, 125-129.	1.3	18
45	A theoretical perspective on particle acceleration by interplanetary shocks and the Solar Energetic Particle problem. <i>Physics Reports</i> , 2015, 557, 1-23.	10.3	30
46	Extremely intense ELF magnetosonic waves: A survey of polar observations. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 964-977.	0.8	77
47	Solar filament impact on 21 January 2005: Geospace consequences. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 5401-5448.	0.8	20
48	LISA-PF radiation monitor performance during the evolution of SEP events for the monitoring of test-mass charging. <i>Classical and Quantum Gravity</i> , 2014, 31, 045018.	1.5	7
49	Estimation of Winds from GPS Radio Occultations. <i>Journal of Atmospheric and Oceanic Technology</i> , 2014, 31, 2451-2461.	0.5	12
50	Ionospheric TEC, thermospheric cooling and $\hat{I}^{\prime}[O/N_2]$ compositional changes during the 6 <sup>th</sup> -17 March 2012 magnetic storm interval (CAWSES II). <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2014, 115-116, 41-51.	0.6	14
51	The interplanetary causes of geomagnetic activity during the 7 <sup>th</sup> -17 March 2012 interval: a CAWSES II overview. <i>Journal of Space Weather and Space Climate</i> , 2014, 4, A02.	1.1	58
52	Energetic electron (>10 keV) microburst precipitation, ~15% X-ray pulsations, chorus, and wave-particle interactions: A review. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 2296-2312.	0.8	75
53	Theoretical analysis of Poynting flux and polarization for ELF-VLF electromagnetic waves in the Earth's magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 7695-7702.	0.8	10
54	Diffusive shock acceleration and large SEP events. , 2013, , .		0

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55	Modeling of radial dependence of Fe/O elemental abundance ratio in mixed SEP events with the PATH code. AIP Conference Proceedings, 2013, , .	0.3	2
56	Variability of ionospheric TEC during solar and geomagnetic minima (2008 and 2009): external high speed stream drivers. Annales Geophysicae, 2013, 31, 263-276.	0.6	51
57	Comment on &quot;Storming the Bastille: the effect of electric fields on the ionospheric F-layer&quot; by Rishbeth et al. (2010). Annales Geophysicae, 2013, 31, 145-150.	0.6	17
58	Mapping GPS Radio Occultation Data by Bayesian Interpolation. Journal of Atmospheric and Oceanic Technology, 2012, 29, 1062-1074.	0.5	20
59	Diffusive shock acceleration in large SEP events. , 2012, , .		4
60	Detecting ionospheric TEC perturbations caused by natural hazards using a global network of GPS receivers: The Tohoku case study. Earth, Planets and Space, 2012, 64, 1287-1294.	0.9	88
61	Efficiency of particle acceleration at oblique strong CME shocks from 0.13 to 2.5 AU: PATH modeling. , 2012, , .		1
62	The radiation, interplanetary shocks, and coronal sources (RISCS) toolset. , 2012, , .		0
63	Preface: 11th Annual International Astrophysics Conference. , 2012, , .		0
64	Extreme changes in the dayside ionosphere during a Carrington-type magnetic storm. Journal of Space Weather and Space Climate, 2012, 2, A05.	1.1	23
65	RADIAL DEPENDENCE OF PEAK PROTON AND IRON ION FLUXES IN SOLAR ENERGETIC PARTICLE EVENTS: APPLICATION OF THE PATH CODE. Astrophysical Journal, 2012, 757, 75.	1.6	22
66	Dayside ELF electromagnetic wave survey: A Polar statistical study of chorus and hiss. Journal of Geophysical Research, 2012, 117, .	3.3	28
67	On the reported ionospheric precursor of the 1999 Hector Mine, California earthquake. Geophysical Research Letters, 2012, 39, .	1.5	41
68	How Do Coronal Hole Storms Affect the Upper Atmosphere?. Eos, 2012, 93, 77-79.	0.1	8
69	Correction to &quot;Quasi-coherent chorus properties: 1. Implications for wave-particle interactions&quot;. Journal of Geophysical Research, 2012, 117, n/a-n/a.	3.3	0
70	What controls the maximum particle energy in large SEP events. , 2012, , .		1
71	Magnetosheath and heliosheath mirror mode structures, interplanetary magnetic decreases, and linear magnetic decreases: Differences and distinguishing features. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	117
72	Quasi-coherent chorus properties: 1. Implications for wave-particle interactions. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	42

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73	Ionospheric VTEC and thermospheric infrared emission dynamics during corotating interaction region and high-speed stream intervals at solar minimum: 25 March to 26 April 2008. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	34
74	The effects of earthward directed interplanetary coronal mass ejections on near-Earth S band signal links. Radio Science, 2011, 46, .	0.8	2
75	Mirror instability upstream of the termination shock (TS) and in the heliosheath. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 1398-1404.	0.6	24
76	Mirror Modes in the Heliosheath. , 2011, , .		0
77	Magnetic Decreases (MDs) and mirror modes: two different plasma $\hat{\nu}^2$ changing mechanisms. Nonlinear Processes in Geophysics, 2010, 17, 467-479.	0.6	11
78	JPL/USC GAIM: On the impact of using COSMIC and ground-based GPS measurements to estimate ionospheric parameters. Journal of Geophysical Research, 2010, 115, .	3.3	58
79	Properties of obliquely propagating chorus. Journal of Geophysical Research, 2010, 115, .	3.3	47
80	Pitch angle transport of electrons due to cyclotron interactions with the coherent chorus subelements. Journal of Geophysical Research, 2010, 115, .	3.3	51
81	Survey of Poynting flux of whistler mode chorus in the outer zone. Journal of Geophysical Research, 2010, 115, .	3.3	94
82	Understanding large SEP events with the PATH code: Modeling of the 13 December 2006 SEP event. Journal of Geophysical Research, 2010, 115, .	3.3	49
83	Introduction to the special section on Chorus: Chorus and its role in space weather. Journal of Geophysical Research, 2010, 115, .	3.3	12
84	Polarization properties of Gendrin mode waves observed in the Earth's magnetosphere: observations and theory. Annales Geophysicae, 2009, 27, 4429-4433.	0.6	14
85	Properties of dayside nonlinear rising tone chorus emissions at large L observed by GEOTAIL. Earth, Planets and Space, 2009, 61, 625-628.	0.9	13
86	Correction to "Magnetic decrease formation from $\sim 1$ AU to $\sim 1/45$ AU: Corotating interaction region reverse shocks". Journal of Geophysical Research, 2009, 114, .	3.3	1
87	A brief review of "solar flare effects" on the ionosphere. Radio Science, 2009, 44, .	0.8	138
88	Simultaneous satellite observations of VLF chorus, hot and relativistic electrons in a magnetic storm "recovery" phase. Geophysical Research Letters, 2009, 36, .	1.5	38
89	Properties of dayside outer zone chorus during HILDCAA events: Loss of energetic electrons. Journal of Geophysical Research, 2009, 114, .	3.3	116
90	Magnetic decrease formation from $\sim 1$ AU to $\sim 1/45$ AU: Corotating interaction region reverse shocks. Journal of Geophysical Research, 2009, 114, .	3.3	20

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91	Mirror instability and L-mode electromagnetic ion cyclotron instability: Competition in the Earth's magnetosheath. Journal of Geophysical Research, 2009, 114, .	3.3	49
92	SHOCK GEOMETRY AND SPECTRAL BREAKS IN LARGE SEP EVENTS. Astrophysical Journal, 2009, 702, 998-1004.	1.6	61
93	USING THE PATH CODE FOR MODELING GRADUAL SEP EVENTS IN THE INNER HELIOSPHERE. Astrophysical Journal, 2009, 693, 894-900.	1.6	44
94	Prompt penetration electric fields (PPEFs) and their ionospheric effects during the great magnetic storm of 30-31 October 2003. Journal of Geophysical Research, 2008, 113, .	3.3	190
95	How Efficient are Coronal Mass Ejections at Accelerating Solar Energetic Particles?. AIP Conference Proceedings, 2008, , .	0.3	18
96	Examination of the Last Large Solar Energetic Particle Events of Solar Cycle 23. AIP Conference Proceedings, 2008, , .	0.3	3
97	Modeling a mixed SEP event with the PATH model: December 13, 2006. AIP Conference Proceedings, 2008, , .	0.3	4
98	MHD Simulations of CME-Driven Shocks: Structures Relevant to Particle Acceleration. AIP Conference Proceedings, 2008, , .	0.3	2
99	Formation of Power Law Tail with Spectral Index-5 Inside and Beyond the Heliosphere. AIP Conference Proceedings, 2008, , .	0.3	29
100	Modeling Particle Acceleration at Interplanetary Shocks. AIP Conference Proceedings, 2008, , .	0.3	1
101	On transport of charged particle in the solar wind. AIP Conference Proceedings, 2008, , .	0.3	3
102	Comment on "Comment on the abundances of rotational and tangential discontinuities in the solar wind" by M. Neugebauer. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	17
103	Oxygen ion uplift and satellite drag effects during the 30 October 2003 daytime superfountain event. Annales Geophysicae, 2007, 25, 569-574.	0.6	40
104	Particle Acceleration at Interplanetary Shocks. Space Science Reviews, 2007, 130, 255-272.	3.7	83
105	TEMPORAL DEVELOPMENT OF DAYSIDE TEC VARIATIONS DURING THE OCTOBER 30, 2003 SUPERSTORM: MATCHING MODELING TO OBSERVATIONS. , 2007, , 69-77.		4
106	Extreme solar EUV flares and ICMEs and resultant extreme ionospheric effects: Comparison of the Halloween 2003 and the Bastille Day events. Radio Science, 2006, 41, .	0.8	19
107	Dayside ionospheric (GPS) response to corotating solar wind streams. Geophysical Monograph Series, 2006, , 245-270.	0.1	14
108	Particle transport in a vortex medium. Advances in Space Research, 2005, 35, 660-664.	1.2	2

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109	Anomalous diffusion of energetic particles: implications for diffusive particle acceleration at a quasi-perpendicular shock. AIP Conference Proceedings, 2005, , .	0.3	0
110	Anomalous and classical diffusion of cosmic rays due to nonlinear two-dimensional structures and random magnetic fields. Journal of Geophysical Research, 2005, 110, .	3.3	8
111	Cosmic ray transport in a vortex flow. AIP Conference Proceedings, 2004, , .	0.3	2
112	Particle Diffusion on Vortices in Nearly Incompressible Magnetohydrodynamics. Astrophysical Journal, 2004, 602, 1002-1005.	1.6	5
113	Model for vortex turbulence with discontinuities in the solar wind. Nonlinear Processes in Geophysics, 2003, 10, 335-343.	0.6	9
114	Paraboloidal model for formation of plasma envelopes and ray structures in the cometary ionosphere. Planetary and Space Science, 1996, 44, 407-416.	0.9	0
115	Three-dimensional model of ray structure formation in cometary plasma tails. Planetary and Space Science, 1994, 42, 733-736.	0.9	1
116	Interplanetary Causes of Middle Latitude Ionospheric Disturbances. Geophysical Monograph Series, 0, , 99-119.	0.1	6
117	Simulation of PPEF Effects in Dayside Low-Latitude Ionosphere for the October 30, 2003, Superstorm. Geophysical Monograph Series, 0, , 169-177.	0.1	15