Wojciech J Miloch

List of Publications by Year
in descending order

110 papers	1,714 citations	304743 22 h-index	330143 37 g-index
124 all docs	124 docs citations	124 times ranked	924 citing authors

#	Article	IF	Citations
1	Multi-scale response of the high-latitude topside ionosphere to geospace forcing. Advances in Space Research, 2023, 72, 5490-5502.	2.6	3
2	Method for Forecasting Ionospheric Electron Content Fluctuations Based on the Optical Flow Algorithm. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-21.	6.3	3
3	Transfer Learning Aurora Image Classification and Magnetic Disturbance Evaluation. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	8
4	Ionospheric Plasma IRregularities â€•IPIR â€•Data Product Based on Data From the Swarm Satellites. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	17
5	Electronâ€“neutral collisions effects on Langmuir probe in the lower E-region ionosphere. Physics of Plasmas, 2022, 29, .	1.9	2
6	Numerical Study of Non-Linear Effects for a Swept Bias Langmuir Probe. IEEE Transactions on Plasma Science, 2022, , 1-9.	1.3	1
7	Smallâ€Scale Irregularities Within Polarization Jet/SAID During Geomagnetic Activity. Geophysical Research Letters, 2022, 49, .	4.0	10
8	Interhemispheric variability of the electron density and derived parameters by the Swarm satellites during different solar activity â€“ Erratum. Journal of Space Weather and Space Climate, 2022, 12, 15.	3.3	0
9	Climatology and modeling of ionospheric irregularities over Greenland based on empirical orthogonal function method. Journal of Space Weather and Space Climate, 2022, 12, 23.	3.3	4
10	Interferometric Study of Ionospheric Plasma Irregularities in Regions of Phase Scintillations and HF Backscatter. Geophysical Research Letters, 2022, 49, .	4.0	8
11	The Lifetimes of Plasma Structures at High Latitudes. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028117.	2.4	6
12	Lower-thermosphereâ€“ionosphere (LTI) quantities: current status of measuring techniques and models. Annales Geophysicae, 2021, 39, 189-237.	1.6	25
13	Studying the small-scale structure of a polarization jet during the April 20, 2018 geomagnetic storm. SolneÄno-zemnaÃ¢ Fizika, 2021, 7, 21-33.	0.3	0
14	Influence of different types of ionospheric disturbances on GPS signals at polar latitudes. Annales Geophysicae, 2021, 39, 687-700.	1.6	8
15	Turbulence and Intermittency in the Winter Cusp Ionosphere Studied With the ICI Sounding Rockets. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029150.	2.4	7
16	Steepening Plasma Density Spectra in the Ionosphere: The Crucial Role Played by a Strong Eâ€Region. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029401.	2.4	9
17	The influence of probe spacing and probe bias in a double Langmuir probe setup. AIP Advances, 2021, 11, 085007.	1.3	2
18	Statistical Distribution of Decameter Scale (50Âm) Ionospheric Irregularities at High Latitudes. Geophysical Research Letters, 2021, 48, e2021GL094794.	4.0	1

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19	Case Studies of Ionospheric Plasma Irregularities Over Queen Maud Land, Antarctica. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029963.	2.4	5
20	Spatial Structure of Polarization Jet according to NorSat-1 and Swarm Satellite Data. Cosmic Research, 2021, 59, 463-471.	0.6	4
21	Wake formation behind Langmuir probes in ionospheric plasmas. Advances in Space Research, 2021, , .	2.6	1
22	Electron Wingâ€Like Structures Formed at a Negatively Charged Spacecraft Moving in a Magnetized Plasma. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027379.	2.4	5
23	Twoâ€Dimensional Reconstruction of Ionospheric Plasma Density Variations Using Swarm. Space Weather, 2020, 18, e2019SW002406.	3.7	5
24	Ionospheric Plasma Irregularities Based on In Situ Measurements From the Swarm Satellites. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028103.	2.4	36
25	A Novel Method for Circuits of Perfect Electric Conductors in Unstructured Particle-in-Cell Plasmaâ€"Object Interaction Simulations. IEEE Transactions on Plasma Science, 2020, 48, 2856-2872.	1.3	0
26	In Situ Observations of Ionospheric Heating Effects: First Results from a Joint SURA and NorSatâ€1 Experiment. Geophysical Research Letters, 2020, 47, e2020GL088462.	4.0	10
27	Relationship between TEC jumps and auroral substorm in the high-latitude ionosphere. Scientific Reports, 2020, 10, 6363.	3.3	10
28	Influence of Different Ionospheric Disturbances on the GPS Scintillations at High Latitudes. Springer Proceedings in Earth and Environmental Sciences, 2020, , 281-287.	0.4	3
29	Impact of Miniaturized Fixed-Bias Multineedle Langmuir Probes on CubeSats. IEEE Transactions on Plasma Science, 2019, 47, 3658-3666.	1.3	7
30	Theory and simulations of spherical and cylindrical Langmuir probes in non-Maxwellian plasmas. Plasma Physics and Controlled Fusion, 2019, 61, 085025.	2.1	26
31	Simultaneous Rocket and Scintillation Observations of Plasma Irregularities Associated With a Reversed Flow Event in the Cusp Ionosphere. Journal of Geophysical Research: Space Physics, 2019, 124, 7098-7111.	2.4	11
32	Numerical Study of Plasma Depletion Region in a Satellite Wake. IEEE Transactions on Plasma Science, 2019, 47, 3717-3723.	1.3	5
33	Effects of booms of sounding rockets in flowing plasmas. Physics of Plasmas, 2019, 26, 032902.	1.9	3
34	Numerical simulations of a dust grain in a flowing magnetized plasma. Physics of Plasmas, 2019, 26, 043701.	1.9	20
35	Ionospheric Plasma Irregularities Characterized by the Swarm Satellites: Statistics at High Latitudes. Journal of Geophysical Research: Space Physics, 2019, 124, 1262-1282.	2.4	62
36	Studies of small-scale plasma inhomogeneities in the cusp ionosphere using sounding rocket data. Physics of Plasmas, 2018, 25, .	1.9	6

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37	A study of data analysis techniques for the multi-needle Langmuir probe. Measurement Science and Technology, 2018, 29, 065906.	2.6	16
38	Dynamic ion shadows behind finite-sized objects in collisionless magnetized plasma flows. New Journal of Physics, 2018, 20, 073027.	2.9	18
39	Ionospheric plasma irregularities studied with Swarm satellites. E3S Web of Conferences, 2018, 62, 01009.	0.5	1
40	Wake Potential and Wake Effects on the Ionospheric Plasma Density Measurements With Sounding Rockets. Journal of Geophysical Research: Space Physics, 2018, 123, 9711-9725.	2.4	4
41	Role of Plasma Inhomogeneities in the Generation of Broadband Waves in the Polar Ionosphere. , 2018, , .		0
42	Solar cycle and seasonal variations of the GPS phase scintillation at high latitudes. Journal of Space Weather and Space Climate, 2018, 8, A48.	3.3	24
43	Layered structures in extended dust clouds under microgravity. Physics of Plasmas, 2018, 25, 083707.	1.9	6
44	Extremely Lowâ€Frequency Waves Inside the Diamagnetic Cavity of Comet 67P/Churyumovâ€Gerasimenko. Geophysical Research Letters, 2018, 45, 3854-3864.	4.0	14
45	Experiments on wake structures behind a microparticle in a magnetized plasma flow. Physics of Plasmas, 2018, 25, .	1.9	14
46	Molecular dynamics simulations of wake structures behind a microparticle in a magnetized ion flow. I. Collisionless limit with cold ion beam. Physics of Plasmas, 2018, 25, .	1.9	15
47	High-spatial-resolution electron density measurement by Langmuir probe for multi-point observations using tiny spacecraft. Measurement Science and Technology, 2017, 28, 115903.	2.6	5
48	Numerical simulations of a sounding rocket in ionospheric plasma: Effects of magnetic field on the wake formation and rocket potential. Journal of Geophysical Research: Space Physics, 2017, 122, 9603-9621.	2.4	11
49	Numerical heating of electrons in particle-in-cell simulations of fully magnetized plasmas. Physical Review E, 2017, 95, 043302.	2.1	15
50	Hybrid modelling of cometary plasma environments. Astronomy and Astrophysics, 2017, 604, A73.	5.1	37
51	Wake potential of a dust particle in magnetised plasmas. Physica Scripta, 2017, 92, 114006.	2.5	15
52	Interhemispheric study of polar cap patch occurrence based on Swarm in situ data. Journal of Geophysical Research: Space Physics, 2017, 122, 3837-3851.	2.4	59
53	GPS scintillations associated with cusp dynamics and polar cap patches. Journal of Space Weather and Space Climate, 2017, 7, A23.	3.3	46
54	Rosetta photoelectron emission and solar ultraviolet flux at comet 67P. Monthly Notices of the Royal Astronomical Society, 2017, 469, S626-S635.	4.4	24

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55	Reverse flow events and smallâ€scale effects in the cusp ionosphere. Journal of Geophysical Research: Space Physics, 2016, 121, 10,466.	2.4	23
56	Statistical study of the GNSS phase scintillation associated with two types of auroral blobs. Journal of Geophysical Research: Space Physics, 2016, 121, 4679-4697.	2.4	46
57	Ground-based and in-situ studies of plasma phenomena affecting transionospheric radio signals. , 2016, , .		0
58	Observations of high-plasma density region in the inner coma of 67P/Churyumovâ€"Gerasimenko during early activity. Monthly Notices of the Royal Astronomical Society, 2016, 462, S33-S44.	4.4	11
59	Plasma turbulence and coherent structures in the polar cap observed by the ICIâ€2 sounding rocket. Journal of Geophysical Research: Space Physics, 2015, 120, 10,959.	2.4	28
60	Simulations of Several Finite-sized Objects in Plasma. Procedia Computer Science, 2015, 51, 1282-1291.	2.0	9
61	On the collocation of the cusp aurora and the GPS phase scintillation: A statistical study. Journal of Geophysical Research: Space Physics, 2015, 120, 9176-9191.	2.4	70
62	Kinetic plasma instabilities due to charge exchange and elastic collisions. Journal of Physics: Conference Series, 2015, 591, 012034.	0.4	1
63	On the rocket interaction with ionospheric plasma; study by numerical simulations. , 2015, , .		0
64	Charging of multiple grains in subsonic and supersonic plasma flows. Plasma Physics and Controlled Fusion, 2015, 57, 014019.	2.1	22
65	Numerical study on the stability of weakly collisional plasma in EÃ—B fields. Physics of Plasmas, 2015, 22, 022109.	1.9	4
66	Particle-in-cell simulation of spacecraft/plasma interactions in the vicinity of Enceladus. Icarus, 2015, 257, 1-8.	2.5	7
67	Numerical simulations of dust charging and wakefield effects. Journal of Plasma Physics, 2014, 80, 795-801.	2.1	11
68	GPS scintillation effects associated with polar cap patches and substorm auroral activity: direct comparison. Journal of Space Weather and Space Climate, 2014, 4, A23.	3.3	87
69	Numerical simulations of weakly collisional plasmas in E × B fields. , 2014, , .		0
70	Dust charging in the Enceladus torus. Journal of Geophysical Research: Space Physics, 2014, 119, 221-236.	2.4	9
71	Direct evidence of doubleâ€slope power spectra in the highâ€latitude ionospheric plasma. Geophysical Research Letters, 2014, 41, 1406-1412.	4.0	32
72	Interpretation of Ion Velocity Distributions Measured with a Grounded Retarding Field Energy Analyzer (RFEA) in an Inductively Coupled Helicon Plasma. Contributions To Plasma Physics, 2013, 53, 27-32.	1.1	9

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73	On the Use of a Retarding Field Energy Analyzer for Plasma Flow Analysis. Contributions To Plasma Physics, 2013, 53, 86-91.	1.1	1
74	Complex wakes behind objects in multispecies plasmas. Europhysics Letters, 2013, 101, 15001.	2.0	5
75	Unstable ring-shaped ion distribution functions induced by chargeâ€“exchange collisions. Plasma Physics and Controlled Fusion, 2013, 55, 124006.	2.1	7
76	Cassini capturing of freshlyâ€produced waterâ€group ions in the Enceladus torus. Geophysical Research Letters, 2012, 39, .	4.0	7
77	Dust grain charging in a wake of other grains. Physics of Plasmas, 2012, 19, 123703.	1.9	39
78	Wake Formation and Wake Field Effects in Complex Plasmas. Contributions To Plasma Physics, 2012, 52, 804-812.	1.1	52
79	Charging and coupling of a vertically aligned particle pair in the plasma sheath. Physics of Plasmas, 2012, 19, .	1.9	47
80	Spacecraft charging in flowing plasmas; numerical simulations. Journal of Physics: Conference Series, 2012, 370, 012004.	0.4	4
81	PLASMA DYNAMICS AT THE PROMINENCE-CORONA INTERFACE. Astrophysical Journal, 2012, 752, 85.	4.5	7
82	On the wake structure in streaming complex plasmas. New Journal of Physics, 2012, 14, 053016.	2.9	108
83	Modeling of Cassini's charging at Saturn orbit insertion flyby. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	18
84	Charging and Potential in Finite Clusters of Dust Grains. , 2011, , .		0
85	Interpretation of ion velocity distributions measured with a retarding field energy analyzer (RFEA) in a inductively coupled helicon plasma. , 2011, , .		0
86	The role of sheath and acceptance angle in front of a retarding field energy analyzer for plasma flow analysis. , 2011, , .		0
87	Ion velocity distributions in the sheath and presheath of a biased object in plasma. Physics of Plasmas, 2011, 18, .	1.9	18
88	Cassini's Charging and Ion Wake Formation in Saturn's Magnetosphere. , 2011, , .		0
89	On the Measurement of Subsonic Flow in a Capacitively Coupled Helicon Plasma Source. Journal of Physics: Conference Series, 2010, 257, 012019.	0.4	7
90	Ion acoustic double layers forming behind irradiated solid objects in streaming plasmas. Journal of Plasma Physics, 2010, 76, 429-439.	2.1	4

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91	Potential structure around the Cassini spacecraft near the orbit of Enceladus. Physics of Plasmas, 2010, 17, 102904.	1.9	17
92	Dust Clouds and Porous Objects Being Charged by Flowing Plasmas. IEEE Transactions on Plasma Science, 2010, 38, 2340-2344.	1.3	1
93	Charging and dynamics of a dust grain in the wake of another grain in flowing plasmas. Physics of Plasmas, 2010, 17, 103703.	1.9	64
94	The role of acceptance angle in measurements with ion energy analyzers: Study by numerical simulations. Applied Physics Letters, 2010, 97, 261501.	3.3	8
95	Wake effects and Mach cones behind objects. Plasma Physics and Controlled Fusion, 2010, 52, 124004.	2.1	43
96	Charging of spinning insulating objects by plasma and photoemission. Geophysical Research Letters, 2009, 36, .	4.0	8
97	Interaction of two elongated dust grains in flowing plasmas studied by numerical simulations. Physics of Plasmas, 2009, 16, 023703.	1.9	19
98	Charge and Potential Distributions for Particles Approaching Substrates With Regular Structures. IEEE Transactions on Plasma Science, 2009, 37, 1670-1674.	1.3	2
99	Charging of insulating and conducting dust grains by flowing plasma and photoemission. New Journal of Physics, 2009, 11, 043005.	2.9	28
100	Numerical studies of ion focusing behind macroscopic obstacles in a supersonic plasma flow. Physical Review E, 2008, 77, 056408.	2.1	59
101	Charging of insulating dust grains in flowing plasmas with a directed photon flux. , 2008, , .		0
102	Numerical simulations of potential distribution for elongated insulating dust being charged by drifting plasmas. Physical Review E, 2008, 78, 036411.	2.1	19
103	Patterns of sound radiation behind pointlike charged obstacles in plasma flows. Physical Review E, 2008, 78, 016401.	2.1	16
104	Wake behind dust grains in flowing plasmas with a directed photon flux. Physical Review E, 2008, 77, 065401.	2.1	22
105	Ion focusing and interaction potential for spherical and rodlike obstacles in a supersonic plasma flow: numerical simulations. AIP Conference Proceedings, 2008, , .	0.4	0
106	Sound Radiation from Moving Point-Like Charged Particles in Plasmas. , 2008, , .		0
107	Publisher's Note: Patterns of sound radiation behind pointlike charged obstacles in plasma flows [Phys. Rev. E78, 016401 (2008)]. Physical Review E, 2008, 78, .	2.1	0
108	Numerical simulations of the charging of dust particles by contact with hot plasmas. Nonlinear Processes in Geophysics, 2007, 14, 575-586.	1.3	39

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109	Cold and warm electrons at comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 0, , .	5.1	15
110	Interhemispheric variability of the electron density and derived parameters by the Swarm satellites during different solar activity. Journal of Space Weather and Space Climate, 0, , .	3.3	2