

# Konstantinos Papadopoulos

List of Publications by Year  
in descending order

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147  
papers

4,310  
citations

117625  
34  
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133252  
59  
g-index

150  
all docs

150  
docs citations

150  
times ranked

1863  
citing authors

#	ARTICLE	IF	CITATIONS
1	The structure of perpendicular bow shocks. Journal of Geophysical Research, 1982, 87, 5081-5094.	3.3	439
2	Lowerâ€hybridâ€drift wave turbulence in the distant magnetotail. Journal of Geophysical Research, 1978, 83, 5217-5226.	3.3	198
3	Lowâ€dimensional chaos in magnetospheric activity from AE time series. Geophysical Research Letters, 1990, 17, 1841-1844.	4.0	159
4	A current disruption mechanism in the neutral sheet: A possible trigger for substorm expansions. Geophysical Research Letters, 1990, 17, 745-748.	4.0	147
5	Prediction of magnetic storms by nonlinear models. Geophysical Research Letters, 1996, 23, 2899-2902.	4.0	121
6	Reconstruction of lowâ€dimensional magnetospheric dynamics by singular spectrum analysis. Geophysical Research Letters, 1993, 20, 335-338.	4.0	104
7	Nonlinear stability of solar type III radio bursts. I - Theory. Astrophysical Journal, 1979, 234, 348.	4.5	94
8	Phase transition-like behavior of the magnetosphere during substorms. Journal of Geophysical Research, 2000, 105, 12955-12974.	3.3	90
9	Nonthermal features of the auroral plasma due to precipitating electrons. Journal of Geophysical Research, 1974, 79, 674-677.	3.3	87
10	On the efficiency of ionospheric ELF generation. Radio Science, 1990, 25, 1311-1320.	1.6	82
11	Modeling substorm dynamics of the magnetosphere: From self-organization and self-organized criticality to nonequilibrium phase transitions. Physical Review E, 2001, 65, 016116.	2.1	76
12	Parallel propagation effects on the type 1 electrojet instability. Journal of Geophysical Research, 1975, 80, 141-148.	3.3	73
13	Simulation of the March 9, 1995, substorm: Auroral brightening and the onset of lobe reconnection. Geophysical Research Letters, 1998, 25, 3039-3042.	4.0	67
14	Nonlinear stability of solar type III radio bursts. II - Application to observations near 1 AU. Astrophysical Journal, 1979, 234, 683.	4.5	65
15	Microinstabilities and Anomalous Transport. Geophysical Monograph Series, 0, , 59-90.	0.1	64
16	An overview of the impact of the January 10-11 1997 magnetic cloud on the magnetosphere via global MHD simulation. Geophysical Research Letters, 1998, 25, 2537-2540.	4.0	63
17	Red sprites: Lightning as a fractal antenna. Geophysical Research Letters, 1997, 24, 3169-3172.	4.0	62
18	Formation of artificial ionospheric ducts. Geophysical Research Letters, 2008, 35, .	4.0	58

#	ARTICLE	IF	CITATIONS
19	EVIDENCE FOR THE OSCILLATING TWO STREAM INSTABILITY AND SPATIAL COLLAPSE OF LANGMUIR WAVES IN A SOLAR TYPE III RADIO BURST. <i>Astrophysical Journal Letters</i> , 2012, 747, L1.	8.3	58
20	Conversion of Electrostatic to Electromagnetic Waves by Superluminous Ionization Fronts. <i>Physical Review Letters</i> , 2001, 86, 2806-2809.	7.8	55
21	Effects of the solar wind electric field and ionospheric conductance on the cross polar cap potential: Results of global MHD modeling. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	4.0	54
22	The thermal self-focusing instability near the critical surface in the high-latitude ionosphere. <i>Journal of Geophysical Research</i> , 1998, 103, 2231-2237.	3.3	53
23	On the physics of high altitude lightning. <i>Geophysical Research Letters</i> , 1995, 22, 85-88.	4.0	49
24	On the efficiency of ELF/VLF generation using HF heating of the auroral electrojet. <i>Plasma Physics Reports</i> , 2003, 29, 561-565.	0.9	49
25	Global MHD simulations of the strongly driven magnetosphere: Modeling of the transpolar potential saturation. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	49
26	Electromagnetic radiation from strong Langmuir turbulence. <i>Physics of Fluids</i> , 1988, 31, 2185.	1.4	48
27	Stochastic Electron Acceleration in Obliquely Propagating Electromagnetic Waves. <i>Physical Review Letters</i> , 1987, 58, 2071-2074.	7.8	47
28	Ionization rates for atmospheric and ionospheric breakdown. <i>Journal of Geophysical Research</i> , 1993, 98, 17593-17596.	3.3	46
29	Lower-hybrid instabilities driven by an ion velocity ring. <i>Journal of Plasma Physics</i> , 1985, 34, 445-465.	2.1	44
30	Generation of controlled radiation sources in the atmosphere using a dual femtosecond /nanosecond laser pulse. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	43
31	Global and multi-scale features of solar wind-magnetosphere coupling: From modeling to forecasting. <i>Geophysical Research Letters</i> , 2004, 31, .	4.0	41
32	Generation of tunable far-infrared radiation by the interaction of a superluminous ionizing front with an electrically biased photoconductor. <i>Applied Physics Letters</i> , 1999, 74, 1669-1671.	3.3	40
33	MHD simulations of the response of high-latitude potential patterns and polar cap Boundaries to sudden southward turnings of the interplanetary magnetic field. <i>Geophysical Research Letters</i> , 1999, 26, 967-970.	4.0	38
34	Artificial ducts caused by HF heating of the ionosphere by HAARP. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	36
35	Lyapunov exponent of magnetospheric activity from AL time series. <i>Geophysical Research Letters</i> , 1991, 18, 1643-1646.	4.0	34
36	Runaway electrons in the atmosphere in the presence of a magnetic field. <i>Radio Science</i> , 1996, 31, 1541-1554.	1.6	34

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37	Oscillating two-stream and parametric decay instabilities in a weakly magnetized plasma. Physics of Fluids, 1980, 23, 139.	1.4	33
38	Model for artificial ionospheric duct formation due to HF heating. Geophysical Research Letters, 2010, 37, .	4.0	32
39	Numerical modeling of artificial ionospheric layers driven by high-power HF heating. Journal of Geophysical Research, 2012, 117, .	3.3	32
40	RF ionization of the lower ionosphere. Radio Science, 1991, 26, 1345-1360.	1.6	31
41	The magnetic response of the ionosphere to pulsed HF heating. Geophysical Research Letters, 2005, 32, .	4.0	31
42	Generation of whistler waves by a rotating magnetic field source. Physics of Plasmas, 2010, 17, .	1.9	31
43	Generation of ELF/ULF waves in the ionosphere by dynamo processes. Geophysical Research Letters, 1985, 12, 279-282.	4.0	30
44	Spectrum of red sprites. Journal of Atmospheric and Solar-Terrestrial Physics, 1998, 60, 907-915.	1.6	30
45	Evidence for Langmuir envelope solitons in solar type III burst source regions. Journal of Geophysical Research, 1999, 104, 28279-28293.	3.3	30
46	Substorms as nonequilibrium transitions of the magnetosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2001, 63, 1399-1406.	1.6	30
47	Spatiotemporal activity of magnetic storms. Journal of Geophysical Research, 1999, 104, 12239-12250.	3.3	29
48	Numerical study of mode conversion between lower hybrid and whistler waves on short-scale density striations. Journal of Geophysical Research, 2008, 113, .	3.3	29
49	One-dimensional direct current resistivity due to strong turbulence. Physics of Fluids, 1981, 24, 832.	1.4	28
50	Efficient Parametric Decay in Dissipative Media. Physical Review Letters, 1983, 51, 463-466.	7.8	28
51	Strong Langmuir Turbulence in One and Two Dimensions. Physical Review Letters, 1981, 46, 346-349.	7.8	27
52	Electromagnetohydrodynamic response of a plasma to an external current pulse. Physics of Plasmas, 1996, 3, 1484-1494.	1.9	27
53	Lower hybrid waves upstream of comets and their implications for the comet Halley "bow wave". Journal of Geophysical Research, 1988, 93, 9577-9583.	3.3	26
54	An empirical model relating the auroral geomagnetic activity to the interplanetary magnetic field. Geophysical Research Letters, 1993, 20, 1731-1734.	4.0	26

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55	Enhanced ionospheric ELF/VLF generation efficiency by multiple timescale modulated heating. Geophysical Research Letters, 2007, 34, .	4.0	25
56	HF-driven currents in the polar ionosphere. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	25
57	Effect of anomalous electron heating on the transpolar potential in the LFM global MHD model. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	24
58	Interpretation of soliton formation and parametric instabilities. Physics of Fluids, 1975, 18, 1397.	1.4	23
59	Excitation of the earth's ionosphere waveguide by an ELF source in the ionosphere. Radio Science, 1982, 17, 1321-1326.	1.6	23
60	An interhemispheric model of artificial ionospheric ducts. Radio Science, 2006, 41, n/a-n/a.	1.6	23
61	Model of red sprites due to intracloud fractal lightning discharges. Radio Science, 1998, 33, 1655-1668.	1.6	22
62	Resonance absorption of Alfvén waves at comet's solar wind interaction regions. Geophysical Research Letters, 1988, 15, 740-743.	4.0	21
63	Lower hybrid turbulence at cometary bow wave and acceleration of cometary protons. Journal of Geophysical Research, 1993, 98, 1325-1331.	3.3	21
64	First demonstration of HF-driven ionospheric currents. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	21
65	Generation and detection of super small striations by $F_2$ region HF heating. Journal of Geophysical Research: Space Physics, 2014, 119, 6000-6011.	2.4	21
66	Combining global and multi-scale features in a description of the solar wind-magnetosphere coupling. Annales Geophysicae, 2003, 21, 1913-1929.	1.6	21
67	Is the magnetosphere a lens for MHD waves?. Geophysical Research Letters, 1993, 20, 2809-2812.	4.0	20
68	Global and multiscale aspects of magnetospheric dynamics in local-linear filters. Journal of Geophysical Research, 2002, 107, SMP 15-1.	3.3	20
69	Collective radio-emission from plasmas. Space Science Reviews, 1979, 24, 511.	8.1	19
70	The self-focusing instability in the presence of density irregularities in the ionosphere. Journal of Geophysical Research, 1996, 101, 2453-2460.	3.3	19
71	Three-dimensional MHD simulations of the steady state magnetosphere with northward interplanetary magnetic field. Journal of Geophysical Research, 2001, 106, 275-287.	3.3	19
72	Phase transition-like behavior of magnetospheric substorms: Global MHD simulation results. Journal of Geophysical Research, 2003, 108, .	3.3	18

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73	Generation of ELF and ULF electromagnetic waves by modulated heating of the ionospheric F2 region. Journal of Geophysical Research, 2012, 117, .	3.3	18
74	Attenuation of whistler waves through conversion to lower hybrid waves in the low-altitude ionosphere. Journal of Geophysical Research, 2012, 117, .	3.3	18
75	Ion-acoustic shocks with self-regulated ion reflection and acceleration. Physics of Plasmas, 2016, 23, .	1.9	18
76	Neurocognitive effects of umami: association with eating behavior and food choice. Neuropsychopharmacology, 2018, 43, 2009-2016.	5.4	17
77	the CIV processes in the CRIT experiments. Geophysical Research Letters, 1992, 19, 605-608.	4.0	16
78	Generation and evolution of intense ion cyclotron turbulence by artificial plasma cloud in the magnetosphere. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	16
79	Control of the energetic proton flux in the inner radiation belt by artificial means. Journal of Geophysical Research, 2009, 114, .	3.3	16
80	Generation of whistler waves by continuous HF heating of the upper ionosphere. Radio Science, 2016, 51, 1188-1198.	1.6	16
81	Modulational instability of lower hybrid waves at the magnetopause. Journal of Geophysical Research, 1994, 99, 23735.	3.3	15
82	Relationship between the ionospheric conductance, field aligned current, and magnetopause geometry: Global MHD simulations. Planetary and Space Science, 2005, 53, 873-879.	1.7	15
83	Incidence angle dependence of Langmuir turbulence and artificial ionospheric layers driven by high-power HF-heating. Journal of Plasma Physics, 2015, 81, .	2.1	15
84	ELF emission generated by the HAARP HF-heater using varying frequency and polarization. Radiophysics and Quantum Electronics, 1999, 42, 639-646.	0.5	14
85	Comparing ground magnetic field perturbations from global MHD simulations with magnetometer data for the 10 January 1997 magnetic storm event. Journal of Geophysical Research, 2002, 107, SMP 11-1-SMP 11-10.	3.3	14
86	The physics of substorms as revealed by the ISTP. Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science, 1999, 24, 189-202.	0.2	13
87	Generation of shear Alfvén waves by a rotating magnetic field source: Three-dimensional simulations. Physics of Plasmas, 2011, 18, .	1.9	13
88	Simulation of the March 9, 1995 Substorm and Initial Comparison to Data. Geophysical Monograph Series, 2013, , 237-245.	0.1	13
89	HF wave propagation and induced ionospheric turbulence in the magnetic equatorial region. Journal of Geophysical Research: Space Physics, 2016, 121, 2727-2742.	2.4	13
90	Model of red sprite optical spectra. Geophysical Research Letters, 1997, 24, 833-836.	4.0	12

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91	Studies of the ionospheric turbulence excited by the fourth gyroharmonic at HAARP. Journal of Geophysical Research: Space Physics, 2015, 120, 6646-6660.	2.4	12
92	Ion-acoustic instabilities driven by an ion velocity ring. Journal of Plasma Physics, 1985, 34, 467-479.	2.1	11
93	Long-Range Cross-Field Ion-Beam Propagation in the Diamagnetic Regime. Physical Review Letters, 1988, 61, 94-97.	7.8	11
94	Hybrid simulations of whistler waves generation and current closure by a pulsed tether in the ionosphere. Geophysical Research Letters, 1994, 21, 1015-1018.	4.0	11
95	Scattering of Magnetic Mirror Trapped Fast Electrons by a Shear Alfvén Wave. Physical Review Letters, 2012, 108, 105002.	7.8	11
96	Simulations of ionospheric turbulence produced by HF heating near the upper hybrid layer. Radio Science, 2016, 51, 704-717.	1.6	11
97	Active Nonlinear Ultralow-Frequency Generation in the Ionosphere. Physical Review Letters, 1986, 57, 641-644.	7.8	10
98	Cerenkov excitation of whistler/helicon waves by ionospheric HF heating. Geophysical Research Letters, 1994, 21, 1767-1770.	4.0	10
99	A global MHD simulation of an event with a quasi-steady northward IMF component. Annales Geophysicae, 2007, 25, 1345-1358.	1.6	10
100	Numerical study of anomalous absorption of O mode waves on magnetic field-aligned striations. Geophysical Research Letters, 2015, 42, 2603-2611.	4.0	10
101	Switch opening time reduction in high power photoconducting semiconductor switches. Optics Communications, 1996, 124, 443-447.	2.1	9
102	Focusing of HF radio-waves by ionospheric ducts. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 1674-1680.	1.6	9
103	Vlasov simulations of electron acceleration by radio frequency heating near the upper hybrid layer. Physics of Plasmas, 2017, 24, 102904.	1.9	9
104	ELF generation in the lower ionosphere via collisional parametric decay. Journal of Geophysical Research, 1986, 91, 10097-10107.	3.3	8
105	Direct Cerenkov excitation of waveguide modes by a mobile ionospheric heater. Radio Science, 1996, 31, 859-867.	1.6	8
106	Generation of ELF waves during HF heating of the ionosphere at midlatitudes. Radio Science, 2016, 51, 962-971.	1.6	8
107	Alpha particle heating at comet-solar wind interaction regions. Journal of Geophysical Research, 1995, 100, 7891.	3.3	7
108	Comment on "Can gamma radiation be produced in the electrical environment above thunderstorms". Geophysical Research Letters, 1996, 23, 2283-2284.	4.0	7

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109	Remote photometry of the atmosphere using microwave breakdown. Journal of Geophysical Research, 1994, 99, 10387.	3.3	6
110	Gamma ray flashes by plasma effects in the middle atmosphere. Physics of Plasmas, 2001, 8, 4954-4959.	1.9	6
111	Penetration of ELF currents and electromagnetic fields into the Earth's equatorial ionosphere. Journal of Geophysical Research, 2009, 114, .	3.3	6
112	Ballistic cross-field ion beam propagation in a magnetoplasma. Physics of Fluids B, 1991, 3, 1075-1090.	1.7	5
113	The flight of the tethered satellite system. Eos, 1992, 73, 321-321.	0.1	5
114	Miniature photoconducting capacitor array as a source for tunable THz radiation. Review of Scientific Instruments, 2000, 71, 2380-2385.	1.3	5
115	Comment on "High altitude discharges and gamma-ray flashes: A manifestation of runaway breakdown" by Yuri Taranenko and Robert Roussel-Dupr�. Geophysical Research Letters, 1997, 24, 2643-2644.	4.0	4
116	Diffraction model of ionospheric irregularity-induced heater-wave pattern detected on the WIND satellite. Geophysical Research Letters, 2000, 27, 317-320.	4.0	4
117	Perception of Synthetic and Natural Speech by Adults with Visual Impairments. Journal of Visual Impairment and Blindness, 2009, 103, 403-414.	0.7	4
118	Global and local geospace modeling in ISTP. Space Science Reviews, 1995, 71, 671-690.	8.1	3
119	Investigation of 3D Energetic Particle Transport Inside Quiet-Time Magnetosphere using Particle Tracing in Global MHD Model. Geophysical Monograph Series, 0, , 307-318.	0.1	3
120	Pitch angle scattering of relativistic electrons near electromagnetic ion cyclotron resonances in diverging magnetic fields. Plasma Physics and Controlled Fusion, 2017, 59, 104003.	2.1	3
121	Simulations of the Generation of Energetic Electrons and the Formation of Descending Artificial Plasma Layers During HF Heating at Arecibo. Journal of Geophysical Research: Space Physics, 2018, 123, 10,301.	2.4	3
122	Spatio-temporal development of the filaments due to the thermal self-focusing instability near the critical surface in ionospheric plasmas. Radiophysics and Quantum Electronics, 1999, 42, 589-600.	0.5	2
123	Modeling ionospheric absorption modified by anomalous heating during substorms. Geophysical Research Letters, 2001, 28, 487-490.	4.0	2
124	Enhanced loss of magnetic-mirror-trapped fast electrons by a shear Alfv�n wave. Physics of Plasmas, 2014, 21, 055705.	1.9	2
125	Generation of shear Alfv�n waves by repetitive electron heating. Journal of Geophysical Research: Space Physics, 2016, 121, 567-577.	2.4	2
126	Ferrite based antennae for launching Alfv�n waves. Review of Scientific Instruments, 2019, 90, 083505.	1.3	2



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127	The Effect of Plasma Releases on Equatorial Spread F—a Simulation Study. <i>Frontiers in Astronomy and Space Sciences</i> , 2019, 6, .	2.8	2
128	Triggering the HF breakdown of the atmosphere by barium release. <i>Geophysical Research Letters</i> , 1993, 20, 471-474.	4.0	1
129	Collisionless Breakdown of Magnetic Insulation in Plasmas. <i>Physical Review Letters</i> , 1996, 76, 3120-3123.	7.8	1
130	Three-dimensional MHD simulations of the Earth's magnetosphere on Feb 9-10 1995 for northward interplanetary magnetic field and comparison of the lobe field with Geotail observations. <i>Geophysical Research Letters</i> , 2001, 28, 3835-3838.	4.0	1
131	Demonstration of Sub-Millimeter Radiation Generation from Static Field by a Superluminous Ionization front in Semiconductor Capacitor Array. , 2002, , 27-32.		1
132	HF-driven currents in the polar ionosphere. , 2011, , .		1
133	Ionospheric modifications using mobile, high power HF transmitters based on TPM technology. , 2015, , .		1
134	Single Domain Nanoparticle Transmitters. , 2019, , .		1
135	Global MHD Simulation of Actual Magnetospheric Substorm Events. <i>Astrophysics and Space Science Library</i> , 1998, , 645-650.	2.7	1
136	Effects of Northward Turnings on the Initiation of Substorms in Global MHD Simulations. <i>Astrophysics and Space Science Library</i> , 1998, , 287-290.	2.7	1
137	Coupling between Local and Global Activity during the Substorm Expansion Phase: Results from MHD Simulations and Comparison to Observations. <i>Astrophysics and Space Science Library</i> , 1998, , 169-174.	2.7	1
138	Nonlinear Waves. <i>Eos</i> , 1984, 65, 735.	0.1	0
139	Breakdown of magnetic insulation in semiconductor plasmas. <i>IEEE Transactions on Plasma Science</i> , 1996, 24, 1095-1100.	1.3	0
140	Generation of tunable bandwidth-controllable terahertz radiation. , 1999, 3795, 477.		0
141	EMHD response of a magnetoplasma to an external current source. , 0, , .		0
142	Reply to comment on “The magnetic response of the ionosphere to pulsed HF heating” by M. T. Rietveld and P. Stubbe. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	0
143	Particle-In-cell simulation of resonant-cavity-enhanced extraordinary transmission through sub-wavelength plasmonic structure. , 2007, , .		0
144	Helicon waves in the magnetotail. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	0

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145	First demonstration of HF-driven ionospheric currents. , 2011, , .		0
146	Modeling pitch angle scattering of radiation belt particles by the injection of low frequency waves with F-region HF-driven ionospheric currents. , 2011, , .		0
147	10.1063/1.3562118.1. , 2011, , .		0