

# Konstantinos Papadopoulos

## List of Publications by Year in descending order

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147  
papers

4,310  
citations

134610

34  
h-index

150775

59  
g-index

150  
all docs

150  
docs citations

150  
times ranked

1972  
citing authors

#	ARTICLE	IF	CITATIONS
1	Single Domain Nanoparticle Transmitters. , 2019, , .		1
2	Ferrite based antennae for launching Alfvén waves. Review of Scientific Instruments, 2019, 90, 083505.	0.6	2
3	The Effect of Plasma Releases on Equatorial Spread F—a Simulation Study. Frontiers in Astronomy and Space Sciences, 2019, 6, .	1.1	2
4	Neurocognitive effects of umami: association with eating behavior and food choice. Neuropsychopharmacology, 2018, 43, 2009-2016.	2.8	17
5	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.	0.8	3
6	Vlasov simulations of electron acceleration by radio frequency heating near the upper hybrid layer. Physics of Plasmas, 2017, 24, 102904.	0.7	9
7	Pitch angle scattering of relativistic electrons near electromagnetic ion cyclotron resonances in diverging magnetic fields. Plasma Physics and Controlled Fusion, 2017, 59, 104003.	0.9	3
8	Generation of shear Alfvén waves by repetitive electron heating. Journal of Geophysical Research: Space Physics, 2016, 121, 567-577.	0.8	2
9	Ion-acoustic shocks with self-regulated ion reflection and acceleration. Physics of Plasmas, 2016, 23, .	0.7	18
10	Generation of whistler waves by continuous HF heating of the upper ionosphere. Radio Science, 2016, 51, 1188-1198.	0.8	16
11	Simulations of ionospheric turbulence produced by HF heating near the upper hybrid layer. Radio Science, 2016, 51, 704-717.	0.8	11
12	HF wave propagation and induced ionospheric turbulence in the magnetic equatorial region. Journal of Geophysical Research: Space Physics, 2016, 121, 2727-2742.	0.8	13
13	Generation of ELF waves during HF heating of the ionosphere at midlatitudes. Radio Science, 2016, 51, 962-971.	0.8	8
14	Numerical study of anomalous absorption of O mode waves on magnetic field-aligned striations. Geophysical Research Letters, 2015, 42, 2603-2611.	1.5	10
15	Studies of the ionospheric turbulence excited by the fourth gyroharmonic at HAARP. Journal of Geophysical Research: Space Physics, 2015, 120, 6646-6660.	0.8	12
16	Incidence angle dependence of Langmuir turbulence and artificial ionospheric layers driven by high-power HF-heating. Journal of Plasma Physics, 2015, 81, .	0.7	15
17	Ionospheric modifications using mobile, high power HF transmitters based on TPM technology. , 2015, , .		1
18	Enhanced loss of magnetic-mirror-trapped fast electrons by a shear Alfvén wave. Physics of Plasmas, 2014, 21, 055705.	0.7	2

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19	Generation and detection of super small striations by $F_2$ region HF heating. Journal of Geophysical Research: Space Physics, 2014, 119, 6000-6011.	0.8	21
20	Simulation of the March 9, 1995 Substorm and Initial Comparison to Data. Geophysical Monograph Series, 2013, , 237-245.	0.1	13
21	Artificial ducts caused by HF heating of the ionosphere by HAARP. Journal of Geophysical Research, 2012, 117, .	3.3	36
22	Numerical modeling of artificial ionospheric layers driven by high-power HF heating. Journal of Geophysical Research, 2012, 117, .	3.3	32
23	Generation of ELF and ULF electromagnetic waves by modulated heating of the ionospheric F2 region. Journal of Geophysical Research, 2012, 117, .	3.3	18
24	Attenuation of whistler waves through conversion to lower hybrid waves in the low-altitude ionosphere. Journal of Geophysical Research, 2012, 117, .	3.3	18
25	EVIDENCE FOR THE OSCILLATING TWO STREAM INSTABILITY AND SPATIAL COLLAPSE OF LANGMUIR WAVES IN A SOLAR TYPE III RADIO BURST. Astrophysical Journal Letters, 2012, 747, L1.	3.0	58
26	Scattering of Magnetic Mirror Trapped Fast Electrons by a Shear Alfvén Wave. Physical Review Letters, 2012, 108, 105002.	2.9	11
27	HF-driven currents in the polar ionosphere. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	25
28	First demonstration of HF-driven ionospheric currents. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	21
29	First demonstration of HF-driven ionospheric currents. , 2011, , .		0
30	HF-driven currents in the polar ionosphere. , 2011, , .		1
31	Focusing of HF radio-waves by ionospheric ducts. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 1674-1680.	0.6	9
32	Modeling pitch angle scattering of radiation belt particles by the injection of low frequency waves with F-region HF-driven ionospheric currents. , 2011, , .		0
33	Generation of shear Alfvén waves by a rotating magnetic field source: Three-dimensional simulations. Physics of Plasmas, 2011, 18, .	0.7	13
34	10.1063/1.3562118.1., 2011, , .		0
35	Generation of whistler waves by a rotating magnetic field source. Physics of Plasmas, 2010, 17, .	0.7	31
36	Model for artificial ionospheric duct formation due to HF heating. Geophysical Research Letters, 2010, 37, .	1.5	32

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37	Perception of Synthetic and Natural Speech by Adults with Visual Impairments. <i>Journal of Visual Impairment and Blindness</i> , 2009, 103, 403-414.	0.4	4
38	Control of the energetic proton flux in the inner radiation belt by artificial means. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	16
39	Penetration of ELF currents and electromagnetic fields into the Earth's equatorial ionosphere. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	6
40	Helicon waves in the magnetotail. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	0
41	Generation of controlled radiation sources in the atmosphere using a dual femtosecond /nanosecond laser pulse. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	43
42	Formation of artificial ionospheric ducts. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	58
43	Numerical study of mode conversion between lower hybrid and whistler waves on short-scale density striations. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	29
44	Particle-In-cell simulation of resonant-cavity-enhanced extraordinary transmission through sub-wavelength plasmonic structure. , 2007, , .		0
45	Generation and evolution of intense ion cyclotron turbulence by artificial plasma cloud in the magnetosphere. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	16
46	Enhanced ionospheric ELF/VLF generation efficiency by multiple timescale modulated heating. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	25
47	A global MHD simulation of an event with a quasi-steady northward IMF component. <i>Annales Geophysicae</i> , 2007, 25, 1345-1358.	0.6	10
48	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, .	1.5	0
49	An interhemispheric model of artificial ionospheric ducts. <i>Radio Science</i> , 2006, 41, n/a-n/a.	0.8	23
50	Relationship between the ionospheric conductance, field aligned current, and magnetopause geometry: Global MHD simulations. <i>Planetary and Space Science</i> , 2005, 53, 873-879.	0.9	15
51	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
52	The magnetic response of the ionosphere to pulsed HF heating. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	31
53	Effect of anomalous electron heating on the transpolar potential in the LFM global MHD model. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	1.5	24
54	Global and multi-scale features of solar wind-magnetosphere coupling: From modeling to forecasting. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	41

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55	On the efficiency of ELF/MLF generation using HF heating of the auroral electrojet. Plasma Physics Reports, 2003, 29, 561-565.	0.3	49
56	Phase transition-like behavior of magnetospheric substorms: Global MHD simulation results. Journal of Geophysical Research, 2003, 108, .	3.3	18
57	Effects of the solar wind electric field and ionospheric conductance on the cross polar cap potential: Results of global MHD modeling. Geophysical Research Letters, 2003, 30, n/a-n/a.	1.5	54
58	Combining global and multi-scale features in a description of the solar wind-magnetosphere coupling. Annales Geophysicae, 2003, 21, 1913-1929.	0.6	21
59	Global and multiscale aspects of magnetospheric dynamics in local-linear filters. Journal of Geophysical Research, 2002, 107, SMP 15-1.	3.3	20
60	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
61	Demonstration of Sub-Millimeter Radiation Generation from Static Field by a Superluminous Ionization front in Semiconductor Capacitor Array. , 2002, , 27-32.		1
62	Modeling ionospheric absorption modified by anomalous heating during substorms. Geophysical Research Letters, 2001, 28, 487-490.	1.5	2
63	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
64	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. Geophysical Research Letters, 2001, 28, 3835-3838.	1.5	1
65	Substorms as nonequilibrium transitions of the magnetosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2001, 63, 1399-1406.	0.6	30
66	Gamma ray flashes by plasma effects in the middle atmosphere. Physics of Plasmas, 2001, 8, 4954-4959.	0.7	6
67	Conversion of Electrostatic to Electromagnetic Waves by Superluminous Ionization Fronts. Physical Review Letters, 2001, 86, 2806-2809.	2.9	55
68	Modeling substorm dynamics of the magnetosphere: From self-organization and self-organized criticality to nonequilibrium phase transitions. Physical Review E, 2001, 65, 016116.	0.8	76
69	Miniature photoconducting capacitor array as a source for tunable THz radiation. Review of Scientific Instruments, 2000, 71, 2380-2385.	0.6	5
70	Diffraction model of ionospheric irregularity-induced heater-wave pattern detected on the WIND satellite. Geophysical Research Letters, 2000, 27, 317-320.	1.5	4
71	Phase transition-like behavior of the magnetosphere during substorms. Journal of Geophysical Research, 2000, 105, 12955-12974.	3.3	90
72	Generation of tunable far-infrared radiation by the interaction of a superluminous ionizing front with an electrically biased photoconductor. Applied Physics Letters, 1999, 74, 1669-1671.	1.5	40

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73	ELF emission generated by the HAARP HF-heater using varying frequency and polarization. Radiophysics and Quantum Electronics, 1999, 42, 639-646.	0.1	14
74	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.	0.1	2
75	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
76	MHD simulations of the response of high-latitude potential patterns and polar cap Boundaries to sudden southward turnings of the interplanetary magnetic field. Geophysical Research Letters, 1999, 26, 967-970.	1.5	38
77	Spatiotemporal activity of magnetic storms. Journal of Geophysical Research, 1999, 104, 12239-12250.	3.3	29
78	Evidence for Langmuir envelope solitons in solar type III burst source regions. Journal of Geophysical Research, 1999, 104, 28279-28293.	3.3	30
79	Generation of tunable bandwidth-controllable terahertz radiation. , 1999, 3795, 477.		0
80	Spectrum of red sprites. Journal of Atmospheric and Solar-Terrestrial Physics, 1998, 60, 907-915.	0.6	30
81	The thermal self-focusing instability near the critical surface in the high-latitude ionosphere. Journal of Geophysical Research, 1998, 103, 2231-2237.	3.3	53
82	Simulation of the March 9, 1995, substorm: Auroral brightening and the onset of lobe reconnection. Geophysical Research Letters, 1998, 25, 3039-3042.	1.5	67
83	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.	1.5	63
84	Model of red sprites due to intracloud fractal lightning discharges. Radio Science, 1998, 33, 1655-1668.	0.8	22
85	Global MHD Simulation of Actual Magnetospheric Substorm Events. Astrophysics and Space Science Library, 1998, , 645-650.	1.0	1
86	Effects of Northward Turnings on the Initiation of Substorms in Global MHD Simulations. Astrophysics and Space Science Library, 1998, , 287-290.	1.0	1
87	Coupling between Local and Global Activity during the Substorm Expansion Phase: Results from MHD Simulations and Comparison to Observations. Astrophysics and Space Science Library, 1998, , 169-174.	1.0	1
88	Model of red sprite optical spectra. Geophysical Research Letters, 1997, 24, 833-836.	1.5	12
89	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.	1.5	4
90	Red sprites: Lightning as a fractal antenna. Geophysical Research Letters, 1997, 24, 3169-3172.	1.5	62

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91	The self-focusing instability in the presence of density irregularities in the ionosphere. Journal of Geophysical Research, 1996, 101, 2453-2460.	3.3	19
92	Runaway electrons in the atmosphere in the presence of a magnetic field. Radio Science, 1996, 31, 1541-1554.	0.8	34
93	Comment on "Can gamma radiation be produced in the electrical environment above thunderstorms". Geophysical Research Letters, 1996, 23, 2283-2284.	1.5	7
94	Direct Cerenkov excitation of waveguide modes by a mobile ionospheric heater. Radio Science, 1996, 31, 859-867.	0.8	8
95	Breakdown of magnetic insulation in semiconductor plasmas. IEEE Transactions on Plasma Science, 1996, 24, 1095-1100.	0.6	0
96	Prediction of magnetic storms by nonlinear models. Geophysical Research Letters, 1996, 23, 2899-2902.	1.5	121
97	Switch opening time reduction in high power photoconducting semiconductor switches. Optics Communications, 1996, 124, 443-447.	1.0	9
98	Electromagnetohydrodynamic response of a plasma to an external current pulse. Physics of Plasmas, 1996, 3, 1484-1494.	0.7	27
99	Collisionless Breakdown of Magnetic Insulation in Plasmas. Physical Review Letters, 1996, 76, 3120-3123.	2.9	1
100	Global and local geospace modeling in ISTP. Space Science Reviews, 1995, 71, 671-690.	3.7	3
101	On the physics of high altitude lightning. Geophysical Research Letters, 1995, 22, 85-88.	1.5	49
102	Alpha particle heating at comet-solar wind interaction regions. Journal of Geophysical Research, 1995, 100, 7891.	3.3	7
103	Remote photometry of the atmosphere using microwave breakdown. Journal of Geophysical Research, 1994, 99, 10387.	3.3	6
104	Hybrid simulations of whistler waves generation and current closure by a pulsed tether in the ionosphere. Geophysical Research Letters, 1994, 21, 1015-1018.	1.5	11
105	Cerenkov excitation of whistler/helicon waves by ionospheric HF heating. Geophysical Research Letters, 1994, 21, 1767-1770.	1.5	10
106	Modulational instability of lower hybrid waves at the magnetopause. Journal of Geophysical Research, 1994, 99, 23735.	3.3	15
107	Is the magnetosphere a lens for MHD waves?. Geophysical Research Letters, 1993, 20, 2809-2812.	1.5	20
108	Lower hybrid turbulence at cometary bow wave and acceleration of cometary protons. Journal of Geophysical Research, 1993, 98, 1325-1331.	3.3	21

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109	Reconstruction of low-dimensional magnetospheric dynamics by singular spectrum analysis. Geophysical Research Letters, 1993, 20, 335-338.	1.5	104
110	Triggering the HF breakdown of the atmosphere by barium release. Geophysical Research Letters, 1993, 20, 471-474.	1.5	1
111	An empirical model relating the auroral geomagnetic activity to the interplanetary magnetic field. Geophysical Research Letters, 1993, 20, 1731-1734.	1.5	26
112	Ionization rates for atmospheric and ionospheric breakdown. Journal of Geophysical Research, 1993, 98, 17593-17596.	3.3	46
113	The flight of the tethered satellite system. Eos, 1992, 73, 321-321.	0.1	5
114	the CIV processes in the CRIT experiments. Geophysical Research Letters, 1992, 19, 605-608.	1.5	16
115	Lyapunov exponent of magnetospheric activity from AL time series. Geophysical Research Letters, 1991, 18, 1643-1646.	1.5	34
116	RF ionization of the lower ionosphere. Radio Science, 1991, 26, 1345-1360.	0.8	31
117	Ballistic cross-field ion beam propagation in a magnetoplasma. Physics of Fluids B, 1991, 3, 1075-1090.	1.7	5
118	On the efficiency of ionospheric ELF generation. Radio Science, 1990, 25, 1311-1320.	0.8	82
119	A current disruption mechanism in the neutral sheet: A possible trigger for substorm expansions. Geophysical Research Letters, 1990, 17, 745-748.	1.5	147
120	Low-dimensional chaos in magnetospheric activity from AE time series. Geophysical Research Letters, 1990, 17, 1841-1844.	1.5	159
121	Resonance absorption of Alfvén waves at comet-solar wind interaction regions. Geophysical Research Letters, 1988, 15, 740-743.	1.5	21
122	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
123	Electromagnetic radiation from strong Langmuir turbulence. Physics of Fluids, 1988, 31, 2185.	1.4	48
124	Long-Range Cross-Field Ion-Beam Propagation in the Diamagnetic Regime. Physical Review Letters, 1988, 61, 94-97.	2.9	11
125	Stochastic Electron Acceleration in Obliquely Propagating Electromagnetic Waves. Physical Review Letters, 1987, 58, 2071-2074.	2.9	47
126	ELF generation in the lower ionosphere via collisional parametric decay. Journal of Geophysical Research, 1986, 91, 10097-10107.	3.3	8



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127	Active Nonlinear Ultralow-Frequency Generation in the Ionosphere. <i>Physical Review Letters</i> , 1986, 57, 641-644.	2.9	10
128	Ion-acoustic instabilities driven by an ion velocity ring. <i>Journal of Plasma Physics</i> , 1985, 34, 467-479.	0.7	11
129	Lower-hybrid instabilities driven by an ion velocity ring. <i>Journal of Plasma Physics</i> , 1985, 34, 445-465.	0.7	44
130	Generation of ELF/ULF waves in the ionosphere by dynamo processes. <i>Geophysical Research Letters</i> , 1985, 12, 279-282.	1.5	30
131	Nonlinear Waves. <i>Eos</i> , 1984, 65, 735.	0.1	0
132	Efficient Parametric Decay in Dissipative Media. <i>Physical Review Letters</i> , 1983, 51, 463-466.	2.9	28
133	The structure of perpendicular bow shocks. <i>Journal of Geophysical Research</i> , 1982, 87, 5081-5094.	3.3	439
134	Excitation of the earth's ionosphere waveguide by an ELF source in the ionosphere. <i>Radio Science</i> , 1982, 17, 1321-1326.	0.8	23
135	One-dimensional direct current resistivity due to strong turbulence. <i>Physics of Fluids</i> , 1981, 24, 832.	1.4	28
136	Strong Langmuir Turbulence in One and Two Dimensions. <i>Physical Review Letters</i> , 1981, 46, 346-349.	2.9	27
137	Oscillating two-stream and parametric decay instabilities in a weakly magnetized plasma. <i>Physics of Fluids</i> , 1980, 23, 139.	1.4	33
138	Collective radio-emission from plasmas. <i>Space Science Reviews</i> , 1979, 24, 511.	3.7	19
139	Nonlinear stability of solar type III radio bursts. I - Theory. <i>Astrophysical Journal</i> , 1979, 234, 348.	1.6	94
140	Nonlinear stability of solar type III radio bursts. II - Application to observations near 1 AU. <i>Astrophysical Journal</i> , 1979, 234, 683.	1.6	65
141	Lower-hybrid drift wave turbulence in the distant magnetotail. <i>Journal of Geophysical Research</i> , 1978, 83, 5217-5226.	3.3	198
142	Interpretation of soliton formation and parametric instabilities. <i>Physics of Fluids</i> , 1975, 18, 1397.	1.4	23
143	Parallel propagation effects on the type 1 electrojet instability. <i>Journal of Geophysical Research</i> , 1975, 80, 141-148.	3.3	73
144	Nonthermal features of the auroral plasma due to precipitating electrons. <i>Journal of Geophysical Research</i> , 1974, 79, 674-677.	3.3	87

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145	EMHD response of a maguetoplasma to an external current source. , 0, , .		0
146	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
147	Microinstabilities and Anomalous Transport. Geophysical Monograph Series, 0, , 59-90.	0.1	64