

# Mark Golkowski

## List of Publications by Year in descending order

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71  
papers

884  
citations

430874

18  
h-index

552781

26  
g-index

73  
all docs

73  
docs citations

73  
times ranked

723  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-hop whistler-mode ELF/VLF signals and triggered emissions excited by the HAARP HF heater. Geophysical Research Letters, 2004, 31, .	4.0	45
2	Magnetospheric amplification and emission triggering by ELF/VLF waves injected by the 3.6 MW HAARP ionospheric heater. Journal of Geophysical Research, 2008, 113, .	3.3	41
3	On the generation of ELF/VLF waves for long-distance propagation via steerable HF heating of the lower ionosphere. Journal of Geophysical Research, 2010, 115, .	3.3	40
4	Subtraction of correlated noise in global networks of gravitational-wave interferometers. Classical and Quantum Gravity, 2016, 33, 224003.	4.0	36
5	Orientation of the HAARP ELF ionospheric dipole and the auroral electrojet. Geophysical Research Letters, 2008, 35, .	4.0	35
6	ELF/VLF wave generation via ionospheric HF heating: Experimental comparison of amplitude modulation, beam painting, and geometric modulation. Journal of Geophysical Research, 2010, 115, .	3.3	35
7	On the occurrence of ground observations of ELF/VLF magnetospheric amplification induced by the HAARP facility. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	33
8	100 days of ELF/VLF generation via HF heating with HAARP. Journal of Geophysical Research: Space Physics, 2013, 118, 6597-6607.	2.4	32
9	Multistation observations of ELF/VLF whistler mode chorus. Journal of Geophysical Research, 2008, 113, .	3.3	30
10	Polarization of Narrowband VLF Transmitter Signals as an Ionospheric Diagnostic. Journal of Geophysical Research: Space Physics, 2018, 123, 901-917.	2.4	30
11	Review of Controlled Excitation of Non-linear Wave-Particle Interactions in the Magnetosphere. Frontiers in Astronomy and Space Sciences, 2019, 6, .	2.8	29
12	Evidence of Small Scale Plasma Irregularity Effects on Whistler Mode Chorus Propagation. Geophysical Research Letters, 2021, 48, e2021GL092850.	4.0	26
13	Globally coherent short duration magnetic field transients and their effect on ground based gravitational-wave detectors. Classical and Quantum Gravity, 2017, 34, 074002.	4.0	25
14	Amplitude and phase of nonlinear magnetospheric wave growth excited by the HAARP HF heater. Journal of Geophysical Research, 2010, 115, .	3.3	24
15	Multistation observations of the azimuth, polarization, and frequency dependence of ELF/VLF waves generated by electrojet modulation. Radio Science, 2015, 50, 1008-1026.	1.6	22
16	Remote delivery of hydroxyl radicals via secondary chemistry of a nonthermal plasma effluent. Biotechnology and Bioengineering, 2013, 110, 1936-1944.	3.3	21
17	The Lower Ionospheric VLF/LF Response to the 2017 Great American Solar Eclipse Observed Across the Continent. Geophysical Research Letters, 2018, 45, 3348-3355.	4.0	20
18	On the altitude of the ELF/VLF source region generated during wave-HF heating experiments. Geophysical Research Letters, 2012, 39, .	4.0	19

#	ARTICLE	IF	CITATIONS
19	Magnetospheric whistler mode ray tracing in a warm background plasma with finite electron and ion temperature. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 7323-7335.	2.4	18
20	Finite difference modeling of coherent wave amplification in the Earth's radiation belts. <i>Geophysical Research Letters</i> , 2014, 41, 8193-8200.	4.0	17
21	Unique concurrent observations of whistler mode hiss, chorus, and triggered emissions. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 6271-6282.	2.4	17
22	Remote Sensing of Radiation Belt Energetic Electrons Using Lightning Triggered Upper Band Chorus. <i>Geophysical Research Letters</i> , 2019, 46, 37-47.	4.0	17
23	Ionospheric $D$ Region Remote Sensing Using ELF Sferic Group Velocity. <i>Geophysical Research Letters</i> , 2018, 45, 12,739.	4.0	16
24	Theoretical and numerical analysis of radiation belt electron precipitation by coherent whistler mode waves. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 4370-4388.	2.4	15
25	Magnetospheric injection of ELF/VLF waves with modulated or steered HF heating of the lower ionosphere. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	14
26	Propagation of whistler mode waves with a modulated frequency in the magnetosphere. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	13
27	Observations of Ionospheric ELF and VLF Wave Generation by Excitation of the Thermal Cubic Nonlinearity. <i>Physical Review Letters</i> , 2013, 111, 235007.	7.8	13
28	The effect of electron and ion temperature on the refractive index surface of $\sim 10$ kHz whistler mode waves in the inner magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 581-591.	2.4	13
29	On the conditions for nonlinear growth in magnetospheric chorus and triggered emissions. <i>Physics of Plasmas</i> , 2017, 24, 092904.	1.9	13
30	Novel Mechanical Magnetic Shutter Antenna for ELF /VLF Radiation. , 2018, , .		13
31	Magnetic Field Penetration Into a Metal Enclosure Using an ELF/VLF Loop Antenna. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2020, 62, 1225-1236.	2.2	13
32	Estimation of global lightning activity and observations of atmospheric electric field. <i>Acta Geophysica</i> , 2011, 59, 183-204.	2.0	12
33	PIC simulations of post-pulse field reversal and secondary ionization in nanosecond argon discharges. <i>Plasma Sources Science and Technology</i> , 2018, 27, 055011.	3.1	12
34	Analysis of magnetospheric ELF/VLF wave amplification from the Siple Transmitter experiment. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 1837-1850.	2.4	11
35	Modulation of auroral electrojet currents using dual modulated HF beams with ELF phase offset, a potential $D$ region ionospheric diagnostic. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 2350-2358.	2.4	10
36	Quantification of Ionospheric Perturbations From Lightning Using Overlapping Paths of VLF Signal Propagation. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028540.	2.4	10

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37	Simultaneous Multi-angle Observations of Strong Langmuir Turbulence at HAARP. Earth, Moon and Planets, 2015, 116, 89-100.	0.6	9
38	Observation of local and conjugate ionospheric perturbations from individual oceanic lightning flashes. Geophysical Research Letters, 2014, 41, 273-279.	4.0	8
39	Coexistence of Lightning Generated Whistlers, Hiss and Lower Hybrid Noise Observed by e-POP (SWARM-E)â€“RRI. Atmosphere, 2020, 11, 177.	2.3	7
40	A Two-Port Model for Antennas in a Reverberation Chamber. IEEE Transactions on Antennas and Propagation, 2014, 62, 2338-2350.	5.1	6
41	Using Eccentricity to Locate Ionospheric Exit Points of Magnetospheric Whistler Mode Waves. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 7049-7061.	6.3	6
42	Imaging Conductive Objects Through Metal Enclosures Using ELF/VLF Magnetic Fields. IEEE Access, 2020, 8, 79745-79753.	4.2	6
43	Strong Amplification of ELF/VLF Signals in Space Using Neutral Gas Injections From a Satellite Rocket Engine. Radio Science, 2021, 56, e2020RS007207.	1.6	6
44	Reply to comment by R. C. Moore and M. T. Rietveld on â€œGeometric modulation: A more effective method of steerable ELF/VLF wave generation with continuous HF heating of the lower ionosphereâ€œ. Geophysical Research Letters, 2009, 36, .	4.0	5
45	Ionospheric effects of whistler waves from rocket-triggered lightning. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	5
46	On lower bound antenna efficiency measurements in a reverberation chamber. , 2012, , .		5
47	Automated Largeâ€“Scale Extraction of Whistlers Using Maskâ€“Scoring Regional Convolutional Neural Network. Geophysical Research Letters, 2021, 48, e2021GL093819.	4.0	5
48	Broadband Electrically Small VLF/LF Transmitter via Time-Varying Antenna Properties. IEEE Transactions on Antennas and Propagation, 2022, 70, 97-110.	5.1	5
49	Preferential amplification of rising versus falling frequency whistler mode signals. Geophysical Research Letters, 2015, 42, 207-214.	4.0	4
50	Modulation Analysis of Whistler Mode Sidebands in VLFâ€“Triggered Emissions and Implications for Conditions of Nonlinear Growth. Journal of Geophysical Research: Space Physics, 2017, 122, 12,505.	2.4	3
51	A novel method for determining the lower bound of antenna efficiency. , 2011, , .		2
52	Effect of finite electron and ion temperature on magnetospheric whistler mode raytracing. , 2016, , .		2
53	Optimal waveforms for capacitively coupled ionization in nanosecond plasma discharges. Plasma Sources Science and Technology, 2018, 27, 105015.	3.1	2
54	Raytracing Study of Source Regions of Whistler Mode Wave Power Distribution Relative to the Plasmapause. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027154.	2.4	2

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55	Enhanced electron density and plasma dynamics on nanosecond time scales in Helium plasma discharges. <i>European Physical Journal D</i> , 2021, 75, 1.	1.3	2
56	Distributed self-tuning consensus and synchronization. <i>Systems and Control Letters</i> , 2015, 76, 66-73.	2.3	1
57	Numerical model for microwave induced thermoacoustic imaging. , 2016, , .		1
58	LOW-POWER MICROWAVE INDUCED THERMOACOUSTIC IMAGING: EXPERIMENTAL STUDY AND HYBRID FEM MODELING. <i>Progress in Electromagnetics Research C</i> , 2019, 91, 265-277.	0.9	1
59	Rapid ionization of Xe/Ar mixtures in nanosecond discharges exploiting post-pulse field reversals. <i>Plasma Research Express</i> , 2021, 3, 025003.	0.9	1
60	Detection of magnetospherically ducted VLF signals geomagnetically conjugate to a Russian Alpha transmitter at L=1.9. , 2011, , .		0
61	A lower bound of antenna efficiency based on the two-port model: How close is it?. , 2013, , .		0
62	Analysis of whistler mode sidebands of magnetospheric triggered emissions. , 2013, , .		0
63	Multi-station observations of frequency dependence of amplitude and polarization of the ELF waves generated via ionospheric modification. , 2014, , .		0
64	Warm plasma raytracing of whistler mode waves in the Earth's magnetosphere. , 2017, , .		0
65	Optimizing fast discharges for high speed time varying plasma antenna using particle in cell simulations. , 2017, , .		0
66	Numerical Modeling Of High Speed Time Varying Plasma Antenna Using Electromagnetic 2D Particle-In-Cell Simulation. , 2017, , .		0
67	Frequency Dependent Source Locations of Whistler Mode Waves in the Plasmasphere: A Raytracing Approach. , 2018, , .		0
68	Detection of Scatterers Inside Metal Containers via VLF Signals of Opportunity. , 2019, , .		0
69	Modeling Low Frequency Magnetic Field Shielding using the Locally Corrected Nyström Method. , 2019, , .		0
70	On the use of ELF/VLF emissions triggered by HAARP to simulate PLHR and to study associated MLR events. <i>Earth, Planets and Space</i> , 2022, 74, .	2.5	0
71	Trapped Electron Effects in Transient Helium Sub-Nanosecond Atmospheric Microplasmas. <i>IEEE Transactions on Plasma Science</i> , 2022, 50, 560-565.	1.3	0