

# Jamesina J Simpson

## List of Publications by Year in descending order

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43  
papers

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citations

840776

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43  
docs citations

43  
times ranked

617  
citing authors

#	ARTICLE	IF	CITATIONS
1	FDTD Modeling of Internal Electrostatic Discharge Events Coupled to High Frequency Antennas. IEEE Transactions on Electromagnetic Compatibility, 2022, 64, 39-46.	2.2	0
2	3-D FDTD Modeling of Long-Distance VLF Propagation in the Earth-Ionosphere Waveguide. IEEE Transactions on Antennas and Propagation, 2021, 69, 7743-7752.	5.1	9
3	An Optimized CPML Formulation for High Order FDTD Schemes for CED. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2021, 6, 183-200.	2.2	2
4	University of Utah Hybrid-Flexible Education. , 2021, , .		1
5	An FDTD Investigation of Orthogonality and the Backscattering of HF Waves in the Presence of Ionospheric Irregularities. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028201.	2.4	2
6	Making a Synthesis of FDTD and DGTD Schemes for Computational Electromagnetics. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2020, 5, 99-118.	2.2	10
7	FDTD Modeling of High-Frequency Waves Through Ionospheric Plasma Irregularities. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027499.	2.4	6
8	Two Dimensional Full-Wave Modeling of Propagation of Low-Altitude Hiss in the Ionosphere. Geophysical Research Letters, 2020, 47, e2019GL086601.	4.0	4
9	Two-Dimensional Full-Wave Simulation of Whistler Mode Wave Propagation Near the Local Lower Hybrid Resonance Frequency in a Dipole Field. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027750.	2.4	11
10	Improving the Efficiency of Maxwell's Equations FDTD Modeling for Space Weather Applications by Scaling the Speed of Light. , 2020, , .		1
11	Analysis of Electromagnetic Wave Propagation in Variable Magnetized Plasma via Polynomial Chaos Expansion. IEEE Transactions on Antennas and Propagation, 2019, 67, 438-449.	5.1	11
12	FDTD Modeling of Scattered Ultra-Low Frequency Electromagnetic Waves From Objects Submerged in the Ocean. IEEE Transactions on Antennas and Propagation, 2019, 67, 2534-2541.	5.1	8
13	Ionospheric Variability Effects on Impulsive ELF Antipodal Propagation About the Earth Sphere. IEEE Transactions on Antennas and Propagation, 2018, 66, 6244-6254.	5.1	8
14	A Finite Difference Time Domain Investigation of Electric Field Enhancements Along Ocean-Continent Boundaries During Space Weather Events. Journal of Geophysical Research: Space Physics, 2018, 123, 5033-5046.	2.4	11
15	Simplified FDTD model of electromagnetic wave propagation in magnetized plasma. , 2018, , .		0
16	Parallel I/O for 3-D Global FDTD Earth-Ionosphere Waveguide Models at Resolutions on the Order of ~1 km and Higher Using HDF5. IEEE Transactions on Antennas and Propagation, 2018, 66, 3548-3555.	5.1	11
17	3-D FDTD Modeling of Electromagnetic Wave Propagation in Magnetized Plasma Requiring Singular Updates to the Current Density Equation. IEEE Transactions on Antennas and Propagation, 2018, 66, 4772-4781.	5.1	15
18	Geomagnetically induced currents: Science, engineering, and applications readiness. Space Weather, 2017, 15, 828-856.	3.7	149

#	ARTICLE	IF	CITATIONS
19	Parallelization of 3-D Global FDTD Earth-Ionosphere Waveguide Models at Resolutions on the Order of $\hat{\wedge}^{1/4}$ 1 km and Higher. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1959-1962.	4.0	10
20	A polynomial chaos approach for EM uncertainty propagation in 3D-FDTD magnetized cold plasma. , 2015, , .		10
21	An Efficient 3-D FDTD Model of Electromagnetic Wave Propagation in Magnetized Plasma. IEEE Transactions on Antennas and Propagation, 2015, 63, 269-279.	5.1	49
22	A 3-D Stochastic FDTD Model of Electromagnetic Wave Propagation in Magnetized Ionosphere Plasma. IEEE Transactions on Antennas and Propagation, 2015, 63, 304-313.	5.1	53
23	A summary of the major global 3-D FDTD modeling capabilities to-date. , 2015, , .		0
24	Super-enhanced optical energy concentration through a subwavelength aperture using a photonic nanojet. , 2014, , .		0
25	Three-dimensional subwavelength confinement of a photonic nanojet using a plasmonic nanoantenna GAP. Microwave and Optical Technology Letters, 2014, 56, 2700-2706.	1.4	3
26	An efficient stochastic approach to uncertainty quantification in 3-D FDTD magnetized cold plasma. , 2014, , .		0
27	Analysis of electromagnetic field variability in magnetized ionosphere plasma using the stochastic FDTD method. , 2014, , .		3
28	Lightsabers (&#x201C;laster swords&#x201D;) for improving photodetector speed and responsivity. , 2013, , .		0
29	A stochastic FDTD model of electromagnetic wave propagation in magnetized ionospheric plasma. , 2013, , .		0
30	On the development of global plasma-ionosphere FDTD algorithms for electromagnetic calculations in the Earth-ionosphere system. , 2012, , .		0
31	A feasibility study of microjets applied to breast cancer detection. , 2012, , .		1
32	An established numerical method applied to geophysics. Eos, 2012, 93, 265-266.	0.1	3
33	A 3-D Global Earth-Ionosphere FDTD Model Including an Anisotropic Magnetized Plasma Ionosphere. IEEE Transactions on Antennas and Propagation, 2012, 60, 3246-3256.	5.1	52
34	A Magnetic Field-Independent Absorbing Boundary Condition for Magnetized Cold Plasma. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 294-297.	4.0	15
35	Multiphysics modeling of VLF - HF propagation in the Earth-ionosphere system for communications, surveillance, and navigation. , 2011, , .		1
36	On the possibility of high-level transient coronal mass ejection-induced ionospheric current coupling to electric power grids. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	13

#	ARTICLE	IF	CITATIONS
37	FDTD Calculations of the Diffraction Coefficient of Vibrating Wedges. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 163-166.	4.0	0
38	An E-J Collocated 3-D FDTD Model of Electromagnetic Wave Propagation in Magnetized Cold Plasma. IEEE Transactions on Antennas and Propagation, 2010, 58, 469-478.	5.1	77
39	Using FDTD to improve our understanding of partial wave spectroscopy for advancing ultra early-stage cancer detection techniques. , 2009, , .		1
40	A new 3-D FDTD model of magnetized cold plasma for modeling electromagnetic wave propagation in the earth-ionosphere waveguide. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	0
41	FDTD Modeling Applications in Ultrahigh-Speed Interconnects and Electromagnetic Compatibility of Complex Packages. , 2009, , .		0
42	Current and Future Applications of 3-D Global Earth-Ionosphere Models Based on the Full-Vector Maxwell's Equations FDTD Method. Surveys in Geophysics, 2009, 30, 105-130.	4.6	61
43	Global FDTD Maxwell's Equations Modeling of Electromagnetic Propagation From Currents in the Lithosphere. IEEE Transactions on Antennas and Propagation, 2008, 56, 199-203.	5.1	14