Theodoros T Zygiridis

List of Publications by Year
in descending order

88	421	1040056 9	940533 16
papers	citations	h-index	g-index

88	88	88	315
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Error-optimized finite-difference modeling of wave propagation problems with Lorentz material dispersion. Journal of Computational Physics, 2022, 452, 110916.	3.8	2
2	Finite-difference wave-propagation models for dispersive media: impact of space-time discretization. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2022, ahead-of-print, 1024.	0.9	0
3	Accurate Time-Domain Modeling of Arbitrarily Shaped Graphene Layers Utilizing Unstructured Triangular Grids. Axioms, 2022, 11, 44.	1.9	1
4	An Anisotropic Sparse Adaptive Polynomial Chaos Method for the Uncertainty Quantification of Resonant Gratings-Performance. Journal of Lightwave Technology, 2022, 40, 3640-3646.	4.6	3
5	An Adaptive Sparse Anisotropic Polynomial-Chaos Expansion Algorithm Applied to EMC Problems. IEEE Electromagnetic Compatibility Magazine, 2021, 10, 80-87.	0.1	0
6	Radiation Efficiency Enhancement of Graphene Plasmonic Devices Using Matching Circuits. Technologies, 2021, 9, 4.	5.1	1
7	Generation of Waveform-Controlled Optical Pulses of Arbitrary Width in a Linear, Causal Dielectric: An Approach Based on Asymptotic Analysis. , 2021, , .		1
8	A Consistent Scheme for the Precise FDTD Modeling of the Graphene Interband Contribution. IEEE Transactions on Magnetics, 2021, 57, 1-4.	2.1	4
9	Modeling of Stochastic EMC Problems with Anisotropic Polynomial Chaos Expansions. IEEE Electromagnetic Compatibility Magazine, 2021, 10, 70-79.	0.1	1
10	A Reduced-Basis Polynomial-Chaos Approach with a Multi-parametric Truncation Scheme for Problems with Uncertainties. , 2021, , 529-546.		0
11	Modeling the Third-Order Electrodynamic Response of Graphene via an Efficient Finite-Difference Time-Domain Scheme. IEEE Transactions on Magnetics, 2020, 56, 1-4.	2.1	2
12	Stochastic investigation of graphene structures with efficient polynomial models. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2020, 39, 611-622.	0.9	0
13	Quadrupolarisability extraction for planar metamaterial scatterers via far-field response. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2020, 39, 647-657.	0.9	1
14	Design of efficient graphene plasmonic coupling circuits for THz applications. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2020, 39, 659-669.	0.9	0
15	An adaptive sparse polynomial-chaos technique based on anisotropic indices. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2020, 39, 691-707.	0.9	1
16	Homogenization of 3D metamaterial particle arrays for oblique propagation via a point-dipole analysis. EPJ Applied Physics, 2020, 91, 20902.	0.7	1
17	A Stochastic Finite-Difference Time-Domain (FDTD) Method for Assessing Material and Geometric Uncertainties in Rectangular Objects. Technologies, 2020, 8, 12.	5.1	3
18	Uncertainty Study of Periodic-Grating Wideband Filters With Sparse Polynomial-Chaos Expansions. IEEE Photonics Technology Letters, 2019, 31, 1499-1502.	2.5	6

#	Article	IF	Citations
19	A Stochastic FDTD Method for Rectangular Objects with Geometric Uncertainties. , 2019, , .		5
20	Intrusive polynomialâ€chaos approach for stochastic problems with axial symmetry. IET Microwaves, Antennas and Propagation, 2019, 13, 782-788.	1.4	3
21	Efficient Uncertainty Assessment in EM Problems via Dimensionality Reduction of Polynomial-Chaos Expansions. Technologies, 2019, 7, 37.	5.1	2
22	Combining standard with optimised splitâ€step finiteâ€difference timeâ€domain methods for the study of graphene configurations. IET Science, Measurement and Technology, 2019, 13, 1150-1157.	1.6	2
23	Eigenmode Solution for TE-Wave Propagation Through Anisotropic Metamaterial Particle 3-D Arrays via Dipole Approximation. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	0
24	Regression-Based Stochastic Study of Electromagnetic Fields Due to Lightning Strikes. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 1630-1638.	2.2	1
25	Efficient Krylovâ€based 3D FVTD schemes with adaptive domain decomposition for graphene and nanostructured EMC components. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2236.	1.9	1
26	Investigation of uncertainty in lightningâ€produced EM fields with a polynomialâ€chaos FDTD approach. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2238.	1.9	8
27	An unconditionally stable technique for uncertainty assessment in random media based on the ADI scheme. Journal of Electromagnetic Waves and Applications, 2018, 32, 671-684.	1.6	3
28	Development of a Transmission Line Model for the Thickness Prediction of Thin Films via the Infrared Interference Method. Technologies, 2018, 6, 122.	5.1	3
29	Dimensionality Reduction of the Polynomial Chaos Technique Based on the Method of Moments. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 2349-2353.	4.0	9
30	An Optimized Unconditionally Stable Approach for the Solution of Discretized Maxwellâ€™s Equations. Springer Optimization and Its Applications, 2018, , 505-521.	0.9	0
31	Performance analysis of waveguide-mode resonant optical filters with stochastic design parameters. Applied Optics, 2018, 57, 3106.	1.8	5
32	A Convolutional PML Scheme for the Efficient Modeling of Graphene Structures Through the ADE-FDTD Technique. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	11
33	Improved Unconditionally Stable FDTD Method for 3-D Wave-Propagation Problems. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 1921-1928.	4.6	2
34	Circular and square SRR exploitation as a means for wireless power transfer. , 2017, , .		1
35	A stochastic FDTD approach for assessing random media uncertainties in polar coordinates. , 2017, , .		1
36	Performance improvement of various antennas using inclusions of split-ring resonators. , 2017, , .		0

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37	Stochastic LOD-FDTD method for two-dimensional electromagnetic uncertainty problems. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2017, 36, 1442-1456.	0.9	4
38	Rigorous time-domain analysis of statistically oriented graphene sheet fluctuations. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2017, 36, 1351-1363.	0.9	1
39	Graphene sheet modeling with an efficient unconditionally-stable hybrid approach. , 2017, , .		0
40	Efficient uncertainty analysis of waveguide-mode resonant optical filters. , 2017, , .		0
41	A Short Review of FDTD-Based Methods for Uncertainty Quantification in Computational Electromagnetics. Mathematical Problems in Engineering, 2017, 2017, 1-8.	1.1	6
42	Connectivity and coverage in machine-type communications. , 2017, , .		12
43	A convolutional PML scheme for the efficient modeling of graphene structures through the ADE-FDTD technique. , 2016, , .		0
44	Polynomial-chaos time-domain method for uncertainty analysis of axially-symmetric structures. , 2016, , .		1
45	Development of optimized operators based on spherical-harmonic expansions for 3D FDTD schemes. International Journal of Applied Electromagnetics and Mechanics, 2016, 51, S57-S66.	0.6	3
46	Unconditionally-stable time-domain approach for uncertainty assessment in transmission lines. , 2016, , .		5
47	Statistical analysis of microwave components through a 3-D stochastic-FDTD technique. , 2016, , .		0
48	DAMA: A data mining forecasting DBA scheme for XG-PONs. , 2016, , .		9
49	Construction of 3D FDTD schemes with frequency-dependent operator coefficients. , 2016, , .		1
50	Transmitted and reflected graphene surface waves due to substrate discontinuities. , 2016, , .		0
51	Efficient Integration of High-Order Stencils Into the ADI-FDTD Method. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	3
52	A Generalized Domain-Decomposition Stochastic FDTD Technique for Complex Nanomaterial and Graphene Structures. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	9
53	Accelerated unconditionally stable FDTD scheme with modified operators. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2015, 34, 1564-1577.	0.9	1
54	A curvilinear stochastic-FDTD algorithm for 3-D EMC problems with media uncertainties. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2015, 34, 1637-1651.	0.9	6

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55	Parallel LOD-FDTD Method With Error-Balancing Properties. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	8
56	A 3-D Stochastic FVTD Method Based on Reduced-Order Modeling for Statistically Random Media in Nano-Electromagnetic Applications. IEEE Transactions on Magnetics, 2015, 51, 1-5.	2.1	1
57	GPU-Based Calculation of Lightning-Generated Electromagnetic Fields in 3-D Problems With Statistically Defined Uncertainties. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 1556-1567.	2.2	8
58	GPU-based three-dimensional calculation of lightning-generated electromagnetic fields. , 2014, , .		2
59	FDTD analysis of 3D lightning problems with material uncertainties on GPU architecture. , 2014, , .		0
60	GPU-Accelerated Efficient Implementation of FDTD Methods With Optimum Time-Step Selection. IEEE Transactions on Magnetics, 2014, 50, 477-480.	2.1	6
61	Enhanced Analysis of Multiconductor Nanostructured Devices via a Compact Block FDTD/VFETD Method. IEEE Transactions on Magnetics, 2014, 50, 173-176.	2.1	0
62	On the design of leapfrog integrators for optimized implementations of 3D FDTD models. , 2013, , .		0
63	High-Order Error-Optimized FDTD Algorithm With GPU Implementation. IEEE Transactions on Magnetics, 2013, 49, 1809-1812.	2.1	9
64	Design of Least-Squares Time Integrators for Reliable FDTD Simulations. IEEE Transactions on Magnetics, 2013, 49, 1817-1820.	2.1	1
65	Efficient calculation of the lightning generated electric field above ground. , 2012, , .		3
66	Fourthâ€order finiteâ€difference timeâ€domain method based on errorâ€controlling concepts. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2012, 25, 587-598.	1.9	1
67	Optimum time-step size for 2D (2, 4) FDTD method. Electronics Letters, 2011, 47, 317.	1.0	4
68	Two-Dimensional Time-Domain Algorithm With Adaptive Spectral Properties. IEEE Microwave and Wireless Components Letters, 2010, 20, 241-243.	3.2	0
69	Vehicle-to-vehicle communication system EMI characterization on automotive electronics. , 2010, , .		5
70	Error Estimation and Performance Control for the (2,4) FDTD Method in Lossy Spaces. IEEE Transactions on Magnetics, 2009, 45, 1356-1359.	2.1	2
71	Treatment of Grid-Conforming Dielectric Interfaces in FDTD Methods. IEEE Transactions on Magnetics, 2009, 45, 1396-1399.	2.1	6
72	Optimized (2,4) FDTD Method for Conducting Media. IEEE Transactions on Magnetics, 2008, 44, 1370-1373.	2.1	2

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73	Improved Finite-Difference Time-Domain Algorithm Based on Error Control for Lossy Materials. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 1440-1445.	4.6	2
74	ASSESSMENT OF HUMAN HEAD EXPOSURE TO WIRELESS COMMUNICATION DEVICES: COMBINED ELECTROMAGNETIC AND THERMAL STUDIES FOR DIVERSE FREQUENCY BANDS. Progress in Electromagnetics Research B, 2008, 9, 83-96.	1.0	10
75	Optimized three-dimensional FDTD discretizations of Maxwellâ€™s equations on Cartesian grids. Journal of Computational Physics, 2007, 226, 2372-2388.	3.8	21
76	Numerical modeling of an indoor wireless environment for the performance evaluation of WLAN systems. IEEE Transactions on Magnetics, 2006, 42, 839-842.	2.1	17
77	Design of optimized FDTD schemes for the accurate solution of electromagnetic problems. IEEE Transactions on Magnetics, 2006, 42, 811-814.	2.1	4
78	Phase error reduction in general FDTD methods via optimum configuration of material parameters. Journal of Materials Processing Technology, 2005, 161, 186-192.	6.3	1
79	Development of higher order FDTD schemes with controllable dispersion error. IEEE Transactions on Antennas and Propagation, 2005, 53, 2952-2960.	5.1	17
80	Higher Order Tangential Vector Finite Elements for 3-D Antenna Array Structures. Electromagnetics, 2004, 24, 95-111.	0.7	1
81	An Unconditionally Stable Higher Order ADI-FDTD Technique for the Dispersionless Analysis of Generalized 3-D EMC Structures. IEEE Transactions on Magnetics, 2004, 40, 1436-1439.	2.1	26
82	A Dispersion-Reduction Scheme for the Higher Order. IEEE Transactions on Magnetics, 2004, 40, 1464-1467.	2.1	12
83	Low-Dispersion Algorithms Based on the Higher Order. IEEE Transactions on Microwave Theory and Techniques, 2004, 52, 1321-1327.	4.6	56
84	Higher-order finite-difference schemes with reduced dispersion errors for accurate time-domain electromagnetic simulations. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2004, 17, 461-486.	1.9	10
85	Higher order approaches of FDTD and TVFE methods for the accurate analysis of fractal antenna arrays. IEEE Transactions on Magnetics, 2003, 39, 1230-1233.	2.1	5
86	A nonstandard higher order FDTD algorithm for 3-D arbitrarily and fractal-shaped antenna structures on general curvilinear lattices. IEEE Transactions on Magnetics, 2002, 38, 737-740.	2.1	7
87	Sierpinski double-gasket antenna investigated with 3-D FDTD conformal technique. Electronics Letters, 2002, 38, 107.	1.0	3
88	A comparative study of the biological effects of various mobile phone and wireless LAN antennas. IEEE Transactions on Magnetics, 2002, 38, 777-780.	2.1	26