Tomasz P StefaÅ„ski

List of Publications by Year
in descending order

62 papers	334 citations	840119 11 h-index	996533 15 g-index
62 all docs	62 docs citations	62 times ranked	146 citing authors

#	Article	IF	Citations
1	Analytical Methods for Causality Evaluation of Photonic Materials. Materials, 2022, 15, 1536.	1.3	2
2	FPGA Acceleration of Matrix-Assembly Phase of RWG-Based MoM. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1847-1851.	2.4	1
3	Three-dimensional Weyl topology in one-dimensional photonic structures. Light: Science and Applications, 2022, 11, .	7.7	1
4	Generalization of Kramers-KrÃ¶nig relations for evaluation of causality in power-law media. Communications in Nonlinear Science and Numerical Simulation, 2021, 95, 105664.	1.7	7
5	Signal Propagation in Electromagnetic Media Modelled by the Two-Sided Fractional Derivative. Fractal and Fractional, 2021, 5, 10.	1.6	9
6	Testing Stability of Digital Filters Using Optimization Methods with Phase Analysis. Energies, 2021, 14, 1488.	1.6	3
7	Implementation of Coprocessor for Integer Multiple Precision Arithmetic on Zynq Ultrascale+ MPSoC. , 2021, , .		1
8	Formulation of Time-Fractional Electrodynamics Based on Riemann-Silberstein Vector. Entropy, 2021, 23, 987.	1.1	5
9	On possible applications of media described by fractional-order models in electromagnetic cloaking. Communications in Nonlinear Science and Numerical Simulation, 2021, 99, 105827.	1.7	5
10	Finite-difference time-domain analyses of active cloaking for electrically-large objects. Optics Express, 2021, 29, 3055.	1.7	0
11	Topological, nonreciprocal, and multiresonant slow light beyond the time-bandwidth limit. Applied Physics Letters, 2021, 119, .	1.5	13
12	Signal propagation in electromagnetic media described by fractional-order models. Communications in Nonlinear Science and Numerical Simulation, 2020, 82, 105029.	1.7	31
13	On Applications of Elements Modelled by Fractional Derivatives in Circuit Theory. Energies, 2020, 13, 5768.	1.6	13
14	Open-Source Coprocessor for Integer Multiple Precision Arithmetic. Electronics (Switzerland), 2020, 9, 1141.	1.8	3
15	Fundamental properties of solutions to fractional-order Maxwell's equations. Journal of Electromagnetic Waves and Applications, 2020, 34, 1955-1976.	1.0	11
16	Nonreciprocal cavities and the time-bandwidth limit: comment. Optica, 2020, 7, 1097.	4.8	12
17	Magnetic switching of Kerker scattering in spherical microresonators. Nanophotonics, 2020, 9, 4033-4041.	2.9	10
18	Performance Analysis of Convolutional Neural Networks on Embedded Systems. , 2020, , .		1

#	Article	IF	Citations
19	Multimodal Genetic Algorithm with Phase Analysis to Solve Complex Equations of Electromagnetic Analysis. , 2020, , .		1
20	Simulation of Wave Propagation in Media Described by Fractional-Order Models. , 2020, , .		1
21	On Applications of Fractional Derivatives in Electromagnetic Theory. , 2020, , .		2
22	Multimodal Particle Swarm Optimization with Phase Analysis to Solve Complex Equations of Electromagnetic Analysis. , 2020, , .		1
23	Electromagnetic-based derivation of fractional-order circuit theory. Communications in Nonlinear Science and Numerical Simulation, 2019, 79, 104897.	1.7	24
24	Implementation of Addition and Subtraction Operations in Multiple Precision Arithmetic. , 2019, , .		1
25	Intelligent Autonomous Robot Supporting Small Pets in Domestic Environment. IFAC-PapersOnLine, 2019, 52, 194-199.	0.5	0
26	Recurrence scheme for FDTD-compatible discrete Green's function derived based on properties of Gauss hypergeometric function. Journal of Electromagnetic Waves and Applications, 2019, 33, 637-653.	1.0	2
27	Fractional Order Circuit Elements Derived from Electromagnetism. , 2019, , .		0
28	Reduction of Computational Complexity in Simulations of the Flow Process in Transmission Pipelines. Advances in Intelligent Systems and Computing, 2018, , 241-252.	0.5	2
29	Numerical Test for Stability Evaluation of Discrete-Time Systems. , 2018, , .		3
30	IP Core of Coprocessor for Multiple-Precision-Arithmetic Computations. , 2018, , .		3
31	A New Approach to Stability Evaluation of Digital Filters. , 2018, , .		3
32	Analytical Expression for the Time-Domain Greenâ€™s Function of a Discrete Plane Wave Propagating in a 3-D FDTD Grid. IEEE Transactions on Antennas and Propagation, 2017, 65, 3607-3614.	3.1	3
33	FPGA implementation of the multiplication operation in multiple-precision arithmetic. , 2017, , .		4
34	FDTD simulations on disjoint domains with the use of discrete Green's function diakoptics. , 2016, , .		0
35	Parallel implementation of the DGF-FDTD method on GPU Using the CUDA technology. , 2016, , .		0
36	A New Expression for the 3-D Dyadic FDTD-Compatible Green's Function Based on Multidimensional Z-Transform. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1002-1005.	2.4	9

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37	Exact modal absorbing boundary condition for waveguide simulations - discrete Green's function approach. , 2014, , .		0
38	OpenGL accelerated method of the material matrix generation for FDTD simulations. , 2014, , .		1
39	Hybridization of the FDTD method with use of the discrete Green's function. , 2014, , .		0
40	Analytical Expression for the Time-Domain Discrete Green's Function of a Plane Wave Propagating in the 2-D FDTD Grid. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 887-890.	2.4	2
41	Hybrid technique combining the backward ray tracing and the FDTD method. , 2014, , .		0
42	Application of the discrete Green's function-based antenna simulations for excitation of the total-field/scattered-field interface in the FDTD method. Microwave and Optical Technology Letters, 2014, 56, 1949-1953.	0.9	0
43	Accuracy of the Discrete Green's Function Formulation of the FDTD Method. IEEE Transactions on Antennas and Propagation, 2013, 61, 829-835.	3.1	13
44	OpenCL-based acceleration of the FDTD method in computational electromagnetics. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2013, 26, 355-365.	1.2	4
45	Hybrid Technique Combining the FDTD Method and Its Convolution Formulation Based on the Discrete Green's Function. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 1448-1451.	2.4	9
46	Electromagnetic Problems Requiring High-Precision Computations. IEEE Antennas and Propagation Magazine, 2013, 55, 344-353.	1.2	19
47	IMPLEMENTATION OF FDTD-COMPATIBLE GREEN'S FUNCTION ON HETEROGENEOUS CPU-GPU PARALLEL PROCESSING SYSTEM. Progress in Electromagnetics Research, 2013, 135, 297-316.	1.6	17
48	APPLICATIONS OF THE DISCRETE GREEN'S FUNCTION IN THE FINITE-DIFFERENCE TIME-DOMAIN METHOD. Progress in Electromagnetics Research, 2013, 139, 479-498.	1.6	10
49	Acceleration of the discrete Green's function computations. , 2012, , .		0
50	Implementation of FDTD-Compatible Green's Function on Graphics Processing Unit. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 1422-1425.	2.4	11
51	Accuracy of the discrete Green's function computations. , 2012, , .		0
52	Fast Implementation of FDTD-Compatible Green's Function on Multicore Processor. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 81-84.	2.4	12
53	COMPARISON OF CPML IMPLEMENTATIONS FOR THE GPU-ACCELERATED FDTD SOLVER. Progress in Electromagnetics Research M, 2011, 19, 61-75.	0.5	9
54	Experience of implementing PML for parallel ADI-FDTD. , 2009, , .		0

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55	Acceleration of the 3D ADI-FDTD method using graphics processor units. , 2009, , .		18
56	Parallel ADI-BOR-FDTD Algorithm. IEEE Microwave and Wireless Components Letters, 2008, 18, 722-724.	2.0	4
57	Large scale ADI-FDTD parallel computations. , 2008, , .		1
58	Novel implementation of the convolution perfectly matched layer in ADI-FDTD method. , 2008, , .		1
59	Application of mode transformers for characterization of symmetrical bi-modal planar transmission lines. , 2007, , .		0
60	Experimental Frequency-Domain Characterization of Fundamental Guided Mode Parameters in Coupled Coplanar Waveguide. , 2006, , .		0
61	Experimental and Numerical Investigation of Crosstalk Effect in Coupled Coplanar Waveguidesâ€”Part II: Multimode Coupled Line Representation. IEEE Transactions on Electromagnetic Compatibility, 2006, 48, 677-684.	1.4	3
62	Development of a high velocity accessory for atomic force microscopy-based friction measurements. Review of Scientific Instruments, 2005, 76, 083704.	0.6	13