

Ian Jeffrey

List of Publications by Year in descending order

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docs citations

57
times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Interfacing Thin-Wire and Circuit Subcell Models in Unstructured Time-Domain Field Solvers. IEEE Transactions on Antennas and Propagation, 2012, 60, 1978-1986.	5.1	62
2	FULL-VECTORIAL PARALLEL FINITE-ELEMENT CONTRAST SOURCE INVERSION METHOD. Progress in Electromagnetics Research, 2013, 142, 463-483.	4.4	58
3	A Three-Dimensional Precorrected FFT Algorithm for Fast Method of Moments Solutions of the Mixed-Potential Integral Equation in Layered Media. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 3505-3517.	4.6	56
4	Grain bin monitoring via electromagnetic imaging. Computers and Electronics in Agriculture, 2015, 119, 133-141.	7.7	43
5	Multiplicatively Regularized Source Reconstruction Method for Phaseless Planar Near-Field Antenna Measurements. IEEE Transactions on Antennas and Propagation, 2017, 65, 2020-2031.	5.1	32
6	Innovations in Electromagnetic Imaging Technology: The Stored-Grain-Monitoring Case. IEEE Antennas and Propagation Magazine, 2020, 62, 33-42.	1.4	32
7	Detection and continuous monitoring of localised high-moisture regions in a full-scale grain storage bin using electromagnetic imaging. Biosystems Engineering, 2017, 163, 37-49.	4.3	26
8	Hybridizable Discontinuous Galerkin Method Contrast Source Inversion of 2-D and 3-D Dielectric and Magnetic Targets. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 1766-1777.	4.6	21
9	Improvement of Multi-Frequency Microwave Breast Imaging through Frequency Cycling and Tissue-Dependent Mapping. IEEE Transactions on Antennas and Propagation, 2019, 67, 7087-7096.	5.1	18
10	Phaseless Parametric Inversion for System Calibration and Obtaining Prior Information. IEEE Access, 2019, 7, 128735-128745.	4.2	17
11	THE TIME-HARMONIC DISCONTINUOUS GALERKIN METHOD AS A ROBUST FORWARD SOLVER FOR MICROWAVE IMAGING APPLICATIONS. Progress in Electromagnetics Research, 2015, 154, 1-21.	4.4	16
12	Improved Tumor Detection via Quantitative Microwave Breast Imaging Using Eigenfunction-Based Prior. IEEE Transactions on Computational Imaging, 2020, 6, 1194-1202.	4.4	16
13	Proof of Concept for Sea Ice Stage of Development Classification Using Deep Learning. Remote Sensing, 2020, 12, 2486.	4.0	16
14	CNN for Compressibility to Permittivity Mapping for Combined Ultrasound-Microwave Breast Imaging. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2021, 6, 62-72.	2.2	16
15	A Monte Carlo Method for Simulating Scattering From Sea Ice Using FVTD. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 2658-2668.	6.3	14
16	On the Equivalence of RWG Method of Moments and the Locally Corrected Nyström Method for Solving the Electric Field Integral Equation. IEEE Transactions on Antennas and Propagation, 2014, 62, 772-782.	5.1	14
17	Using the Source Reconstruction Method to Model Incident Fields in Microwave Tomography. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 46-49.	4.0	12
18	Stored Grain Inventory Management Using Neural-Network-Based Parametric Electromagnetic Inversion. IEEE Access, 2020, 8, 207182-207192.	4.2	10

#	ARTICLE	IF	CITATIONS
19	A Machine Learning Workflow for Tumour Detection in Breasts Using 3D Microwave Imaging. Electronics (Switzerland), 2021, 10, 674.	3.1	9
20	The Barnes-Hut Hierarchical Center-of-Charge Approximation for Fast Capacitance Extraction in Multilayered Media. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 1175-1188.	4.6	7
21	A Comparison of Time-Domain and Frequency-Domain Microwave Imaging of Experimental Targets. IEEE Transactions on Computational Imaging, 2021, 7, 611-623.	4.4	7
22	Exact Relationship Between the Locally Corrected Nyström Scheme and RWG Moment Method for the Mixed-Potential Integral Equation. IEEE Transactions on Antennas and Propagation, 2015, 63, 4932-4943.	5.1	6
23	NON-ITERATIVE EIGENFUNCTION-BASED INVERSION (NIEI) ALGORITHM FOR 2D HELMHOLTZ EQUATION. Progress in Electromagnetics Research B, 2019, 85, 1-25.	1.0	6
24	Microwave imaging by mixed-order discontinuous Galerkin contrast source inversion. , 2014, , .		5
25	On New Triangle Quadrature Rules for the Locally Corrected Nyström Method Formulated on NURBS-Generated Bézier Surfaces in 3-D. IEEE Transactions on Antennas and Propagation, 2016, 64, 3027-3038.	5.1	5
26	Electromagnetic inversion for biomedical imaging, antenna characterization, and sea ice remote sensing applications. , 2016, , .		5
27	Hybrid Approaches in Microwave Imaging Using Quantitative Time- and Frequency-Domain Algorithms. IEEE Transactions on Computational Imaging, 2022, 8, 121-132.	4.4	5
28	Generalization of the Barnes-Hut algorithm for the Helmholtz equation in three dimensions. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 425-428.	4.0	4
29	Microwave Breast Imaging Incorporating Material Property Dependencies. , 2019, , .		4
30	Novel Stopping Criteria for Optimization-Based Microwave Breast Imaging Algorithms. Journal of Imaging, 2019, 5, 55.	3.0	4
31	Imaging and Calibration of Electromagnetic Inversion Data With a Single Data Set. IEEE Open Journal of Antennas and Propagation, 2022, 3, 12-23.	3.7	4
32	Accurate capacitance extraction in the entire package model using a parallel kernel independent hierarchical extractor. , 2007, , .		3
33	Effect of Multilayered Substrate on the Barnes-Hut Center-Of-Charge Clustering Approximation: Half-Space Case Study. , 2008, , .		3
34	Qualitative Techniques for Generating Spatial Prior Information for Biomedical Microwave Imaging. , 2020, , .		3
35	The Implementation of Neural Networks for Phaseless Parametric Inversion. , 2020, , .		3
36	Green's theorem based eigenfunction formulations for PEC-enclosed electromagnetic imaging. , 2016, , .		2

#	ARTICLE	IF	CITATIONS
37	Single Data Set Calibration and Imaging with Uncooperative Electromagnetic Inversion Systems. , 2021, , .		2
38	Error-Controlled Static Layered-Medium Greenâ€™s Function Computation via <i>hp</i> -Adaptive Spectral Differential Equation Approximation Method. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1329-1342.	2.5	2
39	Closed-Form Evaluation of Mixed Potential Shielded Layered Media Greenâ€™s Functions With Spectral Differential Equation Approximation Method. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 2553-2565.	4.6	2
40	An Integrated Microwave-Ultrasound Breast Imaging System: Initial Phantom Results. , 2022, , .		2
41	Experimental validation of thin-wire FVTD models. , 2009, , .		1
42	A novel 3D near-field microwave imaging system. , 2013, , .		1
43	Simultaneous high-order contrast source inversion of dielectric and magnetic targets. , 2014, , .		1
44	Discontinuous-Galerkin microwave imaging. , 2014, , .		1
45	Frequency-Weighting for Multi-Frequency Electromagnetic Source Contrast Inversion. , 2018, , .		1
46	Towards Calibration of Uncooperative Electromagnetic Imaging Systems using CycleGANs. , 2021, , .		1
47	Using Lossy Greenâ€™s Functions to Improve Back-Propagated Reconstructions of Material Interfaces inside Resonant Enclosures. , 2021, , .		1
48	A Simple Approach to Modifying the Contrast Basis in Contrast Source Inversion. , 2022, , .		1
49	A comparative study of volumetric vs. subcell modeling of thin-wire structures in FVTD. , 2012, , .		0
50	Field and contrast eigenfunction expansions and their application to microwave imaging algorithms. , 2013, , .		0
51	Multiplicatively regularized source reconstruction method for phaseless near-field antenna measurements. , 2015, , .		0
52	A mixed Discontinuous Galerkin formulation for time-harmonic scattering problems. , 2016, , .		0
53	H-matrix compression of discontinuous Galerkin method exact radiating boundary conditions. , 2016, , .		0
54	A Contrast Source Inversion Method for Multiple Inhomogeneous Backgrounds. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
55	A Machine Learning Method for Characterization of Complex Grain-Air Interfaces in Grain Storage Bins. , 2021, , .		0
56	Recovery of Prior Information for Breast Microwave Imaging Using Neural Networks. , 2021, , .		0
57	Spatial Prior for Quantitative Breast Cancer Microwave Imaging: a Comparison Between Non-Iterative Eigenfunction-Based Inversion and Sampling Methods. , 2020, , .		0