

JosÃ© Manuel Taboada

List of Publications by Year in descending order

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110
papers

2,092
citations

257101

24
h-index

243296

44
g-index

110
all docs

110
docs citations

110
times ranked

2361
citing authors

#	ARTICLE	IF	CITATIONS
1	A Discontinuous Galerkin Combined Field Integral Equation Formulation for Electromagnetic Modeling of Piecewise Homogeneous Objects of Arbitrary Shape. IEEE Transactions on Antennas and Propagation, 2022, 70, 487-498.	3.1	13
2	Multiresolution Preconditioners for Solving Realistic Multi-Scale Complex Problems. IEEE Access, 2022, 10, 22038-22048.	2.6	6
3	Tear-and-Interconnect Domain Decomposition Scheme for Solving Multiscale Composite Penetrable Objects. IEEE Access, 2020, 8, 107345-107352.	2.6	7
4	Integrating Plasmonic Supercrystals in Microfluidics for Ultrasensitive, Label-Free, and Selective Surface-Enhanced Raman Spectroscopy Detection. ACS Applied Materials & Interfaces, 2020, 12, 46557-46564.	4.0	27
5	Micelle-directed chiral seeded growth on anisotropic gold nanocrystals. Science, 2020, 368, 1472-1477.	6.0	205
6	Accurate EMC Engineering on Realistic Platforms Using an Integral Equation Domain Decomposition Approach. IEEE Transactions on Antennas and Propagation, 2020, 68, 3002-3015.	3.1	19
7	Correction to "Tear-and-Interconnect Domain Decomposition Scheme for Solving Multiscale Composite Penetrable Objects". IEEE Access, 2020, 8, 220921-220921.	2.6	0
8	Fast Maxwell's Simulation of New Real-World Problems at the Nanoscale. , 2019, , .		0
9	Tear and Interconnect Domain Decomposition Analysis of Piecewise Penetrable Structures. , 2019, , .		0
10	Electromagnetic Analysis and Design of Radiating Systems On Board Real Platforms Via Domain Decomposition Method. , 2019, , .		0
11	Solving Realistic Multiscale and Composite Problems using an Integral Equation Domain Decomposition Approach. , 2019, , .		0
12	Charge-Induced Shifts in Chiral Surface Plasmon Modes in Gold Nanorod Assemblies. Particle and Particle Systems Characterization, 2019, 36, 1800368.	1.2	5
13	Reversible Clustering of Gold Nanoparticles under Confinement. Angewandte Chemie, 2018, 130, 3237-3240.	1.6	19
14	Multilevel fast multipole algorithm for fields. Journal of Electromagnetic Waves and Applications, 2018, 32, 1261-1274.	1.0	6
15	Reversible Clustering of Gold Nanoparticles under Confinement. Angewandte Chemie - International Edition, 2018, 57, 3183-3186.	7.2	53
16	Radiation hazards to personnel from non-ionizing fields of broadband HF systems onboard a vessel: Measurement and simulation. Measurement: Journal of the International Measurement Confederation, 2018, 115, 223-232.	2.5	2
17	Multilayer homogeneous dielectric filler for electromagnetic invisibility. Scientific Reports, 2018, 8, 13923.	1.6	5
18	Successes and frustrations in the solution of large electromagnetic problems in supercomputers. , 2017, , .		1

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19	Distributed macrobasis decomposition for the electromagnetic solution of large periodic structures. , 2017, , .		1
20	Optimization of Nanoparticle-Based SERS Substrates through Large-Scale Realistic Simulations. ACS Photonics, 2017, 4, 329-337.	3.2	135
21	Pillar[5]arene-Based Supramolecular Plasmonic Thin Films for Label-Free, Quantitative and Multiplex SERS Detection. ACS Applied Materials & Interfaces, 2017, 9, 26372-26382.	4.0	31
22	Surface integral equation-domain decomposition scheme for solving multi-scale radiation and scattering problems. , 2017, , .		0
23	Evaluation of reaction integrals in the Galerkin's method of moments. , 2017, , .		0
24	On the Evaluation of the 4-D Reaction Integral for the Scalar Potential in Galerkin's Method of Moments. IEEE Transactions on Antennas and Propagation, 2017, 65, 5356-5364.	3.1	4
25	SlotFFT techniques for fast computation of large and periodic electromagnetics problems. , 2017, , .		0
26	Fast and accurate electromagnetic solutions of finite periodic optical structures. Optics Express, 2017, 25, 18031.	1.7	4
27	Plasmonic Au@Pd Nanorods with Boosted Refractive Index Susceptibility and SERS Efficiency: A Multifunctional Platform for Hydrogen Sensing and Monitoring of Catalytic Reactions. Chemistry of Materials, 2016, 28, 9169-9180.	3.2	85
28	Large-scale nanoplasmonic modeling: Improving convergence. , 2016, , .		0
29	Impact of the evaluation precision of the reaction integrals of the method of moments on the solution of plasmonic problems near the quasi-static regime. , 2016, , .		0
30	Gold Nanostar-Coated Polystyrene Beads as Multifunctional Nanoprobes for SERS Bioimaging. Journal of Physical Chemistry C, 2016, 120, 20860-20868.	1.5	69
31	Surface Integral Equation-Domain Decomposition Scheme for Solving Multiscale Nanoparticle Assemblies With Repetitions. IEEE Photonics Journal, 2016, 8, 1-14.	1.0	11
32	HF broadband antenna design for shipboard communications: Simulation and measurements. Measurement: Journal of the International Measurement Confederation, 2016, 89, 13-20.	2.5	2
33	Plasmonic substrates comprising gold nanostars efficiently regenerate cofactor molecules. Journal of Materials Chemistry A, 2016, 4, 7045-7052.	5.2	30
34	Boundary element method for the electromagnetic analysis of metamaterials. , 2015, , .		0
35	Boundary element methods for the scattering retrieval of metamaterials. , 2015, , .		0
36	SQUEEZING MAXWELL'S EQUATIONS INTO THE NANOSCALE (Invited Paper). Progress in Electromagnetics Research, 2015, 154, 35-50.	1.6	12

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37	Electromagnetic analysis of large nanoplasmonic assemblies with fast multipole methods. , 2015, , .		0
38	Surface Integral Equation-Method of Moments With Multiregion Basis Functions Applied to Plasmonics. IEEE Transactions on Antennas and Propagation, 2015, 63, 2141-2152.	3.1	47
39	Gold Nanorod-pNIPAM Hybrids with Reversible Plasmon Coupling: Synthesis, Modeling, and SERS Properties. ACS Applied Materials & Interfaces, 2015, 7, 12530-12538.	4.0	105
40	MLFMA-MoM for Solving the Scattering of Densely Packed Plasmonic Nanoparticle Assemblies. IEEE Photonics Journal, 2015, 7, 1-9.	1.0	19
41	Improved combined tangential formulation for electromagnetic analysis of penetrable bodies. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1780.	0.9	12
42	Collective Plasmonic Properties in Few-Layer Gold Nanorod Supercrystals. ACS Photonics, 2015, 2, 1482-1488.	3.2	75
43	Radial growth of plasmon coupled gold nanowires on colloidal templates. Journal of Colloid and Interface Science, 2015, 449, 87-91.	5.0	7
44	Plasmon Modes and Hot Spots in Gold Nanostar-Satellite Clusters. Journal of Physical Chemistry C, 2015, 119, 10836-10843.	1.5	64
45	Coupling of plasmonic gap waveguides with directive antennas. , 2014, , .		0
46	Experience on radar cross section reduction of a warship. Microwave and Optical Technology Letters, 2014, 56, 2270-2273.	0.9	2
47	Toward Ultimate Nanoplasmonics Modeling. ACS Nano, 2014, 8, 7559-7570.	7.3	132
48	Directive nanoantennas for optical wireless links. , 2013, , .		0
49	Design of optical wide-band log-periodic nanoantennas using surface integral equation techniques. Optics Communications, 2013, 301-302, 61-66.	1.0	11
50	MLFMA-FFT Parallel Algorithm for the Solution of Extremely Large Problems in Electromagnetics. Proceedings of the IEEE, 2013, 101, 350-363.	16.4	47
51	Optimization of an optical wireless nanolink using directive nanoantennas. Optics Express, 2013, 21, 2369.	1.7	59
52	Directive antenna nanocoupler to plasmonic gap waveguides. Optics Letters, 2013, 38, 1630.	1.7	18
53	Fast surface integral equation methods for the optimization of nanoantennas. , 2013, , .		0
54	Preconditioning the surface integral equation formulations for the fast solution of penetrable bodies composed of arbitrary materials. , 2013, , .		0

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55	Novel surface integral equation formulation for penetrable bodies. , 2013, , .		1
56	Solution of large-scale plasmonic problems with the multilevel fast multipole algorithm. Optics Letters, 2012, 37, 416.	1.7	41
57	Improving condition number and convergence of the surface integral-equation method of moments for penetrable bodies. Optics Express, 2012, 20, 17237.	1.7	17
58	Large-scale plasmonic problems solved with the multilevel fast multipole algorithm. , 2012, , .		0
59	Comparative of surface integral equation formulations when applied to plasmonic problems. , 2012, , .		0
60	Comparison of surface integral equation formulations for electromagnetic analysis of plasmonic nanoscatterers. Optics Express, 2012, 20, 9161.	1.7	62
61	Optimization of invisibility cloaks by surface integral equation method. , 2012, , .		1
62	Design of optical nanoantennas with the surface integral equation method of moments. , 2012, , .		0
63	Fast surface integral equation formulations for large-scale conductors, metamaterials, and plasmonic problems. , 2012, , .		0
64	Calculation of wave propagation parameters in generalized media. Microwave and Optical Technology Letters, 2012, 54, 2731-2736.	0.9	2
65	Electromagnetic Analysis of Metamaterials and Plasmonic Nanostructures with the Method of Moments. IEEE Antennas and Propagation Magazine, 2012, 54, 81-91.	1.2	9
66	Computational electromagnetic solutions for large-scale conductors, left-handed metamaterials and plasmonic nanostructures. , 2011, , .		0
67	Low-Cost Procedure for Radar-Imaging Simulation. IEEE Antennas and Propagation Magazine, 2011, 53, 55-62.	1.2	0
68	Method-of-moments formulation for the analysis of plasmonic nano-optical antennas. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 1341.	0.8	86
69	COMPARISON OF SURFACE INTEGRAL EQUATIONS FOR LEFT-HANDED MATERIALS. Progress in Electromagnetics Research, 2011, 118, 425-440.	1.6	21
70	Extended near field preconditioner for the analysis of large problems using the nested FMM-FFT algorithm. Microwave and Optical Technology Letters, 2011, 53, 430-433.	0.9	3
71	HP-FASS: a hybrid parallel fast acoustic scattering solver. International Journal of Computer Mathematics, 2011, 88, 1960-1968.	1.0	10
72	MLFMA-FFT PARALLEL ALGORITHM FOR THE SOLUTION OF LARGE-SCALE PROBLEMS IN ELECTROMAGNETICS. Progress in Electromagnetics Research, 2010, 105, 15-30.	1.6	92

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73	SUPERCOMPUTER AWARE APPROACH FOR THE SOLUTION OF CHALLENGING ELECTROMAGNETIC PROBLEMS. Progress in Electromagnetics Research, 2010, 101, 241-256.	1.6	31
74	MLFMA-FFT algorithm for the solution of challenging problems in electromagnetics. , 2010, , .		0
75	Insensitive Environment Calibration Procedure for an Instrumental Radar. Journal of Electromagnetic Waves and Applications, 2010, 24, 2165-2177.	1.0	3
76	Integral equation formulations for the analysis of left-handed metamaterials. , 2010, , .		0
77	Surface integral equation formulation for the analysis of left-handed metamaterials. Optics Express, 2010, 18, 15876.	1.7	45
78	GEOMETRY BASED PRECONDITIONER FOR RADIATION PROBLEMS INVOLVING WIRE AND SURFACE BASIS FUNCTIONS. Progress in Electromagnetics Research, 2009, 93, 29-40.	1.6	5
79	Analysis of 0.5 billion unknowns using a parallel FMM-FFT solver. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	2
80	Solution of very large integral equation problems with single level FMM. Microwave and Optical Technology Letters, 2009, 51, 2451-2453.	0.9	9
81	High scalability multipole method. Solving half billion of unknowns. Computer Science - Research and Development, 2009, 23, 169-175.	2.7	4
82	High Scalability FMM-FFT Electromagnetic Solver for Supercomputer Systems. IEEE Antennas and Propagation Magazine, 2009, 51, 20-28.	1.2	45
83	Geometrically based preconditioner for the Fast Multipole Method using rooftop basis functions and Galerkin testing procedure. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	0
84	Power decomposition method for compression of the electric-field integral equation. , 2009, , .		0
85	Parallel FMM-FFT solver for the analysis of hundreds of millions of unknowns. , 2009, , .		1
86	On the Use of the Singular Value Decomposition in the Fast Multipole Method. IEEE Transactions on Antennas and Propagation, 2008, 56, 2325-2334.	3.1	27
87	Bias of the Maximum Likelihood Doa Estimation from Inaccurate Knowledge of the Antenna Array Response. Journal of Electromagnetic Waves and Applications, 2007, 21, 1205-1217.	1.0	17
88	Compression of the fast multipole method using the singular value decomposition. , 2007, , .		0
89	High scalability codes for the fast multipole method. , 2007, , .		0
90	Broadband HF Antenna Matching Network Design Using a Real-Coded Genetic Algorithm. IEEE Transactions on Antennas and Propagation, 2007, 55, 611-618.	3.1	17

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91	Accurate evaluation of singular potential integrals in an asymptotic-phase method of moments formulation. <i>Microwave and Optical Technology Letters</i> , 2007, 49, 2189-2197.	0.9	1
92	Evaluation of singular potential integrals in the method of moments using linearly phased RWG basis functions. , 2007, , .		0
93	Piecewise travelling-wave basis functions for wires. <i>Microwave and Optical Technology Letters</i> , 2006, 48, 960-966.	0.9	2
94	Efficient asymptotic-phase modeling of the induced currents in the fast multipole method. <i>Microwave and Optical Technology Letters</i> , 2006, 48, 1594-1599.	0.9	6
95	Incorporation of linear-phase progression in RWG basis functions. <i>Microwave and Optical Technology Letters</i> , 2005, 44, 106-112.	0.9	20
96	Evaluation of Galerkin Integrals Involving Triangular-Type Wire-to-Surface Junctions in the Method of Moments. <i>IEEE Transactions on Antennas and Propagation</i> , 2004, 52, 2785-2789.	3.1	7
97	HEMCUVI: a software package for the electromagnetic analysis and design of radiating systems on board real platforms. <i>IEEE Antennas and Propagation Magazine</i> , 2002, 44, 44-61.	1.2	6
98	Including multibounce effects in the moment-method physical-optics (MMPO) method. <i>Microwave and Optical Technology Letters</i> , 2002, 32, 435-439.	0.9	23
99	The Cramer-Rao bound for the estimation of angles of arrival in on-board array antennas. <i>Microwave and Optical Technology Letters</i> , 2002, 33, 119-123.	0.9	2
100	Synthesis of array antennas onboard complex platforms considering coupling effects by means of a hybrid MM-PO technique. <i>Microwave and Optical Technology Letters</i> , 2002, 33, 207-212.	0.9	6
101	Including near-field constraints for the synthesis of onboard array antennas. <i>Microwave and Optical Technology Letters</i> , 2002, 34, 188-191.	0.9	3
102	General purpose software package for electromagnetics engineering education. <i>Computer Applications in Engineering Education</i> , 2002, 10, 33-44.	2.2	10
103	Synthesis of onboard array antennas including interaction with the mounting platform and mutual coupling effects. <i>IEEE Antennas and Propagation Magazine</i> , 2001, 43, 76-82.	1.2	25
104	A method-of-moments-based algorithm to synthesize a conformal onboard array antenna. <i>Microwave and Optical Technology Letters</i> , 2001, 29, 324-328.	0.9	3
105	A floating attachment mode for arbitrary wire-to-surface connections. <i>Microwave and Optical Technology Letters</i> , 2001, 30, 102-105.	0.9	2
106	Improvement of the hybrid moment method-physical optics method through a novel evaluation of the physical optics operator. <i>Microwave and Optical Technology Letters</i> , 2001, 30, 357-363.	0.9	15
107	Comparison of moment-method solutions for wire antennas attached to arbitrarily shaped bodies. <i>Microwave and Optical Technology Letters</i> , 2000, 26, 413-419.	0.9	9
108	Hybrid moment-method physical-optics formulation for modeling the electromagnetic behavior of on-board antennas. <i>Microwave and Optical Technology Letters</i> , 2000, 27, 88-93.	0.9	35

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109	Design of on-board array antennas by pattern optimization. Microwave and Optical Technology Letters, 1999, 21, 446-448.	0.9	16
110	Automatic wire-grid generation for electromagnetic analysis of arbitrary-shaped conducting bodies by NEC. Computer Applications in Engineering Education, 1999, 7, 31-43.	2.2	0