Salvatore Alfonzetti

List of Publications by Year
in descending order

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60 papers	600 citations	687363 13 h-index	677142 22 g-index
60 all docs	60 docs citations	60 times ranked	127 citing authors

#	Article	IF	Citations
1	Charge iteration: A procedure for the finite element computation of unbounded electrical fields. International Journal for Numerical Methods in Engineering, 1994, 37, 4147-4166.	2.8	71
2	Finite element iterative solution of skin effect problems in open boundaries. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 1996, 9, 125-143.	1.9	47
3	Iteratively-improved Robin boundary conditions for the finite element solution of scattering problems in unbounded domains. International Journal for Numerical Methods in Engineering, 1998, 42, 601-629.	2.8	45
4	Finite-element solution of eddy-current problems in unbounded domains by means of the hybrid FEM-DBCI method. IEEE Transactions on Magnetics, 2003, 39, 1409-1412.	2.1	42
5	ELFIN: an N-dimensional finite-element code for the computation of electromagnetic fields. IEEE Transactions on Magnetics, 1988, 24, 362-365.	2.1	28
6	Finite-element solution to electromagnetic scattering problems by means of the Robin boundary condition iteration method. IEEE Transactions on Antennas and Propagation, 2002, 50, 132-140.	5.1	27
7	An improved solution scheme for open-boundary skin effect problems. IEEE Transactions on Magnetics, 2001, 37, 3474-3477.	2.1	22
8	A theoretical study of charge iteration. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 1996, 15, 22-46.	0.9	19
9	Comparing FEM-BEM and FEM-DBCI for open-boundary electrostatic field problems. EPJ Applied Physics, 2007, 39, 143-148.	0.7	17
10	An Iterative Solution to FEM-BEM Algebraic Systems for Open-Boundary Electrostatic Problems. IEEE Transactions on Magnetics, 2007, 43, 1249-1252.	2.1	17
11	Efficient Solution of Skin-Effect Problems by Means of the GMRES-Accelerated FEM-BEM Method. IEEE Transactions on Magnetics, 2008, 44, 1274-1277.	2.1	16
12	A finite element mesh generator based on an adaptive neural network. IEEE Transactions on Magnetics, 1998, 34, 3363-3366.	2.1	14
13	A proposal for a universal parameter configuration for genetic algorithm optimization of electromagnetic devices. IEEE Transactions on Magnetics, 2001, 37, 3208-3211.	2.1	14
14	A Non-Standard Family of Boundary Elements for the Hybrid FEM-BEM Method. IEEE Transactions on Magnetics, 2009, 45, 1312-1315.	2.1	14
15	Improving the accuracy of the integral equation in the hybrid FEM-DBCI method for open boundary electrostatic problems. IEEE Transactions on Magnetics, 2006, 42, 579-582.	2.1	13
16	A GMRES iterative solution of FEMâ€BEM global systems in skin effect problems. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 1286-1295.	0.9	13
17	Charge iteration for N-dimensional unbounded electrical field computations. IEEE Transactions on Magnetics, 1992, 28, 1682-1685.	2.1	12
18	Accuracy of the Robin boundary condition iteration method for the finite element solution of scattering problems. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2000, 13, 217-231.	1.9	12

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19	Improved Selection of the Integration Surface in the Hybrid FEM-DBCI Method. IEEE Transactions on Magnetics, 2010, 46, 3357-3360.	2.1	12
20	Axisymmetric unbounded electrical field computation by charge iteration. IEEE Transactions on Magnetics, 1993, 29, 2043-2046.	2.1	10
21	Computing capacitances of vias in multilayered boards. IEEE Transactions on Magnetics, 2001, 37, 3186-3189.	2.1	9
22	Transient Thermal Analysis of an Eddy-Current Heated Conductor Applying FEM-DBCI. IEEE Transactions on Magnetics, 2013, 49, 1861-1864.	2.1	9
23	A comparison between hybrid methods: FEM-BEM versus FEM-DBCI. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2013, 32, 1901-1911.	0.9	9
24	Finite element analysis of unbounded non-linear transient magnetic fields. IEEE Transactions on Magnetics, 1997, 33, 1318-1321.	2.1	8
25	Scattering from three-dimensional cavity-backed apertures in an infinite ground plane by RBCI. IEEE Transactions on Magnetics, 2000, 36, 917-920.	2.1	8
26	Overrelaxing the charge iteration procedure. IEEE Transactions on Magnetics, 1996, 32, 694-697.	2.1	7
27	Convergence analysis of the charge iteration procedure for unbounded electrical fields. IEEE Transactions on Magnetics, 1994, 30, 2873-2876.	2.1	6
28	Treatment of unbounded skin-effect problems in the presence of material inhomogeneities. IEEE Transactions on Magnetics, 1995, 31, 1504-1507.	2.1	6
29	Some considerations about the perfectly matched layer for static fields. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 1999, 18, 337-347.	0.9	6
30	A Modified FEM-DBCI Method for Static and Quasi-Static Electromagnetic Field Problems. IEEE Transactions on Magnetics, 2010, 46, 2803-2806.	2.1	6
31	Applying FEM-RBCI to the analysis of plasmons in metallic nanoparticles. International Journal of Applied Electromagnetics and Mechanics, 2012, 39, 13-20.	0.6	5
32	GMRES Solution of FEM-BEM Global Systems for Electrostatic Problems Without Voltaged Conductors. IEEE Transactions on Magnetics, 2013, 49, 1701-1704.	2.1	5
33	Efficient Analysis of Grounding Systems by Means of the Hybrid FEMâ€“DBCI Method. IEEE Transactions on Industry Applications, 2015, 51, 5159-5166.	4.9	5
34	Stochastic optimization of an electromagnetic actuator by means of Dirichlet boundary condition iteration. IEEE Transactions on Magnetics, 2000, 36, 1110-1114.	2.1	4
35	Solution of skin-effect problems by means of the hybrid SDBCI method. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2014, 33, 1935-1949.	0.9	4
36	Eddy Current Computation by the FEM-SDBCI Method. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	4

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37	FEM-DBCI Solution of Open-Boundary Electrostatic Problems in the Presence of Floating Potential Conductors. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	4
38	Optimization of the shape of an induction heating device in the presence of skin effect in the coils. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2019, 39, 525-531.	0.9	4
39	Placement of the fictitious boundary in the charge iteration procedure for unbounded electrical field problems. IEEE Transactions on Magnetics, 1995, 31, 1392-1395.	2.1	3
40	Shape optimization of the magnetic channel of a superconducting cyclotron. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 1998, 17, 123-127.	0.9	3
41	Perfectly matched layer for static and quasistatic fields: a false method. IEEE Transactions on Magnetics, 2003, 39, 1115-1118.	2.1	3
42	Electromagnetic Scattering Computation by Means of the Hybrid FEM-SRBCI Method. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	3
43	A generalization of the charge iteration procedure. IEEE Transactions on Magnetics, 1997, 33, 1204-1207.	2.1	2
44	Numerical implementations of the FEMâ€ÐBCI integral equation. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 879-886.	0.9	2
45	The FEMâ€ÐBCI methods in EMC applications. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2462.	1.9	2
46	Thin Conductor Modelling Combined with a Hybrid Numerical Method to Evaluate the Transferred Potential from Isolated Grounding System. Energies, 2019, 12, 1210.	3.1	2
47	FEM analysis of a naval PLC system. , 2010, , .		1
48	Improving the integral equation in the hybrid FEMâ€ŘBCI method for scalar electromagnetic scattering problems. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2012, 31, 1318-1327.	0.9	1
49	Solution of Open-Boundary Problems by Means of the Hybrid FEM-GDBCI Method. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	1
50	Computation of Transferred Potentials from Grounding Grids by Means of Hybrid Methods. , 2018, , .		1
51	Optimization of Frequency Selective Surfaces for the Design of Electromagnetic Mantle Cloaks. IEEE Transactions on Magnetics, 2021, 57, 1-4.	2.1	1
52	Non-Standard Nodal Boundary Elements for FEM-BEM. Studies in Computational Intelligence, 2008, , 47-54.	0.9	1
53	An Iterative Solution to FEM-BEM Algebraic Systems for Open-Boundary Electrostatic Problems. , 0, , .		0
54	Thermal analysis of an eddyâ€ścurrent heated piece by means of the FEMâ€ÐBCI method. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 427-435.	0.9	0

#	Article	IF	Citations
55	Analysis of a grounding system by means of the hybrid FEM-DBCI method. , 2010, , .		0
56	Numerical simulations of the electromagnetic field near the conductors of a naval PLC system. , 2011, , .		0
57	Solution of unbounded skin effect problems by means of the singular FEM-DBCI method. , 2012, , .		0
58	Solution of open-boundary problems by means of the hybrid FEM-GDBCI method. , 2016, , .		0
59	Reducing Electromagnetic Interferences on Power Planes of High-Speed Circuits by means of a High-Impedance Electromagnetic Surface. , 2019, , .		0
60	The Hybrid FEM-DBCI for the Solution of Open-Boundary Low-Frequency Problems. Mathematics, 2021, 9, 1968.	2.2	0