

# Herbert De Gersem

## List of Publications by Year in descending order

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216  
papers

1,876  
citations

279487

23  
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433756

31  
g-index

221  
all docs

221  
docs citations

221  
times ranked

1189  
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite-Element Modeling of Magnetic Material Degradation Due to Punching. IEEE Transactions on Magnetics, 2014, 50, 745-748.	1.2	71
2	The classification of coupled field problems. IEEE Transactions on Magnetics, 1999, 35, 1618-1621.	1.2	53
3	Solution strategies for transient, field-circuit coupled systems. IEEE Transactions on Magnetics, 2000, 36, 1531-1534.	1.2	50
4	Winding functions in transient magnetoquasistatic field-circuit coupled simulations. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2013, 32, 2063-2083.	0.5	49
5	A parametric finite element environment tuned for numerical optimization. IEEE Transactions on Magnetics, 1998, 34, 2936-2939.	1.2	44
6	A Cosimulation Framework for Multirate Time Integration of Field/Circuit Coupled Problems. IEEE Transactions on Magnetics, 2010, 46, 3233-3236.	1.2	40
7	A topological method used for field-circuit coupling. IEEE Transactions on Magnetics, 1998, 34, 3190-3193.	1.2	39
8	A Coupled A <sup>∗</sup> H Formulation for Magneto-Thermal Transients in High-Temperature Superconducting Magnets. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-11.	1.1	38
9	Field-circuit coupled models in electromagnetic simulation. Journal of Computational and Applied Mathematics, 2004, 168, 125-133.	1.1	36
10	Load balanced 2D and 3D adaptive mesh refinement in OpenFOAM. SoftwareX, 2019, 10, 100317.	1.2	34
11	Impact of the displacement current on low-frequency electromagnetic fields computed using high-resolution anatomy models. Physics in Medicine and Biology, 2005, 50, N243-N249.	1.6	33
12	Damped long-term host-parasite Red Queen coevolutionary dynamics: a reflection of dilution effects?. Ecology Letters, 2013, 16, 1455-1462.	3.0	32
13	Harmonic Weighting Functions at the Sliding Interface of a Finite-Element Machine Model Incorporating Angular Displacement. IEEE Transactions on Magnetics, 2004, 40, 545-548.	1.2	30
14	Air-gap flux splitting for the time-harmonic finite-element simulation of single-phase induction machines. IEEE Transactions on Magnetics, 2002, 38, 1221-1224.	1.2	29
15	A deflated iterative solver for magnetostatic finite element models with large differences in permeability. EPJ Applied Physics, 2001, 13, 45-49.	0.3	28
16	Electrohydrodynamic simulation of electrically controlled droplet generation. International Journal of Heat and Fluid Flow, 2017, 64, 120-128.	1.1	27
17	Algebraic multigrid for complex symmetric systems. IEEE Transactions on Magnetics, 2000, 36, 1535-1538.	1.2	26
18	Finite-Element Supported Transmission-Line Models for Calculating High-Frequency Effects in Machine Windings. IEEE Transactions on Magnetics, 2012, 48, 787-790.	1.2	26

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19	Transient Electro-Quasistatic Adaptive Simulation Schemes. IEEE Transactions on Magnetics, 2004, 40, 1294-1297.	1.2	24
20	Uncertainty Quantification and Sensitivity Analysis in Electrical Machines With Stochastically Varying Machine Parameters. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	24
21	Determination of Original Nondegraded and Fully Degraded Magnetic Properties of Material Subjected to Mechanical Cutting. IEEE Transactions on Industry Applications, 2016, 52, 2297-2305.	3.3	24
22	Skew interface conditions in 2-D finite-element machine models. IEEE Transactions on Magnetics, 2003, 39, 1452-1455.	1.2	23
23	Field-Circuit Coupling for Time-Harmonic Models Discretized by the Finite Integration Technique. IEEE Transactions on Magnetics, 2004, 40, 1334-1337.	1.2	23
24	Magnetic hysteresis at the domain scale of a multi-scale material model for magneto-elastic behaviour. Journal of Magnetism and Magnetic Materials, 2016, 414, 168-179.	1.0	23
25	Strong coupled multi-harmonic finite element simulation package. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2001, 20, 535-546.	0.5	21
26	Three-Dimensional-Two-Dimensional Coupled Model for Eddy Currents in Laminated Iron Cores. IEEE Transactions on Magnetics, 2012, 48, 815-818.	1.2	21
27	Determination of Original Nondegraded and Fully Degraded Magnetic Characteristics of Material Subjected to Laser Cutting. IEEE Transactions on Industry Applications, 2017, 53, 4242-4251.	3.3	20
28	An algebraic multigrid method for solving very large electromagnetic systems. IEEE Transactions on Magnetics, 1998, 34, 3327-3330.	1.2	19
29	A finite element model for foil winding simulation. IEEE Transactions on Magnetics, 2001, 37, 3427-3432.	1.2	19
30	Embedded Runge-Kutta methods for field-circuit coupled problems with switching elements. IEEE Transactions on Magnetics, 2005, 41, 1612-1615.	1.2	19
31	Construction of Differential Material Matrices for the Orthogonal Finite-Integration Technique With Nonlinear Materials. IEEE Transactions on Magnetics, 2008, 44, 710-713.	1.2	19
32	Electroquasistatic-Thermal Modeling and Simulation of Station Class Surge Arresters. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	19
33	Local grid refinement for low-frequency current computations in 3-D human anatomy models. IEEE Transactions on Magnetics, 2006, 42, 1371-1374.	1.2	18
34	Decomposition and regularization of nonlinear anisotropic curl-curl DAEs. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2011, 30, 1701-1714.	0.5	18
35	Quantification of Uncertainty in the Field Quality of Magnets Originating from Material Measurements. IEEE Transactions on Magnetics, 2013, 49, 2367-2370.	1.2	18
36	Efficient calculation of current densities in the human body induced by arbitrarily shaped, low-frequency magnetic field sources. Journal of Computational Physics, 2006, 214, 81-95.	1.9	17

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37	3-D Eddy Current and Fringing-Flux Distribution in an Axial-Flux Permanent-Magnet Synchronous Machine With Stator in Laminated Iron or SMC. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	17
38	Isogeometric simulation of Lorentz detuning in superconducting accelerator cavities. Computer Physics Communications, 2016, 201, 1-7.	3.0	17
39	Modeling of Lossy Curved Surfaces in 3-D FIT/FDTD Techniques. IEEE Transactions on Antennas and Propagation, 2006, 54, 3490-3498.	3.1	16
40	Simulation of wave propagation effects in machine windings. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2010, 29, 23-38.	0.5	16
41	Isogeometric analysis and harmonic stator-rotor coupling for simulating electric machines. Computer Methods in Applied Mechanics and Engineering, 2018, 334, 40-55.	3.4	16
42	Space charge and resistive wall impedance computation in the frequency domain using the finite element method. Physical Review Special Topics: Accelerators and Beams, 2015, 18, .	1.8	16
43	Magnetic Field Simulation With Data-Driven Material Modeling. IEEE Transactions on Magnetics, 2020, 56, 1-6.	1.2	14
44	Optimization and uncertainty quantification of gradient index metasurfaces [Invited]. Optical Materials Express, 2019, 9, 892.	1.6	14
45	ASSESSING THE PERFORMANCE OF LEJA AND CLENSHAW-CURTIS COLLOCATION FOR COMPUTATIONAL ELECTROMAGNETICS WITH RANDOM INPUT DATA. , 2019, 9, 33-57.		14
46	A computationally efficient air-gap element for 2-D FE machine models. IEEE Transactions on Magnetics, 2005, 41, 1844-1847.	1.2	13
47	Epstein frame measurement based determination of original non-degraded and fully degraded magnetic characteristics of material submitted to laser cutting. , 2015, , .		13
48	Spectral-Element method for high-speed rotating cylinders. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2009, 28, 730-740.	0.5	12
49	Improved air gap permeance model to characterise the transient behaviour of electrical machines using <scp>magnetic equivalent circuit</scp> method. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2020, 33, e2749.	1.2	12
50	Hybrid modeling: towards the next level of scientific computing in engineering. Journal of Mathematics in Industry, 2022, 12, .	0.7	12
51	Combined Spectral-Element, Finite-Element Discretization for Magnetic-Brake Simulation. IEEE Transactions on Magnetics, 2010, 46, 3520-3523.	1.2	11
52	Comparison of sliding-surface and moving-band techniques in frequency-domain finite-element models of rotating machines. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2004, 23, 1006-1014.	0.5	10
53	Using domain decomposition techniques for the calculation of low-frequency electric current densities in high-resolution 3D human anatomy models. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2005, 24, 458-467.	0.5	10
54	Application of a computationally efficient air-gap element within the finite element analysis of magnetic bearings. IEEE Transactions on Magnetics, 2006, 42, 1263-1266.	1.2	10

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55	Two-Dimensional Magnetostatic Finite-Element Simulation for Devices With a Radial Symmetry. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	10
56	Robust shape optimization of electric devices based on deterministic optimization methods and finite-element analysis with affine parametrization and design elements. Electrical Engineering, 2018, 100, 2635-2647.	1.2	10
57	Robust adaptive least squares polynomial chaos expansions in high-frequency applications. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2020, 33, e2725.	1.2	10
58	Influence of spatial dispersion on surface plasmons, nanoparticles, and grating couplers. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 2989.	0.9	10
59	Finite element simulation of a magnetic brake with a soft magnetic solid iron rotor. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2002, 21, 296-306.	0.5	9
60	Finite-Element Models for Superconductive Cables With Finite Interwire Resistance. IEEE Transactions on Magnetics, 2004, 40, 667-670.	1.2	9
61	Transient field-circuit coupled formulation based on the finite integration technique and a mixed circuit formulation. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2004, 23, 968-976.	0.5	9
62	Trigonometric interpolation at sliding surfaces and in moving bands of electrical machine models. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2006, 25, 31-42.	0.5	9
63	Optimised electromagnetic 3D field solver for frequencies below the first resonance. IET Science, Measurement and Technology, 2007, 1, 53-56.	0.9	9
64	Modeling Thin Conductive Sheets Using Shell Elements in Magnetoquasistatic Field Simulations. IEEE Transactions on Magnetics, 2009, 45, 1292-1295.	1.2	9
65	Optimization of a Stern-Gerlach Magnet by Magnetic Field-Circuit Coupling and Isogeometric Analysis. IEEE Transactions on Magnetics, 2015, 51, 1-7.	1.2	9
66	Investigation of Thermal Stability for a Station Class Surge Arrester. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2016, 1, 120-128.	1.4	9
67	Adjoint Technique for Sensitivity Analysis of Coupling Factors According to Geometric Variations. IEEE Transactions on Magnetics, 2018, 54, 1-4.	1.2	9
68	Robust optimisation formulations for the design of an electric machine. IET Science, Measurement and Technology, 2018, 12, 939-948.	0.9	9
69	Tensor-train approximation of the chemical master equation and its application for parameter inference. Journal of Chemical Physics, 2021, 155, 034102.	1.2	9
70	Comparison of quasi minimal residual and bi-conjugate gradient iterative methods to solve complex symmetric systems arising from time-harmonic magnetic simulations. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 1999, 18, 298-310.	0.5	8
71	Higher-Order Cosimulation of Field/Circuit Coupled Problems. IEEE Transactions on Magnetics, 2012, 48, 535-538.	1.2	8
72	Nanoelectronic COupled problems solutions - nanoCOPS: modelling, multirate, model order reduction, uncertainty quantification, fast fault simulation. Journal of Mathematics in Industry, 2016, 7, .	0.7	8

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73	Systems of Differential Algebraic Equations in Computational Electromagnetics. Differential-algebraic Equations Forum, 2018, , 123-169.	0.6	8
74	Electrothermal Optimization of Field Grading Systems of Station Class Surge Arresters. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2019, 4, 29-36.	1.4	8
75	A structural analysis of field/circuit coupled problems based on a generalised circuit element. Numerical Algorithms, 2020, 83, 373-394.	1.1	8
76	Efficient modelling techniques for complicated boundary conditions applied to structured grids. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2004, 23, 904-912.	0.5	7
77	Transient Finite-Element Simulation of the Eddy-Current Losses in the Beam Tube of the SIS-100 Magnet During Ramping. IEEE Transactions on Applied Superconductivity, 2008, 18, 1613-1616.	1.1	7
78	Response Surface Models for the Uncertainty Quantification of Eccentric Permanent Magnet Synchronous Machines. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	7
79	Proper Generalized Decomposition of Parameterized Electrothermal Problems Discretized by the Finite Integration Technique. IEEE Transactions on Magnetics, 2019, 55, 1-4.	1.2	7
80	Towards Electrothermal Optimization of a HVDC Cable Joint Based on Field Simulation. Energies, 2021, 14, 2848.	1.6	7
81	Multirate Time Integration of Field/Circuit Coupled Problems by Schur Complements. Mathematics in Industry, 2012, , 243-251.	0.1	7
82	Electrodynamic finite element model coupled to a magnetic equivalent circuit. EPJ Applied Physics, 2000, 12, 105-108.	0.3	6
83	Full multigrid for magnetostatics using unstructured and non-nested meshes. IEEE Transactions on Magnetics, 2001, 37, 3460-3464.	1.2	6
84	Motional time-harmonic simulation of slotted single-phase induction machines. IEEE Transactions on Energy Conversion, 2002, 17, 313-318.	3.7	6
85	Coupled finite-element, spectral-element discretisation for models with circular inclusions and far-field domains. IET Science, Measurement and Technology, 2002, 149, 237-241.	0.7	6
86	An effective reluctivity model for nonlinear and anisotropic materials in time-harmonic finite element computations. IEEE Transactions on Magnetics, 2005, 41, 1508-1511.	1.2	6
87	Influence of teeth and cooling ducts on the high-frequency common mode flux of inverter-fed AC machines. , 0, , .		6
88	Simulation of Eddy-Current Losses in a Fast Ramped Superconductive Dipole Magnet. IEEE Transactions on Applied Superconductivity, 2006, 16, 334-337.	1.1	6
89	Hybrid finite-element method for discretising cylindrically symmetric parts in electrotechnical models. IET Science, Measurement and Technology, 2007, 1, 6-11.	0.9	6
90	Large-Scale Calculation of Low-Frequency-Induced Currents in High-Resolution Human Body Models. IEEE Transactions on Magnetics, 2007, 43, 1693-1696.	1.2	6

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91	Transient 3D Finite Element Simulations of the SIS100 Magnet Considering Anisotropic, Nonlinear Material Models for the Ferromagnetic Yoke. IEEE Transactions on Applied Superconductivity, 2008, 18, 1601-1604.	1.1	6
92	Eddy-current formulation for constructing transmission-line models for machine windings. EPJ Applied Physics, 2010, 49, 31101.	0.3	6
93	Spectral Stochastic Simulation of a Ferromagnetic Cylinder Rotating at High Speed. IEEE Transactions on Magnetics, 2011, 47, 1182-1185.	1.2	6
94	Reducing Losses Due to Fringing Flux in an Axial-Flux Permanent-Magnet Synchronous Machine. IEEE Transactions on Magnetics, 2016, 52, 1-8.	1.2	6
95	DAE-Index and Convergence Analysis of Lumped Electric Circuits Refined by 3-D Magnetoquasistatic Conductor Models. Mathematics in Industry, 2010, , 341-348.	0.1	6
96	Electrothermal Simulation of Bonding Wire Degradation under Uncertain Geometries. , 2016, , .		6
97	A multiconductor model for finite-element eddy-current simulation. IEEE Transactions on Magnetics, 2002, 38, 533-536.	1.2	5
98	Eccentric air-gap element for transient finite-element machine simulation. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2006, 25, 344-356.	0.5	5
99	Integration over discontinuities in field-circuit coupled simulations with switching elements. IEEE Transactions on Magnetics, 2006, 42, 1031-1034.	1.2	5
100	Transient calculation of the induced currents inside the brain during magnetic stimulation. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2007, 26, 910-921.	0.5	5
101	Adaptive Time Stepping for Electromagnetic Models With Sinusoidal Dynamics. IEEE Transactions on Magnetics, 2008, 44, 1262-1265.	1.2	5
102	Simulation of the insulation properties of a HVDC transformer using a hybrid discretization based on finite elements and harmonic functions. Electrical Engineering, 2008, 90, 331-336.	1.2	5
103	Design of a Strong Gradient Magnet for the Deflection of Nanoclusters. IEEE Transactions on Applied Superconductivity, 2012, 22, 3700604-3700604.	1.1	5
104	Quasi-3-D Finite-Element Method for Simulating Cylindrical Induction-Heating Devices. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2017, 2, 134-141.	1.4	5
105	Electroquasistatic quasi-3D finite element simulation of a graded surge arrester. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2020, 33, e2575.	1.2	5
106	Simulation Analysis of Critical Parameters for Thermal Stability of Surge Arresters. IEEE Transactions on Power Delivery, 2022, 37, 871-879.	2.9	5
107	Measurement of the magnetic material properties for ferrite-loaded cavities. Physical Review Special Topics: Accelerators and Beams, 2015, 18, .	1.8	5
108	High-Frequency Modeling of Delta- and Star-Connected Induction Motors. IEEE Transactions on Electromagnetic Compatibility, 2022, 64, 1533-1544.	1.4	5



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109	Object oriented storage of material data for coupled problems. IEEE Transactions on Magnetics, 1998, 34, 3415-3418.	1.2	4
110	Convergence improvement of the conjugate gradient iterative method for finite element simulations. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2001, 20, 90-97.	0.5	4
111	Iterative solution techniques for hybrid finite-element spectral-element models. IEEE Transactions on Magnetics, 2003, 39, 1717-1720.	1.2	4
112	Solution of transient hysteretic magnetic field problems with hybrid Newton-polarization methods. IEEE Transactions on Magnetics, 2005, 41, 1720-1723.	1.2	4
113	Hybrid Finite-Element, Spectral-Element Discretization for Translatory Symmetric Model Parts. IEEE Transactions on Magnetics, 2008, 44, 722-725.	1.2	4
114	A stator coil model for studying high-frequency effects in induction motors. , 2008, , .		4
115	Transmission-line modelling of wave propagation effects in machine windings. , 2008, , .		4
116	Magnetostatic Formulation With Hybrid Finite-Element, Spectral-Element Discretizations. IEEE Transactions on Magnetics, 2009, 45, 1136-1139.	1.2	4
117	Intraocular electro-optic lens with ciliary muscle controlled accommodation. , 2013, 2013, 3190-3.		4
118	Finite-Element discretisation of the eddy-current term in a 2D solver for radially symmetric models. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2014, 27, 505-516.	1.2	4
119	Extended Brauer model for ferromagnetic materials: analysis and computation. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2014, 33, 1251-1263.	0.5	4
120	Mimetic discretization and higher order time integration for acoustic, electromagnetic and elastodynamic wave propagation. Journal of Computational and Applied Mathematics, 2014, 259, 65-76.	1.1	4
121	Embedding a Magnetoelastic Material Model in a Coupled Magnetomechanical Finite-Element Solver. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	4
122	A defect corrected finite element approach for the accurate evaluation of magnetic fields on unstructured grids. Journal of Computational Physics, 2017, 335, 688-699.	1.9	4
123	Novel Iterative Algorithm for the Solution of Electromagnetic Scattering From Layered Random Rough Surfaces. IEEE Transactions on Antennas and Propagation, 2018, 66, 3810-3815.	3.1	4
124	Simulation of Transient Electrospray Dynamics in Conductive Fluids. IEEE Transactions on Magnetics, 2020, 56, 1-4.	1.2	4
125	Quasi-3D Discretization of Thermal Hot-Spot Propagation in Superconducting Models. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.1	4
126	Broadband finite-element impedance computation for parasitic extraction. Electrical Engineering, 2022, 104, 855-867.	1.2	4



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127	Object-oriented implementation of an interactive and automatic field-processing surface. IEEE Transactions on Magnetics, 2000, 36, 1653-1658.	1.2	3
128	Simulation of motional eddy current phenomena in soft magnetic material. Journal of Magnetism and Magnetic Materials, 2001, 226-230, 1237-1238.	1.0	3
129	Solving nonlinear magnetic problems using newton trust region methods. IEEE Transactions on Magnetics, 2003, 39, 1709-1712.	1.2	3
130	A Conformal Surface-Impedance Boundary Condition for the Modeling of Curved Lossy Surfaces in 3-D FIT/FDTD Techniques. , 0, , .		3
131	Interpolation technique for effective determination of switching time instants for field-circuit coupled problems with switching elements. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2006, 25, 64-70.	0.5	3
132	A network model for inverter-fed induction-motor drives. , 2007, , .		3
133	Mixed-Integer Nonlinear Design Optimization of a Superconductive Magnet With Surrogate Functions. IEEE Transactions on Magnetics, 2008, 44, 1110-1113.	1.2	3
134	Transient 3D Finite Element Simulations of the Field Quality in the Aperture of the SIS-100 Dipole Magnet. IEEE Transactions on Applied Superconductivity, 2009, 19, 1162-1166.	1.1	3
135	Improved field post-processing for a Stern-Gerlach magnetic deflection magnet. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2014, 27, 472-484.	1.2	3
136	Nonlinear Magnetostatic Finite-Element Formulation for Models With Radial Symmetry. IEEE Transactions on Magnetics, 2014, 50, 85-88.	1.2	3
137	Epstein frame measurement based determination of original non-degraded and fully degraded magnetic properties of material submitted to mechanical cutting. , 2015, , .		3
138	Quasi-3-D Finite-Element Method for Cylindrically Symmetric Models With Small Eccentricities. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	3
139	Broadband SIBC Formulation for a Low-Dispersion Finite Volume Method in the Time Domain. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	3
140	Optimizing the inductance cancellation behavior in an EMI filter design with the help of a sensitivity analysis. , 2017, , .		3
141	High-dimensional uncertainty quantification for an electrothermal field problem using stochastic collocation on sparse grids and tensor train decompositions. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2222.	1.2	3
142	Multiscale and macroscopic modeling of magnetoelastic behavior of soft magnetic steel sheets. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2255.	1.2	3
143	Non-Linear Eigenmode Computations for Conducting and Superconducting Cavities With a Surface Impedance Boundary Condition. IEEE Transactions on Magnetics, 2018, 54, 1-4.	1.2	3
144	Automated netlist generation for 3D electrothermal and electromagnetic field problems. Journal of Computational Electronics, 2019, 18, 1306-1332.	1.3	3

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145	Numerical analysis of a folded superconducting coaxial shield for cryogenic current comparators. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 922, 134-142.	0.7	3
146	Coupled Simulation of Current Flow and Residual Thermal Stress in ZnO Varistors. IEEE Transactions on Magnetics, 2020, 56, 1-4.	1.2	3
147	Approximation and Uncertainty Quantification of Systems with Arbitrary Parameter Distributions Using Weighted Leja Interpolation. Algorithms, 2020, 13, 51.	1.2	3
148	Coupled field-circuit problem: a generalized signal flow graph description of the circuit equations. EPJ Applied Physics, 1998, 1, 247-251.	0.3	3
149	Three-dimensional data-driven magnetostatic field computation using real-world measurement data. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2022, 41, 615-627.	0.5	3
150	Low-Frequency Stabilization for FEM Impedance Computation. IEEE Transactions on Electromagnetic Compatibility, 2022, 64, 750-759.	1.4	3
151	Floating potential constraints and field-circuit couplings for electrostatic and electrokinetic finite element models. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2003, 22, 20-29.	0.5	2
152	Modelling of lossy curved surfaces in the 3-D frequency-domain finite-difference methods. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2006, 19, 421-431.	1.2	2
153	Differential material matrices for the finite integration technique. EPJ Applied Physics, 2007, 39, 165-169.	0.3	2
154	Hierarchical FIT/FE Discretization for Dielectric Subcell Interfaces. IEEE Transactions on Magnetics, 2008, 44, 706-709.	1.2	2
155	Adaptive time integration for electromagnetic models with sinusoidal excitation. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 122-132.	0.5	2
156	Accounting for End Effects When Calculating Eddy Currents in Thin Conductive Beam Tubes. IEEE Transactions on Magnetics, 2009, 45, 1040-1043.	1.2	2
157	Grain scale hysteresis model embedded in a multi-scale material model. , 2015, , .		2
158	Accurate Multipole Field Reconstruction Methods Based on 3-D Electromagnetic Field Simulation Results. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	2
159	Nonlinear three-port magnetic-circuit elements for simulating bending magnets. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2018, 37, 266-279.	0.5	2
160	Coupled simulation of transient heat flow and electric currents in thin wires: Application to bond wires in microelectronic chip packaging. Computers and Mathematics With Applications, 2020, 79, 1781-1801.	1.4	2
161	Robust Optimization of a Permanent-Magnet Synchronous Machine Considering Uncertain Driving Cycles. IEEE Transactions on Magnetics, 2020, 56, 1-5.	1.2	2
162	Modeling Skew by Single- and Multi-Slice 2-D Machine Models. IEEE Transactions on Magnetics, 2021, 57, 1-4.	1.2	2

#	ARTICLE	IF	CITATIONS
163	Thermal Instability Analysis of Station Class Surge Arresters Based on Electrothermal Finite Element Simulation. Lecture Notes in Electrical Engineering, 2020, , 118-130.	0.3	2
164	Transient Field-Circuit Coupled Models with Switching Elements for the Simulation of Electric Energy Transducers. Mathematics in Industry, 2007, , 25-39.	0.1	2
165	Efficient sensitivity analysis of lumped elements with respect to finite element geometry changes. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 0, , .	1.2	2
166	Harmonic boundary conditions for circular inclusions and their coupling to external circuits. IET Science, Measurement and Technology, 2001, 148, 257-262.	0.7	1
167	Transient Field-Circuit Coupled Models of Electrical Actuators. , 2006, , .		1
168	Sliding surface interface conditions for 3D machine models discretised by the finite integration technique. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2006, 25, 427-439.	0.5	1
169	A vector Preisach model combined with a Newton-Raphson method for transient magnetic field computations. Physica B: Condensed Matter, 2006, 372, 369-372.	1.3	1
170	Algebraic Multigrid for Implicit Runge-Kutta Discretizations of the Eddy Current Problem. IEEE Transactions on Magnetics, 2007, 43, 1265-1268.	1.2	1
171	3-D Nonlinear Magnetostatic Simulation of a Superconductive Magnet Using a Higher-Order Finite-Element Code. IEEE Transactions on Magnetics, 2008, 44, 1310-1313.	1.2	1
172	Physiological constraints for an intraocular inductive distance sensor. , 2014, 2014, 646-9.		1
173	Multi-rate time integration for coupled electrical and thermal modeling of surge arresters. , 2015, , .		1
174	Automatic generation of equivalent electrothermal SPICE netlists from 3D electrothermal field models. , 2016, , .		1
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