Yasuhito Takahashi

List of Publications by Year
in descending order

68 papers	496 citations	759233 12 h-index	752698 20 g-index
68 all docs	68 docs citations	68 times ranked	340 citing authors

#	Article	IF	Citations
1	Convergence Acceleration of Time-Periodic Electromagnetic Field Analysis by the Singularity Decomposition-Explicit Error Correction Method. IEEE Transactions on Magnetics, 2010, 46, 2947-2950.	2.1	36
2	Parallel Time-Periodic Finite-Element Method for Steady-State Analysis of Rotating Machines. IEEE Transactions on Magnetics, 2012, 48, 1019-1022.	2.1	34
3	Iron Loss Estimation Method for Rotating Machines Taking Account of Hysteretic Property. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	34
4	Algebraic Block Multi-Color Ordering Method for Parallel Multi-Threaded Sparse Triangular Solver in ICCG Method. , 2012, , .		30
5	Parallel Hierarchical Matrices with Adaptive Cross Approximation on Symmetric Multiprocessing Clusters. Journal of Information Processing, 2014, 22, 642-650.	0.4	29
6	Iron Loss Estimation Method for a General Hysteresis Loop With Minor Loops. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	26
7	Parallel Finite-Element Analysis of Rotating Machines Based on Domain Decomposition Considering Nonconforming Mesh Connection. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	21
8	Time-Domain Parallel Finite-Element Method for Fast Magnetic Field Analysis of Induction Motors. IEEE Transactions on Magnetics, 2013, 49, 2413-2416.	2.1	20
9	Loss Calculation Method Considering Hysteretic Property With Play Model in Finite Element Magnetic Field Analysis. IEEE Transactions on Magnetics, 2014, 50, 381-384.	2.1	19
10	Software Framework for Parallel BEM Analyses with H-matrices Using MPI and OpenMP. Procedia Computer Science, 2017, 108, 2200-2209.	2.0	19
11	Convergence Acceleration in Steady State Analysis of Synchronous Machines Using Time-Periodic Explicit Error Correction Method. IEEE Transactions on Magnetics, 2011, 47, 1422-1425.	2.1	18
12	Magnetic Field Analysis of Ring Core Taking Account of Hysteretic Property Using Play Model. IEEE Transactions on Magnetics, 2012, 48, 3375-3378.	2.1	18
13	Frozen Permeability Method for Magnetic Field Analysis of Permanent Magnet Motors Considering Hysteretic Property. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	13
14	Modeling of Two-Dimensional Magnetic Properties Based on One-Dimensional Magnetic Measurements. IEEE Transactions on Magnetics, 2012, 48, 3486-3489.	2.1	12
15	Parallel Performance of Multithreaded ICCG Solver Based on Algebraic Block Multicolor Ordering in Finite Element Electromagnetic Field Analyses. IEEE Transactions on Magnetics, 2013, 49, 1581-1584.	2.1	12
16	Parallel TP-EEC Method Based on Phase Conversion for Time-Periodic Nonlinear Magnetic Field Problems. IEEE Transactions on Magnetics, 2015, 51, 1-5.	2.1	12
17	Simplified 3-D Modeling for Skewed Rotor Slots With End-Ring of Cage Induction Motors. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	12
18	Parallel Finite-Element Method Based on Space–Time Domain Decomposition for Magnetic Field Analysis of Electric Machines. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	12

#	Article	IF	Citations
19	Comparison Between Fast Steady-State Analysis Methods for Time-Periodic Nonlinear Magnetic Field Problems. IEEE Transactions on Magnetics, 2012, 48, 235-238.	2.1	9
20	Improvement of Unified Boundary Integral Equation Method in Magnetostatic Shielding Analysis. IEEE Transactions on Magnetics, 2014, 50, 105-108.	2.1	9
21	Iron Loss Analysis of Interior Permanent Magnet Synchronous Motors Using Dynamic Hysteresis Model Represented by Cauer Circuit. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	9
22	Magnetic Properties Evaluation of Grain-Oriented Electrical Steel Sheets Under Bending Stress. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	7
23	Comparison Between Modeling Methods of 2-D Magnetic Properties in Magnetic Field Analysis of Synchronous Machines. IEEE Transactions on Magnetics, 2014, 50, 373-376.	2.1	7
24	Large-scale analysis of magnetic particle dynamics taking into account contact force and magnetic interaction with the fast multipole method. Journal of Applied Physics, 2011, 109, 07D331.	2.5	6
25	Analysis of induced electric field in human body by utility power frequency magnetic field using parallel fast multipole‐accelerated boundary element method. IET Science, Measurement and Technology, 2015, 9, 178-183.	1.6	5
26	Distribution of magnetic field strength inside exciting coil of single sheet tester. AIP Advances, 2018, 8, .	1.3	5
27	Application of Improved H-Matrices in Micromagnetic Simulations of Spin Torque Oscillator. IEEE Transactions on Magnetics, 2018, 54, 1-4.	2.1	5
28	Reduced Order Modeling Based on Multiport Cauer Ladder Network for Space Harmonics of Air-Gap Flux Density in Cage Induction Motor. IEEE Transactions on Magnetics, 2022, 58, 1-6.	2.1	5
29	Nonlinear Magnetostatic Analysis by Unified BIE Utilizing Potential Gap Due to Loop Currents. IEEE Transactions on Magnetics, 2013, 49, 1573-1576.	2.1	4
30	Standard Measurement Method for Magnetic Properties of Fe-Based Amorphous Magnetic Materials. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	4
31	Hysteresis Loss Analysis of Laminated Iron Core by Using Homogenization Method Taking Account of Hysteretic Property. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	4
32	Input and Output Power in Finite-Element Analysis of Electric Machines Taking Account of Hysteretic Property. IEEE Transactions on Magnetics, 2018, 54, 1-4.	2.1	4
33	Complex-valued formulation of nonlinear time-harmonic magnetic field analysis and new Krylov-like solvers. , 2016, , .		3
34	Dynamic hysteresis modeling of silicon steel sheet considering excess eddy-current loss. International Journal of Applied Electromagnetics and Mechanics, 2019, 59, 217-226.	0.6	3
35	Iron Loss Estimation Method for Silicon Steel Sheet Taking Account of DC-Biased Conditions. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	3
36	Behavioral Modeling of Permanent Magnet Synchronous Motor Fed by PWM Inverters Considering Iron Losses Due to Carrier Harmonics. IEEJ Transactions on Industry Applications, 2019, 139, 939-946.	0.2	3

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37	Automatic Determination of Acceleration Factor Based on Residual and Functional in Shifted ICCG Method for 3-D Electromagnetic Field Analyses. IEEE Transactions on Magnetics, 2013, 49, 1741-1744.	2.1	2
38	Study on Standard Measurement Method of Magnetic Property of Fe-Based Amorphous Strip—Round Robin Test Results. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	2
39	Steady-State Analysis of Hysteretic Magnetic Field Problems Using a Parallel Time-Periodic Explicit-Error Correction Method. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	2
40	Comparison of 2 methods for the finite element steady‐state analysis of nonlinear 3D periodic eddy‐current problems using the **_A_**,**_V_**‐ formulation. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2279.	1.9	2
41	Behavioral modeling of permanent magnet synchronous motor fed by PWM inverters considering iron losses due to carrier harmonics. Electrical Engineering in Japan (English Translation of Denki) Tj ETQq1 1 0.784314 rgBT /Overloc		2
42	Comparison of Parallel-in-Space-and-Time Finite-Element Methods for Magnetic Field Analysis of Electric Machines. IEEE Transactions on Magnetics, 2021, 57, 1-4.	2.1	2
43	On the Practical Implementation of ICCG Method Solving Real Symmetric Linear Equation Arising in Edge-based Finite Element Analysis. IEEJ Transactions on Power and Energy, 2014, 134, 767-776.	0.2	2
44	Magnetostatic analysis by BEM with magnetic double layer as unknown utilizing volume magnetic charge. International Journal of Applied Electromagnetics and Mechanics, 2012, 39, 711-717.	0.6	1
45	Magnetic Field Analysis of Reactors for Power Conditioner System Taking Into Account Magnetic Hysteresis. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	1
46	New Type of Second-Order Tetrahedral Edge Elements by Reducing Edge Variables for Quasi-Static Field Analysis. IEEE Transactions on Magnetics, 2018, 54, 1-4.	2.1	1
47	Conductivity and AC magnetic loss of Nd—Fe—B sintered magnet. International Journal of Applied Electromagnetics and Mechanics, 2019, 61, S3-S12.	0.6	1
48	Magnetic circuit design of current sensor for in-car power converter circuits. International Journal of Applied Electromagnetics and Mechanics, 2019, 59, 447-454.	0.6	1
49	Parallel TP-EEC Method Based on Polyphase Time-Periodic Condition for Magnetic Field Analysis of Induction Motors. IEEE Transactions on Magnetics, 2020, 56, 1-5.	2.1	1
50	Iron Loss Estimation of Soft Magnetic Materials for Power Transformers Considering Hysteretic Properties. IEEJ Transactions on Power and Energy, 2021, 141, 568-575.	0.2	1
51	Effectiveness of Iterative Method with Folded Preconditioning for Practical Finite Element Electromagnetic Field Analyses. IEEJ Transactions on Industry Applications, 2013, 133, 203-213.	0.2	1
52	A Study on Multiply Connected Domain Processing Methods in Magnetostatic Field Analysis by Boundary Integral Equations. IEEJ Transactions on Power and Energy, 2017, 137, 132-137.	0.2	1
53	Iron loss estimation of soft magnetic materials for power transformers considering hysteretic properties. Electronics and Communications in Japan, 2021, 104, .	0.5	1
54	Computational Accuracy Enhancement in Magnetic Field Analysis by Using Orthogonalized Infinite Edge Element Method. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2015, 191, 20-28.	0.4	0

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55	Safety performance simulation for the effect of a photovoltaic module output difference in mega solar photovoltaic systems. , 2016, , .		0
56	Improvement of Convergence Characteristics of 1-D Dynamic Magnetic Field Analysis With Hysteresis for Iron Loss Estimation. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	0
57	Investigation of measurement method of saturation magnetization of iron core material using electromagnet. AIP Advances, 2018, 8, 047202.	1.3	0
58	Computational Accuracy Enhancement in Magnetic Field Analysis by using Orthogonalized Infinite Edge Element Method. IEEJ Transactions on Power and Energy, 2013, 133, 465-472.	0.2	0
59	Newton-Raphson Formulation and Modeling of Magnetization Property in Nonlinear Time-harmonic Eddy-current Analysis. IEEJ Transactions on Power and Energy, 2017, 137, 238-244.	0.2	0
60	Improvement of Representation of Rotational Hysteresis Loss by Isotropic Vector Play Model. IEEJ Transactions on Power and Energy, 2017, 137, 216-222.	0.2	0
61	Time Domain Parallel Finite-element Method Coupling with Motion for Transient Motor Starting Analysis. IEEJ Transactions on Power and Energy, 2017, 137, 230-237.	0.2	0
62	Fundamental Investigation of a Method for Considering Anomalous Eddy Current Loss in Post-processing for Iron Loss Estimation. IEEJ Transactions on Fundamentals and Materials, 2018, 138, 630-638.	0.2	0
63	Finite Element Magnetic Field Analysis of Permanent Magnet Synchronous Motor Taking Account of Hysteretic Property. IEEJ Transactions on Industry Applications, 2019, 139, 513-522.	0.2	0
64	Finite-element Analysis of Soft Magnetic Composites using Dynamic Hysteresis Modeling based on Cauer Circuit Representation of Eddy-current Fields. IEEJ Transactions on Power and Energy, 2019, 139, 643-649.	0.2	0
65	Iron Loss Estimation for IPM Motors based on Eddy Current Loss Correction Factor Considering Plastic Deformation by Punching. IEEJ Transactions on Power and Energy, 2019, 139, 767-775.	0.2	0
66	Steady-State Analysis of Electric Machines Using the TP-EEC Method Based on Time-Periodic Conditions in a Rotational Reference Frame. IEEJ Journal of Industry Applications, 2022, , .	1.1	0
67	Enhanced Behavioral Modeling for Permanent Magnet Synchronous Motors Fed by Pulse-width Modulation Inverters Considering Harmonic Losses. IEEJ Transactions on Industry Applications, 2022, 142, 299-308.	0.2	0
68	Modeling of Magnetic Anisotropy Due to Compression Molding of Soft Magnetic Composite for Inductance Calculation. IEEE Transactions on Magnetics, 2022, 58, 1-5.	2.1	0