Akihiro Ametani

List of Publications by Year
in descending order

140 papers	2,565 citations	257450 24 h-index	223800 46 g-index
150 all docs	150 docs citations	150 times ranked	725 citing authors

#	Article	IF	Citations
1	Quasi-Analytical Calculation of Frequency-Dependent Resistance of Rectangular Conductors Considering the Edge Effect. Energies, 2022, 15, 503.	3.1	3
2	An Electromagnetic Model for the Calculation of Tower Surge Impedance Based on Thin Wire Approximation. IEEE Transactions on Power Delivery, 2021, 36, 1173-1182.	4.3	19
3	Theoretical and NEC Calculations of Electromagnetic Fields Generated From a Multi-Phase Underground Cable. IEEE Transactions on Power Delivery, 2021, 36, 1270-1280.	4.3	13
4	Electromagnetic Transients Program: History and Future. IEEJ Transactions on Electrical and Electronic Engineering, 2021, 16, 1150-1158.	1.4	11
5	3-D FDTD Analysis of Lightning-Induced Voltages in Distribution Lines Due to Inclined Lightning. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 189-197.	2.2	7
6	An accurate analysis of lightning overvoltages in mixed overhead-cable lines. Electric Power Systems Research, 2021, 194, 107052.	3.6	4
7	EMT Simulation of Very-Fast Transients in Gas-Insulated Substations Using Modified Carson's Formula. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 1258-1265.	2.2	2
8	A Study on External Electromagnetic Characteristics of Underground Cables With Consideration of Terminations. IEEE Transactions on Power Delivery, 2021, 36, 3255-3265.	4.3	9
9	Generalized Formulation and Surge Analysis on Overhead Lines: Impedance/Admittance of A Multi-Layer Earth. IEEE Transactions on Power Delivery, 2021, 36, 3834-3845.	4.3	10
10	3-D FDTD Analysis of Lightning-Induced Voltages in Distribution Lines Due to Inclined Lightning. , 2021, , .		1
11	A Study on AC Resistance Calculation of Single Rectangular Conductors. , 2021, , .		1
12	FDTD Analysis of Nearby Lightning Surges Flowing Into a Distribution Line via Groundings. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 144-154.	2.2	11
13	Earth Current and GPR Distributions Due to Lightning and Effect of a Distribution Line. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 2119-2127.	2.2	3
14	Effect of frequency-dependent soil parameters on wave propagation and transient behaviors of underground cables. International Journal of Electrical Power and Energy Systems, 2020, 122, 106163.	5.5	4
15	Impedance and Admittance Formulas for a Multistair Model of Transmission Towers. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 2491-2502.	2.2	10
16	Study of Skin and Proximity Effects of Conductors for MTL-Based Modeling of Power Transformers Using FEM. , 2020, , .		2
17	Influence of Finite-Length Overhead Conductors on Wave Propagation Characteristics and Transients. , 2020, , .		2
18	Very Fast Transients in a 500 kV Gas-Insulated Substation. IEEE Transactions on Power Delivery, 2019, 34, 627-637.	4.3	20

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19	Generalized Formulation of Earth-Return Impedance/Admittance and Surge Analysis on Underground Cables. IEEE Transactions on Power Delivery, 2018, 33, 2654-2663.	4.3	36
20	Transient Responses of Overhead Cables Due to Mode Transition in High Frequencies. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 785-794.	2.2	25
21	Frequency Response of Electric and Magnetic Fields of Overhead Conductors With Particular Reference to Axial Electric Field. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 2029-2032.	2.2	8
22	Statistical Analysis of Energization Overvoltages in EHV Hybrid OHLâ€“Cable Systems. IEEE Transactions on Power Delivery, 2018, 33, 2765-2775.	4.3	19
23	Countermeasures of Zero-Missing Phenomenon in (E)HV Cable Systems. IEEE Transactions on Power Delivery, 2018, 33, 1657-1667.	4.3	4
24	Frequency and Time Domain Responses of Cross-Bonded Cables. IEEE Transactions on Power Delivery, 2018, 33, 640-648.	4.3	18
25	Computation of Overhead Line/Underground Cable Parameters with Improved MoM-SO Method. , 2018, , .		9
26	Electromagnetic disturbances in gas-insulated substations and VFT calculations. Electric Power Systems Research, 2018, 160, 191-198.	3.6	20
27	Simulation of Switching Overvoltages and Validation With Field Tests. IEEE Transactions on Power Delivery, 2018, 33, 2884-2893.	4.3	16
28	FDTD analysis of distribution line voltages induced by inclined lightning channel. Electric Power Systems Research, 2018, 160, 450-456.	3.6	10
29	A Study on Basic Characteristics of the Proximity Effect on Conductors. IEEE Transactions on Power Delivery, 2017, 32, 1790-1799.	4.3	25
30	Field test and simulation of transients on the RTE 225 kV cable. , 2017, , .		0
31	A study of transient responses on nonuniform conductors by FDTD simulations. IEEJ Transactions on Electrical and Electronic Engineering, 2016, 11, 435-441.	1.4	4
32	Reduction of Transient Magnetic Field Due to Lightning by a Shielded Room in a Building. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 135-142.	2.2	2
33	A Hybrid Method for Evaluating of Lightning Performance of Overhead Lines based on Monte Carlo Procedure. Journal of Electrical Engineering, 2016, 67, 246-252.	0.7	0
34	Representation of a Straight Thin Wire in a Lossy Medium and an Oblique Thin Wire in Air for FDTD Simulations. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 1164-1167.	2.2	5
35	Numerical Electromagnetic Field Analysis of High-Frequency Wave Propagation on an Overhead Conductor. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 587-590.	2.2	4
36	An Improved Thin Wire Representation for FDTD Transient Simulations. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 484-487.	2.2	9

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37	A Study of Absorbing Boundary Condition for Surge Simulations with the FDTD Method. IEEJ Transactions on Power and Energy, 2015, 135, 408-416.	0.2	1
38	FDTD analysis of lightning electromagnetic pulses considering topography and presence of grounded strike object. , 2014, , .		0
39	Wave Propagation on an Overhead Multiconductor in a High-Frequency Region. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 1638-1648.	2.2	41
40	Corona effect on insulator voltages for a direct lightning strike to a phase conductor. , 2014, , .		1
41	Computation of Lightning Electromagnetic Pulses With the Constrained Interpolation Profile Method in the 2-D Cylindrical Coordinate System. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 1497-1505.	2.2	12
42	FDTD Simulations of Corona Effect on Lightning-Induced Voltages. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 168-176.	2.2	20
43	Computation of Lightning Electromagnetic Pulses With the TLM Method in the 2-D Cylindrical Coordinate System. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 949-955.	2.2	9
44	Lightning surge into a substation at a back-flashover and review of lightning protective level through the FDTD simulation. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 1044-1052.	2.9	12
45	Derivation of an Earth-Return Impedance of an Overhead Multi-Conductor Considering Displacement Currents. IEEJ Transactions on Power and Energy, 2014, 134, 936-940.	0.2	6
46	A Surge Analysis in a System Connected with Dispersed Power Sources. IEEJ Transactions on Power and Energy, 2014, 134, 230-235.	0.2	0
47	CIP-based Computation of Lightning Electromagnetic Pulses. IEEJ Transactions on Power and Energy, 2014, 134, 210-217.	0.2	2
48	FDTD Simulation of LEMPs Considering Ground Geometry and Grounded Structure. IEEJ Transactions on Power and Energy, 2014, 134, 267-272.	0.2	2
49	Lightning surge response of a double-circuit transmission tower with incoming lines to a substation through FDTD simulation. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 96-104.	2.9	11
50	Statistical Distribution of Energization Overvoltages of EHV Cables. IEEE Transactions on Power Delivery, 2013, 28, 1423-1432.	4.3	18
51	FDTD Simulation of Insulator Voltages at a Lightning-Struck Tower Considering Ground-Wire Corona. IEEE Transactions on Power Delivery, 2013, 28, 1635-1642.	4.3	26
52	Application of the TLM Method to Transient Simulations of a Conductor System With a Lossy Ground: Grounding Electrodes and an Overhead Wire. IEEE Transactions on Electromagnetic Compatibility, 2013, 55, 175-182.	2.2	17
53	Current distribution characteristic of a quasi-isotropic CFRP panel. , 2013, , .		2
54	Application of the Type-C Constrained Interpolation Profile Method to Lightning Electromagnetic Field Analyses. IEEJ Transactions on Power and Energy, 2013, 133, 106-113.	0.2	5

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55	Wave Propagation Characteristics on a Pipe-Type Cable in Particular Reference to the Proximity Effect. IEEJ Transactions on Power and Energy, 2013, 133, 954-960.	0.2	3
56	Influence of a Measuring Wire on Transient Measurements in a Scaled-down Vertical Conductor Experiment. IEEJ Transactions on Power and Energy, 2013, 133, 555-561.	0.2	2
57	Handling Electromagnetic Transients by Circuit-theory Approach. IEEJ Transactions on Power and Energy, 2013, 133, 927-930.	0.2	0
58	A frequency dependent circuit model of a wind turbine tower using transient response calculeted by FDTD. , 2012, , .		3
59	Transient grounding characteristics of wind turbine with counterpoise. , 2012, , .		9
60	3-D FDTD Computation of Lightning-Induced Voltages on an Overhead Two-Wire Distribution Line. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 1161-1168.	2.2	32
61	An estimation method of Li-ion battery impedance using z-transform. , 2012, , .		17
62	An investigation of incoming lightning surges from a communication line. , 2012, , .		0
63	FDTD Simulation of Lightning Surges on Overhead Wires in the Presence of Corona Discharge. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 1234-1243.	2.2	30
64	Threats of lightning current through an electric vehicle. , 2012, , .		5
65	A Simplified Model of Corona Discharge on Overhead Wire for FDTD Computations. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 585-593.	2.2	44
66	Transient Magnetic Fields and Current Distributions in an Electric Vehicle Caused by a Lightning Stroke. IEEJ Transactions on Power and Energy, 2012, 132, 667-675.	0.2	8
67	Step Response Analysis of an Impulse Voltage Measuring System using the FDTD Method. IEEJ Transactions on Power and Energy, 2012, 132, 507-514.	0.2	0
68	Application of a hybrid electromagnetic circuit method to lightning surge analysis. , 2011, , .		4
69	Effects of deeply buried grounding electrodes applied to a mobile phone base station. , 2011, , .		5
70	Application of the Partial Element Equivalent Circuit Method to Analysis of Transient Potential Rises in Grounding Systems. IEEE Transactions on Electromagnetic Compatibility, 2011, 53, 726-736.	2.2	77
71	Application of the partial element equivalent circuit method to tower surge response calculations. IEEJ Transactions on Electrical and Electronic Engineering, 2011, 6, 324-330.	1.4	4
72	Derivation of Theoretical Formulas of Sequence Currents on Underground Cable Systems. IEEJ Transactions on Power and Energy, 2011, 131, 277-282.	0.2	1

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73	A Study of Lightning Current Distribution at a Wind Turbine Foot. IEEJ Transactions on Power and Energy, 2011, 131, 602-608.	0.2	0
74	An equivalent circuit of a transmission-line tower struck by lightning. , 2010, , .		5
75	On the Equivalence of a Conducting Plate in a Laboratory Experiment to a Real Earth. IEEE Transactions on Electromagnetic Compatibility, 2010, 52, 691-698.	2.2	2
76	Propagation Characteristics of Power Line Communication Signals Along a Power Cable Having Semiconducting Layers. IEEE Transactions on Electromagnetic Compatibility, 2010, 52, 756-769.	2.2	18
77	Influence of a Voltage Reference Wire and a Current Lead Wire to a Transient Voltage on a Vertical Conductor. IEEJ Transactions on Electrical and Electronic Engineering, 2010, 5, 1-7.	1.4	6
78	Influence of a Measuring System to a Transient Voltage on a Vertical Conductor. IEEJ Transactions on Electrical and Electronic Engineering, 2010, 5, 221-228.	1.4	8
79	A study of transient magnetic fields in a wind turbine nacelle. , 2010, , .		2
80	Surge voltages and currents into a customer due to nearby lightning. Electric Power Systems Research, 2009, 79, 428-435.	3.6	10
81	An Investigation of Earth-Return Impedance Between Overhead and Underground Conductors and Its Approximation. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 860-867.	2.2	35
82	Electromagnetic disturbances of control circuits in power stations and substations experienced in Japan. IET Generation, Transmission and Distribution, 2009, 3, 801-815.	2.5	16
83	A Study of Transient Magnetic Fields in a Nacelle of a Wind Turbine Generator System due to Lightning. IEEJ Transactions on Power and Energy, 2009, 129, 628-636.	0.2	5
84	Effects of Lightning Electromagnetic Pulse on a Nearby Overhead Horizontal Conductor. IEEJ Transactions on Power and Energy, 2009, 129, 347-352.	0.2	1
85	Modification on a Thin-Wire Representation for FDTD Calculations in Nonsquare Grids. IEEE Transactions on Electromagnetic Compatibility, 2008, 50, 427-431.	2.2	14
86	Studies on the Prediction Method of Induced AC Level on Buried Steel Pipelines Using Magnetic Field Sensors. Zairyo To Kankyo/ Corrosion Engineering, 2008, 57, 493-499.	0.2	0
87	Optimization of Surge Arrester's Location on EHV and UHV Power Networks Using Simulation Optimization Method. IEEJ Transactions on Power and Energy, 2008, 128, 1465-1472.	0.2	7
88	Numerical Simulations of Lightning Surge Responses in a Seismic Isolated Building by FDTD and EMTP. IEEJ Transactions on Power and Energy, 2008, 128, 473-478.	0.2	9
89	Electromagnetic disturbances of control circuits in power stations and substations experienced in Japan. , 2007, , .		3
90	Induced Surge Characteristics on a Control Cable in a Gas-Insulated Substation due to Switching Operation. IEEJ Transactions on Power and Energy, 2007, 127, 1306-1312.	0.2	9

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91	A Study on Frequency-Dependent Parameters and Sunde's Formulas of a Counterpoise. IEEJ Transactions on Power and Energy, 2007, 127, 299-305.	0.2	2
92	Analytical Method of Electro-Magnetic Induction by a Four-Terminal Parameter and its Application to Pipeline Induced Voltages. IEEJ Transactions on Power and Energy, 2007, 127, 943-952.	0.2	0
93	Lightning Surges on a Control Cable Incoming through a Grounding Lead. IEEJ Transactions on Power and Energy, 2007, 127, 267-275.	0.2	4
94	Electromagnetic Transients on an Underground Cable due to a Lightning Current Flowing into the Metallic Sheath. IEEJ Transactions on Power and Energy, 2007, 127, 1313-1319.	0.2	0
95	The history of transient analysis and the recent trend. IEEJ Transactions on Electrical and Electronic Engineering, 2007, 2, 497-503.	1.4	4
96	Nonuniform Characteristics of a Horizontal Grounding Electrode. IEEE Transactions on Power Delivery, 2007, 22, 2327-2334.	4.3	16
97	An Investigation of Induced Voltages to an Underground Gas Pipeline from an Overhead Transmission Line. IEEJ Transactions on Power and Energy, 2006, 126, 43-50.	0.2	5
98	Measurement of Frequency-Dependent Conductivity and Relative Permittivity of a Soil Using Two Parallel Electrodes. IEEJ Transactions on Power and Energy, 2006, 126, 954-955.	0.2	0
99	Measurement of Transient Horizontal Electric Fields Using Two Vertical Conducting Probes. IEEJ Transactions on Power and Energy, 2006, 126, 1171-1177.	0.2	1
100	An Experimental Study of Lightning Overvoltages in Wind Turbine Generation Systems Using a Reduced-Size Model. IEEJ Transactions on Power and Energy, 2006, 126, 65-72.	0.2	8
101	FDTD Simulation of a Horizontal Grounding Electrode and Modeling of its Equivalent Circuit. IEEE Transactions on Electromagnetic Compatibility, 2006, 48, 817-825.	2.2	82
102	An Experimental Study of Lightning Overvoltages in Wind Turbine Generation Systems. IEEJ Transactions on Power and Energy, 2006, 126, 1230-1238.	0.2	8
103	A Method of a Lightning Surge Analysis Recommended in Japan Using EMTP. IEEE Transactions on Power Delivery, 2005, 20, 867-875.	4.3	211
104	A Genetic Algorithm Approach for Modeling a Grounding Electrode. IEEJ Transactions on Power and Energy, 2005, 125, 816-821.	0.2	5
105	Evaluation of Parameters of Lossy Medium for Surge Analysis of Grounding Electrodes. IEEJ Transactions on Power and Energy, 2005, 125, 626-627.	0.2	1
106	Charge-voltage curves of surge corona on transmission lines: two measurement methods. IEEE Transactions on Power Delivery, 2003, 18, 307-314.	4.3	38
107	Induced Surge Characteristics from a Counterpoise to an Overhead Loop Circuit. IEEJ Transactions on Power and Energy, 2003, 123, 1340-1349.	0.2	5
108	High-Accuracy Analysis of Surges on a Slanting Conductor and a Cylindrical Conductor by an FDTD Method. IEEJ Transactions on Power and Energy, 2003, 123, 725-733.	0.2	6

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109	Numerical Analysis of Wave Propagation Characteristics on a Buried Horizontal Conductor by an FDTD Method. IEEJ Transactions on Power and Energy, 2003, 123, 1319-1327.	0.2	3
110	Wave propagation characteristics on an overhead conductor above snow. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2001, 134, 26-33.	0.4	7
111	Further improvements to a phase-domain ARMA line model in terms of convolution, steady-state initialization, and stability. IEEE Transactions on Power Delivery, 1997, 12, 1327-1334.	4.3	32
112	Modeling Method of Fluorescent Lamp using Statistical Analysis Method.. Journal of Light and Visual Environment, 1997, 21, 25-32.	0.2	0
113	Phase domain modeling of frequency-dependent transmission lines by means of an ARMA model. IEEE Transactions on Power Delivery, 1996, 11, 401-411.	4.3	140
114	Experimental evaluation of a UHV tower model for lightning surge analysis. IEEE Transactions on Power Delivery, 1995, 10, 393-402.	4.3	140
115	Frequency-dependent impedance of vertical conductors and a multiconductor tower model. IET Generation, Transmission and Distribution, 1994, 141, 339.	1.1	120
116	Transient analysis of a crossbonded cable system underneath a bridge. IEEE Transactions on Power Delivery, 1990, 5, 527-532.	4.3	14
117	Line parameters and transients of a non-parallel conductors systems. IEEE Transactions on Power Delivery, 1989, 4, 1117-1126.	4.3	12
118	A development of a generalized frequency-domain transient program-FTP. IEEE Transactions on Power Delivery, 1988, 3, 1996-2004.	4.3	84
119	Lightning surge calculations including corona effects using a two-conductor model. Electric Power Systems Research, 1987, 13, 31-41.	3.6	6
120	Development of a linear model for corona wave deformation and its effect on lightning surges.. IEEJ Transactions on Power and Energy, 1987, 107, 155-162.	0.2	0
121	Lifetime estimation of a composite insulation material based on its partial discharge characteristic.. IEEJ Transactions on Fundamentals and Materials, 1987, 107, 81-87.	0.2	0
122	Derivation of impedance and admittance of a non-parallel multiconductor system.. IEEJ Transactions on Power and Energy, 1987, 107, 587-594.	0.2	1
123	A two-conductors model of calculating a lightning surge.. IEEJ Transactions on Power and Energy, 1986, 106, 403-410.	0.2	0
124	Surge propagation characteristics of a POF cable.. IEEJ Transactions on Power and Energy, 1985, 105, 645-652.	0.2	0
125	Transient Calculations on Crossbonded Cables. IEEE Transactions on Power Apparatus and Systems / Technical Operations Committee, 1983, PAS-102, 779-787.	0.4	45
126	Surge Characteristics on an Untransposed Vertical Line. IEEJ Transactions on Power and Energy, 1983, 103, 117-124.	0.2	3

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127	Surge Propagation Characterisdtics on Gas-Insulated Cables. IEEJ Transactions on Power and Energy, 1981, 101, 491-497.	0.2	3
128	Wave Propagation Characteristics on an Untransposed Vertical Twin-Circuit Line. IEEJ Transactions on Power and Energy, 1981, 101, 675-682.	0.2	1
129	Wave Propagation Characteristics of Cables. IEEE Transactions on Power Apparatus and Systems / Technical Operations Committee, 1980, PAS-99, 499-505.	0.4	44
130	A General Formulation of Impedance and Admittance of Cables. IEEE Transactions on Power Apparatus and Systems / Technical Operations Committee, 1980, PAS-99, 902-910.	0.4	306
131	Development of exponential Fourier transform and its application to electrical transients. Proceedings of the Institution of Electrical Engineers, 1979, 126, 51.	0.1	50
132	Title is missing!. IEEJ Transactions on Power and Energy, 1979, 99, 73-80.	0.2	0
133	Equations for surge impedance and propagation constant of transmission lines above stratified earth. IEEE Transactions on Power Apparatus and Systems / Technical Operations Committee, 1976, 95, 773-781.	0.4	9
134	An Approximate Methode for Calculating Transmission Line Transients. IEEJ Transactions on Power and Energy, 1976, 96, 575-582.	0.2	0
135	Stratified Earth Effects on Wave Propagation - Frequency-Dependent Parameters. IEEE Transactions on Power Apparatus and Systems / Technical Operations Committee, 1974, PAS-93, 1233-1239.	0.4	19
136	Further studies on wave propagation in overhead lines with earth return: impedance of stratified earth. Proceedings of the Institution of Electrical Engineers, 1973, 120, 1521.	0.1	49
137	The Application of the Fast Fourier Transform to Electrical Transient Phenomena. International Journal of Electrical Engineering and Education, 1973, 10, 277-287.	0.8	60
138	Modeling of frequency-dependent lines and cables by means of algebra processing program. , 0, , .		0
139	Magnetizing circuit model for EMTP including voltage dependence characteristic. , 0, , .		1
140	Power Compensator using Lithium-Ion Battery for DC Railway and its Simulation by EMTP. , 0, , .		11