

james Roudet

List of Publications by Year in descending order

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88
papers

1,157
citations

759233

12
h-index

526287

27
g-index

89
all docs

89
docs citations

89
times ranked

792
citing authors

#	ARTICLE	IF	CITATIONS
1	A Modular Strategy for Control and Voltage Balancing of Cascaded H-Bridge Rectifiers. IEEE Transactions on Power Electronics, 2008, 23, 2428-2442.	7.9	180
2	EMI Study of Three-Phase Inverter-Fed Motor Drives. IEEE Transactions on Industry Applications, 2011, 47, 223-231.	4.9	130
3	EMC Modeling of Drives for Aircraft Applications: Modeling Process, EMI Filter Optimization, and Technological Choice. IEEE Transactions on Power Electronics, 2013, 28, 1145-1156.	7.9	74
4	Conducted EMI analysis of a boost PFC circuit. , 0, , .		59
5	Modeling of low inductive busbar connections. IEEE Industry Applications Magazine, 1996, 2, 39-43.	0.4	44
6	Impedances Identification of DC/DC Converters for Network EMC Analysis. IEEE Transactions on Power Electronics, 2014, 29, 6445-6457.	7.9	40
7	A Global Study of a Contactless Energy Transfer System: Analytical Design, Virtual Prototyping, and Experimental Validation. IEEE Transactions on Power Electronics, 2013, 28, 4690-4699.	7.9	35
8	Power electronic converter EMC analysis through state variable approach techniques. IEEE Transactions on Electromagnetic Compatibility, 2001, 43, 229-238.	2.2	33
9	Busbar Design: How to Spare Nanohenries ?. , 2006, , .		33
10	A new technique for spectral analysis of conducted noise of a SMPS including interconnects. , 0, , .		32
11	EMI conducted emission in the differential mode emanating from an SCR: phenomena and noise level prediction. IEEE Transactions on Power Electronics, 1995, 10, 105-110.	7.9	30
12	Modeling and Computation of Losses in Conductors and Magnetic Cores of a Large Air Gap Transformer Dedicated to Contactless Energy Transfer. IEEE Transactions on Magnetics, 2013, 49, 586-590.	2.1	30
13	EMI study of a three phase inverter-fed motor drives. , 0, , .		26
14	Switching disturbance due to source inductance for a power MOSFET: analysis and solutions. , 0, , .		25
15	Implementation and Performance of a Current Sensor for a Laminated Bus Bar. IEEE Transactions on Industry Applications, 2018, 54, 2579-2587.	4.9	20
16	Multipolar development of vector potential for parallel wires. Application to the study of eddy currents effects in transformer windings. IEEE Transactions on Magnetics, 1991, 27, 4242-4245.	2.1	19
17	Characterization and analysis of electromagnetic interference in a high frequency AC distributed power system. , 0, , .		18
18	Copper losses of flyback transformer: search for analytical expressions. IEEE Transactions on Magnetics, 2003, 39, 1745-1748.	2.1	18

#	ARTICLE	IF	CITATIONS
19	Prediction and measurement of The magnetic near field of a static converter. , 2007, , .		18
20	Volume optimization of a PFC flyback structure under electromagnetic compatibility, loss and temperature constraints. , 0, , .		17
21	Determination of the layout influence on the effectiveness of a three-phase common mode filter by using equivalent circuits and PSpice. , 2008, , .		15
22	Influence of a conductive plane on loop inductance. IEEE Transactions on Magnetics, 1995, 31, 2127-2130.	2.1	13
23	Modeling of Printed Circuit Board loop inductance. IEEE Transactions on Magnetics, 1994, 30, 3590-3593.	2.1	12
24	Layout techniques for reduction of common mode current in static converters. , 2006, , .		12
25	Electrical modeling of transformer connecting bars. IEEE Transactions on Magnetics, 2002, 38, 1378-1382.	2.1	11
26	Layout optimization to reduce EMI of a switched mode power supply. , 0, , .		11
27	Modeling of Connections Taking Into Account Return Plane: Application to EMI Modeling for Railway. IEEE Transactions on Industrial Electronics, 2009, 56, 678-684.	7.9	11
28	Coupling PEEC-Finite Element Method for Solving Electromagnetic Problems. IEEE Transactions on Magnetics, 2008, 44, 1330-1333.	2.1	9
29	The accurate input impedances of a DC-DC converters connected to the network. , 2015, , .		9
30	Modeling of low inductive connections: the planar busbar structure. , 0, , .		8
31	Impact of the Physical Layout of High-Current Rectifiers on Current Division and Magnetic Field Using PEEC Method. IEEE Transactions on Industry Applications, 2010, 46, 892-900.	4.9	8
32	Built-in EMC for Integrated Power Electronics Systems. EPE Journal (European Power Electronics and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 0.7		8
33	Optimized layout for an EMC filter: Analysis and validations. , 2012, , .		8
34	Influence of an impedance step in interconnection inductance calculation. IEEE Transactions on Magnetics, 1996, 32, 824-827.	2.1	7
35	A Nonmeshing Approach for Modeling Grounding. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 795-802.	2.2	7
36	Overcurrent Detection Using an Integrated Rogowski Coil for an Electric Vehicles Inverter. , 2019, , .		7

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37	PSPICE-compatible electrical equivalent circuit for busbars. , 0, , .		6
38	Frequency-domain modeling of unshielded multiconductor power cables for periodic excitation with new experimental protocol for wide band parameter identification. Electrical Engineering, 2019, 101, 333-343.	2.0	6
39	A new analytical EMC model of power electronics converters based on quadripole system: Application to demonstrate the mode decoupling condition. , 2015, , .		6
40	Dealing with common mode current in power modules design and association. , 0, , .		5
41	Design of a PWM inverter regarding conducted EMC and losses: influence of some key parameters. , 0, , .		5
42	Using constrained optimization algorithm for the modeling of static converter harmonics. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2012, 31, 764-779.	0.9	5
43	Modelization of Superferromagnetism in Soft Nanocrystalline Materials Based on an Accurate Description of Magnetostatic Interactions. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	5
44	Implementation and performance of a current sensor for a laminated bus bar. , 2016, , .		5
45	How to better know what happens inside a power multi chip module. , 0, , .		4
46	Automatic design of busbars considering electrical criteria. , 0, , .		4
47	Experimental validation of the circulating-bearing-currents mathematical theory in the 20 MHz frequency range. , 2009, , .		4
48	Bus bar embedded rogowski coil. , 2018, , .		4
49	Origin and propagation of common mode currents occurring in a bridge rectifier. , 0, , .		3
50	Modélisation des câblages en électronique de puissance : apport et complémentarité des méthodes d'éléments finis et de circuits équivalents. EPJ Applied Physics, 1998, 1, 211-223.	0.7	3
51	Bus bar copper losses computation. EPJ Applied Physics, 2003, 23, 55-62.	0.7	3
52	FEM-PEEC coupled method for modeling solid conductors in the presence of ferromagnetic material. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 904-910.	0.9	3
53	Detailed modeling of local anisotropy and transverse K u interplay regarding hysteresis loop in FeCuNbSiB nanocrystalline ribbons. AIP Advances, 2018, 8, .	1.3	3
54	Benefits of the Ground PEEC Modeling Approach – Example of a Residential Building Struck by Lightning. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 1832-1840.	2.2	3

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55	Commutation Modes in Resonant Converters Control and Safety In DC-DC Conversion. EPE Journal (European Power Electronics and Drives Journal), 1991, 1, 33-45.	0.7	2
56	PROBLEMS IN COMPUTING SPECTRA GENERATED BY PWM INVERTERS FOR OPTIMIZATION OF ELECTRICAL DRIVES. Electric Power Components and Systems, 1998, 26, 415-429.	0.1	2
57	Modeling of connections taking into account return plane: Application to EMI modeling for railway. , 2007, , .		2
58	Comparison of a forced switching and a quasi-resonant series chopper with regard to radio-frequency noise emission. European Transactions on Electrical Power, 2007, 6, 5-14.	1.0	2
59	Studying behavior of multilayer materials: A 1-D model correlated to magnetic domain walls through complex permeability. Journal of Magnetism and Magnetic Materials, 2008, 320, e708-e711.	2.3	2
60	An Improved Design of a DC-DC Converter Using an Integrated Magnetic Component. , 2008, , .		2
61	EMC behavior of static converters thanks to radiated field modeling using an equivalent electrical circuit. , 2009, , .		2
62	Effect of Anisotropy and Direction of Magnetization on Complex Permeability of Ferromagnetic Rectangular Thin Slabs. IEEE Transactions on Magnetics, 2010, 46, 4001-4008.	2.1	2
63	Input impedance investigation of a DC-DC converter on a large frequency range: A novel analytical approach. , 2013, , .		2
64	Far Field Extrapolation from Near Field Interactions and Shielding Influence Investigations Based on a FE-PEEC Coupling Method. Electronics (Switzerland), 2013, 2, 80-93.	3.1	2
65	Analytical models synthesis of power electronic converters. , 2016, , .		2
66	Modeling of Hysteresis in Feâ€“Cuâ€“Nbâ€“Siâ€“B Cores With Transverse K_{u_u} . IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	2
67	Use of superparamagnetic temperature transition measurement in nanocrystalline alloys to determine low crystalline fractions by modeling of the weak-coupling behavior. Journal of Magnetism and Magnetic Materials, 2019, 478, 122-131.	2.3	2
68	Design of an Integrated Air Coil for Current Sensing. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 4122-4129.	5.4	2
69	Analysis of the resonance phenomenon in unmatched power cables with the resonance surface response. Electric Power Systems Research, 2021, 200, 107466.	3.6	2
70	Power electronics converter modelling using microwave theory and techniques. Electronics Letters, 1996, 32, 904.	1.0	1
71	A very useful CAD tool for designing packaging of integrated power converter. , 0, , .		1
72	An analytical process to size a flyback converter. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2001, 20, 796-807.	0.9	1

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73	Analytical and Numerical Contributions for Winding Losses Estimation in an Integrated Magnetic Component. , 2008, , .		1
74	Far field extrapolation from near field interactions and shielding influence investigations based on a FE-PEEC coupling method. , 2009, , .		1
75	Analytical modeling of static converters for optimal sizing of on-board electrical systems. , 2010, , .		1
76	Wireless power supply for rotating piezoelectric actuators in high performance aeronautic drilling systems. EPE Journal (European Power Electronics and Drives Journal), 2017, 27, 167-177.	0.7	1
77	Robust Filter Design Technique to Limit Resonance in Long Cables Connected to Power Converters. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 2804-2813.	2.2	1
78	Interaction puissance-commande au sein des convertisseurs statiques. Journal De Physique III, 1996, 6, 735-755.	0.3	1
79	Study of high frequency DC-DC double resonant converters in discontinuous conduction mode. , 0, , .		0
80	Etude comportementale de la commutation d'un transistor MOSFET de puissance. Journal De Physique III, 1994, 4, 2531-2555.	0.3	0
81	Design of a naturally cooled high frequency integrated magnetic component. , 2008, , .		0
82	Commutation Cell. , 0, , 403-432.		0
83	Input impedance of modern embedded networks including many power electronics converters: An analytical investigation. , 2015, , .		0
84	Analytical model of DC-DC converters based on switching impedances and EMI sources. , 2016, , .		0
85	Experimental evaluation of voltage resonance on industrial cables. , 2017, , .		0
86	Theoretical Model Based on Dipolare System of a DC-DC Boost Converter. , 2018, , .		0
87	Prise en compte de la structure en domaines magnétiques et parois pour le calcul de la perméabilité complexe. Revue Internationale De Génie Électrique, 2009, 12, 487-500.	0.0	0
88	Contribution à la modélisation des convertisseurs statiques pour la simulation à topologie variable. Journal De Physique III, 1993, 3, 1221-1241.	0.3	0