

# Jian Sun

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1830658/publications.pdf>

Version: 2024-02-01

120  
papers

8,197  
citations

159358

30  
h-index

223531

46  
g-index

120  
all docs

120  
docs citations

120  
times ranked

3478  
citing authors

#	ARTICLE	IF	CITATIONS
1	Impedance-Based Stability Criterion for Grid-Connected Inverters. IEEE Transactions on Power Electronics, 2011, 26, 3075-3078.	5.4	1,826
2	Impedance Modeling and Analysis of Grid-Connected Voltage-Source Converters. IEEE Transactions on Power Electronics, 2014, 29, 1254-1261.	5.4	893
3	Small-Signal Methods for AC Distributed Power Systems—A Review. IEEE Transactions on Power Electronics, 2009, 24, 2545-2554.	5.4	606
4	Constant-Power Load System Stabilization by Passive Damping. IEEE Transactions on Power Electronics, 2011, 26, 1832-1836.	5.4	439
5	Ripple-Based Control of Switching Regulators—An Overview. IEEE Transactions on Power Electronics, 2009, 24, 2669-2680.	5.4	302
6	Adaptive Control of Grid-Connected Inverters Based on Online Grid Impedance Measurements. IEEE Transactions on Sustainable Energy, 2014, 5, 516-523.	5.9	243
7	Renewable energy transmission by HVDC across the continent: system challenges and opportunities. CSEE Journal of Power and Energy Systems, 2017, 3, 353-364.	1.7	227
8	Sequence Impedance Modeling of Modular Multilevel Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 1427-1443.	3.7	208
9	Voltage Stability and Control of Offshore Wind Farms With AC Collection and HVDC Transmission. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 1181-1189.	3.7	186
10	Characterization and performance comparison of ripple-based control for voltage regulator modules. IEEE Transactions on Power Electronics, 2006, 21, 346-353.	5.4	154
11	On the Zero-Crossing Distortion in Single-Phase PFC Converters. IEEE Transactions on Power Electronics, 2004, 19, 685-692.	5.4	128
12	Input Impedance Modeling of Multipulse Rectifiers by Harmonic Linearization. IEEE Transactions on Power Electronics, 2009, 24, 2812-2820.	5.4	127
13	Online Grid Impedance Measurement Using Discrete-Interval Binary Sequence Injection. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 985-993.	3.7	124
14	Feedforward current control of boost single-phase PFC converters. IEEE Transactions on Power Electronics, 2006, 21, 338-345.	5.4	120
15	Sequence Impedance Modeling and Analysis of Type-III Wind Turbines. IEEE Transactions on Energy Conversion, 2018, 33, 537-545.	3.7	112
16	Input Impedance Analysis of Single-Phase PFC Converters. IEEE Transactions on Power Electronics, 2005, 20, 308-314.	5.4	96
17	A Comprehensive Study of Harmonic Cancellation Effects in Interleaved Three-Phase VSCs. , 2007, , .		92
18	Mitigation of Inverter-Grid Harmonic Resonance by Narrow-Band Damping. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 1024-1031.	3.7	82

#	ARTICLE	IF	CITATIONS
19	Broadband methods for online grid impedance measurement. , 2013, , .		80
20	Online grid impedance identification for adaptive control of grid-connected inverters. , 2012, , .		78
21	Modeling and mitigation of harmonic resonance between wind turbines and the grid. , 2011, , .		73
22	A Theory for Harmonics Created by Resonance in Converter-Grid Systems. IEEE Transactions on Power Electronics, 2019, 34, 3025-3029.	5.4	70
23	Analysis of Input Filter Interactions in Switching Power Converters. IEEE Transactions on Power Electronics, 2007, 22, 452-460.	5.4	69
24	Bilinear discrete-time modeling for enhanced stability prediction and digital control design. IEEE Transactions on Power Electronics, 2003, 18, 381-389.	5.4	62
25	Sequence Impedance Modeling and Converter-Grid Resonance Analysis Considering DC Bus Dynamics and Mirrored Harmonics. , 2018, , .		62
26	Renewable Energy Systems Instability Involving Grid-Parallel Inverters. , 2009, , .		59
27	Parameterization of Three-Phase Electric Machine Models for EMI Simulation. IEEE Transactions on Power Electronics, 2014, 29, 36-41.	5.4	58
28	Impedance shaping of three-phase grid-parallel voltage-source converters. , 2012, , .		56
29	3D Power Delivery for Microprocessors and High-Performance ASICs. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	55
30	Integrated Magnetics for Current-Doubler Rectifiers. IEEE Transactions on Power Electronics, 2004, 19, 582-590.	5.4	54
31	Optimal Damping of EMI Filter Input Impedance. IEEE Transactions on Industry Applications, 2011, 47, 1432-1440.	3.3	53
32	Reduced-order averaged modeling of active-clamp converters. IEEE Transactions on Power Electronics, 2006, 21, 487-494.	5.4	52
33	Low-Frequency Input Impedance Modeling of Boost Single-Phase PFC Converters. IEEE Transactions on Power Electronics, 2007, 22, 1402-1409.	5.4	51
34	Stabilization of constant-power loads by passive impedance damping. , 2010, , .		43
35	Frequency-domain coupling in two-level VSC small-signal dynamics. , 2017, , .		43
36	Optimal Damping of Multistage EMI Filters. IEEE Transactions on Power Electronics, 2012, 27, 1220-1227.	5.4	42

#	ARTICLE	IF	CITATIONS
37	AC power electronic systems: Stability and power quality. , 2008, , .		41
38	Sequence Impedance Modeling and Analysis of MMC in Single-Star Configuration. IEEE Transactions on Power Electronics, 2020, 35, 334-346.	5.4	38
39	Three-phase impedance measurement for system stability analysis. , 2013, , .		37
40	Dynamics Characterization of Coupled-Inductor Boost DC-DC Converters. , 2006, , .		35
41	Orthogonal Winding Structures and Design for Planar Integrated Magnetics. IEEE Transactions on Industrial Electronics, 2008, 55, 1463-1469.	5.2	34
42	Autonomous Local Control and Stability Analysis of Multiterminal DC Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 1078-1089.	3.7	31
43	Impedance modeling and analysis of modular multilevel converters. , 2016, , .		31
44	Harmonic cancellation under interleaved PWM with harmonic injection. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	30
45	Dual-Boost Single-Phase PFC Input Current Control Based on Output Current Sensing. IEEE Transactions on Power Electronics, 2009, 24, 2523-2530.	5.4	30
46	Nonlinear Average Current Control Using Partial Current Measurement. IEEE Transactions on Power Electronics, 2008, 23, 1641-1648.	5.4	29
47	Asymmetric interleaving &#x2014; a new approach to operating parallel converters. , 2009, , .		27
48	Comparative Performance Evaluation of Current-Mode Control Schemes Adapted to Asymmetrically Driven Bridge-Type Pulsewidth Modulated DC-to-DC Converters. IEEE Transactions on Industrial Electronics, 2008, 55, 2033-2042.	5.2	26
49	Characterization of inverter-grid interactions using a hardware-in-the-loop system test-bed. , 2011, , .		26
50	A study of renewable energy system harmonic resonance based on a DG test-bed. , 2011, , .		26
51	Refined Small-Signal Sequence Impedance Models of Type-III Wind Turbines. , 2018, , .		26
52	Control of Three-Phase PWM Rectifiers Using A Single DC Current Sensor. IEEE Transactions on Power Electronics, 2011, 26, 1800-1808.	5.4	25
53	A Method to Aggregate Turbine and Network Impedances for Wind Farm System Resonance Analysis. , 2018, , .		22
54	Feedforward current control of boost-derived single-phase PFC converters. , 0, , .		19

#	ARTICLE	IF	CITATIONS
55	HVDC transmission system architectures and control - A review. , 2013, , .		19
56	Frequency-Domain Modeling of Multipulse Converters by Double-Fourier Series Method. IEEE Transactions on Power Electronics, 2011, 26, 3804-3809.	5.4	18
57	Impedance-based stability analysis of VSC-based HVDC systems. , 2013, , .		18
58	Development and Application of Type-III Turbine Impedance Models Including DC Bus Dynamics. IEEE Open Journal of Power Electronics, 2020, 1, 513-528.	4.0	18
59	Online grid impedance measurement using discrete-interval binary sequence injection. , 2013, , .		17
60	Behavior, Modeling and Damping of a New Type of Resonance Involving Type-III Wind Turbines. , 2018, , .		17
61	Analysis and design of single-phase PFC converters for airborne systems. , 0, , .		16
62	Analysis of input filter interactions in switching power converters. , 0, , .		16
63	Input Impedance Modeling and Analysis of Line-Commutated Rectifiers. , 2007, , .		16
64	Dual-Boost PFC Converter Control Without Input Current Sensing. , 2009, , .		16
65	Modeling and analysis of DC-link harmonic instability in LCC HVDC systems. , 2013, , .		16
66	Modeling and Analysis of Data Center Power System Stability by Impedance Methods. , 2019, , .		16
67	Double-Integral Fourier Analysis of Interleaved Pulse Width Modulation. , 2006, , .		15
68	Motor drive system EMI reduction by asymmetric interleaving. , 2010, , .		15
69	Development of a grid simulator. , 2012, , .		15
70	DC terminal impedance modeling of LCC-based HVDC converters. , 2013, , .		15
71	Small-signal stability analysis of offshore wind farms with LCC HVDC. , 2013, , .		15
72	Passive Methods to Damp AC Power System Resonance Involving Power Electronics. , 2018, , .		15

#	ARTICLE	IF	CITATIONS
73	Methods to aggregate turbine and network impedance for wind farm resonance analysis. IET Renewable Power Generation, 2020, 14, 1304-1311.	1.7	15
74	Feedforward current control of boost single-phase PFC converters. , 0, , .		14
75	Recent Developments in Single-Phase Power Factor Correction. , 2007, , .		14
76	Behavioral modeling methods for motor drive system EMI design optimization. , 2010, , .		14
77	Methods for stability analysis of unbalanced three-phase systems. , 2012, , .		14
78	Two-Port Characterization and Transfer Immittances of AC-DC Convertersâ€™Part I: Modeling. IEEE Open Journal of Power Electronics, 2021, 2, 440-462.	4.0	14
79	Low-Frequency Input Impedance Modeling of Single-Phase PFC Converters for Data Center Power System Stability Studies. , 2019, , .		13
80	Frequency-Domain Stability Criteria for Converter-Based Power Systems. IEEE Open Journal of Power Electronics, 2022, 3, 222-254.	4.0	13
81	Small-signal modeling of multipulse rectifiers for more-electric aircraft applications. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	12
82	Line-frequency rectifier dc-bus voltage instability analysis and mitigation. , 2010, , .		12
83	Characterization of IGBT modules for system EMI simulation. , 2010, , .		12
84	Averaged modeling and analysis of multilevel converters. , 2010, , .		11
85	Circulating currents and CM EMI reduction for interleaved three-phase VSC. , 2012, , .		11
86	Characterization and performance comparison of ripple-based control methods for voltage regulator modules. , 0, , .		10
87	Mixed-Signal Control of Single-Phase PFC Based on a Nonlinear Current Control Method. , 0, , .		10
88	Low-Frequency Input Impedance Models for Boost Single-Phase PFC Converters. , 0, , .		9
89	On system modeling and analysis using DQ-frame impedance models. , 2017, , .		9
90	Generalization of a nonlinear average current control method for CCM and DCM operation. IEEE Applied Power Electronics Conference and Exposition, 2008, , .	0.0	8

#	ARTICLE	IF	CITATIONS
91	Input impedance modeling of multipulse rectifiers by double-fourier series method. , 2010, , .		8
92	Implementation of DQ domain control in DSP and FPGA. , 2012, , .		8
93	Common-mode EMI solutions for modular back-to-back converter systems. , 2013, , .		8
94	Impedance-Based Stability Modeling and Analysis of Networked Converter Systems. , 2019, , .		8
95	The Future of Control and Communication: Power Electronics-Enabled Power Grids. IEEE Power Electronics Magazine, 2020, 7, 34-36.	0.6	8
96	Averaged Modeling and Switching Instability Prediction for Peak Current Control. , 0, , .		7
97	Input impedance modeling of single-phase PFC by the method of harmonic linearization. IEEE Applied Power Electronics Conference and Exposition, 2008, , .	0.0	7
98	Two-Port Characterization and Transfer Immittances of AC-DC Convertersâ€™Part II: Applications. IEEE Open Journal of Power Electronics, 2021, 2, 483-510.	4.0	7
99	Input impedance analysis of single-phase PFC converters. , 0, , .		6
100	Nonlinear Average Current Control Using Partial Current Measurement. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	6
101	Impedance modeling and control of STATCOM for damping renewable energy system resonance. , 2017, , .		6
102	Dynamics of Current-Mode-Controlled DC-to-DC Converters with Input Filter Stage. , 0, , .		5
103	Small-signal methods for electric ship power systems. , 2009, , .		5
104	Impedance modeling and analysis of MMC in single-star configuration. , 2017, , .		5
105	Measurement Device for Inverter Output Impedance Considering the Coupling Over Frequency. , 2020, , .		5
106	Nonlinear Current Control of Single-Phase PFC Suitable for Mixed-Signal IC Implementation. , 2006, , .		4
107	DC bus grounding capacitance optimizatio for common-mode EMI minimization. , 2011, , .		4
108	FPGA-based simulation of power electronics using iterative methods. , 2014, , .		4

#	ARTICLE	IF	CITATIONS
109	Three-phase PFC current control using dc-rail current as feedback. , 2009, , .		3
110	Modeling and analysis of line-frequency converters by double-Fourier series methods. , 2010, , .		3
111	Accurate Measurement of Converter Sequence Impedance by Active Cancellation of Coupling over Frequency. , 2019, , .		3
112	Control design optimization for an asymmetric half-bridge converter. , 2010, , .		2
113	Optimal interleaved pulsewidth modulation considering sampling effects. , 2011, , .		2
114	Optimal damping of multi-stage EMI filters. , 2011, , .		2
115	Analytical mapping of harmonics and impedance through phase-controlled converters. , 2012, , .		2
116	Orthogonal winding structures and design for planar integrated magnetics. , 0, , .		1
117	Minimum-sensing current control of three-phase PFC converters. , 2010, , .		1
118	Automated sequence impedance modeling of three-phase converters based on computer algebra. , 2017, , .		1
119	Single-phase PFC control using PWM-based multipliers. , 2009, , .		0
120	Narrowband damping of grid-connected inverters for harmonic resonance mitigation. , 2013, , .		0