

Gabriele Grandi

List of Publications by Year in descending order

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citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Modular Multilevel Converter Based on Interleaved Half-Bridge Submodules. IEEE Transactions on Industrial Electronics, 2023, 70, 125-136.	5.2	12
2	Sensorless Current Balancing Control for Interleaved Half-Bridge Submodules in Modular Multilevel Converters. IEEE Transactions on Industrial Electronics, 2023, 70, 5-16.	5.2	8
3	DC-link low-frequency current and voltage ripple analysis in multiphase voltage source inverters with unbalanced load. IET Electric Power Applications, 2022, 16, 300-314.	1.1	5
4	Novel Multi-Vehicle Motion-Based Model of Trolleybus Grids towards Smarter Urban Mobility. Electronics (Switzerland), 2022, 11, 915.	1.8	12
5	A Ripple-Free Output Current Interleaved DC/DC Converter Design Algorithm for EV Charging. , 2021, , .		1
6	Modular Multilevel Converters Based on Interleaved Half-Bridge Submodules. , 2021, , .		7
7	Prediction of DC-Link Voltage Switching Ripple in Three-Phase Four-Leg PWM Inverters. Energies, 2021, 14, 1434.	1.6	1
8	AC Current Ripple in Three-Phase Four-Leg PWM Converters with Neutral Line Inductor. Energies, 2021, 14, 1430.	1.6	7
9	State of Charge Optimization-based Smart Charging of Aggregate Electric Vehicles from Distributed Renewable Energy Sources. , 2021, , .		3
10	Efficiency Comparison of DC and AC Coupling Solutions for Large-Scale PV+BESS Power Plants. Energies, 2021, 14, 4823.	1.6	8
11	Variable Switching Frequency PWM for Three-Phase Four-Wire Split-Capacitor Inverter Performance Enhancement. IEEE Transactions on Power Electronics, 2021, 36, 13674-13685.	5.4	15
12	AC Current Ripple Harmonic Pollution in Three-Phase Four-Leg Active Front-End AC/DC Converter for On-Board EV Chargers. Electronics (Switzerland), 2021, 10, 116.	1.8	4
13	The Role of Front-End AC/DC Converters in Hybrid AC/DC Smart Homes: Analysis and Experimental Validation. Electronics (Switzerland), 2021, 10, 2601.	1.8	12
14	Electric Vehicles Charging Management System for Optimal Exploitation of Photovoltaic Energy Sources Considering Vehicle-to-Vehicle Mode. Frontiers in Energy Research, 2021, 9, .	1.2	10
15	Evaluation of DC-Link Voltage Switching Ripple in Multiphase PWM Voltage Source Inverters. IEEE Transactions on Power Electronics, 2020, 35, 3478-3490.	5.4	31
16	Electric Vehicle Aggregate Power Flow Prediction and Smart Charging System for Distributed Renewable Energy Self-Consumption Optimization. Energies, 2020, 13, 5003.	1.6	18
17	Current Pulse Generation Methods for Li-ion Battery Chargers. , 2020, , .		2
18	Analysis of Input Voltage Switching Ripple in Three-Phase Four-Wire Split Capacitor PWM Inverters. Energies, 2020, 13, 5076.	1.6	9

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19	A Comprehensive AC Current Ripple Analysis and Performance Enhancement via Discontinuous PWM in Three-Phase Four-Leg Grid-Connected Inverters. <i>Energies</i> , 2020, 13, 4352.	1.6	18
20	Theoretical Analysis of the AC Current Ripple in Three-Phase Four-Leg Sinusoidal PWM Inverters. , 2020, , .		2
21	Evaluation of AC Current Ripple in case of Split-Capacitor Three-Phase Four Wires Inverters. , 2020, , .		3
22	Multileg Interleaved Buck Converter for EV Charging: Discrete-Time Model and Direct Control Design. <i>Energies</i> , 2020, 13, 466.	1.6	21
23	Ripple Correlation Control MPPT Scheme Applied to a Three-Phase Flying Capacitor PV System. <i>Lecture Notes in Electrical Engineering</i> , 2020, , 13-24.	0.3	1
24	An Output Ripple-Free Fast Charger for Electric Vehicles Based on Grid-Tied Modular Three-Phase Interleaved Converters. <i>IEEE Transactions on Industry Applications</i> , 2019, 55, 6102-6114.	3.3	60
25	Smart Battery Pack for Electric Vehicles Based on Active Balancing with Wireless Communication Feedback. <i>Energies</i> , 2019, 12, 3862.	1.6	17
26	Three-Phase Three-Level Flying Capacitor PV Generation System with an Embedded Ripple Correlation Control MPPT Algorithm. <i>Electronics (Switzerland)</i> , 2019, 8, 118.	1.8	7
27	Direct Digital Design of PIDF Controllers with Complex Zeros for DC-DC Buck Converters. <i>Energies</i> , 2019, 12, 36.	1.6	12
28	On PWM Strategies and Current THD for Single- and Three-Phase Cascade H-Bridge Inverters with Non-Equal DC Sources. <i>Energies</i> , 2019, 12, 441.	1.6	9
29	Input Current and Voltage Ripple Analysis in LDN Cells for H-Bridge Multilevel Inverters. <i>IEEE Transactions on Industrial Electronics</i> , 2019, 66, 8414-8423.	5.2	6
30	Analysis of a Three-Phase Four-Leg Front-End Converter for EV Chargers with Balanced and Unbalanced Grid Currents. , 2019, , .		5
31	Evaluation of DC-link voltage ripple in five-phase PWM voltage source inverters. <i>Journal of Engineering</i> , 2019, 2019, 3709-3714.	0.6	4
32	A DC/DC Fast Charger for Electric Vehicles with Minimum Input/Output Ripple Based on Multiphase Interleaved Converters. , 2019, , .		15
33	Analysis of Equivalent Inductance of Three-phase Induction Motors in the Switching Frequency Range. <i>Electronics (Switzerland)</i> , 2019, 8, 120.	1.8	6
34	The DRYSMES4GRID Project: Development of a 500 kJ/200 kW Cryogen-Free Cooled SMES Demonstrator Based on MgB ₂ . <i>IEEE Transactions on Applied Superconductivity</i> , 2018, 28, 1-5.	1.1	16
35	Simultaneous Selective Harmonic Elimination and THD Minimization for a Single-Phase Multilevel Inverter With Staircase Modulation. <i>IEEE Transactions on Industry Applications</i> , 2018, 54, 1532-1541.	3.3	65
36	Capacitors Voltage Switching Ripple in Three-Phase Three-Level Neutral Point Clamped Inverters with Self-Balancing Carrier-Based Modulation. <i>Energies</i> , 2018, 11, 3244.	1.6	14

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37	A Ripple-Free DC Output Current Fast Charger for Electric Vehicles Based on Grid-Tied Modular Three-Phase Interleaved Converters. , 2018, , .		14
38	Capacitor Voltage Switching Ripple in Three-Phase Three-Level Neutral Point Clamped Inverters with Sinusoidal Carrier-Based PWM. , 2018, , .		1
39	Evaluation of DC-link Voltage Ripple in Seven-Phase PWM Voltage Source Inverters. , 2018, , .		4
40	Analysis of a flexible single-phase multilevel inverter topology for photovoltaic applications. , 2018, , .		0
41	Dc-link current and voltage ripple harmonics in three-phase three-level flying capacitor inverters with sinusoidal carrier-based PWM. , 2018, , .		3
42	Analysis of dc-Link Voltage Switching Ripple in Three-Phase PWM Inverters. Energies, 2018, 11, 471.	1.6	54
43	Evaluation of DC voltage ripple in three-phase PWM voltage source inverters. , 2017, , .		9
44	RCC-MPPT algorithms for single-phase PV systems in case of multiple dc harmonics. , 2017, , .		1
45	Thermal and Performance Analysis of a Photovoltaic Module with an Integrated Energy Storage System. Applied Sciences (Switzerland), 2017, 7, 1107.	1.3	74
46	Theoretical and Experimental Investigation of Switching Ripple in the DC-Link Voltage of Single-Phase H-Bridge PWM Inverters. Energies, 2017, 10, 1189.	1.6	28
47	A Single-Phase Multilevel PV Generation System with an Improved Ripple Correlation Control MPPT Algorithm. Energies, 2017, 10, 2037.	1.6	15
48	A Comprehensive Analysis and Hardware Implementation of Control Strategies for High Output Voltage DC-DC Boost Power Converter. International Journal of Computational Intelligence Systems, 2017, 10, 140.	1.6	25
49	Analysis and Minimization of Output Current Ripple for Discontinuous Pulse-Width Modulation Techniques in Three-Phase Inverters. Energies, 2016, 9, 380.	1.6	4
50	Time-Domain Minimization of Voltage and Current Total Harmonic Distortion for a Single-Phase Multilevel Inverter with a Staircase Modulation. Energies, 2016, 9, 815.	1.6	20
51	Evaluation of DC voltage ripple in single-phase H-bridge PWM inverters. , 2016, , .		12
52	An improved MPPT algorithm based on hybrid RCC scheme for single-phase PV systems. , 2016, , .		5
53	Direct vector controlled six-phase asymmetrical induction motor with power balanced space vector PWM multilevel operation. International Journal of Power and Energy Conversion, 2016, 7, 57.	0.2	9
54	Simple Time Averaging Current Quality Evaluation of a Single-Phase Multilevel PWM Inverter. IEEE Transactions on Industrial Electronics, 2016, 63, 3605-3615.	5.2	29

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55	Analysis and implementation of power management and control strategy for six-phase multilevel ac drive system in fault condition. Engineering Science and Technology, an International Journal, 2016, 19, 31-39.	2.0	15
56	High-Voltage High-Frequency Arbitrary Waveform Multilevel Generator for DBD Plasma Actuators. IEEE Transactions on Industry Applications, 2015, 51, 3334-3342.	3.3	52
57	A plasma aerodynamic actuator supplied by a multilevel generator operating with different voltage waveforms. Plasma Sources Science and Technology, 2015, 24, 045018.	1.3	21
58	Power sharing algorithm for vector controlled six-phase AC motor with four customary three-phase voltage source inverter drive. Engineering Science and Technology, an International Journal, 2015, 18, 408-415.	2.0	20
59	Comparison of Output Current Ripple in Single and Dual Three-Phase Inverters for Electric Vehicle Motor Drives. Energies, 2015, 8, 3832-3848.	1.6	21
60	A simple MPPT algorithm for novel PV power generation system by high output voltage DC-DC boost converter. , 2015, , .		50
61	Experimental study on the termination impedance effects of a resonator array for inductive power transfer in the hundred kHz range. , 2015, , .		10
62	Asymptotic time domain evaluation of a single-phase multilevel PWM inverter current quality. , 2015, , .		2
63	Analysis and Comparison of Peak-to-Peak Current Ripple in Two-Level and Multilevel PWM Inverters. IEEE Transactions on Industrial Electronics, 2015, 62, 2721-2730.	5.2	102
64	Effective Low-Cost Hybrid LED-Halogen Solar Simulator. IEEE Transactions on Industry Applications, 2014, 50, 3055-3064.	3.3	41
65	Development of a Multilevel Plasma Generator for Dielectric Barrier Discharge Actuators. , 2014, , .		1
66	Current ripple evaluation in dual three-phase inverters for open-end winding EV drives. , 2014, , .		7
67	Implementation of carrier-based optimized centered PWM in three-phase three-level inverters. , 2014, , .		0
68	Analytical evaluation of output current ripple amplitude in three-phase three-level inverters. IET Power Electronics, 2014, 7, 2258-2268.	1.5	20
69	High-voltage high-frequency arbitrary waveform multilevel generator for dielectric barrier discharge. , 2014, , .		3
70	Simplified implementation of optimised carrier-based PWM in three-level inverters. Electronics Letters, 2014, 50, 631-633.	0.5	13
71	Comparison of peak-to-peak current ripple amplitude in multiphase PWM voltage source inverters. , 2013, , .		17
72	Evaluation of current ripple amplitude in three-phase PWM voltage source inverters. , 2013, , .		55

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73	Evaluation of current ripple amplitude in five-phase PWM voltage source inverters. , 2013, , .		8
74	Analysis of Peak-to-Peak Current Ripple Amplitude in Seven-Phase PWM Voltage Source Inverters. Energies, 2013, 6, 4429-4447.	1.6	13
75	Experimental verification of current ripple amplitude in five-phase PWM VSIs. , 2013, , .		2
76	Analysis and realization of a low-cost hybrid LED-halogen solar simulator. , 2013, , .		7
77	Experimental investigation of fault-tolerant control strategies for quad-inverter converters. , 2012, , .		21
78	Space vector analysis of dead-time voltage distortion in multiphase inverters. , 2012, , .		3
79	Fault-tolerant control strategies for quad inverter induction motor drives with one failed inverter. , 2012, , .		15
80	Effects of current ripple on dead-time distortion in three-phase voltage source inverters. , 2012, , .		20
81	Analysis of dead-time effects in multi-phase voltage source inverters. , 2012, , .		10
82	Synchronized PWM control of asymmetrical dual-inverter fed open-end winding traction drive. , 2012, , .		7
83	Cascaded neutral-clamped inverters with flexible synchronized PWM for photovoltaic installations. , 2011, , .		5
84	Fault-tolerant operating analysis of a quad-inverter multiphase multilevel AC motor drive. , 2011, , .		10
85	Five-phase and six-phase converters with synchronized PWM: An overview. , 2011, , .		4
86	Simulation of Processes in Dual Three-Phase System on the Base of Four Inverters with Synchronized Modulation. Advances in Power Electronics, 2011, 2011, 1-9.	0.8	17
87	Six-phase motor drive supplied by four voltage source inverters with synchronized space-vector PWM. Archiwum Elektrotechniki, 2011, 60, 445-458.	0.5	9
88	Quad-inverter configuration for multi-phase multi-level AC motor drives. , 2010, , .		13
89	Carrier-based discontinuous modulation for Dual three-phase two-level inverters. , 2010, , .		7
90	Multi-phase multi-level AC motor drive based on four three-phase two-level inverters. , 2010, , .		51

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91	A novel DC voltage regulation scheme for dual-inverter grid-connected photovoltaic plants. , 2009, , .		5
92	Dual inverter space vector modulation with power balancing capability. , 2009, , .		20
93	Dual-inverter-based MPPT algorithm for grid-connected photovoltaic systems. , 2009, , .		9
94	W-CVT continuously variable transmission for wind energy conversion system. , 2009, , .		20
95	A New Multilevel Conversion Structure for Grid-Connected PV Applications. IEEE Transactions on Industrial Electronics, 2009, 56, 4416-4426.	5.2	160
96	Series Hybrid Powertrain Based on the Dual Two-Level Inverter. , 2008, , .		12
97	Multilevel Operation and Input Power Balancing for a Dual Two-Level Inverter with Insulated DC Sources. IEEE Transactions on Industry Applications, 2008, 44, 1815-1824.	3.3	121
98	A Space Vector PWM Scheme for Multifrequency Output Voltage Generation With Multiphase Voltage-Source Inverters. IEEE Transactions on Industrial Electronics, 2008, 55, 1943-1955.	5.2	106
99	Multilevel power conditioner for grid-connected photovoltaic applications. , 2008, , .		6
100	Analytical Determination of DC-Bus Utilization Limits in Multiphase VSI Supplied AC Drives. IEEE Transactions on Energy Conversion, 2008, 23, 433-443.	3.7	106
101	Experimental tests on a multilevel converter for grid-connected photovoltaic systems. , 2008, , .		3
102	Space Vector Modulation of a Six-Phase VSI based on three-phase decomposition. , 2008, , .		27
103	Switching Technique for Dual-Two level Inverter Supplied by Two Separate Sources. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	23
104	Space Vector Modulation of a Nine-Phase Voltage Source Inverter. , 2007, , .		20
105	Space vector modulation of nine-phase voltage source inverters based on three-phase decomposition. , 2007, , .		5
106	Dual inverter configuration for grid-connected photovoltaic generation systems. , 2007, , .		6
107	Control strategy for a multilevel inverter in grid-connected photovoltaic applications. , 2007, , .		23
108	Continuous PWM Techniques for Sinusoidal Voltage Generation with Seven-Phase Voltage Source Inverters. , 2007, , .		32

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109	Modular Photovoltaic Generation Systems Based on a Dual-Panel MPPT Algorithm. , 2007, , .		5
110	Single-Phase Single-Stage Photovoltaic Generation System Based on a Ripple Correlation Control Maximum Power Point Tracking. IEEE Transactions on Energy Conversion, 2006, 21, 562-568.	3.7	196
111	Magnetic-field transducer based on closed-loop operation of magnetic sensors. IEEE Transactions on Industrial Electronics, 2006, 53, 880-885.	5.2	20
112	Multilevel Operation of a Dual Two-Level Inverter with Power Balancing Capability. , 2006, , .		25
113	General Analysis of Multi-Phase Systems Based on Space Vector Approach. , 2006, , .		37
114	General Analysis of Multi-Phase Systems Based on Space Vector Approach. , 2006, , .		23
115	Power quality improvement and uninterruptible power supply using a power conditioning system with energy storage capability. , 2005, , .		6
116	Power balancing of a multilevel converter with two insulated supplies for three-phase six-wire loads. , 2005, , .		12
117	Comparison between back-to-back and matrix converters based on thermal stress of the switches. , 2004, , .		20
118	Model of Laminated Iron-Core Inductors for High Frequencies. IEEE Transactions on Magnetics, 2004, 40, 1839-1845.	1.2	92
119	Power quality and reliability supply improvement using a power conditioning system with energy storage capability. , 2004, , .		2
120	Common- and Differential-Mode HF Current Components in AC Motors Supplied by Voltage Source Inverters. IEEE Transactions on Power Electronics, 2004, 19, 16-24.	5.4	66
121	High-frequency small-signal model of ferrite core inductors. IEEE Transactions on Magnetics, 1999, 35, 4185-4191.	1.2	93
122	Control methods for active power filters with minimum measurement requirements. , 1999, , .		18
123	Stray capacitances of single-layer solenoid air-core inductors. IEEE Transactions on Industry Applications, 1999, 35, 1162-1168.	3.3	194
124	Optimal Design of Single-Layer Solenoid Air-Core Inductors for High Frequency Applications. , 1997, , .		7
125	Effects of flux and torque hysteresis band amplitude in direct torque control of induction machines. , 0, , .		93
126	Lumped parameter models for single- and multiple-layer inductors. , 0, , .		90

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127	Equivalent circuit of mush wound AC windings for high frequency analysis. , 0, , .		28
128	Analysis of a power conditioning system for superconducting magnetic energy storage (SMES). , 0, , .		14
129	Analysis of common- and differential-mode HF current components in PWM inverter-fed AC motors. , 0, , .		30
130	Control strategy of a power line conditioner for cogeneration plants. , 0, , .		14
131	Behavior of a power conditioner for $\hat{1}/4$ -SMES systems under unbalanced supply voltages and unbalanced loads. , 0, , .		13
132	Comparison between air-core and laminated iron-core inductors in filtering applications for switching converters. , 0, , .		6
133	Effects of supply voltage non-idealities on the behavior of an active power conditioner for cogeneration systems. , 0, , .		12
134	High-frequency behavior of laminated iron-core inductors for filtering applications. , 0, , .		13
135	Laminated iron-core inductor model for time-domain analysis. , 0, , .		8
136	Direct coupling of power active filters with photovoltaic generation systems with improved mppt capability. , 0, , .		10
137	Space vector modulation of a seven-phase voltage source inverter. , 0, , .		61
138	Comparison of PV Cell Temperature Estimation by Different Thermal Power Exchange Calculation Methods. Renewable Energy and Power Quality Journal, 0, , 653-658.	0.2	13