

# Mauricio Aredes

## List of Publications by Year in descending order

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104  
papers

4,602  
citations

430874

18  
h-index

276875

41  
g-index

114  
all docs

114  
docs citations

114  
times ranked

2379  
citing authors



#	ARTICLE	IF	CITATIONS
1	Three-phase four-wire shunt active filter control strategies. IEEE Transactions on Power Electronics, 1997, 12, 311-318.	7.9	429
2	New concepts of instantaneous active and reactive powers in electrical systems with generic loads. IEEE Transactions on Power Delivery, 1993, 8, 697-703.	4.3	284
3	An universal active power line conditioner. IEEE Transactions on Power Delivery, 1998, 13, 545-551.	4.3	246
4	Analysis and Software Implementation of a Robust Synchronizing PLL Circuit Based on the pq Theory. IEEE Transactions on Industrial Electronics, 2006, 53, 1919-1926.	7.9	244
5	New control algorithms for series and shunt three-phase four-wire active power filters. IEEE Transactions on Power Delivery, 1995, 10, 1649-1656.	4.3	241
6	Discrete-time implementation of second order generalized integrators for grid converters. , 2008, , .		129
7	A DQ Synchronous Reference Frame Current Control for Single-Phase Converters. , 0, , .		112
8	Comparisons Between the $p-q$ and $p-q-r$ Theories in Three-Phase Four-Wire Systems. IEEE Transactions on Power Electronics, 2009, 24, 924-933.	7.9	106
9	Instantaneous p-q power Theory for compensating nonsinusoidal systems. , 2008, , .		59
10	The p-q theory for active filter control: some problems and solutions. Controle and Automacao, 2004, 15, 78-84.	0.2	57
11	An Improved iUPQC Controller to Provide Additional Grid-Voltage Regulation as a STATCOM. IEEE Transactions on Industrial Electronics, 2015, 62, 1345-1352.	7.9	57
12	A shunt active power filter applied to high voltage distribution lines. IEEE Transactions on Power Delivery, 1997, 12, 266-272.	4.3	54
13	GTO controlled series capacitors: multi-module and multi-pulse arrangements. IEEE Transactions on Power Delivery, 2000, 15, 725-731.	4.3	43
14	Extra Long-Distance Bulk Power Transmission. IEEE Transactions on Power Delivery, 2011, 26, 1440-1448.	4.3	40
15	A control strategy for unified power quality conditioner. , 0, , .		38
16	Modeling, Control, and Experimental Verification of a DFIG With a Series-Grid-Side Converter With Voltage Sag, Unbalance, and Distortion Compensation Capabilities. IEEE Transactions on Industry Applications, 2020, 56, 584-600.	4.9	34
17	Multi-pulse STATCOM operation under unbalanced voltages. , 0, , .		31
18	Robust Model Predictive Rotor Current Control of a DFIG Connected to a Distorted and Unbalanced Grid Driven by a Direct Matrix Converter. IEEE Transactions on Sustainable Energy, 2019, 10, 1380-1392.	8.8	31



#	ARTICLE	IF	CITATIONS
19	A 25-MW Soft-Switching HVDC Tap for $\pm 500$ -kV Transmission Lines. IEEE Transactions on Power Delivery, 2004, 19, 1835-1842.	4.3	28
20	Going the Distance. IEEE Industrial Electronics Magazine, 2011, 5, 36-48.	2.6	26
21	Compensation algorithms based on the p-q and CPC theories for switching compensators in micro-grids. , 2009, , .		25
22	Control algorithms based on the active and non-active currents for a UPQC without series transformers. IET Power Electronics, 2016, 9, 1985-1994.	2.1	24
23	A control strategy for shunt active filter. , 0, , .		23
24	Series connection of power switches for very high-power applications and zero-voltage switching. IEEE Transactions on Power Electronics, 2000, 15, 44-50.	7.9	22
25	Power quality considerations on shunt/series current and voltage conditioners. , 0, , .		22
26	FACTS for Tapping and Power Flow Control in Half-Wavelength Transmission Lines. IEEE Transactions on Industrial Electronics, 2012, 59, 3669-3679.	7.9	22
27	Static series compensators applied to very long distance transmission lines. Electrical Engineering, 2004, 86, 69-76.	2.0	21
28	A new current control for the STATCOM based on secondary order generalized integrators. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	18
29	A unified power quality conditioner with voltage SAG/SWELL compensation capability. , 2009, , .		17
30	Comparative analysis of single-phase to three-phase converters for rural electrification. , 2004, , .		15
31	Control of a back-to-back converter as a power transfer system using synchronverter approach. IET Generation, Transmission and Distribution, 2018, 12, 1998-2005.	2.5	15
32	Custom Power Interfaces for Renewable Energy Sources. , 2007, , .		14
33	Direct Matrix Converter Topologies with Model Predictive Current Control Applied as Power Interfaces in AC, DC, and Hybrid Microgrids in Islanded and Grid-Connected Modes. Energies, 2019, 12, 3302.	3.1	13
34	Control Design, Stability Analysis and Experimental Validation of New Application of an Interleaved Converter Operating as a Power Interface in Hybrid Microgrids. Energies, 2019, 12, 437.	3.1	13
35	Control algorithms for a unified power quality conditioner based on three-level converters. International Transactions on Electrical Energy Systems, 2015, 25, 2394-2411.	1.9	12
36	HVDC tapping using soft switching techniques. Electrical Engineering, 2001, 83, 33-40.	2.0	11



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37	Multipulse converters and controls for HVDC and FACTS systems. Electrical Engineering, 2001, 83, 137-145.	2.0	11
38	New hybrid microgrid topology using a bidirectional interleaved converter as a robust power interface operating in grid-connected and islanded modes. IET Renewable Power Generation, 2020, 14, 134-144.	3.1	11
39	A Three-Phase Four-Wire Shunt Active Filter Employing a Conventional Three-Leg Converter. EPE Journal (European Power Electronics and Drives Journal), 1996, 6, 54-59.	0.7	10
40	Comparisons between the UPQC and its dual topology (iUPQC) in dynamic response and steady-state. , 2011, , .		10
41	An Improved Asymmetric Cascaded Multilevel STATCOM with Enhanced Hybrid Modulation. Electronics (Switzerland), 2015, 4, 311-328.	3.1	10
42	Switching losses analysis in sic power mosfet. , 2015, , .		10
43	An Enhanced Shunt Active Filter Based on Synchronverter Concept. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 494-505.	5.4	10
44	Hardware-in-The-Loop Testing of a Distance Protection Relay. IEEE Transactions on Industry Applications, 2021, 57, 2326-2331.	4.9	10
45	GTO controlled series capacitor. , 0, , .		9
46	Flexible AC Transmission Systems. , 2011, , 851-877.		9
47	A Simplified Control Strategy for a Unified Power Quality Conditioner Prototype. , 2005, , .		8
48	Analysis of a Series Tap for Half-Wavelength Transmission Lines Using Active Filters. , 0, , .		8
49	Hardware-in-the-loop evaluation of DSP-controlled converters. , 2009, , .		8
50	A novel selective control algorithm for the shunt active filter. , 2010, , .		8
51	A novel stator voltage distortion and unbalance compensation of a DFIG with series grid side converter using adaptive resonant controllers. , 2017, , .		8
52	Series connection of power switches for very high power applications and zero voltage switching. , 0, , .		7
53	Comparison between alpha-beta and DQ-PI controller applied to IUPQC operation. , 2011, , .		7
54	Wind and photovoltaic power generation integrated to power grid through dc link and synchronverter. , 2015, , .		7



#	ARTICLE	IF	CITATIONS
55	A New Immersion and Invariance Control and Stable Deep Learning Fuzzy Approach for Power/Voltage Control Problem. IEEE Access, 2022, 10, 68-81.	4.2	7
56	Power electronics applications in bulk power transmission over long distances. , 2010, , .		6
57	Electric Energy and Environment: Some Technological Challenges in Brazil. , 2001, , 10-40.		6
58	An advanced unified power flow controller. Archiv Fuer Elektrotechnik, 1996, 79, 303-310.	0.1	5
59	Four wire single-phase to three-phase system for rural distribution network. , 0, , .		5
60	Flexible AC Transmission Systems. , 2007, , 797-822.		5
61	Grid synchronization system for power converters. , 2009, , .		5
62	Resonant harmonic compensation for synchronverter, integrating wind and photovoltaic power generation into an electrical grid, case study: Nonlinear and unbalanced load. , 2017, , .		5
63	A Neural Controller for Induction Motors: Fractional-Order Stability Analysis and Online Learning Algorithm. Mathematics, 2022, 10, 1003.	2.2	5
64	Single-phase static converters for rural distribution system. , 2004, , .		4
65	Topology Selection of AC Motor Drive Systems with Soft-Starting for Rural Applications. , 0, , .		4
66	Comparative study of the current and voltage controllers applied to the STATCOM. , 2007, , .		4
67	Experimental Evaluation of a Control System Based on a Dual-DSP Architecture for a Unified Power Quality Conditioner. Energies, 2019, 12, 1694.	3.1	4
68	Design and Implementation of a Low Cost Series Compensator for Voltage Sags. , 2006, , .		3
69	A Case Study of Hybrid Filter Applications in Power Transmission Systems. , 2006, , .		3
70	An optimized cascaded multilevel static synchronous compensator for medium voltage distribution systems. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	3
71	A comparative analysis of cascaded-multilevel hybrid filters applied in power transmission systems. Controle and Automacao, 2008, 19, 107-113.	0.2	3
72	Robust positive-sequence detector algorithm. , 2009, , .		3



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73	Comparative study of single-phase PLLs and fuzzy based synchronism algorithm. , 2014, , .		3
74	P&O method controls applied to grid connected PV systems. , 2015, , .		3
75	Implementation of a wind turbine emulator test bench using a squirrel cage induction machine. , 2017, , .		3
76	Advantages of grid-tied DC microgrid. , 2017, , .		3
77	A Procedure to Design Damping Virtual Impedance on Grid-Forming Voltage Source Converters with LCL Filters. Journal of Control, Automation and Electrical Systems, 2022, 33, 1519-1536.	2.0	3
78	ADVANCED POWER ELECTRONICS FOR REDUCING MAINS POLLUTION “ ACTIVE POWER FILTERS AND OPTIMIZED UTILITY INTERFACES. Journal of Circuits, Systems and Computers, 1995, 05, 789-811.	1.5	2
79	A SCADA System to Analyze Harmonic Currents Propagation. , 2007, , .		2
80	Study of a simplified model for DFIG-based wind turbines. , 2009, , .		2
81	A general S-DVR symmetrical model and implementation. , 2012, , .		2
82	DC-link regulation of a multilevel asymmetric cascaded D-STATCOM with staircase and discontinuous PWM modulation. , 2012, , .		2
83	A Virtual DC Machine Control Strategy with Nonlinear Behavior to Enhance Power Sharing and Voltage Regulation in DC Microgrids. , 2021, , .		2
84	Sliding Droop Control For Distributed Generation In Microgrids. Eletrônica De Potência, 2024, 22, 429-439.	0.1	2
85	Implementation of Two Topologies of a Low Cost Series Compensator for Voltage Sags. , 0, , .		1
86	Nineteen multilevel asymmetric cascaded with an improved modulation strategy. , 2010, , .		1
87	A Shunt FACTS Device for Tapping and Power Flow Control in Half-Wavelength Transmission Lines. , 2011, , .		1
88	A novel topology for fuel cell stack generation with flywheel energy storage system and Z-source converter. , 2011, , .		1
89	A new control method of Z-source converter with PEM fuel cell in PSCAD/EMTDC environment. , 2011, , .		1
90	Frequency analysis behavior of Hysteresis Current Control in VSI. , 2013, , .		1



#	ARTICLE	IF	CITATIONS
91	Control of a DFIG in a wind power system connected to a four-wire grid with power conditioning functionalities. , 2016, , .		1
92	Stator harmonic current compensation of a DFIG connected to a grid with voltage distortion. , 2017, , .		1
93	Comparative Study of Different Values of Inertia for Islanded Systems with Energy Storage Systems. Journal of Control, Automation and Electrical Systems, 0, , 1.	2.0	1
94	Ferroresonance and Self-excitation Phenomena in Subsea Power Systems Considering Voltage Control Dynamics and Cable Constructive Parameters. Journal of Control, Automation and Electrical Systems, 2022, 33, 939-954.	2.0	1
95	DC-Link Project with Decoupled Conversion Stages Applied to Variable Speed Drives in Subsea Power Systems. Journal of Control, Automation and Electrical Systems, 0, , 1.	2.0	1
96	Tensorial analysis of GCSC in a very long 750 kV transmission line. , 0, , .		0
97	Evaluation of Reduced Component Count Converters for Low Harmonic Distortion AC Drive Systems. , 2006, , .		0
98	AC Power Transmission Even when One Phase is Lost. , 2007, , .		0
99	Development of an alert system for abnormal systemic conditions. , 2011, , .		0
100	Investigation of Serra da Mesa and Imperatriz TCSCs operation with North/South III interconnection. , 2011, , .		0
101	Comparisons between a Series and a shunt FACTS for tapping and power flow control in half-wavelength transmission lines. , 2012, , .		0
102	Comparative study of single-phase PLLs based on PI controller design and a nonlinear fuzzy synchronism algorithm. , 2014, , .		0
103	A Brazilian PMU-WAMS pilot project: A methodology for PMU site selection. , 2017, , .		0
104	Fuzzy Logic for Evaluating Electrician Maintenance Teams at Transmission Lines Work Environment. , 2018, , .		0