

# Francisco D Freijedo

## List of Publications by Year in descending order

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101  
papers

6,186  
citations

94433

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133252

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101  
all docs

101  
docs citations

101  
times ranked

4146  
citing authors

#	ARTICLE	IF	CITATIONS
1	Control Method for Distortionless Zero-Cross in Active Unity Power Factor Rectifiers. IEEE Transactions on Power Electronics, 2022, 37, 14096-14102.	7.9	1
2	Stability Analysis of Multi-Port MVDC Distribution Networks for All-Electric Ships. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1164-1177.	5.4	18
3	Carrier-Based PWM Equivalent to Multilevel Multiphase Space Vector PWM Techniques. IEEE Transactions on Industrial Electronics, 2020, 67, 5220-5231.	7.9	37
4	Analysis and Comparison of Notch Filter and Capacitor Voltage Feedforward Active Damping Techniques for LCL Grid-Connected Converters. IEEE Transactions on Power Electronics, 2019, 34, 3958-3972.	7.9	81
5	Input-Admittance Passivity Compliance for Grid-Connected Converters With an LCL Filter. IEEE Transactions on Industrial Electronics, 2019, 66, 1089-1097.	7.9	31
6	Multiport energy gateway. IET Electric Power Applications, 2019, 13, 1524-1534.	1.8	3
7	Open-Loop Power Sharing of Three-Port DC-DC Resonant Converters. , 2019, , .		13
8	Multivariable High-Frequency Input-Admittance of Grid-Connected Converters: Modeling, Validation, and Implications on Stability. IEEE Transactions on Industrial Electronics, 2019, 66, 6505-6515.	7.9	23
9	An Approach to Increase the Bandwidth of Current Controllers for Grid-tied Converters with LCL Filter. , 2019, , .		2
10	Cascaded H-Bridge Multilevel Converter for a High-Power Medium-Voltage Impedance-Admittance Measurement Unit. , 2018, , .		11
11	Stable and Passive High-Power Dual Active Bridge Converters Interfacing MVDC Grids. IEEE Transactions on Industrial Electronics, 2018, 65, 9561-9570.	7.9	28
12	Full Discrete Modeling, Controller Design, and Sensitivity Analysis for High-Performance Grid-Forming Converters in Islanded Microgrids. IEEE Transactions on Industry Applications, 2018, 54, 6267-6278.	4.9	21
13	Dynamic Assessment of Source-Load Interactions in Marine MVDC Distribution. IEEE Transactions on Industrial Electronics, 2017, 64, 4372-4381.	7.9	57
14	Harmonic current prediction by impedance modeling of grid-tied inverters: A 1.4 MW PV plant case study. International Journal of Electrical Power and Energy Systems, 2017, 93, 30-38.	5.5	26
15	A Root-Locus Design Methodology Derived From the Impedance/Admittance Stability Formulation and Its Application for LCL Grid-Connected Converters in Wind Turbines. IEEE Transactions on Power Electronics, 2017, 32, 8218-8228.	7.9	36
16	Discrete-Time Domain Modeling of Voltage Source Inverters in Standalone Applications: Enhancement of Regulators Performance by Means of Smith Predictor. IEEE Transactions on Power Electronics, 2017, 32, 8100-8114.	7.9	39
17	Conformal mapping of impedance stability models for system-level dynamics assessments. , 2017, , .		2
18	Impedance stability assessment of active damping strategies for LCL grid-connected converters. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
19	Interactions between bandwidth limited CPLs and MMC based MVDC supply. , 2017, , .		4
20	Marine MVDC multi-phase multi-pulse supply. , 2017, , .		1
21	Voltage and current regulators design of power converters in islanded microgrids based on state feedback decoupling. , 2016, , .		0
22	Design for passivity in the Z-domain for LCL grid-connected converters. , 2016, , .		5
23	Enhancement of current and voltage controllers performance by means of lead compensation and anti-windup for islanded microgrids. , 2016, , .		3
24	State feedback decoupling with in-loop lead compensator in stand-alone VSIs. , 2016, , .		0
25	Effect of state feedback coupling and system delays on the transient performance of stand-alone VSI with LC output filter. IEEE Transactions on Industrial Electronics, 2016, , 1-1.	7.9	82
26	Enhanced current and voltage regulators for stand-alone applications. , 2016, , .		1
27	A root-locus design methodology derived from the impedance stability criterion and its application for LCL grid-connected converters. , 2016, , .		0
28	An Efficient Implementation of Generalized Delayed Signal Cancellation PLL. IEEE Transactions on Power Electronics, 2016, 31, 1085-1094.	7.9	126
29	Space-Vector PWM With Common-Mode Voltage Elimination for Multiphase Drives. IEEE Transactions on Power Electronics, 2016, 31, 8151-8161.	7.9	55
30	A Control Algorithm for Electric Vehicle Fast Charging Stations Equipped With Flywheel Energy Storage Systems. IEEE Transactions on Power Electronics, 2016, 31, 6674-6685.	7.9	86
31	Inducverters: PLL-Less Converters With Auto-Synchronization and Emulated Inertia Capability. IEEE Transactions on Smart Grid, 2016, 7, 1660-1674.	9.0	109
32	Small-Signal Modeling, Stability Analysis and Design Optimization of Single-Phase Delay-Based PLLs. IEEE Transactions on Power Electronics, 2016, 31, 3517-3527.	7.9	99
33	Inner current loop analysis and design based on resonant regulators for isolated microgrids. , 2015, , .		3
34	Tuning of Synchronous-Frame PI Current Controllers in Grid-Connected Converters Operating at a Low Sampling Rate by MIMO Root Locus. IEEE Transactions on Industrial Electronics, 2015, 62, 5006-5017.	7.9	64
35	A Method for Identification of the Equivalent Inductance and Resistance in the Plant Model of Current-Controlled Grid-Tied Converters. IEEE Transactions on Power Electronics, 2015, 30, 7245-7261.	7.9	72
36	Harmonic resonances in Wind Power Plants: Modeling, analysis and active mitigation methods. , 2015, , .		14

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37	A Systematic Approach to Design High-Order Phase-Locked Loops. IEEE Transactions on Power Electronics, 2015, 30, 2885-2890.	7.9	53
38	A Technique to Estimate the Equivalent Loss Resistance of Grid-Tied Converters for Current Control Analysis and Design. IEEE Transactions on Power Electronics, 2015, 30, 1747-1761.	7.9	44
39	Estimation of the plant time constant of current-controlled voltage source converters. , 2014, , .		0
40	Transient response evaluation of stationary $\alpha$ -frame resonant current controllers for grid-connected applications. IET Power Electronics, 2014, 7, 1714-1724.	2.1	45
41	Moving Average Filter Based Phase-Locked Loops: Performance Analysis and Design Guidelines. IEEE Transactions on Power Electronics, 2014, 29, 2750-2763.	7.9	438
42	Performance Improvement of a Prefiltered Synchronous-Reference-Frame PLL by Using a PID-Type Loop Filter. IEEE Transactions on Industrial Electronics, 2014, 61, 3469-3479.	7.9	116
43	Graphical Diagram for Subspace and Sequence Identification of Time Harmonics in Symmetrical Multiphase Machines. IEEE Transactions on Industrial Electronics, 2014, 61, 29-42.	7.9	25
44	A Quasi-Type-1 Phase-Locked Loop Structure. IEEE Transactions on Power Electronics, 2014, 29, 6264-6270.	7.9	135
45	A simple tuning method aimed at optimal settling time and overshoot for synchronous PI current control in electric machines. , 2013, , .		2
46	Assessment and Optimization of the Transient Response of Proportional-Resonant Current Controllers for Distributed Power Generation Systems. IEEE Transactions on Industrial Electronics, 2013, 60, 1367-1383.	7.9	166
47	Dynamics Assessment of Advanced Single-Phase PLL Structures. IEEE Transactions on Industrial Electronics, 2013, 60, 2167-2177.	7.9	287
48	Design-Oriented Study of Advanced Synchronous Reference Frame Phase-Locked Loops. IEEE Transactions on Power Electronics, 2013, 28, 765-778.	7.9	419
49	Advantages and Challenges of a Type-3 PLL. IEEE Transactions on Power Electronics, 2013, 28, 4985-4997.	7.9	132
50	A method to identify the equivalent loss resistance of voltage source converters for current control design. , 2013, , .		1
51	Assessment of synchronous-frame PI current control dynamics by means of multivariable analysis with time-delays consideration. , 2013, , .		0
52	Ineffectiveness of orthogonal axes cross-coupling decoupling technique in dual sequence current control. , 2013, , .		4
53	Transient response assessment of vector PI current controllers in renewable energy applications. , 2012, , .		2
54	Harmonic subspace and sequence mapping in a series-connected six-phase two-motor drive. , 2012, , .		3

#	ARTICLE	IF	CITATIONS
55	Multiphase space vector control modulation technique for voltage source converters. , 2012, , .		1
56	Correction to "Effects of Discretization Methods on the Performance of Resonant Controllers" [Jul 10 1692-1712]. IEEE Transactions on Power Electronics, 2012, 27, 4976-4976.	7.9	10
57	Correction to "High Performance Digital Resonant Controllers Implemented With Two Integrators" [Feb 11 563-576]. IEEE Transactions on Power Electronics, 2012, 27, 4357-4357.	7.9	4
58	Design and Tuning of a Modified Power-Based PLL for Single-Phase Grid-Connected Power Conditioning Systems. IEEE Transactions on Power Electronics, 2012, 27, 3639-3650.	7.9	189
59	Transient response evaluation of resonant controllers for AC drives. , 2012, , .		7
60	Mitigation of voltage sags, imbalances and harmonics in sensitive industrial loads by means of a series power line conditioner. Electric Power Systems Research, 2012, 84, 20-30.	3.6	22
61	Electrical Design Automation of a Twisted Pair to Optimize the Manufacturing Process. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2011, 1, 1269-1281.	2.5	1
62	High-Performance Digital Resonant Controllers Implemented With Two Integrators. IEEE Transactions on Power Electronics, 2011, 26, 563-576.	7.9	235
63	Three-Phase PLLs With Fast Postfault Retracking and Steady-State Rejection of Voltage Unbalance and Harmonics by Means of Lead Compensation. IEEE Transactions on Power Electronics, 2011, 26, 85-97.	7.9	94
64	Multidimensional Two-Level Multiphase Space Vector PWM Algorithm and Its Comparison With Multifrequency Space Vector PWM Method. IEEE Transactions on Industrial Electronics, 2011, 58, 465-475.	7.9	55
65	Analysis and Design of Resonant Current Controllers for Voltage-Source Converters by Means of Nyquist Diagrams and Sensitivity Function. IEEE Transactions on Industrial Electronics, 2011, 58, 5231-5250.	7.9	323
66	Frequency tracking of digital resonant filters for control of power converters connected to public distribution systems. IET Power Electronics, 2011, 4, 454.	2.1	43
67	An Optimized Implementation of Phase Locked Loops for Grid Applications. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3110-3119.	4.7	51
68	Digital Parameterizable VHDL Module for Multilevel Multiphase Space Vector PWM. IEEE Transactions on Industrial Electronics, 2011, 58, 3946-3957.	7.9	32
69	Harmonic Identification Algorithms Based on DCT for Power Quality Applications. ETRI Journal, 2010, 32, 33-43.	2.0	6
70	WLSE for fast, accurate and robust generation of references in power converter applications. , 2010, , .		4
71	Performance enhancement for digital implementations of resonant controllers. , 2010, , .		2
72	Multilevel multiphase space vector PWM algorithm with switching state redundancy applied to three-phase four-leg converters. , 2010, , .		4

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73	Eliminating Ground Current in a Transformerless Photovoltaic Application. IEEE Transactions on Energy Conversion, 2010, 25, 140-147.	5.2	395
74	Multilevel Multiphase Feedforward Space-Vector Modulation Technique. IEEE Transactions on Industrial Electronics, 2010, 57, 2066-2075.	7.9	31
75	Effects of Discretization Methods on the Performance of Resonant Controllers. IEEE Transactions on Power Electronics, 2010, 25, 1692-1712.	7.9	532
76	Torque ripple minimization in surface-mounted PM drives by means of PI + multi-resonant controller in synchronous reference frame. , 2010, , .		8
77	A fast, accurate and robust algorithm to detect fundamental and harmonic sequences. , 2010, , .		10
78	Multilevel multiphase space vector PWM algorithm with switching state redundancy applied to three-phase converters. , 2009, , .		1
79	Tuning of Phase Locked Loops for Power Converters under Distorted Utility Conditions. , 2009, , .		10
80	Evolutionary algorithm for power flow optimization. , 2009, , .		2
81	Number of switching state vectors and space vectors in multilevel multiphase converters. Electronics Letters, 2009, 45, 524.	1.0	14
82	Grid-synchronization methods for power converters. , 2009, , .		48
83	Control algorithm for a SSSC with a predictive synchronization algorithm. , 2009, , .		1
84	Control algorithm for a SSSC. , 2009, , .		2
85	Multilevel Multiphase Space Vector PWM Algorithm With Switching State Redundancy. IEEE Transactions on Industrial Electronics, 2009, 56, 792-804.	7.9	91
86	A Signal-Processing Adaptive Algorithm for Selective Current Harmonic Cancellation in Active Power Filters. IEEE Transactions on Industrial Electronics, 2009, 56, 2829-2840.	7.9	122
87	Harmonic detection methods for active power filters based on discrete cosine transform and dithering. , 2009, , .		3
88	A Generic Open-Loop Algorithm for Three-Phase Grid Voltage/Current Synchronization With Particular Reference to Phase, Frequency, and Amplitude Estimation. IEEE Transactions on Power Electronics, 2009, 24, 94-107.	7.9	117
89	On the discrete-time implementation of resonant controllers for active power filters. , 2009, , .		20
90	Geometric Analysis and Manufacturing Considerations for Optimizing the Characteristics of a Twisted Pair. IEEE Transactions on Electronics Packaging Manufacturing, 2009, 32, 22-31.	1.4	5

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91	Tuning of Phase-Locked Loops for Power Converters Under Distorted Utility Conditions. IEEE Transactions on Industry Applications, 2009, 45, 2039-2047.	4.9	191
92	Multilevel Multiphase Space Vector PWM Algorithm. IEEE Transactions on Industrial Electronics, 2008, 55, 1933-1942.	7.9	231
93	Four-dimensional space vector PWM algorithm for multilevel four-leg converters. , 2008, , .		6
94	Comparison of the FPGA Implementation of Two Multilevel Space Vector PWM Algorithms. IEEE Transactions on Industrial Electronics, 2008, 55, 1537-1547.	7.9	114
95	Reference generation techniques for active power line conditioners. , 2008, , .		1
96	Harmonic Identification Methods Based on Moving Average Filters for Active Power Filters. , 2008, , .		6
97	Novel Harmonic Identification Algorithm based on Fourier Correlation and Moving Average Filtering. , 2007, , .		4
98	Leakage current evaluation of a singlephase transformerless PV inverter connected to the grid. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	81
99	SPLL based control for active filter with reactive power compensation. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	7
100	New algorithm for grid synchronization based on Fourier series. , 2007, , .		9
101	Real-Time implementation of a SPLL for FACTS. Industrial Electronics Society (IECON ), Annual Conference of IEEE, 2006, , .	0.0	16