

Lorenzo Peretto

List of Publications by Year in descending order

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145
papers

1,325
citations

430754

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501076

28
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146
all docs

146
docs citations

146
times ranked

824
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of Proximity, Burden, and Position on the Power Quality Accuracy Performance of Rogowski Coils. Sensors, 2022, 22, 397.	2.1	4
2	Optimal Control of Air Conditioning Systems by Means of CO2 Sensors in Electric Vehicles. Sensors, 2022, 22, 1190.	2.1	1
3	Accuracy Type Test for Rogowski Coils Subjected to Distorted Signals, Temperature, Humidity, and Position Variations. Sensors, 2022, 22, 1397.	2.1	8
4	Simplified and Low-Cost Characterization of Medium-Voltage Low-Power Voltage Transformers in the Power Quality Frequency Range. Sensors, 2022, 22, 2274.	2.1	4
5	Combined Effect of Temperature and Humidity on Distorted Currents Measured by Rogowski Coils. , 2022, , .		1
6	Measurement Procedure to Investigate Ageing of Low-Power Voltage Transformers. , 2022, , .		0
7	Effects on the Accuracy Performance of Rogowski Coils Due to Temperature and Humidity. , 2022, , .		2
8	Effect of the Conductor Positioning on Low-Power Current Transformers: Inputs for the Next IEC 61869-10. Electricity, 2021, 2, 1-12.	1.4	1
9	Modeling Stray Capacitances of High-Voltage Capacitive Dividers for Conventional Measurement Setups. Energies, 2021, 14, 1262.	1.6	4
10	Modeling Capacitive Low-Power Voltage Transformer Behavior over Temperature and Frequency. Sensors, 2021, 21, 1719.	2.1	11
11	Characterization Procedure for Stand-Alone Merging Units Based on Hardware-in-the-Loop Technology. Energies, 2021, 14, 1993.	1.6	1
12	Assessment of energy saving due to a flexible indoor air quality control. , 2021, , .		3
13	Measurement methods and evaluation techniques of indoor CO2 in a cabin for an electric crane. , 2021, , .		3
14	Closed-Form Expressions to Estimate the Mean and Variance of the Total Vector Error. Energies, 2021, 14, 4641.	1.6	1
15	Low-Impact Current-Based Distributed Monitoring System for Medium Voltage Networks. Energies, 2021, 14, 5308.	1.6	1
16	A Methodology to Analyze and Evaluate the Uncertainty Propagation due to Temperature and Frequency and Design Optimization for EMC Testing Instrumentation. Electricity, 2021, 2, 300-315.	1.4	4
17	On the Importance of Characterizing Virtual PMUs for Hardware-in-the-Loop and Digital Twin Applications. Sensors, 2021, 21, 6133.	2.1	4
18	External Magnetic Fields Effect on Harmonics Measurements with Rogowski coils. , 2021, , .		2

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19	Design, Development, and Characterization of a Low-Voltage Network Monitoring Unit. , 2021, , .		0
20	Effects of Thermal Cycles on Interfacial Pressure in MV Cable Joints. Sensors, 2020, 20, 169.	2.1	9
21	Analysis of White Noise on Power Frequency Estimation by DFT-Based Frequency Shifting and Filtering Algorithm. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4125-4133.	2.4	37
22	Analysis of Ratio and Phase Errors over Time for Low Power Voltage Transformers. , 2020, , .		3
23	A Smart Frequency Domain-Based Modeling Procedure of Rogowski Coil for Power Systems Applications. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 6748-6755.	2.4	11
24	Toward the Standardization of Limits to Offset and Noise in Electronic Instrument Transformers. Sensors, 2020, 20, 4061.	2.1	1
25	Low-Power Voltage Transformer Smart Frequency Modeling and Output Prediction up to 2.5 kHz, Using Sinc-Response Approach. Sensors, 2020, 20, 4889.	2.1	7
26	On the Long-Period Accuracy Behavior of Inductive and Low-Power Instrument Transformers. Sensors, 2020, 20, 5810.	2.1	16
27	Effects of Multiple Influence Quantities on Rogowski-Coil-Type Current Transformers. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4827-4834.	2.4	18
28	Noise Analysis on Frequency Shifting and Filtering Algorithm-Based Phasor Estimator. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 6739-6747.	2.4	3
29	Smart Characterization of Rogowski Coils by Using a Synthetized Signal. Sensors, 2020, 20, 3359.	2.1	14
30	Calibration Procedure to Test the Effects of Multiple Influence Quantities on Low-Power Voltage Transformers. Sensors, 2020, 20, 1172.	2.1	4
31	Are Inductive Current Transformers Performance Really Affected by Actual Distorted Network Conditions? An Experimental Case Study. Sensors, 2020, 20, 927.	2.1	23
32	A General Easy-to-Use Expression for Uncertainty Evaluation in Residual Voltage Measurement. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 1576-1584.	2.4	6
33	Testing of Electrical Energy Meters Subject to Realistic Distorted Voltages and Currents. Energies, 2020, 13, 2023.	1.6	11
34	Effect of White Noise on Phase Estimation by Frequency Shifting and Filtering Algorithm. , 2019, , .		1
35	Test Bed Characterization for the Interfacial Pressure vs. Temperature Measurements in MV Cable-Joints. , 2019, , .		2
36	Effects of Mechanical Pressure on the Tangent Delta of MV Cable Joints. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 2656-2658.	2.4	14

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37	Use of COMTRADE Fault Current Data to Test Inductive Current Transformers. , 2019, , .		5
38	Effects of Temperature on MV Cable Joints Tan Delta Measurements. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 3892-3898.	2.4	19
39	A Simple Calibration Procedure for an LPIT plus PMU System Under Off-Nominal Conditions. Energies, 2019, 12, 4645.	1.6	10
40	Uncertainty Analysis of a Test Bed for Calibrating Voltage Transformers vs. Temperature. Sensors, 2019, 19, 4472.	2.1	4
41	A Simple Modelling Procedure of Rogowski Coil for Power Systems Applications. , 2019, , .		6
42	Uncertainty Analysis of an Equivalent Synchronization Method for Phasor Measurements. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 2444-2452.	2.4	10
43	Accuracy Evaluation of an Equivalent Synchronization Method for Assessing the Time Reference in Power Networks. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 600-606.	2.4	12
44	Uncertainty sources analysis of a calibration system for the accuracy vs. temperature verification of voltage transformers. Journal of Physics: Conference Series, 2018, 1065, 052041.	0.3	13
45	Monitoring Cable current and Laying Environment Parameters for Assessing the Aging Rate of MV Cable Joint Insulation. , 2018, , .		6
46	Performance evaluation of an energy meter for low-voltage system monitoring. Journal of Physics: Conference Series, 2018, 1065, 052032.	0.3	8
47	Low-Cost Monitoring Unit for MV Cable Joints Diagnostics. , 2018, , .		6
48	Test Setup Design, and Calibration for Tan Delta Measurements on MV Cable Joints. , 2018, , .		6
49	Calibration of Synchronized Measurement System: from the Instrument Transformer to the PMU. , 2018, , .		16
50	Low power voltage transformer accuracy class effects on the residual voltage measurement. , 2018, , .		6
51	Effect of temperature on the accuracy of inductive current transformers. , 2018, , .		13
52	Simplified Approach to Evaluate the Combined Uncertainty in Measurement Instruments for Power Systems. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 2258-2265.	2.4	17
53	Towards a global evaluation of uncertainty for the monitoring of distribution grids. , 2017, , .		1
54	On the behavior of LED lamps under non-sinusoidal voltage conditions. , 2017, , .		0

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55	A novel equivalent power network impedance approach for assessing the time reference in asynchronous measurements. , 2017, , .		4
56	Assessment of Metrological Characteristics of Calibration Systems for Accuracy vs. Temperature Verification of Voltage Transformer. , 2017, , .		9
57	Integration challenges of high-accuracy LPIT into MV recloser. CIREN - Open Access Proceedings Journal, 2017, 2017, 260-263.	0.1	2
58	Sensors for PMUs. , 2016, , 53-62.		1
59	Effects of radiated electromagnetic fields on measurements performed by air-core passive LPCTs. , 2015, , .		2
60	Message from the chairpersons. , 2015, , .		0
61	Measurement of the pupil responses induced by RGB flickering stimuli. , 2015, , .		0
62	Study for assessing the conformity of a commercial measurement system for smart grid application. , 2015, , .		1
63	Thermal stress analysis of colored LEDs. , 2015, , .		2
64	Guest Editorial: Special Section on the Fifth IEEE International Workshop on Applied Measurements for Power Systems (AMPS 2014) Aachen, Germany, September 24â€“26, 2014. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 2046-2047.	2.4	0
65	Guest Editorial: Special Section on the Fourth IEEE International Workshop on Applied Measurements for Power Systems (AMPS 2013) Aachen, Germany, September 25â€“27, 2013. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 2310-2311.	2.4	0
66	A simple handheld pupillometer for chromatic Flicker studies. Proceedings of SPIE, 2014, , .	0.8	1
67	Procedure for the assessment of metrological characteristics of window-type current transformers in three-phase power systems. , 2014, , .		2
68	Development of a Life Model for Light Emitting Diodes Stressed by Forward Current. IEEE Transactions on Reliability, 2014, 63, 523-533.	3.5	9
69	Traceability of Low-Power Voltage Transformer for Medium Voltage Application. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 2804-2812.	2.4	18
70	A simple portable polychromatic pupillometer for human eye annoyance measurement. , 2014, , .		3
71	Study of the Accuracy Requirements of the Instrumentation for Efficiency Measurements in Power Conversion Systems. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 2154-2160.	2.4	7
72	Parasitic effect - Independent approach for dissipation factor measurement in power transformers. , 2013, , .		0

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73	Guest Editorial: Special Section on the Third IEEE International Workshop on Applied Measurements for Power Systems (AMPS) Aachen, Germany, September 26-28, 2012. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 2362-2363.	2.4	0
74	Special Section on the Second IEEE International Workshop on Applied Measurements for Power Systems. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 2602-2603.	2.4	0
75	Design and Performance Analysis of a Differential Current Sensor for Power System Applications. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 3207-3215.	2.4	18
76	On the frequency response of semiconductive shields for power systems applications. , 2012, , .		0
77	Method and measurement set up for the evaluation of the performance of UPS in presence of network outages. , 2012, , .		1
78	Metrological characterization of a current sensor for smart grids. , 2012, , .		0
79	Power system islands, autonomous microgrids and relevant instrumentation. , 2012, , .		3
80	A comparison study of two indirect methods for measuring the systolic pulmonary arterial pressure. , 2011, , .		4
81	A self-shielded current transducer for power system application. , 2011, , .		2
82	Toward a BITE for Real-Time Life Estimation of Capacitors Subjected to Thermal Stress. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 1674-1681.	2.4	17
83	Assessment of human annoyance under flicker condition. , 2011, , .		2
84	Flicker Effect Analysis in Human Subjects: New Noninvasive Method for Next-Generation Flickermeter. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3018-3025.	2.4	4
85	Fault location in underground power networks: A case study. , 2011, , .		9
86	Experimental analysis of LEDs' reliability under combined stress conditions. , 2011, , .		2
87	An attempt to understand flicker vertigo: changes in pupil size and choroidal blood flow under flickering conditions. , 2010, , .		0
88	The role of measurements in the smart grid era. IEEE Instrumentation and Measurement Magazine, 2010, 13, 22-25.	1.2	69
89	A test set for LEDs life model estimation. , 2010, , .		10
90	New Basis for the Development of the next-generation Flickermeters. , 2010, , .		2

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91	Toward a BITE for real time MTTF estimation of capacitors. , 2010, , .		3
92	Towards real-time life estimation of capacitors subjected to time-varying temperature. , 2010, , .		1
93	Dynamic stress-strength approach for reliability prediction. , 2009, , .		1
94	Performance Characterization of a Measurement System for Locating Transient Voltage Sources in Power Distribution Networks. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 450-456.	2.4	10
95	Analysis of the Effects of Flicker on the Blood-Flow Variation in the Human Eye. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 2916-2922.	2.4	12
96	Measurement of the pupil diameter under different light stimula. , 2009, , .		6
97	Distance learning of electronic measurements by means of measurement set-up models. Measurement: Journal of the International Measurement Confederation, 2008, 41, 274-283.	2.5	12
98	Modeling of the physiological behavior of human vision system under flicker condition. , 2008, , .		7
99	Design and Characterization of an Electric Field Based Medium Voltage Transducer. , 2008, , .		3
100	A distributed system for the synchronized acquisition of fast voltage transients. , 2008, , .		2
101	Metrological Characterization of a Distributed Measurement System to Locate Faults in Power Networks. , 2008, , .		1
102	A Novel Approach for Laboratory Activities in E-Learning Courses. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	7
103	Performance Characterization of a Method for Locating Faults in Power Distribution Networks. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	2
104	Uncertainty Contribution of the Analog Conditioning Block in DSP-Based Instruments. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1000-1005.	2.4	3
105	Implementation and Characterization of a System for the Evaluation of the Starting Instant of Lightning-Induced Transients. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1955-1960.	2.4	7
106	Remote Didactic Laboratory â€œG. Savastano,â€•The Italian Experience for E-Learning at the Technical Universities in the Field of Electrical and Electronic Measurement: Architecture and Optimization of the Communication Performance Based on Thin Client Technology. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1124-1134.	2.4	28
107	Remote Didactic Laboratory â€œG. Savastano,â€•The Italian Experience for E-Learning at the Technical Universities in the Field of Electrical and Electronic Measurements: Overview on Didactic Experiments. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1135-1147.	2.4	32
108	An Equipment for Voltage-Transducers Calibration Oriented to the Uncertainty Estimate in DSP-Based Measurements. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 2577-2583.	2.4	2

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109	A Measurement System for the Analysis of the Response of the Human Eye to the Light Flicker. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1384-1390.	2.4	30
110	Experimental Evaluation of Flicker Effects on Human Subjects. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	3
111	Theoretical Analysis of the Physiologic Mechanism of Luminous Variation in Eye-Brain System. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 164-170.	2.4	34
112	Investigation on the Response of the Human Eye to the Light Flicker Produced by Different Lamps. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .	0.0	0
113	On the use of continuous-wavelet transform for fault location in distribution power systems. International Journal of Electrical Power and Energy Systems, 2006, 28, 608-617.	3.3	108
114	Investigation on Multipoint Measurement Techniques for PQ Monitoring. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 1684-1690.	2.4	48
115	Performance Analysis and Optimization of a Robust Algorithm for Voltage Transients Detection. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 2244-2252.	2.4	7
116	Remote Didactic Laboratory "G. Savastano": the Italian Experience for the E-learning at the Technical Universities in the Field of the Electrical and Electronic Measurements, Overview on Didactic Experiments. , 2006, , .		9
117	Remote Didactic Laboratory "G. Savastano": the Italian Experience for the E-learning at the Technical Universities in the Field of the Electrical and Electronic Measurements, Architecture and Delivered Services. , 2006, , .		7
118	A Distributed Measurement System for Locating Transient-Voltage Sources. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .	0.0	0
119	On Uncertainty in Wavelet-Based Signal Analysis. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 1593-1599.	2.4	23
120	Uncertainty Propagation in the Discrete-Time Wavelet Transform. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 2474-2480.	2.4	9
121	On the Use of Data From Distributed Measurement Systems for Correlating Voltage Transients to Lightning. IEEE Transactions on Instrumentation and Measurement, 2004, 53, 1202-1208.	2.4	11
122	Low-Cost DSP-Based Equipment for the Real-Time Detection of Transients in Power Systems. IEEE Transactions on Instrumentation and Measurement, 2004, 53, 933-939.	2.4	27
123	A Simple Lamp-Eye-Brain Model for Flicker Observations. IEEE Transactions on Power Delivery, 2004, 19, 1308-1313.	2.9	38
124	Spectral analysis of bi-tone waveforms: study of the uncertainty contributions arising from the virtual time-domain approach. Measurement: Journal of the International Measurement Confederation, 2004, 35, 343-351.	2.5	1
125	A statistical model for estimating the trend of electrical quantities in power systems. IEEE Transactions on Instrumentation and Measurement, 2003, 52, 1143-1147.	2.4	11
126	A numerical approach to the evaluation of uncertainty in nonconventional measurements on power systems. IEEE Transactions on Instrumentation and Measurement, 2002, 51, 734-739.	2.4	28

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127	Measurements on electrical power systems under bi-tone conditions by using the virtual time-domain approach. European Transactions on Electrical Power, 2002, 12, 1-9.	1.0	2
128	Measurements for the characterization of quasi-periodic waveforms. European Transactions on Electrical Power, 2002, 12, 11-16.	1.0	4
129	Signal spectrum analysis and period estimation by using delayed signal sampling. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 920-925.	2.4	2
130	An automatic test equipment for the calibration of voltage transducers. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 1638-1643.	2.4	5
131	Measurement of harmonic losses in transformers supplying nonsinusoidal load currents. IEEE Transactions on Instrumentation and Measurement, 2000, 49, 315-319.	2.4	16
132	A digital instrument for the calibration of current-to-voltage transducers. IEEE Transactions on Instrumentation and Measurement, 1998, 47, 189-194.	2.4	6
133	Implementation and performance evaluation of a broadband digital harmonic vector voltmeter. IEEE Transactions on Instrumentation and Measurement, 1998, 47, 229-234.	2.4	4
134	A VI-based measurement system for sharing the customer and supply responsibility for harmonic distortion. IEEE Transactions on Instrumentation and Measurement, 1998, 47, 1335-1340.	2.4	15
135	A broad-band power spectrum analyzer based on twin-channel delayed sampling. IEEE Transactions on Instrumentation and Measurement, 1998, 47, 1346-1354.	2.4	11
136	About the accuracy of some proposed procedures for revenue metering under non-sinusoidal unbalanced conditions. European Transactions on Electrical Power, 1998, 8, 361-368.	1.0	11
137	A theoretical study of the incandescent filament lamp performance under voltage flicker. IEEE Transactions on Power Delivery, 1997, 12, 279-288.	2.9	35
138	The response of fluorescent lamp with magnetic ballast to voltage distortion. IEEE Transactions on Power Delivery, 1997, 12, 289-295.	2.9	34
139	A system for the measurement of the starting instant of impulsive transients [power systems]. , 0, , .		2
140	A model for fluorescent lamp flicker in the presence of voltage distortion. , 0, , .		5
141	Revenue metering in the presence of distortion and unbalance: myths and reality. , 0, , .		21
142	A VI for estimating electrical quantities in power systems over long time intervals. , 0, , .		0
143	Uncertainty propagation in the discrete-time wavelet transform. , 0, , .		5
144	Performance analysis and optimization of a robust algorithm for voltage transients detection. , 0, , .		1

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145	Implementation of multi-point measurement techniques for PQ monitoring. , 0, , .		16