

Lorenzo Peretto

List of Publications by Year in descending order

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145
papers

1,325
citations

430754

18
h-index

501076

28
g-index

146
all docs

146
docs citations

146
times ranked

824
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	The role of measurements in the smart grid era. IEEE Instrumentation and Measurement Magazine, 2010, 13, 22-25.	1.2	69
3	Investigation on Multipoint Measurement Techniques for PQ Monitoring. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 1684-1690.	2.4	48
4	A Simple Lamp-Eye-Brain Model for Flicker Observations. IEEE Transactions on Power Delivery, 2004, 19, 1308-1313.	2.9	38
5	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
6	A theoretical study of the incandescent filament lamp performance under voltage flicker. IEEE Transactions on Power Delivery, 1997, 12, 279-288.	2.9	35
7	The response of fluorescent lamp with magnetic ballast to voltage distortion. IEEE Transactions on Power Delivery, 1997, 12, 289-295.	2.9	34
8	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
9	Remote Didactic Laboratory "G. Savastano". 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
10	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
11	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
12	Remote Didactic Laboratory "G. Savastano". 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
13	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
14	On Uncertainty in Wavelet-Based Signal Analysis. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 1593-1599.	2.4	23
15	Are Inductive Current Transformers Performance Really Affected by Actual Distorted Network Conditions? An Experimental Case Study. Sensors, 2020, 20, 927.	2.1	23
16	Revenue metering in the presence of distortion and unbalance: myths and reality. , 0, , .		21
17	Effects of Temperature on MV Cable Joints Tan Delta Measurements. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 3892-3898.	2.4	19
18	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

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19	Traceability of Low-Power Voltage Transformer for Medium Voltage Application. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 2804-2812.	2.4	18
20	Effects of Multiple Influence Quantities on Rogowski-Coil-Type Current Transformers. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4827-4834.	2.4	18
21	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
22	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
23	Measurement of harmonic losses in transformers supplying nonsinusoidal load currents. IEEE Transactions on Instrumentation and Measurement, 2000, 49, 315-319.	2.4	16
24	Implementation of multi-point measurement techniques for PQ monitoring. , 0, , .		16
25	Calibration of Synchronized Measurement System: from the Instrument Transformer to the PMU. , 2018, , .		16
26	On the Long-Period Accuracy Behavior of Inductive and Low-Power Instrument Transformers. Sensors, 2020, 20, 5810.	2.1	16
27	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
28	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
29	Smart Characterization of Rogowski Coils by Using a Synthetized Signal. Sensors, 2020, 20, 3359.	2.1	14
30	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
31	Effect of temperature on the accuracy of inductive current transformers. , 2018, , .		13
32	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
33	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
34	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
35	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
36	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

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37	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
38	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
39	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
40	Testing of Electrical Energy Meters Subject to Realistic Distorted Voltages and Currents. Energies, 2020, 13, 2023.	1.6	11
41	Modeling Capacitive Low-Power Voltage Transformer Behavior over Temperature and Frequency. Sensors, 2021, 21, 1719.	2.1	11
42	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
43	A test set for LEDs life model estimation. , 2010, , .		10
44	Uncertainty Analysis of an Equivalent Synchronization Method for Phasor Measurements. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 2444-2452.	2.4	10
45	A Simple Calibration Procedure for an LPIT plus PMU System Under Off-Nominal Conditions. Energies, 2019, 12, 4645.	1.6	10
46	Uncertainty Propagation in the Discrete-Time Wavelet Transform. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 2474-2480.	2.4	9
47	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
48	Fault location in underground power networks: A case study. , 2011, , .		9
49	Development of a Life Model for Light Emitting Diodes Stressed by Forward Current. IEEE Transactions on Reliability, 2014, 63, 523-533.	3.5	9
50	Assessment of Metrological Characteristics of Calibration Systems for Accuracy vs. Temperature Verification of Voltage Transformer. , 2017, , .		9
51	Effects of Thermal Cycles on Interfacial Pressure in MV Cable Joints. Sensors, 2020, 20, 169.	2.1	9
52	Performance evaluation of an energy meter for low-voltage system monitoring. Journal of Physics: Conference Series, 2018, 1065, 052032.	0.3	8
53	Accuracy Type Test for Rogowski Coils Subjected to Distorted Signals, Temperature, Humidity, and Position Variations. Sensors, 2022, 22, 1397.	2.1	8
54	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

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55	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
56	A Novel Approach for Laboratory Activities in E-Learning Courses. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	7
57	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
58	Modeling of the physiological behavior of human vision system under flicker condition. , 2008, , .		7
59	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
60	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
61	A digital instrument for the calibration of current-to-voltage transducers. IEEE Transactions on Instrumentation and Measurement, 1998, 47, 189-194.	2.4	6
62	Measurement of the pupil diameter under different light stimula. , 2009, , .		6
63	Monitoring Cable current and Laying Environment Parameters for Assessing the Aging Rate of MV Cable Joint Insulation. , 2018, , .		6
64	Low-Cost Monitoring Unit for MV Cable Joints Diagnostics. , 2018, , .		6
65	Test Setup Design, and Calibration for Tan Delta Measurements on MV Cable Joints. , 2018, , .		6
66	Low power voltage transformer accuracy class effects on the residual voltage measurement. , 2018, , .		6
67	A Simple Modelling Procedure of Rogowski Coil for Power Systems Applications. , 2019, , .		6
68	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
69	A model for fluorescent lamp flicker in the presence of voltage distortion. , 0, , .		5
70	An automatic test equipment for the calibration of voltage transducers. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 1638-1643.	2.4	5
71	Uncertainty propagation in the discrete-time wavelet transform. , 0, , .		5
72	Use of COMTRADE Fault Current Data to Test Inductive Current Transformers. , 2019, , .		5

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73	Implementation and performance evaluation of a broadband digital harmonic vector voltmeter. IEEE Transactions on Instrumentation and Measurement, 1998, 47, 229-234.	2.4	4
74	Measurements for the characterization of quasi-periodic waveforms. European Transactions on Electrical Power, 2002, 12, 11-16.	1.0	4
75	A comparison study of two indirect methods for measuring the systolic pulmonary arterial pressure. , 2011, , .		4
76	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
77	A novel equivalent power network impedance approach for assessing the time reference in asynchronous measurements. , 2017, , .		4
78	Uncertainty Analysis of a Test Bed for Calibrating Voltage Transformers vs. Temperature. Sensors, 2019, 19, 4472.	2.1	4
79	Calibration Procedure to Test the Effects of Multiple Influence Quantities on Low-Power Voltage Transformers. Sensors, 2020, 20, 1172.	2.1	4
80	Modeling Stray Capacitances of High-Voltage Capacitive Dividers for Conventional Measurement Setups. Energies, 2021, 14, 1262.	1.6	4
81	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
82	On the Importance of Characterizing Virtual PMUs for Hardware-in-the-Loop and Digital Twin Applications. Sensors, 2021, 21, 6133.	2.1	4
83	Effect of Proximity, Burden, and Position on the Power Quality Accuracy Performance of Rogowski Coils. Sensors, 2022, 22, 397.	2.1	4
84	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
85	Uncertainty Contribution of the Analog Conditioning Block in DSP-Based Instruments. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1000-1005.	2.4	3
86	Experimental Evaluation of Flicker Effects on Human Subjects. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	3
87	Design and Characterization of an Electric Field Based Medium Voltage Transducer. , 2008, , .		3
88	Toward a BITE for real time MTTF estimation of capacitors. , 2010, , .		3
89	Power system islands, autonomous microgrids and relevant instrumentation. , 2012, , .		3
90	A simple portable polychromatic pupillometer for human eye annoyance measurement. , 2014, , .		3

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91	Analysis of Ratio and Phase Errors over Time for Low Power Voltage Transformers. , 2020, , .		3
92	Noise Analysis on Frequency Shifting and Filtering Algorithm-Based Phasor Estimator. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 6739-6747.	2.4	3
93	Assessment of energy saving due to a flexible indoor air quality control. , 2021, , .		3
94	Measurement methods and evaluation techniques of indoor CO2 in a cabin for an electric crane. , 2021, , .		3
95	A system for the measurement of the starting instant of impulsive transients [power systems]. , 0, , .		2
96	Signal spectrum analysis and period estimation by using delayed signal sampling. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 920-925.	2.4	2
97	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
98	Performance Characterization of a Method for Locating Faults in Power Distribution Networks. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	2
99	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
100	A distributed system for the synchronized acquisition of fast voltage transients. , 2008, , .		2
101	New Basis for the Development of the next-generation Flickermeters. , 2010, , .		2
102	A self-shielded current transducer for power system application. , 2011, , .		2
103	Assessment of human annoyance under flicker condition. , 2011, , .		2
104	Experimental analysis of LEDs' reliability under combined stress conditions. , 2011, , .		2
105	Procedure for the assessment of metrological characteristics of window-type current transformers in three-phase power systems. , 2014, , .		2
106	Effects of radiated electromagnetic fields on measurements performed by air-core passive LPCTs. , 2015, , .		2
107	Thermal stress analysis of colored LEDs. , 2015, , .		2
108	Integration challenges of high-accuracy LPIT into MV recloser. CIREN - Open Access Proceedings Journal, 2017, 2017, 260-263.	0.1	2

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109	Test Bed Characterization for the Interfacial Pressure vs. Temperature Measurements in MV Cable-Joints. , 2019, , .		2
110	External Magnetic Fields Effect on Harmonics Measurements with Rogowski coils. , 2021, , .		2
111	Effects on the Accuracy Performance of Rogowski Coils Due to Temperature and Humidity. , 2022, , .		2
112	Performance analysis and optimization of a robust algorithm for voltage transients detection. , 0, , .		1
113	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
114	Metrological Characterization of a Distributed Measurement System to Locate Faults in Power Networks. , 2008, , .		1
115	Dynamic stress-strength approach for reliability prediction. , 2009, , .		1
116	Towards real-time life estimation of capacitors subjected to time-varying temperature. , 2010, , .		1
117	Method and measurement set up for the evaluation of the performance of UPS in presence of network outages. , 2012, , .		1
118	A simple handheld pupillometer for chromatic Flicker studies. Proceedings of SPIE, 2014, , .	0.8	1
119	Study for assessing the conformity of a commercial measurement system for smart grid application. , 2015, , .		1
120	Sensors for PMUs. , 2016, , 53-62.		1
121	Towards a global evaluation of uncertainty for the monitoring of distribution grids. , 2017, , .		1
122	Effect of White Noise on Phase Estimation by Frequency Shifting and Filtering Algorithm. , 2019, , .		1
123	Toward the Standardization of Limits to Offset and Noise in Electronic Instrument Transformers. Sensors, 2020, 20, 4061.	2.1	1
124	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
125	Characterization Procedure for Stand-Alone Merging Units Based on Hardware-in-the-Loop Technology. Energies, 2021, 14, 1993.	1.6	1
126	Closed-Form Expressions to Estimate the Mean and Variance of the Total Vector Error. Energies, 2021, 14, 4641.	1.6	1

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127	Low-Impact Current-Based Distributed Monitoring System for Medium Voltage Networks. <i>Energies</i> , 2021, 14, 5308.	1.6	1
128	Optimal Control of Air Conditioning Systems by Means of CO2 Sensors in Electric Vehicles. <i>Sensors</i> , 2022, 22, 1190.	2.1	1
129	Combined Effect of Temperature and Humidity on Distorted Currents Measured by Rogowski Coils. , 2022, , .		1
130	A VI for estimating electrical quantities in power systems over long time intervals. , 0, , .		0
131	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
132	An attempt to understand flicker vertigo: changes in pupil size and choroidal blood flow under flickering conditions. , 2010, , .		0
133	Special Section on the Second IEEE International Workshop on Applied Measurements for Power Systems. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2012, 61, 2602-2603.	2.4	0
134	On the frequency response of semiconductive shields for power systems applications. , 2012, , .		0
135	Metrological characterization of a current sensor for smart grids. , 2012, , .		0
136	Parasitic effect - Independent approach for dissipation factor measurement in power transformers. , 2013, , .		0
137	Guest Editorial: Special Section on the Third IEEE International Workshop on Applied Measurements for Power Systems (AMPS) Aachen, Germany, September 26-28, 2012. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2013, 62, 2362-2363.	2.4	0
138	Guest Editorial: Special Section on the Fourth IEEE International Workshop on Applied Measurements for Power Systems (AMPS 2013) Aachen, Germany, September 25â€“27, 2013. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2014, 63, 2310-2311.	2.4	0
139	Message from the chairpersons. , 2015, , .		0
140	Measurement of the pupil responses induced by RGB flickering stimuli. , 2015, , .		0
141	Guest Editorial: Special Section on the Fifth IEEE International Workshop on Applied Measurements for Power Systems (AMPS 2014) Aachen, Germany, September 24â€“26, 2014. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2015, 64, 2046-2047.	2.4	0
142	On the behavior of LED lamps under non-sinusoidal voltage conditions. , 2017, , .		0
143	A Distributed Measurement System for Locating Transient-Voltage Sources. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .	0.0	0
144	Design, Development, and Characterization of a Low-Voltage Network Monitoring Unit. , 2021, , .		0

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145	Measurement Procedure to Investigate Ageing of Low-Power Voltage Transformers. , 2022, , .		0