

# Roberto Tinarelli

## List of Publications by Year in descending order

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110  
papers

907  
citations

623574

14  
h-index

642610

23  
g-index

110  
all docs

110  
docs citations

110  
times ranked

571  
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	Investigation on Multipoint Measurement Techniques for PQ Monitoring. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 1684-1690.	2.4	48
3	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
4	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
5	The impact of internet transmission on the uncertainty in the electric power quality estimation by means of a distributed measurement system. IEEE Transactions on Instrumentation and Measurement, 2003, 52, 1073-1078.	2.4	29
6	On Uncertainty in Wavelet-Based Signal Analysis. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 1593-1599.	2.4	23
7	Are Inductive Current Transformers Performance Really Affected by Actual Distorted Network Conditions? An Experimental Case Study. Sensors, 2020, 20, 927.	2.1	23
8	Effects of Temperature on MV Cable Joints Tan Delta Measurements. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 3892-3898.	2.4	19
9	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
10	Traceability of Low-Power Voltage Transformer for Medium Voltage Application. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 2804-2812.	2.4	18
11	Effects of Multiple Influence Quantities on Rogowski-Coil-Type Current Transformers. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4827-4834.	2.4	18
12	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
13	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
14	Implementation of multi-point measurement techniques for PQ monitoring. , 0, , .		16
15	Calibration of Synchronized Measurement System: from the Instrument Transformer to the PMU. , 2018, , .		16
16	On the Long-Period Accuracy Behavior of Inductive and Low-Power Instrument Transformers. Sensors, 2020, 20, 5810.	2.1	16
17	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
18	Smart Characterization of Rogowski Coils by Using a Synthetized Signal. Sensors, 2020, 20, 3359.	2.1	14

#	ARTICLE	IF	CITATIONS
19	An Experimental Comparison in the Uncertainty Estimation Affecting Wavelet-Based Signal Analysis by Means of the IEC-ISO Guide and the Random-Fuzzy Approaches. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 691-699.	2.4	13
20	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
21	Effect of temperature on the accuracy of inductive current transformers. , 2018, , .		13
22	Measurement Methods and Procedures for Assessing Accuracy of Instrument Transformers for Power Quality Measurements. , 2020, , .		13
23	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
24	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
25	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
26	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
27	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
28	Testing of Electrical Energy Meters Subject to Realistic Distorted Voltages and Currents. Energies, 2020, 13, 2023.	1.6	11
29	Modeling Capacitive Low-Power Voltage Transformer Behavior over Temperature and Frequency. Sensors, 2021, 21, 1719.	2.1	11
30	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
31	A test set for LEDs life model estimation. , 2010, , .		10
32	Uncertainty Analysis of an Equivalent Synchronization Method for Phasor Measurements. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 2444-2452.	2.4	10
33	A Simple Calibration Procedure for an LPIT plus PMU System Under Off-Nominal Conditions. Energies, 2019, 12, 4645.	1.6	10
34	Uncertainty Propagation in the Discrete-Time Wavelet Transform. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 2474-2480.	2.4	9
35	Fault location in underground power networks: A case study. , 2011, , .		9
36	Development of a Life Model for Light Emitting Diodes Stressed by Forward Current. IEEE Transactions on Reliability, 2014, 63, 523-533.	3.5	9

#	ARTICLE	IF	CITATIONS
37	Assessment of Metrological Characteristics of Calibration Systems for Accuracy vs. Temperature Verification of Voltage Transformer. , 2017, , .		9
38	Effects of Thermal Cycles on Interfacial Pressure in MV Cable Joints. Sensors, 2020, 20, 169.	2.1	9
39	Performance evaluation of an energy meter for low-voltage system monitoring. Journal of Physics: Conference Series, 2018, 1065, 052032.	0.3	8
40	Accuracy Type Test for Rogowski Coils Subjected to Distorted Signals, Temperature, Humidity, and Position Variations. Sensors, 2022, 22, 1397.	2.1	8
41	A Novel Approach for Laboratory Activities in E-Learning Courses. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	7
42	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
43	Modeling of the physiological behavior of human vision system under flicker condition. , 2008, , .		7
44	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
45	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
46	Measurement of the pupil diameter under different light stimula. , 2009, , .		6
47	Monitoring Cable current and Laying Environment Parameters for Assessing the Aging Rate of MV Cable Joint Insulation. , 2018, , .		6
48	Low-Cost Monitoring Unit for MV Cable Joints Diagnostics. , 2018, , .		6
49	Test Setup Design, and Calibration for Tan Delta Measurements on MV Cable Joints. , 2018, , .		6
50	Low power voltage transformer accuracy class effects on the residual voltage measurement. , 2018, , .		6
51	A Simple Modelling Procedure of Rogowski Coil for Power Systems Applications. , 2019, , .		6
52	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
53	Uncertainty propagation in the discrete-time wavelet transform. , 0, , .		5
54	Uncertainty evaluation in measurement equipments for power systems. , 2016, , .		5

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55	Use of COMTRADE Fault Current Data to Test Inductive Current Transformers. , 2019, , .		5
56	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
57	A novel equivalent power network impedance approach for assessing the time reference in asynchronous measurements. , 2017, , .		4
58	Uncertainty Analysis of a Test Bed for Calibrating Voltage Transformers vs. Temperature. Sensors, 2019, 19, 4472.	2.1	4
59	Calibration Procedure to Test the Effects of Multiple Influence Quantities on Low-Power Voltage Transformers. Sensors, 2020, 20, 1172.	2.1	4
60	Modeling Stray Capacitances of High-Voltage Capacitive Dividers for Conventional Measurement Setups. Energies, 2021, 14, 1262.	1.6	4
61	On the Importance of Characterizing Virtual PMUs for Hardware-in-the-Loop and Digital Twin Applications. Sensors, 2021, 21, 6133.	2.1	4
62	Effect of Proximity, Burden, and Position on the Power Quality Accuracy Performance of Rogowski Coils. Sensors, 2022, 22, 397.	2.1	4
63	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
64	On the characterization of voltage and current transducers in steady-state distorted conditions. European Transactions on Electrical Power, 2001, 11, 365-370.	1.0	3
65	Uncertainty Contribution of the Analog Conditioning Block in DSP-Based Instruments. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1000-1005.	2.4	3
66	Experimental Evaluation of Flicker Effects on Human Subjects. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	3
67	Design and Characterization of an Electric Field Based Medium Voltage Transducer. , 2008, , .		3
68	Toward a BITE for real time MTTF estimation of capacitors. , 2010, , .		3
69	A simple portable polychromatic pupillometer for human eye annoyance measurement. , 2014, , .		3
70	An Equivalent Synchronization for Phasor Measurements in Power Networks. , 2017, , .		3
71	Accuracy Verification of PLL-Based Acquisition System for Low-Cost Applications. , 2018, , .		3
72	Testing of Electrical Energy Meters in Off-Nominal Frequency Conditions. , 2019, , .		3

#	ARTICLE	IF	CITATIONS
73	A system for the measurement of the starting instant of impulsive transients [power systems]. , 0, , .		2
74	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
75	Performance Characterization of a Method for Locating Faults in Power Distribution Networks. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	2
76	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
77	A distributed system for the synchronized acquisition of fast voltage transients. , 2008, , .		2
78	New Basis for the Development of the next-generation Flickermeters. , 2010, , .		2
79	A self-shielded current transducer for power system application. , 2011, , .		2
80	Assessment of human annoyance under flicker condition. , 2011, , .		2
81	Experimental analysis of LEDs' reliability under combined stress conditions. , 2011, , .		2
82	Procedure for the assessment of metrological characteristics of window-type current transformers in three-phase power systems. , 2014, , .		2
83	Effects of radiated electromagnetic fields on measurements performed by air-core passive LPCTs. , 2015, , .		2
84	Uncertainty: Words on the loose [Future Trends in I&M]. IEEE Instrumentation and Measurement Magazine, 2015, 18, 39-40.	1.2	2
85	Thermal stress analysis of colored LEDs. , 2015, , .		2
86	Test Bed Characterization for the Interfacial Pressure vs. Temperature Measurements in MV Cable-Joints. , 2019, , .		2
87	External Magnetic Fields Effect on Harmonics Measurements with Rogowski coils. , 2021, , .		2
88	Effects on the Accuracy Performance of Rogowski Coils Due to Temperature and Humidity. , 2022, , .		2
89	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
90	Metrological Characterization of a Distributed Measurement System to Locate Faults in Power Networks. , 2008, , .		1

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91	Dynamic stress-strength approach for reliability prediction. , 2009, , .		1
92	Towards real-time life estimation of capacitors subjected to time-varying temperature. , 2010, , .		1
93	A simple handheld pupillometer for chromatic Flicker studies. Proceedings of SPIE, 2014, , .	0.8	1
94	Study for assessing the conformity of a commercial measurement system for smart grid application. , 2015, , .		1
95	Sensors for PMUs. , 2016, , 53-62.		1
96	Toward the Standardization of Limits to Offset and Noise in Electronic Instrument Transformers. Sensors, 2020, 20, 4061.	2.1	1
97	A Closed-form Expression to Estimate the Uncertainty of THD Starting from the LPIT Accuracy Class. Sensors, 2020, 20, 1804.	2.1	1
98	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
99	Characterization Procedure for Stand-Alone Merging Units Based on Hardware-in-the-Loop Technology. Energies, 2021, 14, 1993.	1.6	1
100	Closed-Form Expressions to Estimate the Mean and Variance of the Total Vector Error. Energies, 2021, 14, 4641.	1.6	1
101	Low-Impact Current-Based Distributed Monitoring System for Medium Voltage Networks. Energies, 2021, 14, 5308.	1.6	1
102	Combined Effect of Temperature and Humidity on Distorted Currents Measured by Rogowski Coils. , 2022, , .		1
103	A VI for estimating electrical quantities in power systems over long time intervals. , 0, , .		0
104	On the frequency response of semiconductive shields for power systems applications. , 2012, , .		0
105	Metrological characterization of a current sensor for smart grids. , 2012, , .		0
106	Parasitic effect - Independent approach for dissipation factor measurement in power transformers. , 2013, , .		0
107	Measurement of the pupil responses induced by RGB flickering stimuli. , 2015, , .		0
108	On the behavior of LED lamps under non-sinusoidal voltage conditions. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
109	Design, Development, and Characterization of a Low-Voltage Network Monitoring Unit. , 2021, , .		0
110	Measurement Procedure to Investigate Ageing of Low-Power Voltage Transformers. , 2022, , .		0