

# Carlos R Barbosa

## List of Publications by Year in descending order

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74  
papers

461  
citations

840776

11  
h-index

888059

17  
g-index

75  
all docs

75  
docs citations

75  
times ranked

318  
citing authors

#	ARTICLE	IF	CITATIONS
1	Virtual instrument for estimation of HVAC and HVDC test parameters according to IEC 60060-1:2010. Journal of Physics: Conference Series, 2021, 1826, 012104.	0.4	0
2	Development and Validation of a Masking System for Mitigation of Low-Frequency Audible Noise from Electrical Substations. Applied Sciences (Switzerland), 2021, 11, 7771.	2.5	0
3	Development of a Low-Cost Data Acquisition System for Very Short-Term Photovoltaic Power Forecasting. Energies, 2021, 14, 6075.	3.1	3
4	Partial decomposition approach to generate load curve forecasting scenarios. International Journal of Electrical Power and Energy Systems, 2020, 115, 105436.	5.5	5
5	Multi-resolution wavelet analysis for noise reduction in impulse puncture voltage measurements. Measurement: Journal of the International Measurement Confederation, 2020, 153, 107416.	5.0	3
6	Methodology for evaluation of methods for volume correction of liquid oil derivatives. Measurement: Journal of the International Measurement Confederation, 2020, 153, 107388.	5.0	2
7	Comparative Analysis of Object Digitization Techniques Applied to the Characterization of Deformed Materials in Ballistic Tests. Sensors, 2020, 20, 5017.	3.8	2
8	Development and Validation of LiDAR Sensor Simulators Based on Parallel Raycasting. Sensors, 2020, 20, 7186.	3.8	17
9	Multiparametric quality by design-fuzzy model applied in the development of a biomedical measuring system. International Journal of Metrology and Quality Engineering, 2020, 11, 12.	1.0	0
10	Design of experiments to analyze the influence of water content and meter factor on the uncertainty of oil flow measurement with ultrasonic meters. Flow Measurement and Instrumentation, 2019, 70, 101627.	2.0	5
11	Multichannel System for Measuring the Magnetic Flux Density Generated by TMS Devices. IFMBE Proceedings, 2019, , 507-511.	0.3	0
12	Flowmeter based on a piezoelectric PVDF tube. Measurement: Journal of the International Measurement Confederation, 2019, 138, 368-378.	5.0	10
13	High sensitivity pressure transducer based on the phase characteristics of GMI magnetic sensors. Measurement Science and Technology, 2018, 29, 035106.	2.6	11
14	GMR Sensors and Neural Networks Applied to the Contactless Measurement of Direct Electrical Currents. Journal of Physics: Conference Series, 2018, 975, 012070.	0.4	0
15	Evaluation of the electromechanical behavior of polyvinylidene fluoride used as a component of risers in the offshore oil industry. Oil and Gas Science and Technology, 2018, 73, 48.	1.4	19
16	Infrared optoelectronic device for counting and measuring velocity of abrasive sponge balls used as cleaning artefacts in heat exchangers. Journal of Physics: Conference Series, 2018, 1065, 152002.	0.4	1
17	Biomedical comparison of magnetometers for non-ferromagnetic metallic foreign body detection. Journal of Physics: Conference Series, 2018, 1044, 012013.	0.4	5
18	A contactless ammeter based on GMR magnetometers. Journal of Physics: Conference Series, 2018, 1044, 012001.	0.4	0

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19	Multi-parameter fuzzy design space for QbD approach applied in the development of biomedical devices. Journal of Physics: Conference Series, 2018, 1044, 012051.	0.4	1
20	Safe exposure distances for transcranial magnetic stimulation based on computer simulations. PeerJ, 2018, 6, e5034.	2.0	5
21	Non-Intrusive Fluid Flow Measurement by FBC Sensing of Flow-Induced Vibrations. , 2018, , .		2
22	Effect of the overshoot level in an alternative method for processing of tail chopped lightning impulses. Journal of Physics: Conference Series, 2016, 733, 012073.	0.4	0
23	Quality by Design approach in the development of a magnetic transducer for biomedical measurements: preliminary results on Design Space configuration. Journal of Physics: Conference Series, 2016, 772, 012016.	0.4	2
24	Application of genetic algorithms to the solution of the biomagnetic inverse problem, using data acquired by a 16-Channel SQUID system. , 2016, , .		0
25	Optimization of flow rate measurement using piezoelectric accelerometers: Application in water industry. Measurement: Journal of the International Measurement Confederation, 2016, 91, 576-581.	5.0	27
26	Neuro-genetic system for optimization of GMI samples sensitivity. Neural Networks, 2016, 75, 141-149.	5.9	1
27	Electronic circuit for excitation of inductive loads with high currents. Electronics Letters, 2015, 51, 1808-1809.	1.0	3
28	Automated Evaluation of Dynamic Performance of Impulse Voltage Measurement Systems. Journal of Physics: Conference Series, 2015, 575, 012011.	0.4	0
29	Tail-Chopped Lightning Impulses Time Parameters Estimated According to Standard IEC 60060-1:2010. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 1369-1372.	4.7	5
30	Validation of a System for Evaluation of High-Voltage Impulses According to IEC 60060:2010. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 1378-1382.	4.7	4
31	Flow Measurement by Piezoelectric Accelerometers: Application in the Oil Industry. Petroleum Science and Technology, 2015, 33, 1402-1409.	1.5	23
32	Point matching: A new electronic method for homogenizing the phase characteristics of giant magnetoimpedance sensors. Review of Scientific Instruments, 2014, 85, 084708.	1.3	9
33	Estimation of time parameters of tail chopped lightning impulses - Clarification of the standard IEC 60060-1/2010. , 2014, , .		2
34	An enhanced electronic topology aimed at improving the phase sensitivity of GMI sensors. Measurement Science and Technology, 2014, 25, 115010.	2.6	9
35	System for automatic evaluation of voltage impulses according to the standard IEC 60060/2010. , 2014, , .		2
36	Electronic approach for enhancing impedance phase sensitivity of GMI magnetic sensors. Electronics Letters, 2013, 49, 396-397.	1.0	7

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37	Progress Toward a Hundredfold Enhancement in the Impedance Phase Sensitivity of GMI Magnetic Sensors aiming at Biomagnetic Measurements. IFMBE Proceedings, 2013, , 742-745.	0.3	4
38	Development of a fast and reliable system for the automatic characterization of Giant magnetoimpedance samples. Acta IMEKO (2012), 2013, 2, 21.	0.7	1
39	Modelagem da sensibilidade de amostras GMI por redes neurais. Controle and Automacao, 2012, 23, 636-648.	0.2	3
40	An electronic approach to homogenize the impedance phase characteristics of heterogeneous GMI sensors. Acta IMEKO (2012), 2012, 1, 70.	0.7	3
41	High sensitivity giant magnetoimpedance (GMI) magnetic transducer: magnitude versus phase sensing. Measurement Science and Technology, 2011, 22, 035204.	2.6	26
42	Sensitivity improvement of GMI magnetic and pressure transducers for biomedical measurements. Revista Brasileira De Engenharia Biomedica, 2011, 27, 79-89.	0.3	3
43	Transdutor de pressão, baseado nas características de fase do efeito GMI, destinado a aplicações biomédicas. Controle and Automacao, 2010, 21, 598-608.	0.2	2
44	Magnetic field transducers based on the phase characteristics of GMI sensors and aimed at biomedical applications. IFMBE Proceedings, 2009, , 652-656.	0.3	9
45	System for Conformity Assessment of Electrocardiographs. IFMBE Proceedings, 2009, , 1124-1127.	0.3	1
46	Decision Support Methods. Studies in Computational Intelligence, 2009, , 23-96.	0.9	3
47	Ring shaped magnetic field transducer based on the GMI effect. Measurement Science and Technology, 2008, 19, 025801.	2.6	22
48	Neural Network Simulation and Evolutionary Synthesis of QCA Circuits. IEEE Transactions on Computers, 2007, 56, 191-201.	3.4	23
49	Neural Networks for Inflow Forecasting Using Precipitation Information. Lecture Notes in Computer Science, 2007, , 552-561.	1.3	4
50	Método não-invasivo de ondas de pulso arterial utilizando transdutor de pressão MIG. IFMBE Proceedings, 2007, , 436-439.	0.3	8
51	Modelo de Previsão de Vazão com Informação de Precipitação Utilizando Redes Neurais. Revista Brasileira De Recursos Hidricos, 2007, 12, 69-82.	0.5	1
52	Evolvable Hardware Applied to Nanotechnology. , 2006, , .		0
53	Cultural Operators for a Quantum-Inspired Evolutionary Algorithm Applied to Numerical Optimization Problems. Lecture Notes in Computer Science, 2005, , 1-10.	1.3	8
54	Quantum-Inspired Evolutionary Algorithms and Its Application to Numerical Optimization Problems. Lecture Notes in Computer Science, 2004, , 212-217.	1.3	16

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55	Localization of firearm projectiles in the human body using a superconducting quantum interference device magnetometer: A theoretical study. <i>Review of Scientific Instruments</i> , 2004, 75, 2098-2106.	1.3	9
56	Simulation of a plane wavefront propagating in cardiac tissue using a cellular automata model. <i>Physics in Medicine and Biology</i> , 2003, 48, 4151-4164.	3.0	15
57	A survey of calibration procedures for SQUID gradiometers. <i>Superconductor Science and Technology</i> , 2003, 16, 427-431.	3.5	11
58	Application of a single-channel SQUID magnetometer for non-invasive study of cardiac tachyarrhythmias mechanisms. <i>Physica C: Superconductivity and Its Applications</i> , 2001, 354, 83-86.	1.2	2
59	Fetal cardiac activity analysis during twin pregnancy using a multi-channel SQUID system. <i>Physica C: Superconductivity and Its Applications</i> , 2001, 354, 87-90.	1.2	6
60	New magnetic techniques for inspection and metal-loss assessment of oil pipelines. <i>Journal of Magnetism and Magnetic Materials</i> , 2001, 226-230, 2061-2062.	2.3	10
61	Location of Reentry Currents in Isolated Rabbit Cardiac Tissues through Inverse Magnetocardiography. <i>Biomedizinische Technik</i> , 2001, 46, 63-65.	0.8	0
62	Animal Experimentation Study of Atrial Activity Propagation Using a Multi-channel SQUID System. <i>Biomedizinische Technik</i> , 2001, 46, 70-72.	0.8	6
63	Improvement of a technique for localization of steel needles in humans using a SQUID magnetometer. <i>IEEE Transactions on Applied Superconductivity</i> , 2001, 11, 677-680.	1.7	11
64	Application of a cellular automata model to the study of magnetic detection of slow-pathway in cardiac tissue. <i>EPJ Applied Physics</i> , 2000, 10, 67-71.	0.7	4
65	Locating steel needles in the human body using a SQUID magnetometer. <i>Physics in Medicine and Biology</i> , 2000, 45, 2389-2402.	3.0	19
66	Nondestructive evaluation of steel structures using a superconducting quantum interference device magnetometer and a neural network system. <i>Review of Scientific Instruments</i> , 2000, 71, 3806.	1.3	4
67	Automation of SQUID nondestructive evaluation of steel plates by neural networks. <i>IEEE Transactions on Applied Superconductivity</i> , 1999, 9, 3475-3478.	1.7	6
68	Flux/voltage calibration of axial SQUID gradiometers using an optimization procedure. <i>IEEE Transactions on Applied Superconductivity</i> , 1999, 9, 3523-3526.	1.7	6
69	Current density optimizations in actively shielded multipole magnets. <i>IEEE Transactions on Magnetics</i> , 1998, 34, 2908-2911.	2.1	3
70	Electric Current Injection NDE Using a SQUID Magnetometer. <i>Research in Nondestructive Evaluation</i> , 1996, 8, 165-175.	1.1	1
71	Image processing techniques for NDE SQUID systems. <i>IEEE Transactions on Applied Superconductivity</i> , 1995, 5, 2478-2481.	1.7	6
72	Detection of reentry currents in atrial flutter by magnetocardiography. <i>IEEE Transactions on Biomedical Engineering</i> , 1992, 39, 818-824.	4.2	18

#	ARTICLE	IF	CITATIONS
73	Bayesian neural networks on the inference of distillation product quality. , 0, , .		0
74	Molecular Circuit Design. , 0, , .		1