Mattia Butta

List of Publications by Year
in descending order

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62	528	687363 13	752698 20
papers	citations	h-index	g-index

62	62	62	298
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Improved Composition of CoFeSiB Alloy for Orthogonal Fluxgates. Sensors, 2022, 22, 2162.	3.8	1
2	Offset drift in orthogonal fluxgate and importance of closed-loop operation. Sensors and Actuators A: Physical, 2022, 342, 113583.	4.1	2
3	Reduction of magnetic noise limits of orthogonal fluxgate sensor. AIP Advances, 2021, 11, .	1.3	8
4	Orthogonal fluxgate sensor noise depends on annealing-induced magnetostriction of the core. , 2021, , .		0
5	Race-track fluxgate sensor scaling versus noise. , 2021, , .		1
6	1-pT Noise Fluxgate Magnetometer for Geomagnetic Measurements and Unshielded Magnetocardiography. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 2552-2560.	4.7	43
7	Dependence of the noise of an orthogonal fluxgate on the composition of its amorphous wire-core. AIP Advances, 2020, 10, .	1.3	9
8	Orthogonal fluxgates based on magnetic microwires. , 2020, , 869-888.		0
9	1 pT-noise fluxgate magnetometer design and its performance in geomagnetic measurements. , 2019, , .		3
10	Low-Noise Orthogonal Fluxgate Using Flipped Current Joule Annealing. IEEE Transactions on Magnetics, 2019, 55, 1-6.	2.1	18
11	Very low frequency noise reduction in orthogonal fluxgate. AIP Advances, 2018, 8, .	1.3	8
12	Orthogonal Fluxgate Gradiometer With Multiple Coil Pairs. IEEE Transactions on Magnetics, 2018, 54, 1-5.	2.1	3
13	Effect of Amorphous Wire Core Diameter on the Noise of an Orthogonal Fluxgate. IEEE Transactions on Magnetics, 2018, 54, 1-5.	2.1	5
14	Low Offset Driftâ€“Low-Noise Orthogonal Fluxgate With Synchronized Polarity Flipping. IEEE Transactions on Magnetics, 2017, 53, 1-6.	2.1	14
15	Orthogonal Fluxgate Magnetometers. Smart Sensors, Measurement and Instrumentation, 2017, , 63-102.	0.6	7
16	Effect of Thickness of Electroplated NiFe Cores on the Noise of Fluxgates. Acta Physica Polonica A, 2017, 131, 756-758.	0.5	1
17	Magnetic gradiometer with self compensation of offset drift. , 2016, , .		2
18	Noise dependence on temperature in fluxgates with electroplated core. Sensors and Actuators A: Physical, 2016, 244, 310-313.	4.1	1

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19	Towards digital fundamental mode orthogonal fluxgate. , 2016, , .		2
20	Effect of Saccharin in Electroplated NiFe Alloy on the Noise of Fluxgate. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	2
21	Effect of Electroplated Ni_{1â€“x}Fe_xComposition on the Field-Induced Anisotropy. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	1
22	Noise Dependence on Temperature in Fluxgates with Electroplated Core. Procedia Engineering, 2015, 120, 1221-1224.	1.2	0
23	Magnetostriction Offset of Fluxgate Sensors. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	6
24	Effect of Stress-Induced Anisotropy on the Noise of Ring-Core Fluxgate. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	3
25	Electroplated FeNi ring cores for fluxgates with field induced radial anisotropy. Journal of Applied Physics, 2015, 117, 17A722.	2.5	9
26	Influence of Magnetostriction of NiFe Electroplated Film on the Noise of Fluxgate. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	11
27	Fluxgate Offset Study. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	12
28	Electroplated Multi-ring Core Planar Fluxgate. Procedia Engineering, 2014, 87, 1176-1179.	1.2	0
29	Fine Smoothing of Conductive Substrate for Permalloy Layer Electroplating. Acta Physica Polonica A, 2014, 126, 150-151.	0.5	0
30	Stress-Induced Anisotropy in Electroplated FeNi Racetrack Fluxgate Cores. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	2
31	Method for Offset Suppression in Orthogonal Fluxgate with Annealed Wire Core. Sensor Letters, 2014, 12, 1295-1298.	0.4	18
32	Orthogonal Fluxgate With Annealed Wire Core. IEEE Transactions on Magnetics, 2013, 49, 62-65.	2.1	29
33	Preface [Selected Papers from the 9th European Magnetic Sensors and Actuators Conference (EMSA) Tj ETQq1 1 0.784314 rgBT /Ove	2.1	7
34	Microwire Electroplated Under Torsion as Core for Coil-Less Fluxgate. Sensor Letters, 2013, 11, 50-52.	0.4	6
35	Magnetic Anisotropy and Giant Magnetoimpedance in NiFe Electroplated on Cu Wires. Sensor Letters, 2013, 11, 53-55.	0.4	6
36	Temperature Stability of AMR Sensors. Sensor Letters, 2013, 11, 74-77.	0.4	6

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37	Noise correlation in fundamental mode orthogonal fluxgate. Journal of Applied Physics, 2012, 111, 07E517.	2.5	6
38	Temperature Dependence of Offset and Sensitivity in Orthogonal Fluxgate Operated in Fundamental Mode. IEEE Transactions on Magnetics, 2012, 48, 4103-4106.	2.1	20
39	Effect of Terminations in Magnetic Wire on the Noise of Orthogonal Fluxgate Operated in Fundamental Mode. IEEE Transactions on Magnetics, 2012, 48, 1477-1480.	2.1	10
40	Sources of Noise in a Magnetometer Based on Orthogonal Fluxgate Operated in Fundamental Mode. IEEE Transactions on Magnetics, 2012, 48, 1508-1511.	2.1	31
41	Reduction of Noise in Fundamental Mode Orthogonal Fluxgates by Optimization of Excitation Current. IEEE Transactions on Magnetics, 2011, 47, 3748-3751.	2.1	37
42	Double Coil-Less Fluxgate in Bridge Configuration. IEEE Transactions on Magnetics, 2010, 46, 532-535.	2.1	8
43	Sensitivity and Noise of Wire-Core Transverse Fluxgate. IEEE Transactions on Magnetics, 2010, 46, 654-657.	2.1	15
44	Magnetic Microwires With Field-Induced Helical Anisotropy for Coil-Less Fluxgate. IEEE Transactions on Magnetics, 2010, 46, 2562-2565.	2.1	15
45	Magnetic microwires for orthogonal fluxgates electroplated with pulse current. Procedia Engineering, 2010, 5, 985-988.	1.2	1
46	Two sources of cross-field error in racetrack fluxgate. Journal of Applied Physics, 2010, 107, .	2.5	6
47	Coil-less fluxgate operated in feedback mode by means of dc current. , 2010, , .		2
48	M - H loop tracer based on digital signal processing for low frequency characterization of extremely thin magnetic wires. Review of Scientific Instruments, 2009, 80, 083906.	1.3	17
49	Crossfield effect in magnetic sensors. , 2009, , .		6
50	Crossfield Sensitivity in AMR Sensors. IEEE Transactions on Magnetics, 2009, 45, 4514-4517.	2.1	22
51	Bi-Metallic Magnetic Wire With Insulating Layer as Core for Orthogonal Fluxgate. IEEE Transactions on Magnetics, 2009, 45, 4443-4446.	2.1	13
52	Linearity of Pulse Excited Coil-Less Fluxgate. IEEE Transactions on Magnetics, 2009, 45, 4455-4458.	2.1	5
53	Model for coil-less fluxgate. Sensors and Actuators A: Physical, 2009, 156, 269-273.	4.1	9
54	Investigation of Crossfield Effect in AMR Sensors. Sensor Letters, 2009, 7, 322-324.	0.4	0

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55	Origin of the Crossfield Effect in AMR Sensors. Sensor Letters, 2009, 7, 259-262.	0.4	2
56	Characterisation of magnetic wires for fluxgate cores. Sensors and Actuators A: Physical, 2008, 145-146, 23-28.	4.1	12
57	Fluxgate effect in twisted magnetic wire. Journal of Magnetism and Magnetic Materials, 2008, 320, e974-e978.	2.3	27
58	Pulse excitation of coil-less fluxgate. , 2008, , .		3
59	Two-Domain Model for Orthogonal Fluxgate. IEEE Transactions on Magnetics, 2008, 44, 3992-3995.	2.1	9
60	Characterisation of Magnetic Wires for Fluxgate Cores. , 2007, , .		4
61	Algorithm for Noise Reduction in Output Signal of Race-track Core Fluxgate. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2007, 3, 1307-1310.	0.4	2
62	Orthogonal Fluxgates. , 0, , .		0