Ronny Stolz

List of Publications by Year
in descending order

128 papers	1,824 citations	331670 21 h-index	377865 34 g-index
130 all docs	130 docs citations	130 times ranked	1313 citing authors

#	Article	IF	Citations
1	Integrated Optically Pumped Magnetometer for Measurements within Earthâ€™s Magnetic Field. Physical Review Applied, 2022, 17, .	3.8	18
2	Commercial operation of a SQUID-based airborne magnetic gradiometer. The Leading Edge, 2022, 41, 486-492.	0.7	4
3	Application driven optimization of Cryogenic Current Comparators (CCC) for beam storage rings. IEEE Transactions on Applied Superconductivity, 2021, , 1-1.	1.7	0
4	Magnetic background field-tolerant SQIF-based current sensors. Superconductor Science and Technology, 2021, 34, 045015.	3.5	3
5	Status and future perspectives of airborne magnetic gradiometry. , 2021, , .		3
6	Three component SQUID-based system for airborne natural field electromagnetics. , 2021, , .		2
7	Transmission based characterisation of superconducting metamaterial. AIP Conference Proceedings, 2021, , .	0.4	0
8	High-Resolution Direct Push Sensing in Wetland Geoarchaeologyâ€”First Traces of Off-Site Construction Activities at the Fossa Carolina. Remote Sensing, 2021, 13, 4647.	4.0	0
9	Study of Microwave Resonances Induced by Bias Lines of Shunted Josephson Junctions. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.7	2
10	DESMEX: A novel system development for semi-airborne electromagnetic exploration. Geophysics, 2020, 85, E253-E267.	2.6	23
11	The Dual-Cryogenic Current Comperator (DCCC) as a new Prototype CCC for Beamline Monitoring. , 2020, , .		1
12	Long baseline LTS SQUID gradiometers with sub-<i>Î¼</i>m sized Josephson junctions. Superconductor Science and Technology, 2020, 33, 055002.	3.5	11
13	OPM magnetorelaxometry in the presence of a DC bias field. EPJ Quantum Technology, 2020, 7, .	6.3	8
14	Spectral Component Analysis of Magnetically Unshielded Magnetocardiograms. , 2020, , .		0
15	Nanowire single-photon detectors made of atomic layer-deposited niobium nitride. Superconductor Science and Technology, 2019, 32, 125007.	3.5	12
16	Sensitivity studies and optimization of arrangements of optically pumped magnetometers in simulated magnetoencephalography. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2019, 38, 953-964.	0.9	3
17	Numerical analysis of a folded superconducting coaxial shield for cryogenic current comparators. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 922, 134-142.	1.6	3
18	Coreless SQUID-based cryogenic current comparator for non-destructive intensity diagnostics of charged particle beams. Superconductor Science and Technology, 2019, 32, 014002.	3.5	3

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19	Performance analysis of an optically pumped magnetometer in Earthâ€™s magnetic field. EPJ Quantum Technology, 2019, 6, .	6.3	11
20	Development of SQUID Amplifiers for Axion Search Experiments. , 2019, , .		1
21	Sources of heading errors in optically pumped magnetometers operated in the Earth's magnetic field. Physical Review A, 2019, 99, .	2.5	24
22	Underwater operation of a full tensor SQUID gradiometer system. Superconductor Science and Technology, 2019, 32, 024003.	3.5	11
23	SQUID amplifiers for axion search experiments. Cryogenics, 2018, 91, 125-127.	1.7	10
24	Flux trapping in multi-loop SQUIDs and its impact on SQUID-based absolute magnetometry. Superconductor Science and Technology, 2018, 31, 035001.	3.5	2
25	Wavelet Shrinkage of Magnetocardiograms Using the Median Absolute Deviation. , 2018, , .		0
26	The Use of Ostrich Eggs for In Ovo Research: Making Preclinical Imaging Research Affordable and Available. Journal of Nuclear Medicine, 2018, 59, 1901-1906.	5.0	14
27	Performance Optimization of a Three-Dimensional NanoSQUID Based on Niobium Tunnel Nanojunctions. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	0
28	Capability of low-temperature SQUID for transient electromagnetics under anthropogenic noise conditions. Geophysics, 2018, 83, E371-E383.	2.6	9
29	Advanced HTS DC SQUIDs with Step-Edge Josephson Junctions for Geophysical Applications. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	7
30	Cryogenic Current Comparators for Larger Beamlines. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	4
31	Core-shell diode array for high performance particle detectors and imaging sensors: status of the development. Journal of Instrumentation, 2017, 12, C02044-C02044.	1.2	1
32	Chemicalâ€“Mechanically Planarized Cross-Type Josephson Junctions in Nb-Al-AlOx-Nb Technology. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.7	1
33	A new family of field-stable and highly sensitive SQUID current sensors based on sub-micrometer cross-type Josephson junctions. Superconductor Science and Technology, 2017, 30, 074010.	3.5	11
34	Application of Hilbertâ€like transforms for enhanced processing of full tensor magnetic gradient data. Geophysical Prospecting, 2017, 65, 68-81.	1.9	9
35	Absolute calibration of a three-axis SQUID-cascade vector magnetometer. Measurement Science and Technology, 2017, 28, 015107.	2.6	3
36	Examples of superconducting technology application: Sensing and interfacing. Low Temperature Physics, 2017, 43, 785-788.	0.6	3

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37	3D nanoSQUID based on tunnel nano-junctions with an energy sensitivity of 1.3 <i>h</i> at 4.2â€‰K. Applied Physics Letters, 2017, 111, .	3.3	15
38	Nearly quantum limited nanoSQUIDs based on cross-type Nb/AlO<i>_x</i>/Nb junctions. Superconductor Science and Technology, 2017, 30, 014001.	3.5	15
39	Superconducting Quantum Interference Device (SQUID) Magnetometers. Smart Sensors, Measurement and Instrumentation, 2017, , 279-311.	0.6	3
40	An Optically Pumped Magnetometer Working in the Light-Shift Dispersed Mz Mode. Sensors, 2017, 17, 561.	3.8	41
41	Characterization of an On-Chip Magnetic Shielding Technique for Improving SFQ Circuit Performance. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	3
42	Suppression of spin-exchange relaxation in tilted magnetic fields within the geophysical range. Physical Review A, 2016, 94, .	2.5	21
43	Thin-Film-Based Ultralow Noise SQUID Magnetometer. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	28
44	Testing Biorthogonal Wavelets on Magnetocardiogram Processing Algorithms. Advances in Intelligent Systems and Computing, 2016, , 741-752.	0.6	2
45	SQUID Systems for Geophysical Time Domain Electromagnetics (TEM) at IPHT Jena. IEICE Transactions on Electronics, 2015, E98.C, 167-173.	0.6	22
46	A three-axis SQUID-based absolute vector magnetometer. Review of Scientific Instruments, 2015, 86, 105002.	1.3	13
47	Preliminary segmentation of fetal magnetocardiograms for a wireless diagnosis system. , 2015, , .		1
48	Experimental Analysis of the Bias Dependent Sensitivity of a Josephson Comparator. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	2
49	Investigation of all niobium nano-SQUIDs based on sub-micrometer cross-type Josephson junctions. Superconductor Science and Technology, 2015, 28, 015004.	3.5	25
50	First evidence of detecting surface nuclear magnetic resonance signals using a compact Bâ€field sensor. Geophysical Research Letters, 2014, 41, 4222-4229.	4.0	21
51	Superconductor digital electronics technology for sensor interfacing at the FLUXONICS Foundry. , 2014, , .		0
52	Inversion of Geo-Magnetic SQUID Gradiometer Prospection Data Using Polyhedral Model Interpretation of Elongated Anomalies. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	10
53	Calibration of SQUID vector magnetometers in full tensor gradiometry systems. Geophysical Journal International, 2014, 198, 954-964.	2.4	94
54	Analysis of a dc SQUID readout scheme with voltage feedback circuit and low-noise preamplifier. Superconductor Science and Technology, 2014, 27, 085011.	3.5	6

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55	Single-electron transitions in one-dimensional native nanostructures. Journal of Physics: Conference Series, 2014, 568, 052024.	0.4	5
56	Inversion of geo-magnetic full-tensor gradiometer data. Journal of Applied Geophysics, 2013, 92, 57-67.	2.1	19
57	Noise characterization of highly sensitive SQUID magnetometer systems in unshielded environments. Superconductor Science and Technology, 2013, 26, 035017.	3.5	28
58	Removal of step-edges and corresponding Gibbs ringing in SQUID-based geomagnetic data. Measurement Science and Technology, 2013, 24, 125004.	2.6	6
59	Influence of external magnetic fields on the inductive properties of rapid single-flux-quantum digital circuits. , 2013, , .		1
60	SQUID-based setup for the absolute measurement of the Earthâ€™s magnetic field. Superconductor Science and Technology, 2013, 26, 035013.	3.5	22
61	SQIF-based dc SQUID amplifier with intrinsic negative feedback. Superconductor Science and Technology, 2012, 25, 015005.	3.5	5
62	Orthogonal sequencing multiplexer for superconducting nanowire single-photon detectors with RSFQ electronics readout circuit. Optics Express, 2012, 20, 28683.	3.4	25
63	Compression of magnetocardiograms using the Discrete Wavelet Transform. , 2012, , .		2
64	Planar SQUID magnetometer integrated with bootstrap circuitry under different bias modes. Superconductor Science and Technology, 2012, 25, 125007.	3.5	13
65	Femtoammeter on the base of SQUID with thin-film flux transformer. Superconductor Science and Technology, 2012, 25, 095014.	3.5	19
66	A full optically operated magnetometer array: An experimental study. Review of Scientific Instruments, 2012, 83, 113106.	1.3	12
67	Sub-fT/Hz1/2 resolution and field-stable SQUID magnetometer based on low parasitic capacitance sub-micrometer cross-type Josephson tunnel junctions. Physica C: Superconductivity and Its Applications, 2012, 482, 27-32.	1.2	19
68	Bi-SQUIDs with submicron cross-type Josephson tunnel junctions. Superconductor Science and Technology, 2012, 25, 045001.	3.5	16
69	Optimization of a digital SQUID magnetometer in terms of noise and distortion. Superconductor Science and Technology, 2012, 25, 065012.	3.5	9
70	Highly sensitive miniature SQUID magnetometer fabricated with cross-type Josephson tunnel junctions. Physica C: Superconductivity and Its Applications, 2012, 476, 77-80.	1.2	15
71	Performance of Fourier versus Wavelet analysis for magnetocardiograms using a SQUID-acquisition system. , 2011, , .		5
72	Low temperature SQUID magnetometer systems for geophysical exploration with transient electromagnetics. Superconductor Science and Technology, 2011, 24, 125006.	3.5	25

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73	Comparison of RSFQ Logic Cells With and Without Phase Shifting Elements by Means of BER Measurements. IEEE Transactions on Applied Superconductivity, 2011, 21, 814-817.	1.7	11
74	Microfabricated atomic vapor cell arrays for magnetic field measurements. Review of Scientific Instruments, 2011, 82, 033111.	1.3	38
75	Linearity of a Digital SQUID Magnetometer. IEEE Transactions on Applied Superconductivity, 2011, 21, 705-708.	1.7	8
76	A wavelet based baseline drift correction method for fetal magnetocardiograms. , 2011, , .		3
77	SQUIDs based on submicrometer-sized Josephson tunnel junctions fabricated in a cross-type technology. Superconductor Science and Technology, 2011, 24, 015005.	3.5	16
78	Field-stable SQUID magnetometer with sub-fT Hz^{âˆ’ 1/2}resolution based on sub-micrometer cross-type Josephson tunnel junctions. Superconductor Science and Technology, 2011, 24, 065009.	3.5	52
79	European roadmap on superconductive electronics â€“ status and perspectives. Physica C: Superconductivity and Its Applications, 2010, 470, 2079-2126.	1.2	131
80	Experimentally verified design guidelines for minimizing the gray zone width of Josephson comparators. Superconductor Science and Technology, 2010, 23, 055005.	3.5	19
81	Detection of buried magnetic objects by a SQUID gradiometer system. , 2009, , .		2
82	Hot-electron effect in PdAu thin-film resistors with attached cooling fins. Superconductor Science and Technology, 2009, 22, 114007.	3.5	2
83	Sub-micrometer-sized, cross-type Nbâ€“AlOxâ€“Nb tunnel junctions with low parasitic capacitance. Superconductor Science and Technology, 2009, 22, 064012.	3.5	46
84	Quantum Detection Meets Archaeology â€“ Magnetic Prospection with SQUIDs, Highly Sensitive and Fast. Natural Science in Archaeology, 2009, , 71-85.	1.7	8
85	Detection of Buried Magnetic Objects by a SQUID Gradiometer System. , 2009, , .		0
86	Rapid and sensitive magnetometer surveys of large areas using SQUIDs â€“ the measurement system and its application to the Niederzimmern Neolithic doubleâ€ring ditch exploration. Archaeological Prospection, 2008, 15, 113-131.	2.2	16
87	Experimental study of a hybrid single flux quantum digital superconducting quantum interference device magnetometer. Journal of Applied Physics, 2008, 104, 024509.	2.5	18
88	Magnetization controlled effects in overlap Josephson junctions coupled with submicron magnetic dots. Journal of Physics: Conference Series, 2008, 97, 012233.	0.4	1
89	A LTS-SQUID System for Archaeological Prospection and Its Practical Test in Peru. IEEE Transactions on Applied Superconductivity, 2007, 17, 750-755.	1.7	24
90	Fetal magnetocardiography in an unshielded environment. International Congress Series, 2007, 1300, 757-760.	0.2	1

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91	A superconducting quantum interference device system for geomagnetic archaeometry. Archaeological Prospection, 2007, 14, 226-229.	2.2	9
92	Liquid Nitrogen cooled SQUID magnetometer for TEM. , 2007, , .		0
93	Ultra-low-drift and very fast dc SQUID readout electronics. Journal of Physics: Conference Series, 2006, 43, 1270-1273.	0.4	8
94	Properties of Josephson junctions in the inhomogeneous magnetic field of a system of ferromagnetic particles. Journal of Magnetism and Magnetic Materials, 2006, 300, 202-205.	2.3	4
95	High slew rate, ultrastable direct-coupled readout for dc superconducting quantum interference devices. Applied Physics Letters, 2006, 89, 063502.	3.3	15
96	Commensurability effects in overlap Josephson junctions coupled with a magnetic dots array. Physical Review B, 2006, 73, .	3.2	9
97	Magnetic full-tensor SQUID gradiometer system for geophysical applications. The Leading Edge, 2006, 25, 178-180.	0.7	91
98	SQUID technology for geophysical exploration. , 2006, , .		11
99	SQUID technology for geophysical exploration. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 1504-1509.	0.8	24
100	On-Chip Integrated SQUID Readout for Superconducting Bolometers. IEEE Transactions on Applied Superconductivity, 2005, 15, 537-540.	1.7	7
101	SQUID-Gradiometers for Arrays of Integrated Low Temperature Magnetic Micro-Calorimeters. IEEE Transactions on Applied Superconductivity, 2005, 15, 773-776.	1.7	8
102	Instrumentation for Simultaneous Detection of Low Field NMR and Biomagnetic Signals. IEEE Transactions on Applied Superconductivity, 2005, 15, 676-679.	1.7	24
103	Properties of Josephson junctions in the inhomogeneous magnetic field of a system of ferromagnetic particles. JETP Letters, 2004, 80, 651-654.	1.4	12
104	Magnetic full tensor SQUID gradiometer system for geophysical applications. , 2004, , .		4
105	Simultaneous seismic and magnetic measurements in the Low-Noise Underground Laboratory (LSBB) of Rustrel, France, during the 2001 January 26 Indian earthquake. Geophysical Journal International, 2003, 155, 981-990.	2.4	46
106	Integrated AQUID-gradiometer system for magneto-cardiography without magnetic shielding. IEEE Transactions on Applied Superconductivity, 2003, 13, 356-359.	1.7	12
107	Archaeometric prospection with high-T/sub c/ SQUID gradiometers. IEEE Transactions on Applied Superconductivity, 2003, 13, 767-770.	1.7	16
108	Integrated gradiometer-SQUID system for fetal magneto-cardiography without magnetic shielding. Superconductor Science and Technology, 2003, 16, 1523-1527.	3.5	13

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109	SQUID gradiometer for ultra-low temperature magnetic micro-calorimeter. Superconductor Science and Technology, 2003, 16, 1404-1407.	3.5	11
110	Low-drift broadband directly coupled dc SQUID read-out electronics. Physica C: Superconductivity and Its Applications, 2002, 368, 166-170.	1.2	31
111	An HTS dc SQUID system in competition with induction coils for TEM applications. Physica C: Superconductivity and Its Applications, 2001, 354, 45-48.	1.2	19
112	HTS dc SQUID systems for geophysical prospection. IEEE Transactions on Applied Superconductivity, 2001, 11, 896-899.	1.7	11
113	SQUID gradiometers for archaeometry. Superconductor Science and Technology, 2001, 14, 1111-1114.	3.5	25
114	Radio-frequency based monitoring of small supercurrents. Review of Scientific Instruments, 2001, 72, 1882.	1.3	45
115	Long baseline thin film SQUID gradiometers. IEEE Transactions on Applied Superconductivity, 2001, 11, 1257-1260.	1.7	17
116	Peculiarities of rf SQUID response in finite magnetic fields. Physica C: Superconductivity and Its Applications, 2000, 330, 155-159.	1.2	5
117	LTS SQUID sensor with a new configuration. Superconductor Science and Technology, 1999, 12, 806-808.	3.5	58
118	An HTS dc SQUID system for geomagnetic prospection. Superconductor Science and Technology, 1999, 12, 1036-1038.	3.5	20
119	YBa2Cu3O7-deltadc SQUID array for multichannel magnetometry and multichannel flip-chip current sensors. Superconductor Science and Technology, 1999, 12, 597-600.	3.5	4
120	Low-noise Y-Ba-Cu-O flip-chip dc SQUID magnetometers. IEEE Transactions on Applied Superconductivity, 1999, 9, 3392-3395.	1.7	8
121	Key components for the fabrication of flip-chip SQUID magnetometers and current sensors. Superconductor Science and Technology, 1998, 11, 887-890.	3.5	9
122	Integrated SQUID gradiometers for measurement in disturbed environments. IEEE Transactions on Applied Superconductivity, 1997, 7, 3473-3476.	1.7	14
123	Integrated LTS gradiometer SQUIDs for measurements of magnetic field distributions in an unshielded environment. European Physical Journal D, 1996, 46, 2769-2770.	0.4	0
124	Integrated LTS gradiometer SQUID systems for unshielded measurements in a disturbed environment. Superconductor Science and Technology, 1996, 9, A112-A115.	3.5	13
125	High Tc SQUIDs for Unshielded Measuring in Disturbed Environments. European Physical Journal Special Topics, 1996, 06, C3-367-C3-372.	0.2	8
126	Integrated LTS gradiometer SQUID systems for measuring of magnetic field distributions in an unshielded environment. IEEE Transactions on Applied Superconductivity, 1995, 5, 2493-2496.	1.7	3

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127	Investigation of 3D magnetisation of a dolerite intrusion using airborne full tensor magnetic gradiometry (FTMG) data. Geophysical Journal International, 0, , .	2.4	6
128	Superconducting sensors and methods in geophysical applications. Superconductor Science and Technology, 0, , .	3.5	22