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	European roadmap on superconductive electronics â€“ status and perspectives. Physica C: Superconductivity and Its Applications, 2010, 470, 2079-2126.	1.2	131
2	Calibration of SQUID vector magnetometers in full tensor gradiometry systems. Geophysical Journal International, 2014, 198, 954-964.	2.4	94
3	Magnetic full-tensor SQUID gradiometer system for geophysical applications. The Leading Edge, 2006, 25, 178-180.	0.7	91
4	LTS SQUID sensor with a new configuration. Superconductor Science and Technology, 1999, 12, 806-808.	3.5	58
5	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
6	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
7	Sub-micrometer-sized, cross-type Nbâ€“AlOxâ€“Nb tunnel junctions with low parasitic capacitance. Superconductor Science and Technology, 2009, 22, 064012.	3.5	46
8	Radio-frequency based monitoring of small supercurrents. Review of Scientific Instruments, 2001, 72, 1882.	1.3	45
9	An Optically Pumped Magnetometer Working in the Light-Shift Dispersed Mz Mode. Sensors, 2017, 17, 561.	3.8	41
10	Microfabricated atomic vapor cell arrays for magnetic field measurements. Review of Scientific Instruments, 2011, 82, 033111.	1.3	38
11	Low-drift broadband directly coupled dc SQUID read-out electronics. Physica C: Superconductivity and Its Applications, 2002, 368, 166-170.	1.2	31
12	Noise characterization of highly sensitive SQUID magnetometer systems in unshielded environments. Superconductor Science and Technology, 2013, 26, 035017.	3.5	28
13	Thin-Film-Based Ultralow Noise SQUID Magnetometer. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	28
14	SQUID gradiometers for archaeometry. Superconductor Science and Technology, 2001, 14, 1111-1114.	3.5	25
15	Low temperature SQUID magnetometer systems for geophysical exploration with transient electromagnetics. Superconductor Science and Technology, 2011, 24, 125006.	3.5	25
16	Orthogonal sequencing multiplexer for superconducting nanowire single-photon detectors with RSFQ electronics readout circuit. Optics Express, 2012, 20, 28683.	3.4	25
17	Investigation of all niobium nano-SQUIDs based on sub-micrometer cross-type Josephson junctions. Superconductor Science and Technology, 2015, 28, 015004.	3.5	25
18	SQUID technology for geophysical exploration. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 1504-1509.	0.8	24

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19	Instrumentation for Simultaneous Detection of Low Field NMR and Biomagnetic Signals. IEEE Transactions on Applied Superconductivity, 2005, 15, 676-679.	1.7	24
20	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
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	DESMEX: A novel system development for semi-airborne electromagnetic exploration. Geophysics, 2020, 85, E253-E267.	2.6	23
23	SQUID-based setup for the absolute measurement of the Earthâ€™s magnetic field. Superconductor Science and Technology, 2013, 26, 035013.	3.5	22
24	SQUID Systems for Geophysical Time Domain Electromagnetics (TEM) at IPHT Jena. IEICE Transactions on Electronics, 2015, E98.C, 167-173.	0.6	22
25	Superconducting sensors and methods in geophysical applications. Superconductor Science and Technology, 0, , .	3.5	22
26	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
27	Suppression of spin-exchange relaxation in tilted magnetic fields within the geophysical range. Physical Review A, 2016, 94, .	2.5	21
28	An HTS dc SQUID system for geomagnetic prospection. Superconductor Science and Technology, 1999, 12, 1036-1038.	3.5	20
29	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
30	Experimentally verified design guidelines for minimizing the gray zone width of Josephson comparators. Superconductor Science and Technology, 2010, 23, 055005.	3.5	19
31	Femtoammeter on the base of SQUID with thin-film flux transformer. Superconductor Science and Technology, 2012, 25, 095014.	3.5	19
32	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
33	Inversion of geo-magnetic full-tensor gradiometer data. Journal of Applied Geophysics, 2013, 92, 57-67.	2.1	19
34	Experimental study of a hybrid single flux quantum digital superconducting quantum interference device magnetometer. Journal of Applied Physics, 2008, 104, 024509.	2.5	18
35	Integrated Optically Pumped Magnetometer for Measurements within Earthâ€™s Magnetic Field. Physical Review Applied, 2022, 17, .	3.8	18
36	Long baseline thin film SQUID gradiometers. IEEE Transactions on Applied Superconductivity, 2001, 11, 1257-1260.	1.7	17

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37	Archaeometric prospection with high-T/sub c/ SQUID gradiometers. IEEE Transactions on Applied Superconductivity, 2003, 13, 767-770.	1.7	16
38	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
39	SQUIDs based on submicrometer-sized Josephson tunnel junctions fabricated in a cross-type technology. Superconductor Science and Technology, 2011, 24, 015005.	3.5	16
40	Bi-SQUIDs with submicron cross-type Josephson tunnel junctions. Superconductor Science and Technology, 2012, 25, 045001.	3.5	16
41	High slew rate, ultrastable direct-coupled readout for dc superconducting quantum interference devices. Applied Physics Letters, 2006, 89, 063502.	3.3	15
42	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
43	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
44	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
45	Integrated SQUID gradiometers for measurement in disturbed environments. IEEE Transactions on Applied Superconductivity, 1997, 7, 3473-3476.	1.7	14
46	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
47	Integrated LTS gradiometer SQUID systems for unshielded measurements in a disturbed environment. Superconductor Science and Technology, 1996, 9, A112-A115.	3.5	13
48	Integrated gradiometer-SQUID system for fetal magneto-cardiography without magnetic shielding. Superconductor Science and Technology, 2003, 16, 1523-1527.	3.5	13
49	Planar SQUID magnetometer integrated with bootstrap circuitry under different bias modes. Superconductor Science and Technology, 2012, 25, 125007.	3.5	13
50	A three-axis SQUID-based absolute vector magnetometer. Review of Scientific Instruments, 2015, 86, 105002.	1.3	13
51	Integrated AQUID-gradiometer system for magneto-cardiography without magnetic shielding. IEEE Transactions on Applied Superconductivity, 2003, 13, 356-359.	1.7	12
52	Properties of Josephson junctions in the inhomogeneous magnetic field of a system of ferromagnetic particles. JETP Letters, 2004, 80, 651-654.	1.4	12
53	A full optically operated magnetometer array: An experimental study. Review of Scientific Instruments, 2012, 83, 113106.	1.3	12
54	Nanowire single-photon detectors made of atomic layer-deposited niobium nitride. Superconductor Science and Technology, 2019, 32, 125007.	3.5	12

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55	HTS dc SQUID systems for geophysical prospection. IEEE Transactions on Applied Superconductivity, 2001, 11, 896-899.	1.7	11
56	SQUID gradiometer for ultra-low temperature magnetic micro-calorimeter. Superconductor Science and Technology, 2003, 16, 1404-1407.	3.5	11
57	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
58	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
59	Performance analysis of an optically pumped magnetometer in Earthâ€™s magnetic field. EPJ Quantum Technology, 2019, 6, .	6.3	11
60	Underwater operation of a full tensor SQUID gradiometer system. Superconductor Science and Technology, 2019, 32, 024003.	3.5	11
61	Long baseline LTS SQUID gradiometers with sub-<i>Î¼</i>m sized Josephson junctions. Superconductor Science and Technology, 2020, 33, 055002.	3.5	11
62	SQUID technology for geophysical exploration. , 2006, , .		11
63	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
64	SQUID amplifiers for axion search experiments. Cryogenics, 2018, 91, 125-127.	1.7	10
65	Key components for the fabrication of flip-chip SQUID magnetometers and current sensors. Superconductor Science and Technology, 1998, 11, 887-890.	3.5	9
66	Commensurability effects in overlap Josephson junctions coupled with a magnetic dots array. Physical Review B, 2006, 73, .	3.2	9
67	A superconducting quantum interference device system for geomagnetic archaeometry. Archaeological Prospection, 2007, 14, 226-229.	2.2	9
68	Optimization of a digital SQUID magnetometer in terms of noise and distortion. Superconductor Science and Technology, 2012, 25, 065012.	3.5	9
69	Application of Hilbertâ€like transforms for enhanced processing of full tensor magnetic gradient data. Geophysical Prospecting, 2017, 65, 68-81.	1.9	9
70	Capability of low-temperature SQUID for transient electromagnetics under anthropogenic noise conditions. Geophysics, 2018, 83, E371-E383.	2.6	9
71	Low-noise Y-Ba-Cu-O flip-chip dc SQUID magnetometers. IEEE Transactions on Applied Superconductivity, 1999, 9, 3392-3395.	1.7	8
72	SQUID-Gradiometers for Arrays of Integrated Low Temperature Magnetic Micro-Calorimeters. IEEE Transactions on Applied Superconductivity, 2005, 15, 773-776.	1.7	8

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73	Ultra-low-drift and very fast dc SQUID readout electronics. Journal of Physics: Conference Series, 2006, 43, 1270-1273.	0.4	8
74	Linearity of a Digital SQUID Magnetometer. IEEE Transactions on Applied Superconductivity, 2011, 21, 705-708.	1.7	8
75	Quantum Detection Meets Archaeology â€“ Magnetic Prospection with SQUIDs, Highly Sensitive and Fast. Natural Science in Archaeology, 2009, , 71-85.	1.7	8
76	High Tc SQUIDs for Unshielded Measuring in Disturbed Environments. European Physical Journal Special Topics, 1996, 06, C3-367-C3-372.	0.2	8
77	OPM magnetorelaxometry in the presence of a DC bias field. EPJ Quantum Technology, 2020, 7, .	6.3	8
78	On-Chip Integrated SQUID Readout for Superconducting Bolometers. IEEE Transactions on Applied Superconductivity, 2005, 15, 537-540.	1.7	7
79	Advanced HTS DC SQUIDs with Step-Edge Josephson Junctions for Geophysical Applications. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	7
80	Removal of step-edges and corresponding Gibbs ringing in SQUID-based geomagnetic data. Measurement Science and Technology, 2013, 24, 125004.	2.6	6
81	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
82	Investigation of 3D magnetisation of a dolerite intrusion using airborne full tensor magnetic gradiometry (FTMG) data. Geophysical Journal International, 0, , .	2.4	6
83	Peculiarities of rf SQUID response in finite magnetic fields. Physica C: Superconductivity and Its Applications, 2000, 330, 155-159.	1.2	5
84	Performance of Fourier versus Wavelet analysis for magnetocardiograms using a SQUID-acquisition system. , 2011, , .		5
85	SQIF-based dc SQUID amplifier with intrinsic negative feedback. Superconductor Science and Technology, 2012, 25, 015005.	3.5	5
86	Single-electron transitions in one-dimensional native nanostructures. Journal of Physics: Conference Series, 2014, 568, 052024.	0.4	5
87	YBa2Cu3O7-deltadc SQUID array for multichannel magnetometry and multichannel flip-chip current sensors. Superconductor Science and Technology, 1999, 12, 597-600.	3.5	4
88	Magnetic full tensor SQUID gradiometer system for geophysical applications. , 2004, , .		4
89	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
90	Cryogenic Current Comparators for Larger Beamlines. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	4

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91	Commercial operation of a SQUID-based airborne magnetic gradiometer. The Leading Edge, 2022, 41, 486-492.	0.7	4
92	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
93	A wavelet based baseline drift correction method for fetal magnetocardiograms. , 2011, , .		3
94	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
95	Absolute calibration of a three-axis SQUID-cascade vector magnetometer. Measurement Science and Technology, 2017, 28, 015107.	2.6	3
96	Examples of superconducting technology application: Sensing and interfacing. Low Temperature Physics, 2017, 43, 785-788.	0.6	3
97	Superconducting Quantum Interference Device (SQUID) Magnetometers. Smart Sensors, Measurement and Instrumentation, 2017, , 279-311.	0.6	3
98	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
99	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
100	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
101	Magnetic background field-tolerant SQIF-based current sensors. Superconductor Science and Technology, 2021, 34, 045015.	3.5	3
102	Status and future perspectives of airborne magnetic gradiometry. , 2021, , .		3
103	Detection of buried magnetic objects by a SQUID gradiometer system. , 2009, , .		2
104	Hot-electron effect in PdAu thin-film resistors with attached cooling fins. Superconductor Science and Technology, 2009, 22, 114007.	3.5	2
105	Compression of magnetocardiograms using the Discrete Wavelet Transform. , 2012, , .		2
106	Experimental Analysis of the Bias Dependent Sensitivity of a Josephson Comparator. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	2
107	Flux trapping in multi-loop SQUIDs and its impact on SQUID-based absolute magnetometry. Superconductor Science and Technology, 2018, 31, 035001.	3.5	2
108	Study of Microwave Resonances Induced by Bias Lines of Shunted Josephson Junctions. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.7	2

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109	Three component SQUID-based system for airborne natural field electromagnetics. , 2021, , .		2
110	Testing Biorthogonal Wavelets on Magnetocardiogram Processing Algorithms. Advances in Intelligent Systems and Computing, 2016, , 741-752.	0.6	2
111	Fetal magnetocardiography in an unshielded environment. International Congress Series, 2007, 1300, 757-760.	0.2	1
112	Magnetization controlled effects in overlap Josephson junctions coupled with submicron magnetic dots. Journal of Physics: Conference Series, 2008, 97, 012233.	0.4	1
113	Influence of external magnetic fields on the inductive properties of rapid single-flux-quantum digital circuits. , 2013, , .		1
114	Preliminary segmentation of fetal magnetocardiograms for a wireless diagnosis system. , 2015, , .		1
115	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
116	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
117	Development of SQUID Amplifiers for Axion Search Experiments. , 2019, , .		1
118	The Dual-Cryogenic Current Comperator (DCCC) as a new Prototype CCC for Beamline Monitoring. , 2020, , .		1
119	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
120	Superconductor digital electronics technology for sensor interfacing at the FLUXONICS Foundry. , 2014, , .		0
121	Wavelet Shrinkage of Magnetocardiograms Using the Median Absolute Deviation. , 2018, , .		0
122	Performance Optimization of a Three-Dimensional NanoSQUID Based on Niobium Tunnel Nanojunctions. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	0
123	Application driven optimization of Cryogenic Current Comparators (CCC) for beam storage rings. IEEE Transactions on Applied Superconductivity, 2021, , 1-1.	1.7	0
124	Liquid Nitrogen cooled SQUID magnetometer for TEM. , 2007, , .		0
125	Detection of Buried Magnetic Objects by a SQUID Gradiometer System. , 2009, , .		0
126	Transmission based characterisation of superconducting metamaterial. AIP Conference Proceedings, 2021, , .	0.4	0

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127	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
128	Spectral Component Analysis of Magnetically Unshielded Magnetocardiograms. , 2020, , .		0