Matthias Schmelz

List of Publications by Year
in descending order

38	571	567281 15	677142 22
papers	citations	h-index	g-index

39	39	39	577
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Sub-micrometer-sized, cross-type Nbâ€“AlOxâ€“Nb tunnel junctions with low parasitic capacitance. Superconductor Science and Technology, 2009, 22, 064012.	3.5	46
3	Detection of Weak Microwave Fields with an Underdamped Josephson Junction. Physical Review Applied, 2017, 7, .	3.8	44
4	Noise characterization of highly sensitive SQUID magnetometer systems in unshielded environments. Superconductor Science and Technology, 2013, 26, 035017.	3.5	28
5	Thin-Film-Based Ultralow Noise SQUID Magnetometer. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	28
6	Structural and electrical properties of ultrathin niobium nitride films grown by atomic layer deposition. Superconductor Science and Technology, 2017, 30, 035010.	3.5	27
7	Low temperature SQUID magnetometer systems for geophysical exploration with transient electromagnetics. Superconductor Science and Technology, 2011, 24, 125006.	3.5	25
8	Investigation of all niobium nano-SQUIDs based on sub-micrometer cross-type Josephson junctions. Superconductor Science and Technology, 2015, 28, 015004.	3.5	25
9	SQUID-based setup for the absolute measurement of the Earthâ€™s magnetic field. Superconductor Science and Technology, 2013, 26, 035013.	3.5	22
10	SQUID Systems for Geophysical Time Domain Electromagnetics (TEM) at IPHT Jena. IEICE Transactions on Electronics, 2015, E98.C, 167-173.	0.6	22
11	Superconducting sensors and methods in geophysical applications. Superconductor Science and Technology, 0, , .	3.5	22
12	Femtoammeter on the base of SQUID with thin-film flux transformer. Superconductor Science and Technology, 2012, 25, 095014.	3.5	19
13	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
14	SQUIDs based on submicrometer-sized Josephson tunnel junctions fabricated in a cross-type technology. Superconductor Science and Technology, 2011, 24, 015005.	3.5	16
15	Bi-SQUIDs with submicron cross-type Josephson tunnel junctions. Superconductor Science and Technology, 2012, 25, 045001.	3.5	16
16	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
17	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
18	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

#	Article	IF	Citations
19	Planar SQUID magnetometer integrated with bootstrap circuitry under different bias modes. Superconductor Science and Technology, 2012, 25, 125007.	3.5	13
20	A three-axis SQUID-based absolute vector magnetometer. Review of Scientific Instruments, 2015, 86, 105002.	1.3	13
21	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
22	Underwater operation of a full tensor SQUID gradiometer system. Superconductor Science and Technology, 2019, 32, 024003.	3.5	11
23	Long baseline LTS SQUID gradiometers with sub-<i>Î¼</i>m sized Josephson junctions. Superconductor Science and Technology, 2020, 33, 055002.	3.5	11
24	SQUID amplifiers for axion search experiments. Cryogenics, 2018, 91, 125-127.	1.7	10
25	Removal of step-edges and corresponding Gibbs ringing in SQUID-based geomagnetic data. Measurement Science and Technology, 2013, 24, 125004.	2.6	6
26	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
27	SQIF-based dc SQUID amplifier with intrinsic negative feedback. Superconductor Science and Technology, 2012, 25, 015005.	3.5	5
28	Single-electron transitions in one-dimensional native nanostructures. Journal of Physics: Conference Series, 2014, 568, 052024.	0.4	5
29	Cryogenic Current Comparators for Larger Beamlines. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	4
30	Absolute calibration of a three-axis SQUID-cascade vector magnetometer. Measurement Science and Technology, 2017, 28, 015107.	2.6	3
31	Superconducting Quantum Interference Device (SQUID) Magnetometers. Smart Sensors, Measurement and Instrumentation, 2017, , 279-311.	0.6	3
32	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
33	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
34	Magnetic background field-tolerant SQIF-based current sensors. Superconductor Science and Technology, 2021, 34, 045015.	3.5	3
35	Flux trapping in multi-loop SQUIDs and its impact on SQUID-based absolute magnetometry. Superconductor Science and Technology, 2018, 31, 035001.	3.5	2
36	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

#	Article	IF	Citations
37	Development of SQUID Amplifiers for Axion Search Experiments. , 2019, , .		1
38	Performance Optimization of a Three-Dimensional NanoSQUID Based on Niobium Tunnel Nanojunctions. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	0