

Beena Kalisky

List of Publications by Year in descending order

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73
papers

2,430
citations

394421

19
h-index

197818

49
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75
all docs

75
docs citations

75
times ranked

2983
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct imaging of the coexistence of ferromagnetism and superconductivity at the LaAlO ₃ /SrTiO ₃ interface. Nature Physics, 2011, 7, 767-771.	16.7	765
2	Imaging currents in HgTe quantum wells in the quantum spin Hall regime. Nature Materials, 2013, 12, 787-791.	27.5	230
3	Critical thickness for ferromagnetism in LaAlO ₃ /SrTiO ₃ heterostructures. Nature Communications, 2012, 3, 922.	12.8	186
4	Locally enhanced conductivity due to the tetragonal domain structure in LaAlO ₃ /SrTiO ₃ heterointerfaces. Nature Materials, 2013, 12, 1091-1095.	27.5	172
5	Gate-tuned superfluid density at the superconducting LaAlO ₃ /SrTiO ₃ interface. Physical Review B, 2012, 86, .	3.2	94
6	Local measurement of the penetration depth in the pnictide superconductor BaFe ₂ As ₂ . Physical Review B, 2010, 81, .	3.2	82
7		3.2	71
8	Imaging and tuning polarity at SrTiO ₃ domain walls. Nature Materials, 2017, 16, 1203-1208.	27.5	68
9	Stripes of increased diamagnetic susceptibility in underdoped superconducting BaFe ₂ As ₂ . Physical Review B, 2010, 81, .	3.2	65
10	Strain-tunable magnetism at oxide domain walls. Nature Physics, 2019, 15, 269-274.	16.7	65
11	Mechanical Control of Individual Superconducting Vortices. Nano Letters, 2016, 16, 1626-1630.	9.1	56
12	Scanning SQUID susceptometry of a paramagnetic superconductor. Physical Review B, 2012, 85, .	3.2	46
13	Scanning Probe Manipulation of Magnetism at the LaAlO ₃ /SrTiO ₃ Heterointerface. Nano Letters, 2012, 12, 4055-4059.	9.1	43
14	Anisotropic Transport at the LaAlO ₃ /SrTiO ₃ Interface Explained by Microscopic Imaging of Channel-Flow over SrTiO ₃ Domains. ACS Applied Materials & Interfaces, 2016, 8, 12514-12519.	8.0	42
15	Electron Mobility in LaAlO ₃ /SrTiO ₃ Interface. Physical Review Applied, 2018, 9, .	3.8	33
16	Dynamics of single vortices in grain boundaries: I-V characteristics on the femtovolt scale. Applied Physics Letters, 2009, 94, .	3.3	25
17	Annealing of transient vortex states near the order-disorder phase transition in Bi ₂ Sr ₂ CaCu ₂ O ₈ +δ. Physical Review B, 2003, 68, .	3.2	21
18	Dynamics of transient disordered vortex states in Bi ₂ Sr ₂ CaCu ₂ O ₈ +δ. Physical Review B, 2003, 68, .	3.2	20

#	ARTICLE	IF	CITATIONS
19	Defect-Free Carbon Nanotube Coils. Nano Letters, 2016, 16, 2152-2158.	9.1	20
20	Nonequilibrium order-disorder vortex transitions in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8+\delta$. Physical Review B, 2003, 67, .	3.2	19
21	Meissner response of a bulk superconductor with an embedded sheet of reduced penetration depth. Physical Review B, 2010, 81, .	3.2	17
22	Studying Quantum Materials with Scanning SQUID Microscopy. Annual Review of Condensed Matter Physics, 2022, 13, 385-405.	14.5	17
23	Magneto-optical imaging of transient vortex states in superconductors. Journal of Applied Physics, 2001, 89, 7481-7483.	2.5	16
24	Optical Study of Tetragonal Domains in $\text{LaAlO}_3/\text{SrTiO}_3$. Journal of Superconductivity and Novel Magnetism, 2015, 28, 1017-1020.	1.8	16
25	Flux-Flow Resistivity Anisotropy in the Instability Regime of the a-b Plane of Epitaxial Superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films. Physical Review Letters, 2006, 97, 067003.	7.8	15
26	Imaging quantum fluctuations near criticality. Nature Physics, 2018, 14, 1205-1210.	16.7	14
27	Scanning SQUID microscopy in a cryogen-free cooler. Review of Scientific Instruments, 2019, 90, 053702.	1.3	14
28	Estimation of the critical current of BSCCO coils based on the field dependent $I\text{-}V$ curves of BSCCO tapes. Physica C: Superconductivity and Its Applications, 2004, 401, 222-226.	1.2	12
29	Dynamic Order-to-Metastable-Disorder Vortex Matter Transition in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8+\delta$. Physical Review Letters, 2007, 98, 107001.	7.8	12
30	Scanning SQUID View of Oxide Interfaces. Advanced Materials, 2018, 30, e1706653.	21.0	12
31	Unveiling unconventional magnetism at the surface of Sr_2RuO_4 . Nature Communications, 2021, 12, 5792.	12.8	11
32	Direct measurement of internal magnetic fields in natural sands using scanning SQUID microscopy. Journal of Magnetic Resonance, 2014, 242, 10-17.	2.1	10
33	Ferroelectric Exchange Bias Affects Interfacial Electronic States. Advanced Materials, 2020, 32, e2000216.	21.0	10
34	Quasi-two-dimensional electron gas at the oxide interfaces for topological quantum physics. Europhysics Letters, 2021, 133, 17001.	2.0	10
35	Local view of superconducting fluctuations. Applied Physics Letters, 2018, 112, .	3.3	9
36	Sensitive Readout for Microfluidic High-Throughput Applications using Scanning SQUID Microscopy. Scientific Reports, 2020, 10, 1573.	3.3	9

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37	Non-universal current flow near the metal-insulator transition in an oxide interface. Nature Communications, 2021, 12, 3311.	12.8	9
38	Time evolution of the second magnetization peak in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Journal of Applied Physics, 2003, 93, 8659-8661.	2.5	8
39	Spatiotemporal Vortex Matter Oscillations in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ Crystals. Physical Review Letters, 2007, 98, 017001.	7.8	8
40	Large-scale modulation in the superconducting properties of thin films due to domains in the SrTiO ₃ substrate. Physical Review B, 2017, 95, .	3.2	8
41	Agreement between local and global measurements of the London penetration depth. Physica C: Superconductivity and Its Applications, 2012, 483, 91-93.	1.2	7
42	I-V Curves of BSCCO Tape Carrying DC Current Exposed to Perpendicular and Parallel AC Fields. IEEE Transactions on Applied Superconductivity, 2005, 15, 2891-2894.	1.7	6
43	Revealing the vortex order-disorder phase transition in small Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ crystals. Physical Review B, 2005, 72, .	3.2	6
44	I-V curves of YBaCuO microbridges in the flux flow regime. Physica C: Superconductivity and Its Applications, 2004, 401, 273-276.	1.2	5
45	Anomalous transport in high-mobility superconducting SrTiO ₃ thin films. Science Advances, 2022, 8, .	10.3	5
46	Oscillatory magnetic relaxation in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Physica C: Superconductivity and Its Applications, 2008, 468, 280-283.	1.2	4
47	dc SQUID Design with Femtotesla Sensitivity for Quantum-Ready Readouts. Physical Review Applied, 2020, 14, .	3.8	4
48	Dynamics of the second magnetization peak in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Physica C: Superconductivity and Its Applications, 2003, 388-389, 731-732.	1.2	3
49	Time dependent electric field and E-I curves in Bi-2223 tapes carrying DC currents and exposed to perpendicular AC magnetic fields. Journal of Physics: Conference Series, 2006, 43, 572-575.	0.4	3
50	Magnetic relaxation near the order-disorder vortex phase transition in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ : Effects of annealing of transient vortex states. Physical Review B, 2006, 73, .	3.2	3
51	Current-induced nonuniform enhancement of sheet resistance in Ar ⁺ -irradiated SrTiO ₃ . Physical Review B, 2017, 95, .	3.2	3
52	Nanopatterning of oxide 2-dimensional electron systems using low-temperature ion milling. Nanotechnology, 2022, 33, 085301.	2.6	3
53	Coexisting ordered and disordered vortex phases in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Physica C: Superconductivity and Its Applications, 2003, 388-389, 737-738.	1.2	2
54	Magneto-optical investigation of supercooled disordered vortex states in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Physica C: Superconductivity and Its Applications, 2003, 388-389, 695-696.	1.2	2

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55	Effects of sample size on the second magnetization peak in Bi ₂ Sr ₂ CaCuO ₈ + δ at low temperatures. Pramana - Journal of Physics, 2006, 66, 141-147.	1.8	2
56	Accelerated magnetic relaxation of transient disordered vortex states in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Physica C: Superconductivity and Its Applications, 2004, 408-410, 384-385.	1.2	1
57	Vortex order \leftrightarrow disorder transition in relaxation and field-sweep measurements. Physica C: Superconductivity and Its Applications, 2004, 408-410, 382-383.	1.2	1
58	Crossover of pinning mechanism in La _{1.85} Sr _{0.15} CuO ₄ crystals. Journal of Applied Physics, 2005, 97, 10B109.	2.5	1
59	Oscillating flux instability in vortex matter. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1247-1248.	1.2	1
60	Vortex configuration in the presence of local magnetic field and locally applied stress. Physica C: Superconductivity and Its Applications, 2017, 533, 114-117.	1.2	1
61	Improving the sensitivity of scanning probe microscopy with mechanical vibrations. Applied Physics Letters, 2018, 113, 173101.	3.3	1
62	Magnetism and Conductivity Along Structural Domain Walls of SrTiO ₃ . Journal of Superconductivity and Novel Magnetism, 2020, 33, 195-197.	1.8	1
63	Current Mapping of Amorphous LaAlO ₃ /SrTiO ₃ near the Metal \leftrightarrow Insulator Transition. ACS Applied Electronic Materials, 2022, 4, 3421-3427.	4.3	1
64	Effects of sample size on magnetic properties of Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Journal of Applied Physics, 2005, 97, 10B304.	2.5	0
65	"Flux Waves"™ in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . AIP Conference Proceedings, 2006, , .	0.4	0
66	Distributed injection of transient vortex states in a prism-shaped Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ crystal. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1210-1212.	1.2	0
67	Publisher's Note: Meissner response of a bulk superconductor with an embedded sheet of reduced penetration depth [Phys. Rev. B, 184514 (2010)]. Physical Review B, 2010, 81, .	3.2	0
68	The response of an individual vortex to local mechanical contact. Novel Superconducting Materials, 2016, 2, .	0.8	0
69	Scanning SQUID Study of Vortex Manipulation by Local Contact. Journal of Visualized Experiments, 2017, , .	0.3	0
70	Scanning SQUID measurements of oxide interfaces. , 2018, , 225-242.		0
71	Magneto-Optical Investigation of the Vortex Order-Disorder Phase Transition in BSCCO. , 2004, , 111-118.		0
72	Magneto-Optical Measurements of the Lifetime Spectrum of Transient Vortex States in BSCCO. , 2004, , 87-94.		0

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73	Visualizing Current in Superconducting Networks. Physical Review Applied, 2022, 17, .	3.8	0