Valeriy Shklovskiy

List of Publications by Year
in descending order

68	924	430874 18	477307 29
papers	citations	h-index	g-index

69	69	69	502
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnonâ€“fluxon interaction in a ferromagnet/superconductor heterostructure. Nature Physics, 2019, 15, 477-482.	16.7	83
2	Pinning and dynamics of magnetic flux in YBaCuO single crystals for vortex motion along twin boundaries. Low Temperature Physics, 1997, 23, 962-967.	0.6	49
3	Microwave emission from superconducting vortices in Mo/Si superlattices. Nature Communications, 2018, 9, 4927.	12.8	46
4	Resistivity investigations of plastic vortex creep inYBa2Cu3O6.95crystals. Physical Review B, 1998, 58, 2445-2447.	3.2	40
5	ac-driven vortices and the Hall effect in a superconductor with a tilted washboard pinning potential. Physical Review B, 2008, 78, .	3.2	40
6	Electrical transport and pinning properties of Nb thin films patterned with focused ion beam-milled washboard nanostructures. New Journal of Physics, 2012, 14, 113027.	2.9	39
7	Mobile fluxons as coherent probes of periodic pinning in superconductors. Scientific Reports, 2017, 7, 13740.	3.3	39
8	Frequency-dependent ratchet effect in superconducting films with a tilted washboard pinning potential. Physical Review B, 2011, 84, .	3.2	36
9	Guiding of vortices under competing isotropic and anisotropic pinning conditions: Theory and experiment. Physical Review B, 2007, 76, .	3.2	35
10	Alternating current-driven microwave loss modulation in a fluxonic metamaterial. Applied Physics Letters, 2015, 107, .	3.3	35
11	Anisotropic magnetoresistive response in thin Nb films decorated by an array of Co stripes. Superconductor Science and Technology, 2010, 23, 125014.	3.5	33
12	Local flux-flow instability in superconducting films near <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>T</mml:mi><mml:mi>c</mml:mi></mml:msub></mml:ma Physical Review B, 2019, 99, .	3.2	33
13	Influence of pointlike disorder on the guiding of vortices and the Hall effect in a washboard planar pinning potential. Physical Review B, 2006, 74, .	3.2	30
14	Radiofrequency generation by coherently moving fluxons. Applied Physics Letters, 2018, 112, .	3.3	28
15	Vortex lattice matching effects in a washboard pinning potential induced by Co nanostripe arrays. Physica C: Superconductivity and Its Applications, 2011, 471, 449-452.	1.2	27
16	Vortex ratchet reversal in an asymmetric washboard pinning potential subject to combined dc and ac stimuli. Journal of Physics Condensed Matter, 2014, 26, 025703.	1.8	27
17	Hot electrons in metals at low temperatures. Journal of Low Temperature Physics, 1980, 41, 375-396.	1.4	22
18	Pinning effects on flux flow instability in epitaxial Nb thin films. Superconductor Science and Technology, 2017, 30, 085002.	3.5	19

#	Article	IF	Citations
19	Pinning effects on self-heating and flux-flow instability in superconducting films near <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>T</mml:mi><mml:mi>c</mml:mi></mml:msub></mml:ma Physical Review B, 2017, 95, .	3.2	19
20	Guiding of vortices and ratchet effect in superconducting films with asymmetric pinning potential. Physical Review B, 2009, 80, .	3.2	18
21	Reduction of Microwave Loss by Mobile Fluxons in Grooved Nb Films. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800223.	2.4	16
22	Guiding of vortices and the Hall conductivity scaling in a bianisotropic planar pinning potential. Physical Review B, 2002, 65, .	3.2	15
23	Thermal domains in inhomogeneous current-carrying superconductors. Current-voltage characteristics and dynamics of domain formation after current jumps. Journal of Low Temperature Physics, 1984, 57, 227-247.	1.4	14
24	Fabrication of Artificial Washboard Pinning Structures in Thin Niobium Films. Journal of Superconductivity and Novel Magnetism, 2011, 24, 375-380.	1.8	14
25	Role of magnons and the size effect in heat transport through an insulating ferromagnet/insulator interface. Physical Review B, 2018, 98, .	3.2	11
26	Temperature dependence of the magnon-phonon energy relaxation time in a ferromagnetic insulator. Physical Review B, 2019, 100, .	3.2	10
27	Interplay of flux guiding and Hall effect in Nb films with nanogrooves. Superconductor Science and Technology, 2016, 29, 065009.	3.5	9
28	Nonlinear relaxation between magnons and phonons in insulating ferromagnets. Physical Review B, 2018, 98, .	3.2	9
29	Anisotropic pinning and the mixed-state galvanothermomagnetic properties of superconductorsâ€”a phenomenological approach. Low Temperature Physics, 1997, 23, 853-856.	0.6	8
30	Kinetics of electron cooling in metal films at low temperatures and revision of the two-temperature model. Journal of Physics Condensed Matter, 2018, 30, 295001.	1.8	8
31	Brownian motion of particles in 1D arbitrary periodic potentials near a phase transition point. Journal of Physics A, 1994, 27, 5043-5051.	1.6	7
32	Dynamics of electron temperature and the relaxation times of electronâ€“phonon system of a metal film. Low Temperature Physics, 2013, 39, 357-364.	0.6	7
33	The role of conduction electrons in the formation of thermal boundary resistance of the metal-dielectric interface and resistivity of metal films, at low temperatures (Review Article). Low Temperature Physics, 2016, 42, 636-660.	0.6	7
34	Pinning effects on hot-electron vortex flow instability in superconducting films. Physica C: Superconductivity and Its Applications, 2017, 538, 20-26.	1.2	7
35	Nonlinear mixed-state longitudinal and transverse resistivities of superconductors with anisotropic pinningâ€”a phenomenological approach. Low Temperature Physics, 1999, 25, 109-114.	0.6	6
36	The Hall effect and microwave absorption by vortices in an anisotropic superconductor with a periodic pinning potential. Low Temperature Physics, 2010, 36, 71-80.	0.6	6

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37	Energy relaxation times in metal films from the response of electrical conductivity to periodic heating. Physical Review B, 2014, 89, .	3.2	6
38	Nonlinear resonance study of the periodic motion of the explosive crystallization front in glasses. Physical Review B, 1996, 53, 3095-3106.	3.2	5
39	Title is missing!. Journal of Low Temperature Physics, 2003, 131, 899-905.	1.4	5
40	Guided vortex motion in Nb films on facetted substrate surfaces. Physica C: Superconductivity and Its Applications, 2003, 388-389, 773-774.	1.2	5
41	New Hall Resistivity Scaling Relations in the Presence of Competition between Point-like and Anisotropic Planar Pinning Potential. Journal of Low Temperature Physics, 2005, 139, 289-297.	1.4	5
42	Zero-Bias Shapiro Steps in Asymmetric Pinning Nanolandscapes. Journal of Superconductivity and Novel Magnetism, 2017, 30, 735-741.	1.8	5
43	Spin Seebeck effect and phonon energy transfer in heterostructures containing layers of a normal metal and a ferromagnetic insulator. Physical Review B, 2019, 99, .	3.2	5
44	Mixed state odd Hall effect in YBa2Cu3O7?? with unidirectional twins. Journal of Low Temperature Physics, 1996, 105, 963-968.	1.4	4
45	Anisotropy of the critical current and the guided motion of vortices in a stochastic model of bianisotropic pinning. I. Theoretical model. Low Temperature Physics, 2002, 28, 254-259.	0.6	4
46	Title is missing!. Journal of Low Temperature Physics, 2003, 130, 407-414.	1.4	4
47	Determination of coordinate dependence of a pinning potential from a microwave experiment with vortices. Low Temperature Physics, 2013, 39, 120-124.	0.6	4
48	Experimental observation of a new galvanomagnetic effect in YBaCuO single crystals with unidirected twins. Superconductor Science and Technology, 1998, 11, 1133-1136.	3.5	3
49	New Hall voltages in a planar pinning potential. Physica C: Superconductivity and Its Applications, 2003, 388-389, 655-656.	1.2	3
50	Guiding of Vortices and New Voltages in Ratchet Washboard Pinning Potential. AIP Conference Proceedings, 2006, , .	0.4	2
51	Guided vortex motion and ratchet effect in an anisotropic superconductor with a periodic pinning potential. Low Temperature Physics, 2014, 40, 1048-1057.	0.6	2
52	Anisotropy of the critical current and the guided motion of vortices in a stochastic model of bianisotropic pinning. II. Observed effects. Low Temperature Physics, 2002, 28, 312.	0.6	1
53	Odd resistive response in superconductors with bianisotropic pinning. Low Temperature Physics, 2003, 29, 16-29.	0.6	1
54	Influence of point-like disorder on the guiding of vortices in a rotating current scheme. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1253-1254.	1.2	1

#	Article	IF	Citations
55	Nonlinear two-dimensional frequency- and temperature-dependent vortex dynamics in a tilted washboard pinning potential. Journal of Physics: Conference Series, 2009, 150, 052241.	0.4	1
56	Nonlinear two-dimensional temperature-dependent impedance and the ac power absorption by vortices in a tilted washboard pinning potential. Journal of Physics: Conference Series, 2009, 150, 052240.	0.4	1
57	Current-controlled Filter on Superconducting Films with a Tilted Washboard Pinning Potential. Physics Procedia, 2012, 36, 9-12.	1.2	1
58	Noise-Assisted Microwave Up-conversion by Vortices in Thin-Film Superconductors with a dc-Biased Washboard Pinning Potential. Journal of Superconductivity and Novel Magnetism, 2013, 26, 2079-2083.	1.8	1
59	Material composition â€“ Pinning strength correlation in Nb thin films with focused ion beam-milled washboard nanostructures. Physica C: Superconductivity and Its Applications, 2013, 494, 102-105.	1.2	1
60	Stochastic resonance of vortices in a washboard pinning potential. Physica C: Superconductivity and Its Applications, 2014, 503, 128-131.	1.2	1
61	Hot electrons in metal films at low temperatures (Review). Low Temperature Physics, 2018, 44, 165-183.	0.6	1
62	Temperature dependence and anisotropy due to twin planes of the critical current inab-plane. European Physical Journal D, 1996, 46, 1771-1772.	0.4	0
63	Influence of point-like disorder on the guiding of vortices in anisotropic superconductors. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1257-1258.	1.2	0
64	Nonadiabatic ratchet effect in superconducting films with a tilted cosine pinning potential. Journal of Physics: Conference Series, 2012, 400, 022108.	0.4	0
65	DC to AC converter on Abrikosov vortices in a washboard pinning potential. Journal of Physics: Conference Series, 2014, 507, 012007.	0.4	0
66	High-frequency large-amplitude oscillations of a non-isothermal N/S boundary. Low Temperature Physics, 2016, 42, 905-915.	0.6	0
67	Magnon-phonon interactions in spin insulators. Low Temperature Physics, 2021, 47, 621-645.	0.6	0
68	Heat transport in insulator/ferromagnetic-insulator/insulator heterogeneous nanostructures at low temperatures. Physical Review B, 2021, 103, .	3.2	0