Yuri Galperin

List of Publications by Year in Descending Order

132 papers	2,555 citations	26 h-index	45 g-index
145 ext. papers	2,816 ext. citations	3.8 avg, IF	4.92 L-index

#	Paper	IF	Citations
132	Effect of the strong electron correlations on the formation of Wigner crystal in n-GaAs/AlGaAs structure: Surface Acoustic Waves studies. *Journal of Physics: Conference Series*, **2022**, 2164, 012021	0.3	
131	Concise guide for electronic topological transitions. *Low Temperature Physics*, **2021**, 47, 672-683	0.7	1
130	Temperature dependence of the microwave dielectric properties of [Formula: see text]-aminobutyric acid. *Scientific Reports*, **2021**, 11, 18082	4.9	
129	Electromagnetic radiation detectors based on Josephson junctions: Effective Hamiltonian. *Physical Review B*, **2020**, 101,	3.3	8
128	Coulomb Drag in Mesoscopic Hopping Insulators. *Journal of Low Temperature Physics*, **2020**, 198, 209-223	1.3	1
127	Proposed Model of the Giant Thermal Hall Effect in Two-Dimensional Superconductors: An Extension to the Superconducting Fluctuation Regime. *Physical Review Letters*, **2020**, 125, 217005	7.4	1
126	Crossover temperature in electron–phonon heat exchange in layered nanostructures. *Physica Scripta*, **2019**, 94, 105704	2.6	2
125	Anisotropic Flux Penetration in Superconducting Nb Films With Frozen-in In-plane Magnetic Fields. *IEEE Transactions on Applied Superconductivity*, **2019**, 29, 1-5	1.8	3
124	Low-Temperature Magnetic Properties of Superconducting Indium Nanocomposites in Opal Matrix. *Journal of Experimental and Theoretical Physics*, **2019**, 128, 761-766	1	0
123	Nucleation and propagation of thermomagnetic avalanches in thin-film superconductors (Review Article). *Low Temperature Physics*, **2018**, 44, 460-476	0.7	16
122	Entropy Signatures of Topological Phase Transitions. *Journal of Experimental and Theoretical Physics*, **2018**, 127, 958-983	1	4
121	Active control of thermomagnetic avalanches in superconducting Nb films with tunable anisotropy. *Superconductor Science and Technology*, **2018**, 31, 115009	3.1	3
120	Nature of localized states in two-dimensional electron systems in the quantum Hall regime: Acoustic studies. *Low Temperature Physics*, **2017**, 43, 86-94	0.7	0
119	Thermally Driven Inhibition of Superconducting Vortex Avalanches. *Physical Review Applied*, **2017**, 8,	4.3	14
118	Influence of measurement error on Maxwell's demon. *Physical Review E*, **2017**, 95, 062129	2.4	2
117	Electron Concentration Profiles in Modulation Doped Structures With Wide Quantum Well. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2017**, 14, 1700190		3
116	Energy fluctuations of a finite free-electron Fermi gas. *Physical Review E*, **2016**, 94, 022123	2.4	6

115	Quantization of entropy in a quasi-two-dimensional electron gas. *Physical Review B*, **2016**, 93,	3.3	12
114	Cooling by heating: Restoration of the third law of thermodynamics. *Physical Review E*, **2016**, 93, 032102	2.4	4
113	Oscillatory regimes of the thermomagnetic instability in superconducting films. *Physical Review B*, **2016**, 93,	3.3	16
112	Finite-Size Bath in Qubit Thermodynamics. *Journal of Low Temperature Physics*, **2016**, 184, 1015-1029	1.3	16
111	Universality of AC conductance in human hair. *Biomedical Physics and Engineering Express*, **2016**, 2, 027002	2.5	5
110	Metal frame as local protection of superconducting films from thermomagnetic avalanches. *AIP Advances*, **2016**, 6, 035304	1.5	8
109	Melting of Wigner crystal in high-mobility n-GaAs/AlGaAs heterostructures at filling factors 0.18>∃0.125: Acoustic studies. *Physical Review B*, **2016**, 94,	3.3	5
108	Conductance through chains of Ge/Si quantum dots: Crossover from one-dimensional to quasi-one-dimensional hopping. *JETP Letters*, **2015**, 101, 22-26	1.2	3
107	Ray optics behavior of flux avalanche propagation in superconducting films. *Physical Review B*, **2015** , 91,	3.3	20
106	Crossover between localized states and pinned Wigner crystal in high-mobility n-GaAs/AlGaAs heterostructures near filling factor ∃1. *Physical Review B*, **2015**, 92,	3.3	4
105	Dephasing and dissipation in qubit thermodynamics. *Physical Review E*, **2015**, 91, 062109	2.4	9
104	1/f noise: Implications for solid-state quantum information. *Reviews of Modern Physics*, **2014**, 86, 361-418	40.5	279
103	Inductive braking of thermomagnetic avalanches in superconducting films. *Superconductor Science and Technology*, **2014**, 27, 055014	3.1	11
102	Universal scaling form of AC response in variable range hopping **2014**,		1
101	Contactless measurement of alternating current conductance in quantum Hall structures. *Journal of Applied Physics*, **2014**, 116, 154309	2.5	6
100	Conducting properties of In2O3:Sn thin films at low temperatures. *Applied Physics A: Materials Science and Processing*, **2014**, 114, 957-964	2.6	14
99	Universal behavior of magnetoresistance in quantum dot arrays with different degrees of disorder. *Journal of Physics Condensed Matter*, **2013**, 25, 505801	1.8	2
98	The Thermomagnetic Instability in Superconducting Films with Adjacent Metal Layer. *Journal of Low Temperature Physics*, **2013**, 173, 303-326	1.3	10

97	Exact asymptotic behavior of magnetic stripe domain arrays. *Physical Review B*, **2013**, 87,	3.3	16
96	Nonlocal electrodynamics of normal and superconducting films. *New Journal of Physics*, **2013**, 15, 093001	2.9	33
95	The diversity of flux avalanche patterns in superconducting films. *Superconductor Science and Technology*, **2013**, 26, 055012	3.1	13
94	Nanosecond voltage pulses from dendritic flux avalanches in superconducting NbN films. *Applied Physics Letters*, **2013**, 102, 022601	3.4	17
93	Information flow and optimal protocol for a Maxwell-demon single-electron pump. *Physical Review E*, **2013**, 88, 062139	2.4	15
92	Thermo-magnetic stability of superconducting films controlled by nano-morphology. *Applied Physics Letters*, **2013**, 102, 252601	3.4	8
91	Lightning in superconductors. *Scientific Reports*, **2012**, 2, 886	4.9	37
90	Bloch-sphere approach to correlated noise in coupled qubits. *Journal of Physics A: Mathematical and Theoretical*, **2012**, 45, 455302	2	5
89	Quasi-One-Dimensional Intermittent Flux Behavior in Superconducting Films. *Physical Review X*, **2012**, 2,	9.1	7
88	Decoherence of a qubit due to either a quantum fluctuator, or classical telegraph noise. *Physical Review B*, **2012**, 86,	3.3	34
87	Coulomb glasses: A comparison between mean field and Monte Carlo results. *Physical Review B*, **2012**, 85,	3.3	8
86	Logarithmic relaxation and stress aging in the electron glass. *Physical Review B*, **2012**, 85,	3.3	8
85	Importance of level statistics in the decoherence of a central spin due to a spin environment. *Physical Review A*, **2012**, 85,	2.6	8
84	Flux avalanches triggered by microwave depinning of magnetic vortices in Pb superconducting films. *Physical Review B*, **2011**, 84,	3.3	17
83	Intermittent Flux Penetration at Different Temperatures in YBa2Cu3O7⊠ on NdGaO3 Substrates. *Journal of Superconductivity and Novel Magnetism*, **2011**, 24, 179-181	1.5	2
82	Dynamics and morphology of dendritic flux avalanches in superconducting films. *Physical Review B*, **2011**, 84,	3.3	49
81	Effects of external driving on the coherence time of a Josephson junction qubit in a bath of two-level fluctuators. *Physical Review B*, **2011**, 84,	3.3	7
80	Slow relaxation of magnetoresistance in AlGaAs-GaAs quantum well structures quenched in a magnetic field. *Journal of Physics Condensed Matter*, **2010**, 22, 405301	1.8	3

79	Charge transport through weakly open one-dimensional quantum wires. *Physical Review B*, **2009**, 79,	3.3	5
78	Nonequilibrium electrons in tunnel structures under high-voltage injection. *Physical Review B*, **2009**, 80,	3.3	7
77	Decoherence in qubits due to low-frequency noise. *New Journal of Physics*, **2009**, 11, 025002	2.9	101
76	Wigner glass formation in 2DHG of p-Si/SiGe by high magnetic fields. *Journal of Physics: Conference Series*, **2009**, 150, 022010	0.3	1
75	Dendritic flux avalanches in superconducting films. *Low Temperature Physics*, **2009**, 35, 619-626	0.7	14
74	Magnetotransport in low-density p□i□SiGe heterostructures: From metal through hopping insulator to Wigner glass. *Physical Review B*, **2008**, 77,	3.3	5
73	The Coulomb gap and low energy statistics for Coulomb glasses. *Journal of Statistical Mechanics: Theory and Experiment*, **2008**, 2008, P06006	1.9	10
72	Slow relaxation of conductance of amorphous hopping insulators. *Journal of Physics Condensed Matter*, **2008**, 20, 244135	1.8	8
71	Anomalous electron transport in doped uncompensated p-GaAs/AlGaAs quantum wells: evidence of virtual Anderson transition. *Journal of Physics Condensed Matter*, **2008**, 20, 395216	1.8	2
70	Flux distribution in superconducting films with holes. *Physical Review B*, **2008**, 77,	3.3	26
69	Memory effects in transport through a hopping insulator: Understanding two-dip experiments. *Physical Review B*, **2008**, 78,	3.3	13
68	Nonlinearly driven Landau-Zener transition in a qubit with telegraph noise. *Physical Review B*, **2008**, 77,	3.3	12
67	Many electron theory of 1/f -noise in hopping conductivity. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 800-808		6
66	Low-temperature conductance mechanisms in p-Si/SiGe heterostructures in high magnetic fields. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 829-834		
65	Direct generation of charge carriers in c-Si solar cells due to embedded nanoparticles. *Journal of Applied Physics*, **2007**, 102, 093713	2.5	84
64	Non-Gaussian dephasing in flux qubits due to 1□noise. *Physical Review B*, **2007**, 76,	3.3	22
63	Flux penetration in a superconducting strip with an edge indentation. *Physical Review B*, **2007**, 76,	3.3	16
62	Interaction of two-level systems in amorphous materials with arbitrary phonon fields. *Physical Review B*, **2007**, 75,	3.3	19

61	Point-contact spectroscopy of hopping transport: Effects of a magnetic field. *Physical Review B*, **2007**, 75,	3.3	1
60	Dramatic role of critical current anisotropy on flux avalanches in MgB2 films. *Physical Review Letters* , **2007**, 98, 117001	7.4	49
59	Interaction of Lamb modes with two-level systems in amorphous nanoscopic membranes. *Physical Review B*, **2007**, 76,	3.3	12
58	Statistics of deep energy states in Coulomb glasses. *Physical Review Letters*, **2007**, 98, 196401	7.4	14
57	Interaction between superconducting vortices and a Bloch wall in ferrite garnet films. *Physical Review Letters*, **2007**, 98, 117002	7.4	14
56	Calculation of the heat capacity of a thin membrane at very low temperature. *Physical Review B*, **2007**, 75,	3.3	5
55	The tensor of interaction of a two-level system with an arbitrary strain field. *Journal of Physics: Conference Series*, **2007**, 92, 012133	0.3	4
54	Nanomechanical Shuttle Transfer of Electrons. *Journal of Computational and Theoretical Nanoscience*, **2007**, 4, 860-895	0.3	24
53	Charge transfer between a superconductor and a hopping insulator. *Physical Review Letters*, **2006**, 96, 107004	7.4	4
52	Dendritic and uniform flux jumps in superconducting films. *Physical Review B*, **2006**, 73,	3.3	107
51	Decoherence of a qubit by non-Gaussian noise at an arbitrary working point. *Physical Review B*, **2006**, 74,	3.3	40
50	Non-Gaussian low-frequency noise as a source of qubit decoherence. *Physical Review Letters*, **2006**, 96, 097009	7.4	118
49	Onset of dendritic flux avalanches in superconducting films. *Physical Review Letters*, **2006**, 97, 077002	7.4	96
48	Loss of quantum coherence due to nonstationary glass fluctuations. *Physical Review B*, **2006**, 73,	3.3	8
47	Many electron theory of 1/f noise in hopping conductivity. *Physical Review B*, **2006**, 74,	3.3	38
46	Spontaneous current generation in gated nanostructures. *Europhysics Letters*, **2005**, 71, 658-664	1.6	3
45	Phonon-electric effect in nano-scale transistors. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2005**, 2, 3047-3050		
44	Rabi oscillations of a qubit coupled to a two-level system. *Europhysics Letters*, **2005**, 71, 21-27	1.6	21

43	Fluctuations of the Fermi condensate in ideal gases. *Journal of Physics A*, **2005**, 38, 9405-9413		4
42	Size of flux jumps in superconducting films. *Physical Review B*, **2005**, 72,	3.3	36
41	Orbital ac spin-Hall effect in the hopping regime. *Physical Review Letters*, **2005**, 95, 086603	7.4	22
40	Models of environment and T1 relaxation in Josephson charge qubits. *Physical Review Letters*, **2005**, 95, 046805	7.4	49
39	Low-frequency noise in tunneling through a single spin. *Physical Review B*, **2004**, 70,	3.3	10
38	Heat transport in ultrathin dielectric membranes and bridges. *Physical Review B*, **2004**, 70,	3.3	34
37	Finger patterns produced by thermomagnetic instability in superconductors. *Physical Review B*, **2004**, 70,	3.3	71
36	Dephasing rate in metals versus diffusion constant. *Physical Review B*, **2004**, 69,	3.3	6
35	Magneto-Optical Imaging of Superconducting Vortices **2004**, 53-60		1
34	Low-Frequency Noise as a Source of Dephasing of a Qubit. *NATO Science Series Series II, Mathematics, Physics and Chemistry*, **2004**, 141-165		9
33	DX-centers and long-term effects in the high-frequency hopping conductance in Si-doped GaAs/Al0.3Ga0.7As heterostructures in the quantum Hall regime: acoustical studies. *Physica E: Low-Dimensional Systems and Nanostructures*, **2003**, 17, 276-279	3	1
32	Possible weak temperature dependence of electron dephasing **2003**, 259-268		
31	Superconducting trapped-field magnets: Temperature and field distributions during pulsed-field activation. *Journal of Applied Physics*, **2002**, 92, 6235-6240	2.5	40
30	Scaling and exact solutions for the flux creep problem in a slab superconductor. *Physical Review B*, **2002**, 65,	3.3	13
29	Mechanical Cooper pair transportation as a source of long-distance superconducting phase coherence. *Physical Review Letters*, **2002**, 89, 277002	7.4	15
28	Possible weak temperature dependence of electron dephasing. *Physical Review B*, **2002**, 66,	3.3	13
27	Magnetic-field effects in energy relaxation mediated by Kondo impurities in mesoscopic wires. *Physical Review B*, **2002**, 66,	3.3	22
26	Theory of thermoelectric phenomena in superconductors. *Physical Review B*, **2002**, 65,	3.3	20

25	Relaxation of transport current distribution in a YBaCuO strip studied by magneto-optical imaging. *Superconductor Science and Technology*, **2002**, 15, 82-89	3.1	48
24	Coherent transfer of Cooper pairs by a movable grain. *Nature*, **2001**, 411, 454-7	50.4	48
23	Nonlinear absorption of surface acoustic waves by composite fermions. *Nanotechnology*, **2001**, 12, 610-613	3.4	
22	Dendritic flux patterns in MgB2films. *Superconductor Science and Technology*, **2001**, 14, 726-728	3.1	76
21	Nonlinear absorption of surface acoustic waves by composite fermions. *Europhysics Letters*, **2001**, 54, 661-667	1.6	2
20	Kondo temperature for the two-channel Kondo models of tunneling centers. *Physical Review Letters*, **2001**, 86, 2629-32	7.4	45
19	Impurity-induced dephasing of Andreev states. *Physical Review B*, **2001**, 63,	3.3	5
18	Experimental tests for the relevance of two-level systems for electron dephasing. *Physical Review B* , **2001**, 63,	3.3	19
17	Symmetry of the remanent-state flux distribution in superconducting thin strips: Probing the critical state. *Physical Review B*, **2001**, 63,	3.3	4
16	Quantized acoustoelectric current in a finite-length ballistic quantum channel: The noise spectrum. *Physical Review B*, **2001**, 63,	3.3	22
15	Acoustoelectric current for composite fermions. *Physical Review B*, **2001**, 64,	3.3	3
14	Giant Nonlinear Absorption by an Ensemble of Metallic Grains. *Foundations of Physics*, **2000**, 30, 2135-2150	1.2	3
13	Microwave-Activated Quantum Interferometer in an Environment. *Journal of Low Temperature Physics*, **2000**, 118, 579-588	1.3	1
12	Temperature dependence of filament-coupling in Bi-2223 tapes: magneto-optical study. *Superconductor Science and Technology*, **2000**, 13, 183-186	3.1	17
11	Nonlinear acoustic and microwave absorption in disordered semiconductors. *Physical Review B*, **2000**, 62, 16624-16631	3.3	3
10	Thin superconducting disk with field-dependent critical current: Magnetization and ac susceptibilities. *Physical Review B*, **2000**, 61, 9699-9706	3.3	56
9	Magnetic behavior of thin Superconducting disks with a field-Dependent Critical Current **2000**, 416-418		
8	Granularity and the central peak in magnetization loops of thin Superconductors **2000**, 332-334		

7	Central Peak Position in Magnetization Loops of High- Tc Superconductors. *Physical Review Letters*, **1999**, 82, 2947-2950	7.4	42
6	Phonon generation by current-carrying nanostructures. *Physical Review B*, **1999**, 59, 2833-2840	3.3	4
5	Thin superconducting disk with B-dependent Jc: Flux and current distributions. *Physical Review B*, **1999**, 60, 13112-13118	3.3	47
4	Magneto-optical study of magnetic-flux penetration into a current-carrying high-temperature-superconductor strip. *Physical Review B*, **1999**, 59, 9655-9664	3.3	40
3	Spatially resolved studies of chemical composition, critical temperature, and critical current density of a YBa2Cu3O7□thin film. *Journal of Applied Physics*, **1998**, 84, 5089-5096	2.5	6
2	Acoustoconductance in a nonuniform quantum channel. *Physical Review B*, **1997**, 56, 15299-15305	3.3	9
1	Giant oscillations of the acoustoelectric current in a quantum channel. *Physica Scripta*, **1997**, T69, 302-305	2.6	2