

Jelena Klinovaja

List of Publications by Year in descending order

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123
papers

6,436
citations

53794

45
h-index

69250

77
g-index

123
all docs

123
docs citations

123
times ranked

3087
citing authors

#	ARTICLE	IF	CITATIONS
1	Topological Superconductivity and Majorana Fermions in RKKY Systems. Physical Review Letters, 2013, 111, 186805.	7.8	416
2	Towards a realistic transport modeling in a superconducting nanowire with Majorana fermions. Physical Review B, 2013, 87, .	3.2	301
3	Probing atomic structure and Majorana wavefunctions in mono-atomic Fe chains on superconducting Pb surface. Npj Quantum Information, 2016, 2, .	6.7	283
4	From Andreev to Majorana bound states in hybrid superconductor-semiconductor nanowires. Nature Reviews Physics, 2020, 2, 575-594.	26.6	251
5	Spin-selective Peierls transition in interacting one-dimensional conductors with spin-orbit interaction. Physical Review B, 2010, 82, .	3.2	186
6	Composite Majorana fermion wave functions in nanowires. Physical Review B, 2012, 86, .	3.2	176
7	Majorana Kramers Pairs in Higher-Order Topological Insulators. Physical Review Letters, 2018, 121, 196801.	7.8	162
8	Time-reversal invariant parafermions in interacting Rashba nanowires. Physical Review B, 2014, 90, .	3.2	150
9	Transition from Fractional to Majorana Fermions in Rashba Nanowires. Physical Review Letters, 2012, 109, 236801.	7.8	147
10	Spintronics in MoS ₂ monolayer quantum wires. Physical Review B, 2013, 88, .	3.2	135
11	Second-Order Topological Superconductivity in $\text{p} \text{-} \text{Junction Rashba Layers}$. Physical Review Letters, 2019, 122, 126402.	7.8	124
12	Zero-energy Andreev bound states from quantum dots in proximitized Rashba nanowires. Physical Review B, 2018, 98, .	3.2	114
13	Kramers pairs of Majorana fermions and parafermions in fractional topological insulators. Physical Review B, 2014, 90, .	3.2	111
14	Magnonic topological insulators in antiferromagnets. Physical Review B, 2017, 96, .	3.2	101
15	Majorana bound states in magnetic skyrmions. Physical Review B, 2016, 93, .	3.2	99
16	Topological Floquet Phases in Driven Coupled Rashba Nanowires. Physical Review Letters, 2016, 116, 176401.	7.8	98
17	Topological Magnons and Edge States in Antiferromagnetic Skyrmion Crystals. Physical Review Letters, 2019, 122, 187203.	7.8	97
18	Parafermions in an Interacting Nanowire Bundle. Physical Review Letters, 2014, 112, 246403.	7.8	95

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19	Electric-field-induced Majorana Fermions in Armchair Carbon Nanotubes. Physical Review Letters, 2012, 108, 196804.	7.8	93
20	Carbon nanotubes in electric and magnetic fields. Physical Review B, 2011, 84, .	3.2	86
21	Giant Spin-Orbit Interaction Due to Rotating Magnetic Fields in Graphene Nanoribbons. Physical Review X, 2013, 3, .	8.9	81
22	Universal quantum computation with hybrid spin-Majorana qubits. Physical Review B, 2016, 94, .	3.2	81
23	Floquet Majorana fermions and parafermions in driven Rashba nanowires. Physical Review B, 2017, 95, .	3.2	81
24	RKKY interaction in carbon nanotubes and graphene nanoribbons. Physical Review B, 2013, 87, .	3.2	80
25	Fermionic and Majorana bound states in hybrid nanowires with non-uniform spin-orbit interaction. European Physical Journal B, 2015, 88, 1.	1.5	76
26	Correlations between Majorana Fermions Through a Superconductor. Physical Review Letters, 2013, 111, 056802.	7.8	74
27	Metallization of a Rashba wire by a superconducting layer in the strong-proximity regime. Physical Review B, 2018, 97, .	3.2	71
28	Magnonic quantum Hall effect and Wiedemann-Franz law. Physical Review B, 2017, 95, .	3.2	70
29	Helical Modes in Carbon Nanotubes Generated by Strong Electric Fields. Physical Review Letters, 2011, 106, 156809.	7.8	69
30	Proximity-Induced $\tilde{\Gamma}$ Josephson Junctions in Topological Insulators and Kramers Pairs of Majorana Fermions. Physical Review Letters, 2015, 115, 237001.	7.8	68
31	Quantum spin Hall effect in strip of stripes model. Physical Review B, 2014, 90, .	3.2	63
32	Majorana fermions in Ge/Si hole nanowires. Physical Review B, 2014, 90, .	3.2	62
33	Nuclear-spin-induced localization of edge states in two-dimensional topological insulators. Physical Review B, 2017, 96, .	3.2	61
34	Helical states in curved bilayer graphene. Physical Review B, 2012, 86, .	3.2	57
35	Spin-dependent coupling between quantum dots and topological quantum wires. Physical Review B, 2017, 96, .	3.2	55
36	Floquet second-order topological superconductor driven via ferromagnetic resonance. Physical Review Research, 2019, 1, .	3.6	53

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37	Integer and fractional quantum Hall effect in a strip of stripes. European Physical Journal B, 2014, 87, 1.	1.5	52
38	Spin and charge signatures of topological superconductivity in Rashba nanowires. Physical Review B, 2017, 96, .	3.2	52
39	Topological phase detection in Rashba nanowires with a quantum dot. Physical Review B, 2018, 97, .	3.2	50
40	Fractional Fermions with Non-Abelian Statistics. Physical Review Letters, 2013, 110, 126402.	7.8	49
41	Topological phases of inhomogeneous superconductivity. Physical Review B, 2016, 93, .	3.2	49
42	Effects of nuclear spins on the transport properties of the edge of two-dimensional topological insulators. Physical Review B, 2018, 97, .	3.2	49
43	Fractional topological superconductivity and parafermion corner states. Physical Review Research, 2019, 1, .	3.6	49
44	Fractional charge and spin states in topological insulator constrictions. Physical Review B, 2015, 92, .	3.2	48
45	Superconducting gap renormalization around two magnetic impurities: From Shiba to Andreev bound states. Physical Review B, 2015, 92, .	3.2	47
46	Chiral magnonic edge states in ferromagnetic skyrmion crystals controlled by magnetic fields. Physical Review Research, 2020, 2, .	3.6	47
47	Exchange-based CNOT gates for singlet-triplet qubits with spin-orbit interaction. Physical Review B, 2012, 86, .	3.2	46
48	Theory of time-reversal topological superconductivity in double Rashba wires: symmetries of Cooper pairs and Andreev bound states. Progress of Theoretical and Experimental Physics, 2016, 2016, 083101.	6.6	44
49	Finite-size effects in a nanowire strongly coupled to a thin superconducting shell. Physical Review B, 2017, 96, .	3.2	44
50	Majorana fermions in magnetic chains. Progress in Particle and Nuclear Physics, 2019, 107, 1-19.	14.4	44
51	Integer and fractional quantum anomalous Hall effect in a strip of stripes model. Physical Review B, 2015, 91, .	3.2	42
52	Topological Edge States and Fractional Quantum Hall Effect from Umklapp Scattering. Physical Review Letters, 2013, 111, 196401.	7.8	41
53	Tomography of Majorana fermions with STM tips. Physical Review B, 2016, 94, .	3.2	41
54	Helical nuclear spin order in a strip of stripes in the quantum Hall regime. European Physical Journal B, 2014, 87, 1.	1.5	40

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55	Quantum Dynamics of Skyrmions in Chiral Magnets. <i>Physical Review X</i> , 2017, 7, .	8.9	40
56	Interaction-Stabilized Topological Magnon Insulator in Ferromagnets. <i>Physical Review X</i> , 2021, 11, .	8.9	40
57	Transport Signatures of Fractional Fermions in Rashba Nanowires. <i>Physical Review Letters</i> , 2014, 112, 196803.	7.8	39
58	Magnetic-Field-Independent Subgap States in Hybrid Rashba Nanowires. <i>Physical Review Letters</i> , 2020, 125, 017701.	7.8	38
59	Local and nonlocal quantum transport due to Andreev bound states in finite Rashba nanowires with superconducting and normal sections. <i>Physical Review B</i> , 2021, 104, .	3.2	37
60	Majorana Kramers pairs in Rashba double nanowires with interactions and disorder. <i>Physical Review B</i> , 2018, 97, .	3.2	36
61	Boundary spin polarization as a robust signature of a topological phase transition in Majorana nanowires. <i>Physical Review B</i> , 2018, 98, .	3.2	34
62	Majorana bound states in semiconducting nanostructures. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	34
63	Antiferromagnetic nuclear spin helix and topological superconductivity in C13 nanotubes. <i>Physical Review B</i> , 2015, 92, .	3.2	33
64	Magnonic Quadrupole Topological Insulator in Antiskyrmion Crystals. <i>Physical Review Letters</i> , 2020, 125, 207204.	7.8	33
65	Fractional boundary charges in quantum dot arrays with density modulation. <i>Physical Review B</i> , 2016, 94, .	3.2	32
66	Low-field topological threshold in Majorana double nanowires. <i>Physical Review B</i> , 2017, 96, .	3.2	32
67	Local spin susceptibilities of low-dimensional electron systems. <i>Physical Review B</i> , 2013, 88, .	3.2	31
68	Suppression of the overlap between Majorana fermions by orbital magnetic effects in semiconducting-superconducting nanowires. <i>Physical Review B</i> , 2018, 97, .	3.2	29
69	Majorana and parafermion corner states from two coupled sheets of bilayer graphene. <i>Physical Review Research</i> , 2020, 2, .	3.6	29
70	Tuning interactions between spins in a superconductor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	28
71	Kramers pairs of Majorana corner states in a topological insulator bilayer. <i>Physical Review B</i> , 2020, 102, .	3.2	27
72	Destructive interference of direct and crossed Andreev pairing in a system of two nanowires coupled via an s -wave superconductor. <i>Physical Review B</i> , 2017, 96, .	3.2	26

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73	Impurity-induced quantum phase transitions and magnetic order in conventional superconductors: Competition between bound and quasiparticle states. <i>Physical Review B</i> , 2015, 92, .	3.2	24
74	DIII topological superconductivity with emergent time-reversal symmetry. <i>Physical Review B</i> , 2017, 96, .	3.2	24
75	Lifetime of Majorana qubits in Rashba nanowires with nonuniform chemical potential. <i>Physical Review B</i> , 2018, 98, .	3.2	24
76	Chiral hinge magnons in second-order topological magnon insulators. <i>Physical Review B</i> , 2021, 104, .	3.2	24
77	Majorana bound states in topological insulators without a vortex. <i>Physical Review B</i> , 2021, 104, .	3.2	24
78	Proximity effect in a two-dimensional electron gas coupled to a thin superconducting layer. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 1263-1271.	2.8	23
79	Renormalization of anticrossings in interacting quantum wires with Rashba and Dresselhaus spin-orbit couplings. <i>Physical Review B</i> , 2014, 89, .	3.2	22
80	Long-distance entanglement of spin qubits via quantum Hall edge states. <i>Physical Review B</i> , 2016, 93, .	3.2	22
81	From fractional boundary charges to quantized Hall conductance. <i>Physical Review B</i> , 2018, 98, .	3.2	22
82	First-Order Magnetic Phase Transition of Mobile Electrons in Monolayer MoS_2 . <i>Physical Review Letters</i> , 2020, 124, 187602.	7.8	22
83	Quadrupole spin polarization as signature of second-order topological superconductors. <i>Physical Review B</i> , 2021, 103, .	3.2	22
84	Topological invariants to characterize universality of boundary charge in one-dimensional insulators beyond symmetry constraints. <i>Physical Review B</i> , 2020, 101, .	3.2	21
85	Hole-spin qubits in Ge nanowire quantum dots: Interplay of orbital magnetic field, strain, and growth direction. <i>Physical Review B</i> , 2022, 105, .	3.2	20
86	Fast long-distance control of spin qubits by photon-assisted cotunneling. <i>Physical Review B</i> , 2015, 92, .	3.2	19
87	Degeneracy lifting of Majorana bound states due to electron-phonon interactions. <i>Physical Review B</i> , 2019, 99, .	3.2	19
88	Helical liquids in semiconductors. <i>Semiconductor Science and Technology</i> , 2021, 36, 123003.	2.0	19
89	Majorana bound states in double nanowires with reduced Zeeman thresholds due to supercurrents. <i>Physical Review B</i> , 2019, 99, .	3.2	18
90	Surface charge theorem and topological constraints for edge states: Analytical study of one-dimensional nearest-neighbor tight-binding models. <i>Physical Review B</i> , 2020, 101, .	3.2	18

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91	Giant magnetochiral anisotropy from quantum-confined surface states of topological insulator nanowires. <i>Nature Nanotechnology</i> , 2022, 17, 696-700.	31.5	18
92	Majorana bound states induced by antiferromagnetic skyrmion textures. <i>Physical Review B</i> , 2021, 104, .	3.2	17
93	Chiral one-dimensional Floquet topological insulators beyond the rotating wave approximation. <i>Physical Review B</i> , 2019, 100, .	3.2	16
94	Entangling spins in double quantum dots and Majorana bound states. <i>Physical Review B</i> , 2019, 99, .	3.2	15
95	Pinning of Andreev bound states to zero energy in two-dimensional superconductor- semiconductor Rashba heterostructures. <i>Physical Review B</i> , 2020, 102, .	3.2	15
96	Three-dimensional fractional topological insulators in coupled Rashba layers. <i>Physical Review B</i> , 2017, 96, .	3.2	14
97	Renormalization of the quantum dot g -factor in superconducting Rashba nanowires. <i>Physical Review B</i> , 2018, 98, .	3.2	14
98	Rashba sandwiches with topological superconducting phases. <i>Physical Review B</i> , 2018, 97, .	3.2	14
99	Quantum damping of skyrmion crystal eigenmodes due to spontaneous quasiparticle decay. <i>Physical Review Research</i> , 2020, 2, .	3.6	14
100	Electronic transport in one-dimensional Floquet topological insulators via topological and nontopological edge states. <i>Physical Review B</i> , 2020, 101, .	3.2	12
101	Rational boundary charge in one-dimensional systems with interaction and disorder. <i>Physical Review Research</i> , 2020, 2, .	3.6	12
102	Magnetically confined bound states in Rashba systems. <i>Physical Review Research</i> , 2020, 2, .	3.6	11
103	Laser-Controlled Real- and Reciprocal-Space Topology in Multiferroic Insulators. <i>Physical Review Letters</i> , 2022, 128, 037201.	7.8	11
104	From coupled Rashba electron- and hole-gas layers to three-dimensional topological insulators. <i>Physical Review B</i> , 2016, 93, .	3.2	9
105	Conductance of fractional Luttinger liquids at finite temperatures. <i>Physical Review B</i> , 2018, 98, .	3.2	9
106	Chiral and nonchiral edge states in quantum Hall systems with charge density modulation. <i>Physical Review B</i> , 2016, 93, .	3.2	8
107	Superconducting Quantum Interference in Edge State Josephson Junctions. <i>Physical Review Letters</i> , 2020, 125, 157701.	7.8	8
108	Universality of Boundary Charge Fluctuations. <i>Physical Review Letters</i> , 2021, 126, 016803.	7.8	8

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109	Hinge modes and surface states in second-order topological three-dimensional quantum Hall systems induced by charge density modulation. <i>Physical Review B</i> , 2020, 102, .	3.2	7
110	Majorana bound states in topological insulators with hidden Dirac points. <i>Physical Review Research</i> , 2020, 2, .	3.6	7
111	Majorana zero modes and their bosonization. <i>Physical Review B</i> , 2020, 102, .	3.2	6
112	Insulating regime of an underdamped current-biased Josephson junction supporting $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi mathvariant="double-struck"} \rangle Z \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$ and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi mathvariant="double-struck"} \rangle Z \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 4 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$ parafermions. <i>Physical Review B</i> , 2021, 103, .	3.2	6
113	Metallization and proximity superconductivity in topological insulator nanowires. <i>Physical Review B</i> , 2022, 105, .	3.2	6
114	Fermi surface resonance and quantum criticality in strongly interacting Fermi gases. <i>Physical Review B</i> , 2021, 103, .	3.2	5
115	Yu-Shiba-Rusinov states and ordering of magnetic impurities near the boundary of a superconducting nanowire. <i>Physical Review B</i> , 2021, 103, .	3.2	5
116	Fractional boundary charges with quantized slopes in interacting one- and two-dimensional systems. <i>Physical Review B</i> , 2021, 104, .	3.2	5
117	Clock model and parafermions in Rashba nanowires. <i>Physical Review B</i> , 2021, 103, .	3.2	4
118	Critical current for an insulating regime of an underdamped current-biased topological Josephson junction. <i>Physical Review Research</i> , 2020, 2, .	3.6	4
119	Universal conductance dips and fractional excitations in a two-subband quantum wire. <i>Physical Review Research</i> , 2020, 2, .	3.6	4
120	Universality of Abelian and non-Abelian Wannier functions in generalized one-dimensional Aubry-Andr�-Harper models. <i>Physical Review Research</i> , 2021, 3, .	3.6	3
121	Coherent backaction between spins and an electronic bath: Non-Markovian dynamics and low-temperature quantum thermodynamic electron cooling. <i>Physical Review B</i> , 2019, 100, .	3.2	2
122	Quasiparticle poisoning in trivial and topological Josephson junctions. <i>Physical Review B</i> , 2022, 105, .	3.2	1
123	Fractional spin excitations and conductance in the spiral-staircase Heisenberg ladder. <i>Physical Review B</i> , 2022, 105, .	3.2	0