

Gennady Gusev

List of Publications by Year in descending order

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121
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citations

318942

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122
all docs

122
docs citations

122
times ranked

1063
citing authors

#	ARTICLE	IF	CITATIONS
1	Transport through the network of topological channels in HgTe based quantum well. 2D Materials, 2022, 9, 015021.	2.0	5
2	Engineering topological phases in triple HgTe/CdTe quantum wells. Scientific Reports, 2022, 12, 2617.	1.6	3
3	Diffusion of Photoexcited Holes in a Viscous Electron Fluid. Physical Review Letters, 2022, 128, 136801.	2.9	9
4	Quantum Transport of Dirac Fermions in HgTe Gapless Quantum Wells. Nanomaterials, 2022, 12, 2047.	1.9	2
5	Thermo emf in a two-dimensional electron-hole system in HgTe quantum wells in the presence of magnetic field. The role of the diffusive and the phonon-drag contributions. Low Temperature Physics, 2021, 47, 2-6.	0.2	1
6	Multiple crossings of Landau levels of two-dimensional fermions in double HgTe quantum wells. Physical Review B, 2021, 103, .	1.1	3
7	Viscous magnetotransport and Gurzhi effect in bilayer electron system. Physical Review B, 2021, 103, .	1.1	20
8	Magnetohydrodynamics and electron-electron interaction of massless Dirac fermions. Physical Review Research, 2021, 3, .	1.3	1
9	Thermoelectric Transport in a Three-Dimensional HgTe Topological Insulator. Nanomaterials, 2021, 11, 3364.	1.9	1
10	Electrical control of spin relaxation anisotropy during drift transport in a two-dimensional electron gas. Physical Review B, 2020, 102, .	1.1	6
11	Manifestations of classical size effect and electronic viscosity in the magnetoresistance of narrow two-dimensional conductors: Theory and experiment. Physical Review B, 2020, 101, .	1.1	21
12	Microwave Photoresistance of a Two-Dimensional Topological Insulator in a HgTe Quantum Well. JETP Letters, 2020, 111, 121-125.	0.4	6
13	Stokes flow around an obstacle in viscous two-dimensional electron liquid. Scientific Reports, 2020, 10, 7860.	1.6	34
14	Multiperiodic Spin Precession of the Optically Induced Spin Polarization in $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{AlAs}$ Single Quantum Well. Iranian Journal of Science and Technology, Transaction A: Science, 2020, 44, 549-555.	0.7	0
15	Two-dimensional topological insulator state in double HgTe quantum well. Physical Review B, 2020, 101, .	1.1	13
16	Experimental analysis of the spin-orbit coupling dependence on the drift velocity of a spin packet. AIP Advances, 2020, 10, .	0.6	2
17	Topological insulators based on HgTe. Physics-Uspokhi, 2020, 63, 629-647.	0.8	18
18	Phonon drag thermoelectric phenomena in mesoscopic two-dimensional conductors: Current stripes, large Nernst effect, and influence of electron-electron interaction. Physical Review B, 2020, 102, .	1.1	3

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19	Mesoscopic transport in two-dimensional topological insulators. Solid State Communications, 2019, 302, 113701.	0.9	17
20	Electronic thermal conductivity in 2D topological insulator in a HgTe quantum well. Scientific Reports, 2019, 9, 831.	1.6	2
21	Thermoelectric transport in two-dimensional topological insulator state based on HgTe quantum well. 2D Materials, 2019, 6, 014001.	2.0	6
22	Viscous electron flow in mesoscopic two-dimensional electron gas. AIP Advances, 2018, 8, .	0.6	72
23	Thermopower of a Two-Dimensional Semimetal in a HgTe Quantum Well. JETP Letters, 2018, 107, 789-793.	0.4	6
24	Viscous transport and Hall viscosity in a two-dimensional electron system. Physical Review B, 2018, 98, .	1.1	62
25	Vorticity-induced negative nonlocal resistance in a viscous two-dimensional electron system. Physical Review B, 2018, 97, .	1.1	55
26	Robustness of spin polarization against temperature in multilayer structure: Triple quantum well. Journal of Applied Physics, 2018, 123, 214306.	1.1	1
27	Tailoring multilayer quantum wells for spin devices. Pramana - Journal of Physics, 2018, 91, 1.	0.9	5
28	Large anisotropic spin relaxation time of exciton bound to donor states in triple quantum wells. Journal of Applied Physics, 2017, 121, .	1.1	7
29	Giant microwave-induced B -periodic magnetoresistance oscillations in a two-dimensional electron gas with a bridged-gate tunnel point contact. Physical Review B, 2017, 95, .	1.1	0
30	Robust helical edge transport at $\nu = 1/2$ quantum Hall state. Physical Review B, 2017, 96, .	1.1	20
31	Gate control of the spin mobility through the modification of the spin-orbit interaction in two-dimensional systems. Physical Review B, 2017, 95, .	1.1	11
32	Macroscopic transport of a current-induced spin polarization. Journal of Physics: Conference Series, 2017, 864, 012060.	0.3	3
33	Low field magnetoresistance in a 2D topological insulator based on wide HgTe quantum well. Journal of Physics Condensed Matter, 2016, 28, 345801.	0.7	2
34	Long-lived nanosecond spin coherence in high-mobility 2DEGs confined in double and triple quantum wells. Journal of Applied Physics, 2016, 119, 215701.	1.1	11
35	Macroscopic transverse drift of long current-induced spin coherence in two-dimensional electron gases. Physical Review B, 2016, 94, .	1.1	15
36	Magnetocapacitance oscillations and thermoelectric effect in a two-dimensional electron gas irradiated by microwaves. Physical Review B, 2016, 94, .	1.1	5

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37	Magnetophonon oscillations of thermoelectric power and combined resonance in two-subband electron systems. <i>Physical Review B</i> , 2016, 94, .	1.1	2
38	Microwave-Induced Magneto-Oscillations and Signatures of Zero-Resistance States in Phonon-Drag Voltage in Two-Dimensional Electron Systems. <i>Physical Review Letters</i> , 2015, 115, 206801.	2.9	18
39	Scaling of local and nonlocal resistances in a 2D topological insulator based on HgTe quantum well. <i>2D Materials</i> , 2015, 2, 044015.	2.0	9
40	Giant microwave photo-conductance of a tunnel point contact with a bridged gate. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	18
41	Persistence of a Two-Dimensional Topological Insulator State in Wide HgTe Quantum Wells. <i>Physical Review Letters</i> , 2015, 114, 126802.	2.9	63
42	Resonant optical control of the electrically induced spin polarization by periodic excitation. <i>Physical Review B</i> , 2014, 90, .	1.1	11
43	Spectroscopic evidence of quantum Hall interlayer tunneling gap collapse caused by tilted magnetic field in a GaAs/AlGaAs triple quantum well. <i>Physical Review B</i> , 2014, 89, .	1.1	9
44	Microwave response of a ballistic quantum dot. <i>JETP Letters</i> , 2014, 98, 713-716.	0.4	5
45	Microwave-induced nonlocal transport in a two-dimensional electron system. <i>Physical Review B</i> , 2014, 89, .	1.1	4
46	Temperature dependence of the resistance of a two-dimensional topological insulator in a HgTe quantum well. <i>Physical Review B</i> , 2014, 89, .	1.1	63
47	Observation of the intrinsic spin Hall effect in a two-dimensional electron gas. <i>Physical Review B</i> , 2013, 88, .	1.1	33
48	Quantum Hall Effect in $\hat{\alpha}^{\nu} \hat{p}$ and $2\text{D Topological Insulator}$	2.9	18
49	Transition from insulating to metallic phase induced by in-plane magnetic field in HgTe quantum wells. <i>Physical Review B</i> , 2013, 88, .	1.1	22
50	Linear magnetoresistance in HgTe quantum wells. <i>Physical Review B</i> , 2013, 87, .	1.1	41
51	Shubnikov-de Haas effect in tilted magnetic fields in wide quantum well. <i>Journal of Physics: Conference Series</i> , 2013, 456, 012025.	0.3	0
52	Unconventional Hall effect near charge neutrality point in a two-dimensional electron-hole system. <i>Physical Review B</i> , 2012, 86, .	1.1	15
53	Quantum oscillations of spin polarization in a GaAs/AlGaAs double quantum well. <i>Physical Review B</i> , 2012, 86, .	1.1	7
54	Circularly Polarized Photoluminescence as a Probe of Density of States in $\text{GaAs}/\text{AlGaAs}$ Quantum Hall Bilayers. <i>Physical Review Letters</i> , 2012, 109, 046802.	2.9	9

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55	Two-dimensional semimetal-insulator transition in HgTe-based quantum wells induced by a longitudinal magnetic field. JETP Letters, 2012, 96, 251-254.	0.4	1
56	Magnetic field induced charge redistribution in artificially disordered quantum Hall superlattices. Europhysics Letters, 2012, 97, 17010.	0.7	4
57	Nonlocal Transport Near Charge Neutrality Point in a Two-Dimensional Electron-Hole System. Physical Review Letters, 2012, 108, 226804.	2.9	34
58	Transport in disordered two-dimensional topological insulators. Physical Review B, 2011, 84, .	1.1	116
59	Zero-resistance states in bilayer electron systems induced by microwave irradiation. Journal of Physics: Conference Series, 2011, 334, 012014.	0.3	0
60	Emergent fractional quantum Hall effect at even denominator $\nu = 3/2$ in a triple quantum well in tilted magnetic fields. Journal of Physics: Conference Series, 2011, 334, 012026.	0.3	1
61	Linear and nonlinear transport in a small charge-tunable open quantum ring. Physical Review B, 2011, 84, .	1.1	7
62	Microwave-induced Hall resistance in bilayer electron systems. Physical Review B, 2011, 83, .	1.1	5
63	Evidence for zero-differential resistance states in electronic bilayers. Physical Review B, 2011, 83, .	1.1	14
64	Nonlinear transport phenomena in a two-subband system. Physical Review B, 2011, 84, .	1.1	20
65	Magnetotransport in a wide parabolic well superimposed with a superlattice. Journal of Applied Physics, 2011, 109, 102403.	1.1	0
66	Excitons in undoped AlGaAs/GaAs wide parabolic quantum wells. Journal of Physics: Conference Series, 2010, 210, 012052.	0.3	5
67	Weak antilocalization in HgTe quantum wells near a topological transition. JETP Letters, 2010, 91, 347-350.	0.4	24
68	Quantum Hall Effect near the Charge Neutrality Point in a Two-Dimensional Electron-Hole System. Physical Review Letters, 2010, 104, 166401.	2.9	46
69	Resistively detected NMR of the $\nu = 1$ quantum Hall state: A tilted magnetic field study. Physical Review B, 2010, 81, .		
70	Crossover between distinct mechanisms of microwave photoresistance in bilayer systems. Physical Review B, 2010, 81, .	1.1	29
71	Magnetic-field-induced transition in a wide parabolic well superimposed with a superlattice. Physical Review B, 2010, 81, .	1.1	10
72	Microwave Zero-Resistance States in a Bilayer Electron System. Physical Review Letters, 2010, 105, 026804.	2.9	62

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73	Thermally activated intersubband scattering and oscillating magnetoresistance in quantum wells. Physical Review B, 2010, 82, .	1.1	15
74	Classical and quantum magnetoresistance in a two-subband electron system. Physical Review B, 2009, 80, .	1.1	20
75	High-order fractional microwave-induced resistance oscillations in two-dimensional systems. Physical Review B, 2009, 80, .	1.1	16
76	Emergent and reentrant fractional quantum Hall effect in trilayer systems in a tilted magnetic field. Physical Review B, 2009, 80, .	1.1	7
77	Magnetoresistance oscillations in multilayer systems: Triple quantum wells. Physical Review B, 2009, 80, .	1.1	35
78	QUANTUM HALL FERROMAGNET IN A DOUBLE WELL WITH VANISHING g -FACTOR. International Journal of Modern Physics B, 2009, 23, 2933-2937.	1.0	2
79	MAGNETORESISTANCE OSCILLATIONS IN DOUBLE QUANTUM WELLS UNDER MICROWAVE IRRADIATION. International Journal of Modern Physics B, 2009, 23, 2943-2947.	1.0	0
80	TRANSPORT IN A BILAYER SYSTEM AT HIGH LANDAU FILLING FACTOR. International Journal of Modern Physics B, 2009, 23, 2603-2606.	1.0	0
81	Nonlinear transport and oscillating magnetoresistance in double quantum wells. Physical Review B, 2009, 80, .	1.1	29
82	Magnetic-field asymmetry of nonlinear transport in a small ring. Europhysics Letters, 2009, 88, 47007.	0.7	7
83	Resonance oscillations of magnetoresistance in double quantum wells. Physical Review B, 2008, 77, .	1.1	61
84	Interference oscillations of microwave photoresistance in double quantum wells. Physical Review B, 2008, 78, .	1.1	74
85	Interlayer interference in double wells in a tilted magnetic field. Physical Review B, 2008, 78, .	1.1	15
86	Anomalous dephasing scattering rate of two-dimensional electrons in double quantum well structures. Physical Review B, 2008, 78, .	1.1	13
87	Electron dephasing scattering rate in two-dimensional GaAs/InGaAs heterostructures with embedded InAs quantum dots. Journal of Applied Physics, 2008, 104, 073723.	1.1	2
88	Enhanced Hall slope in wide Al _x Ga _{1-x} As parabolic wells. Physical Review B, 2007, 75, .	1.1	5
89	Reentrant Quantum Hall Effect and Anisotropic Transport in a Bilayer System at High Filling Factors. Physical Review Letters, 2007, 99, 126804.	2.9	15
90	Many-body effects in wide parabolic AlGaAs quantum wells. Journal of Applied Physics, 2007, 102, 093715.	1.1	7

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91	Landau-level crossing in two-subband systems in a tilted magnetic field. <i>Physical Review B</i> , 2007, 76, .	1.1	21
92	Spin Polarization by Tilted Magnetic Field in Wide $\text{Ga}_{1-x}\text{Al}_x\text{As}$ Parabolic Quantum Wells. <i>Journal of Superconductivity and Novel Magnetism</i> , 2005, 18, 169-173.	0.5	3
93	Spin-dependent Hall effect in a parabolic well with a quasi-three-dimensional electron gas. <i>Physical Review B</i> , 2005, 71, .	1.1	5
94	Electron spin resonance in a wide parabolic quantum well. <i>Physical Review B</i> , 2005, 72, .	1.1	8
95	High mobility of a three-dimensional hole gas in parabolic quantum wells grown on $\text{GaAs}(311)\text{A}$ substrates. <i>Journal of Applied Physics</i> , 2005, 97, 076107.	1.1	10
96	Negative quasiclassical magnetoresistance in a high density two-dimensional electron gas in $\text{aAl}_x\text{Ga}_{1-x}\text{N}_a\text{-GaN}$ heterostructure. <i>Physical Review B</i> , 2005, 71, .	1.1	31
97	Large positive magnetoresistance in a high-mobility two-dimensional electron gas: Interplay of short- and long-range disorder. <i>Physical Review B</i> , 2004, 70, .	1.1	32
98	Negative linear classical magnetoresistance in a corrugated two-dimensional electron gas. <i>Physical Review B</i> , 2004, 70, .	1.1	13
99	Anomalous Hall effect in a wide parabolic well. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, S181-S187.	0.8	1
100	Quantum Hall ferromagnet in a parabolic well. <i>Physical Review B</i> , 2003, 67, .	1.1	24
101	Commensurability oscillations in the antidot lattice in a quasi-three-dimensional electron gas. <i>Physical Review B</i> , 2003, 67, .	1.1	2
102	Chaotic electron dynamics in antidot lattice subjected to strong in-plane magnetic field. <i>Physical Review B</i> , 2002, 66, .	1.1	10
103	Quantum interference in intentionally disordered doped $\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}\text{As}$ superlattices. <i>Physical Review B</i> , 2002, 66, .	1.1	19
104	Conductivity corrections in a strongly correlated and disordered two-dimensional electron system. <i>Physical Review B</i> , 2002, 65, .	1.1	12
105	Magnetotransport of a quasi-three-dimensional electron gas in the lowest Landau level. <i>Physical Review B</i> , 2002, 65, .	1.1	25
106	Coexistence of a two- and three-dimensional Landau states in a wide parabolic quantum well. <i>Physical Review B</i> , 2001, 64, .	1.1	19
107	Quasiclassical negative magnetoresistance of a two-dimensional electron gas in a random magnetic field. <i>Physical Review B</i> , 2001, 65, .	1.1	23
108	Vertical longitudinal magnetoresistance of semiconductor superlattices. <i>Physical Review B</i> , 2001, 63, .	1.1	5

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109	Nonzero Hall resistance in a spatially fluctuating magnetic field with zero mean. Springer Proceedings in Physics, 2001, , 817-818.	0.1	0
110	Temperature dependence of the Aharonov-Bohm oscillations and the energy spectrum in a single-mode ballistic ring. Physical Review B, 2000, 62, 2624-2629.	1.1	36
111	Hall effect in a spatially fluctuating magnetic field with zero mean. Physical Review B, 2000, 61, 5505-5510.	1.1	15
112	Shubnikov-de Haas oscillations in a nonplanar two-dimensional electron gas. Semiconductor Science and Technology, 1999, 14, 1114-1118.	1.0	5
113	Single-particle relaxation time in a spatially fluctuating magnetic field. Physical Review B, 1999, 59, 5711-5716.	1.1	18
114	Percolation network in a smooth artificial potential. Physical Review B, 1998, 58, 4636-4643.	1.1	6
115	Coulomb-like mesoscopic fluctuations in a two-dimensional electron gas near filling factor $\nu=12$. Physical Review B, 1997, 56, 12112-12115.	1.1	3
116	Chaotic electron dynamics around a single elliptically shaped antidot. Physical Review B, 1996, 54, 13859-13867.	1.1	6
117	Quantum interference effects in a strongly fluctuating magnetic field. Physical Review B, 1996, 53, 13641-13644.	1.1	12
118	Negative differential magnetoresistance and commensurability oscillations of two-dimensional electrons in a disordered array of antidots. Journal of Physics Condensed Matter, 1994, 6, 73-78.	0.7	30
119	Magneto-oscillations in a two-dimensional electron gas with a Penrose lattice of artificial scatterers. Physical Review B, 1993, 47, 9928-9930.	1.1	17
120	Magnetoresistance oscillations in a two-dimensional electron gas with a periodic array of scatters. Journal of Physics Condensed Matter, 1992, 4, L269-L274.	0.7	23
121	Spin relaxation time in a two-dimensional hole gas. Journal of Physics C: Solid State Physics, 1984, 17, L683-L688.	1.5	11