Alexander Germanenko

List of Publications by Year
in descending order

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65 papers	766 citations	643344 15 h-index	620720 26 g-index
65 all docs	65 docs citations	65 times ranked	628 citing authors

#	Article	IF	Citations
1	Zero energy states in graphene in Aharonovâ€“Bohm magnetic dots via Wirtinger calculus. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 134, 114851.	1.3	0
2	Anisotropy of the in-plane g -factor of electrons in HgTe quantum wells. Physical Review B, 2020, 101, .	1.1	3
3	Magneto-intersubband oscillations in two-dimensional systems with an energy spectrum split due to spin-orbit interaction. Physical Review B, 2020, 101, .	1.1	10
4	Supersymmetry and Stable Dirac Sea in Carbon Nanotubes. Semiconductors, 2020, 54, 1661-1663.	0.2	0
5	Probability Density Operator and Darwin Term in ID Spinless Semi-Relativistic System. Semiconductors, 2019, 53, 2147-2150.	0.2	1
6	Zeeman Splitting of Electron Spectrum in HgTe Quantum Wells Near the Dirac Point. Semiconductors, 2018, 52, 519-522.	0.2	0
7	Valence band energy spectrum of HgTe quantum wells with an inverted band structure. Physical Review B, 2017, 96, .	1.1	30
8	Spin-orbit splitting of valence and conduction bands in HgTe quantum wells near the Dirac point. Physical Review B, 2016, 93, .	1.1	38
9	Weak antilocalization of holes in HgTe quantum wells with a normal energy spectrum. Physical Review B, 2015, 91, .	1.1	7
10	Energy spectrum and transport in narrow HgTe quantum wells. Semiconductors, 2015, 49, 39-43.	0.2	2
11	Conductance of a lateral pâ€”n junction in two-dimensional HgTe structures with an inverted spectrum: The role of edge states. JETP Letters, 2015, 101, 469-473.	0.4	3
12	Hole transport and valence-band dispersion law in a HgTe quantum well with a normal energy spectrum. Physical Review B, 2014, 89, .	1.1	17
13	Two-dimensional semimetal in wide HgTe quantum wells: Charge-carrier energy spectrum and magnetotransport. Semiconductors, 2013, 47, 1562-1566.	0.2	3
14	Anisotropic conductivity and weak localization in HgTe quantum wells with a normal energy spectrum. Physical Review B, 2013, 88, .	1.1	6
15	Two-dimensional semimetal in a wide HgTe quantum well: Magnetotransport and energy spectrum. Physical Review B, 2013, 88, .	1.1	35
16	Interference quantum correction to conductivity of Al_xGa_{1â^'x}As/GaAs double quantum well heterostructures near the balance. Journal of Physics: Conference Series, 2012, 376, 012024.	0.3	1
17	Interaction correction to the conductivity of two-dimensional electron gas in InxGa1â^'xAs/InP quantum well structure with strong spin-orbit coupling. Physical Review B, 2012, 85, .	1.1	4
18	Weak antilocalization in HgTe quantum wells with inverted energy spectra. Physical Review B, 2012, 85, .	1.1	23

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19	Energy relaxation rate of the two-dimensional hole gas in a GaAs/InGaAs/GaAs quantum well. Physical Review B, 2011, 83, .	1.1	4
20	Interaction correction to conductivity of Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>Ga<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>As/GaAs double quantum well heterostructures near the balance. Physical Review B, 2011, 84, .	1.1	6
21	Low-field anomaly of the hall effect in disordered two-dimensional systems. Semiconductors, 2010, 44, 1430-1434.	0.2	0
22	Renormalization of the contribution of the electronâ€”electron interaction to the conductivity of two-dimensional electron systems. Bulletin of the Russian Academy of Sciences: Physics, 2010, 74, 72-74.	0.1	1
23	Low magnetic field anomaly of the Hall effect in disordered two-dimensional systems: Interplay between weak localization and electron-electron interaction. Physical Review B, 2010, 82, .	1.1	10
24	Dephasing and interwell transitions in double quantum well heterostructures. Physical Review B, 2010, 82, .	1.1	5
25	WEAK LOCALIZATION IN PATTERN 2D STRUCTURES WITH A SINGLE QUANTUM WELL. International Journal of Modern Physics B, 2009, 23, 2955-2959.	1.0	1
26	Disorder and temperature renormalization of interaction contribution to the conductivity in two-dimensional<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>In</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub></mml:math> systems. Physical Review B, 2009, 79, .	1.1	9
27	Spin effects and quantum corrections to the conductivity of two-dimensional systems. Low Temperature Physics, 2009, 35, 24-31.	0.2	1
28	Weak localization in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Al</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub></mml:math>Ga<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>As/GaAs Physical Review B, 2008, 78, .	1.1	2
29	INTERFERENCE INDUCED MAGNETORESISTANCE BEYOND THE DIFFUSION REGIME IN 2D SYSTEMS WITH SPIN-ORBIT COUPLING. International Journal of Modern Physics B, 2007, 21, 1669-1673.	1.0	3
30	DEPHASING IN PRESENCE OF A MAGNETIC FIELD. International Journal of Nanoscience, 2007, 06, 261-264.	0.4	3
31	Renormalization of hole-hole interaction at decreasing Drude conductivity: Gated<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Ga</mml:mi><mml:mi mathvariant="normal">As</mml:mi><mml:mo>â•±</mml:mo><mml:msub><mml:mi mathvariant="normal">In</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">Ga</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math>As/GaAs heterostructures	1.1	10
32	Giant suppression of the Drude conductivity due to quantum interference in the disordered two-dimensional systemGaAsâ•InxGa1â^’xAsâ•GaAs. Physical Review B, 2007, 75, .	1.1	25
33	Interference-induced metalliclike behavior of a two-dimensional hole gas in an asymmetricGaAsâ•InxGa1â^’xAsâ•GaAsquantum well. Physical Review B, 2007, 75, .	1.1	8
34	The metallic-like temperature dependence of the conductivity in two-dimensions. AIP Conference Proceedings, 2007, , .	0.3	0
35	Nonuniversality of the interference quantum correction to conductivity beyond the diffusion regime. Physical Review B, 2006, 73, .	1.1	6
36	Diffusion and ballistic contributions of the interaction correction to the conductivity of a two-dimensional electron gas. Physical Review B, 2006, 74, .	1.1	33

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37	Effect of Roughness of Two-Dimensional Heterostructures on Weak Localization. Physics of the Solid State, 2005, 47, 133.	0.2	0
38	Nonohmic Conductance and Mechanisms of Energy Relaxation in 2D Electron Gas in GaAsâˆ•InGaAsâˆ•GaAs Heterostructures. Semiconductors, 2005, 39, 221.	0.2	1
39	Hole-hole interaction in a strainedInxGa1â^'xAstwo-dimensional system. Physical Review B, 2005, 72, .	1.1	13
40	Antilocalization and spin-orbit coupling in the hole gas in strainedGaAsâˆ•InxGa1â^'xAsâˆ•GaAsquantum well heterostructures. Physical Review B, 2005, 71, .	1.1	37
41	Publisher's Note: Magnetoresistance and dephasing in a two-dimensional electron gas at intermediate conductances [Phys. Rev. B70, 245423 (2004)]. Physical Review B, 2005, 71, .	1.1	0
42	Transverse negative magnetoresistance of two-dimensional structures in the presence of a strong in-plane magnetic field: Weak localization as a probe of interface roughness. Physical Review B, 2004, 70, .	1.1	11
43	Magnetoresistance and dephasing in a two-dimensional electron gas at intermediate conductances. Physical Review B, 2004, 70, .	1.1	48
44	Weak antilocalization in quantum wells in tilted magnetic fields. Physical Review B, 2004, 70, .	1.1	49
45	Nonohmic conductivity under transition from weak to strong localization in GaAs/InGaAs structures with a two-dimensional electron gas. Semiconductors, 2003, 37, 705-709.	0.2	2
46	Electron-electron interaction with decreasing conductance. Physical Review B, 2003, 67, .	1.1	35
47	ANTILOCALIZATION IN GATED 2D QUANTUM WELL STRUCTURES WITH COMPOSITION GRADIENT. International Journal of Nanoscience, 2003, 02, 543-549.	0.4	3
48	Quantum corrections to conductivity: From weak to strong localization. Physical Review B, 2002, 65, .	1.1	50
49	Weak localization in macroscopically inhomogeneous two-dimensional systems: a simulation approach. Physical Review B, 2001, 64, .	1.1	12
50	Quantum corrections to the conductivity in two-dimensional systems: Agreement between theory and experiment. Physical Review B, 2001, 64, .	1.1	56
51	Simulation approach to weak localization in inhomogeneous two-dimensional systems and diffusive constrictions. Nanotechnology, 2001, 12, 614-618.	1.3	0
52	Role of doped layers in the dephasing of two-dimensional electrons in quantum-well structures. Physical Review B, 2001, 64, .	1.1	13
53	Inter-well transitions and negative magnetoresistance in double-quantum-well heterostructures. Nanotechnology, 2000, 11, 406-410.	1.3	4
54	Low-field negative magnetoresistance in double-layer structures. Physical Review B, 2000, 62, 17089-17093.	1.1	7

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55	Analysis of negative magnetoresistance: Statistics of closed paths. II. Experiment. Physical Review B, 2000, 61, 13172-13176.	1.1	11
56	Analysis of negative magnetoresistance: Statistics of closed paths.â€ƒI.â€ƒTheory. Physical Review B, 2000, 61, 13164-13171.	1.1	27
57	Magnetic-field-dependent zero-bias diffusive anomaly in Pb oxideâ€“nâ^’InAsstructures: Coexistence of two- and three-dimensional states. Physical Review B, 1999, 59, 13139-13146.	1.1	2
58	Many-body effects and electron tunneling in metal-insulator-p-type semiconductor structures. Semiconductors, 1998, 32, 957-959.	0.2	0
59	The effect of a surface potential on spin-dependent tunnelling in metal - insulator narrow-gap semiconductor structures in a magnetic field. Semiconductor Science and Technology, 1997, 12, 867-874.	1.0	0
60	Interband mixing between two-dimensional states localized in a surface quantum welland heavy-hole states of the valence band in a narrow-gap semiconductor. Physical Review B, 1997, 55, 13062-13065.	1.1	10
61	Tunneling conductivity oscillations in a magnetic field in metal-insulator-narrow-gap-HgCdTe structures: The energy spectrum and spin-orbit splitting of 2D states. Journal of Experimental and Theoretical Physics, 1997, 85, 292-299.	0.2	8
62	Tunneling studies of two-dimensional states in semiconductors with inverted band structure: Spin-orbit splitting and resonant broadening. Physical Review B, 1996, 54, 1841-1852.	1.1	15
63	Landau levels of 2D states localized in the surface quantum well of gapless HgCdTe from tunnelling spectroscopy. Semiconductor Science and Technology, 1995, 10, 1578-1584.	1.0	5
64	Two-dimensional states at the HgTe/Hg0.05Cd0.95Te interface as determined from the tunneling investigations. Physical Review B, 1995, 52, 17254-17259.	1.1	6
65	Narrowâ€Gap and Gapless Semiconductors under Uniaxial Stress. Energy Spectrum and Galvanomagnetic Phenomena. Physica Status Solidi (B): Basic Research, 1994, 184, 9-67.	0.7	31