

# Sergey Krishtopenko

## List of Publications by Year in descending order

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66  
papers

833  
citations

535685

17  
h-index

591227

27  
g-index

67  
all docs

67  
docs citations

67  
times ranked

499  
citing authors

#	ARTICLE	IF	CITATIONS
1	Relativistic collapse of Landau levels of Kane fermions in crossed electric and magnetic fields. Physical Review B, 2022, 105, .	1.1	3
2	Terahertz magnetospectroscopy of pseudo-relativistic fermions in HgCdTe alloys under hydrostatic pressure. , 2021, , .		0
3	Higher-order topological insulator in cubic semiconductor quantum wells. Scientific Reports, 2021, 11, 21060.	1.6	5
4	Hybridization of topological surface states with a flat band. Journal of Physics Condensed Matter, 2020, 32, 165501.	0.7	6
5	Unconventional reentrant quantum Hall effect in a HgTe/CdHgTe double quantum well. Physical Review B, 2020, 102, .	1.1	9
6	Quantum Hall states in inverted HgTe quantum wells probed by transconductance fluctuations. Physical Review B, 2020, 102, .	1.1	1
7	Many-particle effects in optical transitions from zero-mode Landau levels in HgTe quantum wells. Physical Review B, 2020, 102, .	1.1	3
8	Photoluminescence Spectra of InAs/GaSb/InAs Quantum Wells in the Mid-Infrared Region. Semiconductors, 2020, 54, 1119-1122.	0.2	1
9	Disorder-induced phase transition in Dirac systems beyond the linear approximation. Physical Review B, 2020, 101, .	1.1	10
10	Effects of the Electron-€"Electron Interaction in the Magneto-Absorption Spectra of HgTe/CdHgTe Quantum Wells with an Inverted Band Structure. JETP Letters, 2020, 112, 508-512.	0.4	1
11	Magnetospectroscopy of double HgTe/CdHgTe QWs with inverted band structure in high magnetic fields up to 30 T. Opto-electronics Review, 2019, 27, 213-218.	2.4	7
12	Magneto-transport in inverted HgTe quantum wells. Npj Quantum Materials, 2019, 4, .	1.8	16
13	On the Thermal Activation of Conductivity Electrons in a p-Type HgTe/CdHgTe Double Quantum Well with HgTe Layers of Critical Width. Semiconductors, 2019, 53, 919-922.	0.2	3
14	Spin splitting of surface states in HgTe quantum wells. Low Temperature Physics, 2019, 45, 159-164.	0.2	3
15	Terahertz Spectroscopy of Two-Dimensional Semimetal in Three-Layer InAs/GaSb/InAs Quantum Well. JETP Letters, 2019, 109, 96-101.	0.4	4
16	Massless Dirac fermions in III-V semiconductor quantum wells. Physical Review B, 2019, 99, .	1.1	14
17	Temperature-Induced Topological Phase Transition in HgTe Quantum Wells. Physical Review Letters, 2018, 120, 086401.	2.9	43
18	Quantum spin Hall insulator with a large bandgap, Dirac fermions, and bilayer graphene analog. Science Advances, 2018, 4, eaap7529.	4.7	32

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19	Realistic picture of helical edge states in HgTe quantum wells. <i>Physical Review B</i> , 2018, 97, .	1.1	29
20	Polarization-Sensitive Fourier-Transform Spectroscopy of HgTe/CdHgTe Quantum Wells in the Far Infrared Range in a Magnetic Field. <i>JETP Letters</i> , 2018, 108, 329-334.	0.4	4
21	Temperature-dependent terahertz spectroscopy of inverted-band three-layer InAs/GaSb/InAs quantum well. <i>Physical Review B</i> , 2018, 97, .	1.1	24
22	Band splitting in $\text{Cd}_x\text{Mn}_{1-x}\text{Te}$ measured by magnetotransport. <i>Physical Review B</i> , 2018, 97, .	1.3	18
23	Cyclotron resonance of dirac fermions in InAs/GaSb/InAs quantum wells. <i>Semiconductors</i> , 2017, 51, 38-42.	0.2	3
24	HgCdTe-based heterostructures for terahertz photonics. <i>APL Materials</i> , 2017, 5, .	2.2	49
25	Activation conductivity in HgTe/CdHgTe quantum wells at integer Landau level filling factors: Role of the random potential. <i>Semiconductors</i> , 2017, 51, 1562-1570.	0.2	0
26	On the band spectrum in p-type HgTe/CdHgTe heterostructures and its transformation under temperature variation. <i>Semiconductors</i> , 2017, 51, 1531-1536.	0.2	8
27	Temperature-driven single-valley Dirac fermions in HgTe quantum wells. <i>Physical Review B</i> , 2017, 96, .	1.1	38
28	Terahertz probing of temperature-driven topological phase transition in HgCdTe bulk crystal and HgTe Quantum Well. , 2017, , .		0
29	Magnetoabsorption of Dirac Fermions in InAs/GaSb/InAs €Three-Layer€ Gapless Quantum Wells. <i>JETP Letters</i> , 2017, 106, 727-732.	0.4	5
30	Temperature-driven massless fermions in HgCdTe heterostructures. , 2017, , .		0
31	Observation of topological phase transition by terahertz photoconductivity in HgTe-based transistors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2016, 13, 534-537.	0.8	2
32	Pressure- and temperature-driven phase transitions in HgTe quantum wells. <i>Physical Review B</i> , 2016, 94, .	1.1	57
33	Temperature-driven massless Kane fermions in HgCdTe crystals. , 2016, , .		2
34	Terahertz cyclotron emission from HgCdTe bulk films. , 2016, , .		0
35	THz magnetospectroscopy of double HgTe quantum well. , 2016, , .		0
36	Terahertz imaging of Landau levels in HgTe-based topological insulators. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	13

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37	HgTe/CdHgTe double quantum well with a spectrum of bilayer graphene and peculiarities of its magnetotransport. JETP Letters, 2016, 104, 403-410.	0.4	11
38	Magneto spectroscopy of double HgTe/CdHgTe quantum wells. Semiconductors, 2016, 50, 1532-1538.	0.2	9
39	Temperature-driven massless Kane fermions in HgCdTe crystals. Nature Communications, 2016, 7, 12576.	5.8	73
40	Phase transitions in two tunnel-coupled HgTe quantum wells: Bilayer graphene analogy and beyond. Scientific Reports, 2016, 6, 30755.	1.6	42
41	Temperature-dependent magneto spectroscopy of HgTe quantum wells. Physical Review B, 2016, 94, .	1.1	21
42	Exchange enhancement of the electron g-factor in a two-dimensional semimetal in HgTe quantum wells. Semiconductors, 2015, 49, 1627-1633.	0.2	6
43	Terahertz detection of magnetic field-driven topological phase transition in HgTe-based transistors. Applied Physics Letters, 2015, 107, .	1.5	13
44	Cyclotron resonance in InAs/AlSb quantum wells in magnetic fields up to 45 T. Semiconductors, 2015, 49, 1616-1622.	0.2	0
45	Exchange enhancement of the electron g factor in strained InGaAs/InP heterostructures. Semiconductors, 2015, 49, 191-198.	0.2	5
46	Effects of the electron-electron interaction in the spin resonance in 2D systems with Dresselhaus spin-orbit coupling. Semiconductors, 2015, 49, 174-180.	0.2	2
47	Effect of electron-electron interaction on cyclotron resonance in high-mobility InAs/AlSb quantum wells. Journal of Applied Physics, 2015, 117, 112813.	1.1	16
48	Many-body effects in electron spin resonance in 2D systems with Rashba spin-orbit interaction. Semiconductor Science and Technology, 2014, 29, 085005.	1.0	5
49	Rashba spin splitting and cyclotron resonance in strained InGaAs/InP heterostructures with a two-dimensional electron gas. Semiconductors, 2013, 47, 1485-1491.	0.2	7
50	Magnetoplasmon excitations from integer-filled Landau levels in narrow-gap quantum wells. Journal of Physics Condensed Matter, 2013, 25, 365602.	0.7	4
51	Electron spin resonance and cyclotron resonance for fractional quantum Hall states in narrow-gap QW heterostructures. Journal of Physics Condensed Matter, 2013, 25, 105601.	0.7	3
52	Exchange interaction and rashba spin splitting effects in electron spin resonance in narrow-gap quantum wells. , 2013, , .		0
53	Spin-wave excitations and electron spin resonance in symmetric and asymmetric narrow-gap quantum wells. Physical Review B, 2013, 87, .	1.1	14
54	Effects of Rashba spin splitting and exchange interaction in electron spin resonance in narrow-gap quantum well heterostructures. Journal of Physics: Conference Series, 2013, 456, 012021.	0.3	1

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55	Exchange enhancement of quasiparticle and ESR spin-gap in symmetric and asymmetric narrow-gap quantum wells. Journal of Physics: Conference Series, 2013, 461, 012037.	0.3	0
56	Exchange Enhancement of g-Factor in Narrow-Gap InAs/AlSb Quantum Well Heterostructures. Solid State Phenomena, 2012, 190, 554-557.	0.3	12
57	The effect of exchange interaction on quasiparticle Landau levels in narrow-gap quantum well heterostructures. Journal of Physics Condensed Matter, 2012, 24, 135601.	0.7	9
58	Cyclotron resonance study in InAs/AlSb quantum well heterostructures with two occupied electronic subbands. Journal of Applied Physics, 2012, 111, 093711.	1.1	16
59	Features of the persistent photoconductivity in InAs/AlSb heterostructures with double quantum wells and a tunneling-transparent barrier. Semiconductors, 2012, 46, 1396-1401.	0.2	18
60	Rashba spin splitting and exchange enhancement of the g factor in InAs/AlSb heterostructures with a two-dimensional electron gas. Semiconductors, 2012, 46, 1163-1170.	0.2	18
61	Exchange interaction effects in electron spin resonance: Larmor theorem violation in narrow-gap quantum well heterostructures. Journal of Physics Condensed Matter, 2012, 24, 252201.	0.7	8
62	Theory of $g$ -factor enhancement in narrow-gap quantum well heterostructures. Journal of Physics Condensed Matter, 2011, 23, 385601.	0.7	19
63	Electron-electron interaction and spin-orbit coupling in InAs/AlSb heterostructures with a two-dimensional electron gas. Semiconductors, 2011, 45, 110-117.	0.2	20
64	Persistent photoconductivity in InAs/AlSb heterostructures with double quantum wells. Semiconductors, 2010, 44, 616-622.	0.2	24
65	Splitting of Cyclotron Resonance Line in InAs/AlSb QW Heterostructures in High Magnetic Fields: Effects of Electron-Electron and Electron-Phonon Interaction. Journal of Low Temperature Physics, 2010, 159, 197-202.	0.6	22
66	Exchange enhancement of the g factor in InAs/AlSb heterostructures. Semiconductors, 2008, 42, 828-833.	0.2	31