

Sergey Kravchenko

List of Publications by Year in descending order

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44
papers

2,976
citations

304743

22
h-index

289244

40
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44
all docs

44
docs citations

44
times ranked

1214
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin effect on the low-temperature resistivity maximum in a strongly interacting 2D electron system. <i>Scientific Reports</i> , 2022, 12, 5080.	3.3	2
2	Noise signal as input data in self-organized neural networks. <i>Low Temperature Physics</i> , 2022, 48, 452-458.	0.6	0
3	Valley effects on the fractions in an ultrahigh mobility SiGe/Si/SiGe two-dimensional electron system. <i>Physical Review B</i> , 2021, 103, .	3.2	3
4	Metal-insulator transition and low-density phases in a strongly-interacting two-dimensional electron system. <i>Annals of Physics</i> , 2021, 435, 168542.	2.8	10
5	Manifestation of strong correlations in transport in ultraclean SiGe/Si/SiGe quantum wells. <i>Physical Review B</i> , 2020, 102, .	3.2	6
6	Hartree-Fock description of a Wigner crystal in two dimensions. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 119, 114016.	2.7	2
7	Metallic state in a strongly interacting spinless two-valley electron system in two dimensions. <i>Physical Review B</i> , 2020, 101, .	3.2	8
8	Recent Developments in the Field of the Metal-Insulator Transition in Two Dimensions. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1169.	2.5	24
9	Quantum phase transition in ultrahigh mobility SiGe/Si/SiGe two-dimensional electron system. <i>Physical Review B</i> , 2019, 99, .	3.2	23
10	Fractional Quantum Hall Effect in SiGe/Si/SiGe Quantum Wells in Weak Quantizing Magnetic Fields. <i>JETP Letters</i> , 2018, 107, 794-797.	1.4	4
11	Transport evidence for a sliding two-dimensional quantum electron solid. <i>Nature Communications</i> , 2018, 9, 3803.	12.8	31
12	Spin polarization and exchange-correlation effects in transport properties of two-dimensional electron systems in silicon. <i>Physical Review B</i> , 2017, 96, .	3.2	13
13	Indication of band flattening at the Fermi level in a strongly correlated electron system. <i>Scientific Reports</i> , 2017, 7, 14539.	3.3	25
14	Unusual anisotropy of inplane field magnetoresistance in ultra-high mobility SiGe/Si/SiGe quantum wells. <i>Journal of Applied Physics</i> , 2017, 122, 224301.	2.5	11
15	Ultra-high mobility two-dimensional electron gas in a SiGe/Si/SiGe quantum well. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	30
16	Effective electron mass in high-mobility SiGe/Si/SiGe quantum wells. <i>JETP Letters</i> , 2014, 100, 114-119.	1.4	13
17	Critical Behavior of a Strongly Interacting 2D Electron System. <i>Physical Review Letters</i> , 2012, 109, 096405.	7.8	51
18	Test of the scaling theory in two dimensions in the presence of valley splitting and intervalley scattering in Si-MOSFETs. <i>Physical Review B</i> , 2010, 82, .	3.2	11

#	ARTICLE	IF	CITATIONS
19	A METAL-INSULATOR TRANSITION IN 2D: ESTABLISHED FACTS AND OPEN QUESTIONS. International Journal of Modern Physics B, 2010, 24, 1640-1663.	2.0	12
20	<i>Colloquium</i>: Transport in strongly correlated two dimensional electron fluids. Reviews of Modern Physics, 2010, 82, 1743-1766.	45.6	173
21	EFFECTS OF ELECTRON-ELECTRON INTERACTIONS IN TWO DIMENSIONS. International Journal of Modern Physics B, 2009, 23, 4186-4197.	2.0	1
22	Conductance asymmetry of a slot gate Si-MOSFET in a strong parallel magnetic field. Annalen Der Physik, 2009, 18, 913-917.	2.4	1
23	EFFECTS OF ELECTRON-ELECTRON INTERACTIONS IN TWO DIMENSIONS. , 2009, , .		0
24	Longitudinal resistivity in the quantum Hall effect regime in a split-gate Si MOSFET with variable electron density. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 839-841.	0.8	1
25	Flow diagram of the metal-insulator transition in two dimensions. Nature Physics, 2007, 3, 707-710.	16.7	82
26	Pauli Spin Susceptibility of a Strongly Correlated Two-Dimensional Electron Liquid. Physical Review Letters, 2006, 96, 036403.	7.8	58
27	Critical behaviour of the Pauli spin susceptibility of strongly correlated electrons in two dimensions. Philosophical Magazine, 2006, 86, 2761-2770.	1.6	0
28	Disorder-induced features of the transverse resistance in a Si-MOSFET in the quantum Hall effect regime. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 309-312.	0.8	4
29	Magnetization of a Strongly Interacting Two-Dimensional Electron System in Perpendicular Magnetic Fields. Physical Review Letters, 2006, 96, 046409.	7.8	29
30	Comment on "Interaction Effects in Conductivity of Si Inversion Layers at Intermediate Temperatures". Physical Review Letters, 2004, 93, 269705.	7.8	7
31	Novel phenomena in dilute electron systems in two dimensions. European Physical Journal B, 2004, 40, 397-402.	1.5	0
32	Metal-insulator transition in two-dimensional electron systems. Reports on Progress in Physics, 2004, 67, 1-44.	20.1	403
33	Spin-Independent Origin of the Strongly Enhanced Effective Mass in a Dilute 2D Electron System. Physical Review Letters, 2003, 91, 046403.	7.8	107
34	Sharp increase of the effective mass near the critical density in a metallic two-dimensional electron system. Physical Review B, 2002, 66, .	3.2	168
35	Metal-Insulator Transition in a 2D Electron Gas: Equivalence of Two Approaches for Determining the Critical Point. Physical Review Letters, 2001, 87, 266402.	7.8	60
36	New Phenomena in Dilute 2D Electron Systems. Physica Status Solidi (B): Basic Research, 2000, 218, 237-242.	1.5	2

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37	Shubnikov-de Haas oscillations near the metal-insulator transition in a two-dimensional electron system in silicon. Solid State Communications, 2000, 116, 495-499.	1.9	47
38	Novel phenomena in dilute electron systems in two dimensions. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 5900-5902.	7.1	43
39	Magnetic Field Suppression of the Conducting Phase in Two Dimensions. Physical Review Letters, 1997, 79, 2304-2307.	7.8	259
40	Scaling of an anomalous metal-insulator transition in a two-dimensional system in silicon at $B=0$. Physical Review B, 1995, 51, 7038-7045.	3.2	415
41	Global Phase Diagram for the Quantum Hall Effect: An Experimental Picture. Physical Review Letters, 1995, 75, 910-913.	7.8	111
42	Possible metal-insulator transition at $B=0$ in two dimensions. Physical Review B, 1994, 50, 8039-8042.	3.2	559
43	Zero-magnetic-field collective insulator phase in a dilute 2D electron system. Physical Review Letters, 1993, 70, 1866-1869.	7.8	140
44	Metal-insulator transition in Si inversion layers in the extreme quantum limit. Physical Review B, 1992, 46, 13303-13308.	3.2	27