Sergey Kravchenko

List of Publications by Year
in descending order

44	2,976	304743	289244
papers	citations	22 h-index	40 g-index

44	44	44	1214
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Possible metal-insulator transition atB=0 in two dimensions. Physical Review B, 1994, 50, 8039-8042.	3.2	559
2	Scaling of an anomalous metal-insulator transition in a two-dimensional system in silicon atB=0. Physical Review B, 1995, 51, 7038-7045.	3.2	415
3	Metalâ€“insulator transition in two-dimensional electron systems. Reports on Progress in Physics, 2004, 67, 1-44.	20.1	403
4	Magnetic Field Suppression of the Conducting Phase in Two Dimensions. Physical Review Letters, 1997, 79, 2304-2307.	7.8	259
5	Colloquium: Transport in strongly correlated two dimensional electron fluids. Reviews of Modern Physics, 2010, 82, 1743-1766.	45.6	173
6	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
7	Zero-magnetic-field collective insulator phase in a dilute 2D electron system. Physical Review Letters, 1993, 70, 1866-1869.	7.8	140
8	Global Phase Diagram for the Quantum Hall Effect: An Experimental Picture. Physical Review Letters, 1995, 75, 910-913.	7.8	111
9	Spin-Independent Origin of the Strongly Enhanced Effective Mass in a Dilute 2D Electron System. Physical Review Letters, 2003, 91, 046403.	7.8	107
10	Flow diagram of the metalâ€“insulator transition in two dimensions. Nature Physics, 2007, 3, 707-710.	16.7	82
11	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
12	Pauli Spin Susceptibility of a Strongly Correlated Two-Dimensional Electron Liquid. Physical Review Letters, 2006, 96, 036403.	7.8	58
13	Critical Behavior of a Strongly Interacting 2D Electron System. Physical Review Letters, 2012, 109, 096405.	7.8	51
14	Shubnikov-de Haas oscillations near the metalâ€“insulator transition in a two-dimensional electron system in silicon. Solid State Communications, 2000, 116, 495-499.	1.9	47
15	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
16	Transport evidence for a sliding two-dimensional quantum electron solid. Nature Communications, 2018, 9, 3803.	12.8	31
17	Ultra-high mobility two-dimensional electron gas in a SiGe/Si/SiGe quantum well. Applied Physics Letters, 2015, 106, .	3.3	30
18	Magnetization of a Strongly Interacting Two-Dimensional Electron System in Perpendicular Magnetic Fields. Physical Review Letters, 2006, 96, 046409.	7.8	29

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19	Metal-insulator transition in Si inversion layers in the extreme quantum limit. Physical Review B, 1992, 46, 13303-13308.	3.2	27
20	Indication of band flattening at the Fermi level in a strongly correlated electron system. Scientific Reports, 2017, 7, 14539.	3.3	25
21	Recent Developments in the Field of the Metal-Insulator Transition in Two Dimensions. Applied Sciences (Switzerland), 2019, 9, 1169.	2.5	24
22	Quantum phase transition in ultrahigh mobility SiGe/Si/SiGe two-dimensional electron system. Physical Review B, 2019, 99, .	3.2	23
23	Effective electron mass in high-mobility SiGe/Si/SiGe quantum wells. JETP Letters, 2014, 100, 114-119.	1.4	13
24	Spin polarization and exchange-correlation effects in transport properties of two-dimensional electron systems in silicon. Physical Review B, 2017, 96, .	3.2	13
25	A METALâ€“INSULATOR TRANSITION IN 2D: ESTABLISHED FACTS AND OPEN QUESTIONS. International Journal of Modern Physics B, 2010, 24, 1640-1663.	2.0	12
26	Test of the scaling theory in two dimensions in the presence of valley splitting and intervalley scattering in Si-MOSFETs. Physical Review B, 2010, 82, .	3.2	11
27	Unusual anisotropy of inplane field magnetoresistance in ultra-high mobility SiGe/Si/SiGe quantum wells. Journal of Applied Physics, 2017, 122, 224301.	2.5	11
28	Metalâ€“insulator transition and low-density phases in a strongly-interacting two-dimensional electron system. Annals of Physics, 2021, 435, 168542.	2.8	10
29	Metallic state in a strongly interacting spinless two-valley electron system in two dimensions. Physical Review B, 2020, 101, .	3.2	8
30	Comment on â€œInteraction Effects in Conductivity of Si Inversion Layers at Intermediate Temperaturesâ€• Physical Review Letters, 2004, 93, 269705.	7.8	7
31	Manifestation of strong correlations in transport in ultraclean SiGe/Si/SiGe quantum wells. Physical Review B, 2020, 102, .	3.2	6
32	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
33	Fractional Quantum Hall Effect in SiGe/Si/SiGe Quantum Wells in Weak Quantizing Magnetic Fields. JETP Letters, 2018, 107, 794-797.	1.4	4
34	Valley effects on the fractions in an ultrahigh mobility SiGe/Si/SiGe two-dimensional electron system. Physical Review B, 2021, 103, .	3.2	3
35	New Phenomena in Dilute 2D Electron Systems. Physica Status Solidi (B): Basic Research, 2000, 218, 237-242.	1.5	2
36	Hartree-Fock description of a Wigner crystal in two dimensions. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 119, 114016.	2.7	2

#	Article	IF	Citations
37	Spin effect on the low-temperature resistivity maximum in a strongly interacting 2D electron system. Scientific Reports, 2022, 12, 5080.	3.3	2
38	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
39	EFFECTS OF ELECTRON-ELECTRON INTERACTIONS IN TWO DIMENSIONS. International Journal of Modern Physics B, 2009, 23, 4186-4197.	2.0	1
40	Conductance asymmetry of a slot gate Si-MOSFET in a strong parallel magnetic field. Annalen Der Physik, 2009, 18, 913-917.	2.4	1
41	Novel phenomena in dilute electron systems in two dimensions. European Physical Journal B, 2004, 40, 397-402.	1.5	0
42	Critical behaviour of the Pauli spin susceptibility of strongly correlated electrons in two dimensions. Philosophical Magazine, 2006, 86, 2761-2770.	1.6	0
43	EFFECTS OF ELECTRON-ELECTRON INTERACTIONS IN TWO DIMENSIONS. , 2009, , .		0
44	Noise signal as input data in self-organized neural networks. Low Temperature Physics, 2022, 48, 452-458.	0.6	0