

Yoshiro Hirayama

List of Publications by Year in descending order

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55
papers

3,780
citations

159358

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168136

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all docs

55
docs citations

55
times ranked

2468
citing authors

#	ARTICLE	IF	CITATIONS
1	Resistively Detected NMR Lineshapes in a Local Filling $\nu=1$ Quantum Hall Breakdown. Physica Status Solidi (B): Basic Research, 2022, 259, 2100504.	0.7	0
2	Even-denominator fractional quantum Hall state in conventional triple-gated quantum point contact. Applied Physics Express, 2022, 15, 025002.	1.1	4
3	Imaging disorder-induced scattering centers in quantum Hall incompressible strip. Physical Review B, 2021, 103, .	1.1	0
4	Large Zeeman Splitting in Out-of-Plane Magnetic Field in a Double-Layer Quantum Point Contact. Journal of the Physical Society of Japan, 2021, 90, 024709.	0.7	2
5	Double nuclear spin relaxation in hybrid quantum Hall systems. Physical Review B, 2021, 104, .	1.1	2
6	Wigner solids of domain wall skyrmions. Nature Communications, 2021, 12, 6006.	5.8	10
7	Inelastic Electron Transport and Ortho-Para Fluctuation of Water Molecule in $H_2O@C_{60}$ Single Molecule Transistors. Nano Letters, 2021, 21, 10346-10353.	4.5	9
8	Quantum point contact potential curvature under correlated disorder potentials. Physical Review B, 2020, 102, .	1.1	1
9	Resistively detected NMR in a triple-gate quantum point contact: Magnetic field dependence. Physical Review B, 2020, 101, .	1.1	5
10	Magnetotransport of electrically induced two-dimensional hole gases in undoped GaSb quantum wells. Physical Review Research, 2020, 2, .	1.3	1
11	Electric-field-induced two-dimensional hole gas in undoped GaSb quantum wells. Applied Physics Letters, 2019, 114, .	1.5	6
12	Probing strain modulation in a gate-defined one-dimensional electron system. Physical Review B, 2019, 100, .	1.1	6
13	Transport characteristics of InSb trench-type in-plane gate quantum point contact. Applied Physics Letters, 2018, 112, .	1.5	17
14	Detection and Control of Spin-Orbit Interactions in a GaAs Hole Quantum Point Contact. Physical Review Letters, 2017, 118, 146801.	2.9	18
15	Fabry-Pérot interference in a triple-gated quantum point contact. Applied Physics Letters, 2016, 109, 143509.	1.5	6
16	Scanning nuclear electric resonance microscopy using quantum-Hall-effect breakdown. AIP Advances, 2016, 6, 075024.	0.6	3
17	Localized NMR Mediated by Electrical-Field-Induced Domain Wall Oscillation in Quantum-Hall-Ferromagnet Nanowire. Nano Letters, 2016, 16, 1596-1601.	4.5	4
18	Comparison of nuclear electric resonance and nuclear magnetic resonance in integer and fractional quantum Hall states. AIP Advances, 2015, 5, 087156.	0.6	4

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19	Robust Nodal Structure of Landau Level Wave Functions Revealed by Fourier Transform Scanning Tunneling Spectroscopy. <i>Physical Review Letters</i> , 2012, 109, 116805.	2.9	27
20	Measurement of the Noise Spectrum Using a Multiple-Pulse Sequence. <i>Physical Review Letters</i> , 2011, 107, 170504.	2.9	89
21	Low-Frequency Spin Fluctuations in Skyrmions Confined by Wires: Measurements of Local Nuclear Spin Relaxation. <i>Physical Review Letters</i> , 2011, 107, 126807.	2.9	8
22	Impact of Valley Polarization on the Resistivity in Two Dimensions. <i>Physical Review Letters</i> , 2011, 106, 196403.	2.9	8
23	Quantum Hall Transition in Real Space: From Localized to Extended States. <i>Physical Review Letters</i> , 2008, 101, 256802.	2.9	132
24	Electric Field Induced Nuclear Spin Resonance Mediated by Oscillating Electron Spin Domains in GaAs-Based Semiconductors. <i>Physical Review Letters</i> , 2008, 101, 137602.	2.9	11
25	Negative Coulomb Drag in a One-Dimensional Wire. <i>Science</i> , 2006, 313, 204-207.	6.0	87
26	Optical probing of composite fermions in a two-dimensional electron gas. <i>Nature Physics</i> , 2006, 2, 239-243.	6.5	48
27	Bidirectional Counting of Single Electrons. <i>Science</i> , 2006, 312, 1634-1636.	6.0	323
28	Low-Frequency Spin Dynamics in a Canted Antiferromagnet. <i>Science</i> , 2006, 313, 329-332.	6.0	50
29	Valley Polarization in Si(100) at Zero Magnetic Field. <i>Physical Review Letters</i> , 2006, 96, 236801.	2.9	131
30	Nanometre-scale nuclear-spin device for quantum information processing. <i>Journal of Physics Condensed Matter</i> , 2006, 18, S885-S900.	0.7	25
31	Controlled multiple quantum coherences of nuclear spins in a nanometre-scale device. <i>Nature</i> , 2005, 434, 1001-1005.	13.7	186
32	Electron counting of single-electron tunneling current. <i>Applied Physics Letters</i> , 2004, 84, 2343-2345.	1.5	114
33	Rotation and phase-shift operations for a charge qubit in a double quantum dot. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 21, 1046-1052.	1.3	65
34	Coherent Manipulation of Electronic States in a Double Quantum Dot. <i>Physical Review Letters</i> , 2003, 91, 226804.	2.9	679
35	Nonequilibrium Transport through a Vertical Quantum Dot in the Absence of Spin-Flip Energy Relaxation. <i>Physical Review Letters</i> , 2002, 88, 236802.	2.9	57
36	Electrically Controlled Nuclear Spin Polarization and Relaxation by Quantum-Hall States. <i>Physical Review Letters</i> , 2002, 88, 176601.	2.9	146

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37	Allowed and forbidden transitions in artificial hydrogen and helium atoms. <i>Nature</i> , 2002, 419, 278-281.	13.7	342
38	Imaging of Friedel Oscillation Patterns of Two-Dimensionally Accumulated Electrons at Epitaxially Grown InAs(111)A Surfaces. <i>Physical Review Letters</i> , 2001, 86, 3384-3387.	2.9	122
39	Local Density of States in Zero-Dimensional Semiconductor Structures. <i>Physical Review Letters</i> , 2001, 87, 196804.	2.9	43
40	Charge Excitations in Easy-Axis and Easy-Plane Quantum Hall Ferromagnets. <i>Physical Review Letters</i> , 2001, 87, 196801.	2.9	65
41	Charge noise analysis of an AlGaAs/GaAs quantum dot using transmission-type radio-frequency single-electron transistor technique. <i>Applied Physics Letters</i> , 2000, 77, 543-545.	1.5	75
42	Two-dimensional growth of InSb thin films on GaAs(111)A substrates. <i>Applied Physics Letters</i> , 2000, 76, 589-591.	1.5	61
43	Two-dimensional electron gas formed in a back-gated undoped heterostructure. <i>Applied Physics Letters</i> , 1998, 72, 1745-1747.	1.5	41
44	High Electron Mobility in AlGaAs/GaAs Modulation-Doped Structures. <i>Japanese Journal of Applied Physics</i> , 1991, 30, 902-905.	0.8	54
45	Resonant tunneling of three-dimensional electrons into degenerate zero-dimensional levels. <i>Physical Review B</i> , 1991, 44, 13815-13818.	1.1	30
46	Transport characteristics of AlGaAs/GaAs wires fabricated by focused Ga ⁺ ion-beam implantation. <i>Journal of Applied Physics</i> , 1991, 69, 3633-3640.	1.1	33
47	Ballistic electron transport in macroscopic four-terminal square structures with high mobility. <i>Applied Physics Letters</i> , 1991, 58, 2672-2674.	1.5	44
48	Resonant tunneling through one- and zero-dimensional states constricted by Al _x Ga _{1-x} As/GaAs/Al _x Ga _{1-x} As heterojunctions and high-resistance regions induced by focused Ga ion-beam implantation. <i>Physical Review B</i> , 1990, 41, 5459-5462.	1.1	103
49	Conductance characteristics of ballistic one-dimensional channels controlled by a gate electrode. <i>Applied Physics Letters</i> , 1989, 54, 2556-2558.	1.5	36
50	Electronic transport through very short and narrow channels constricted in GaAs by highly resistive Ga-implanted regions. <i>Physical Review B</i> , 1989, 39, 5535-5537.	1.1	64
51	Fabrication of a GaAs quantum-well-wire structure by Ga focused-ion-beam implantation and its optical properties. <i>Physical Review B</i> , 1988, 37, 2774-2777.	1.1	107
52	Ion-Species Dependence of Interdiffusion in Ion-Implanted GaAs-AlAs Superlattices. <i>Japanese Journal of Applied Physics</i> , 1985, 24, 1498-1502.	0.8	102
53	Electrical Properties of Ga Ion Beam Implanted GaAs Epilayer. <i>Japanese Journal of Applied Physics</i> , 1985, 24, L965-L967.	0.8	44
54	Compositional Disordering of GaAs-Al _x Ga _{1-x} As Superlattice by Ga Focused Ion Beam Implantation and its Application to Submicron Structure Fabrication. <i>Japanese Journal of Applied Physics</i> , 1985, 24, L516-L518.	0.8	85

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55	Interdiffusion of Al and Ga in Si-Implanted GaAs/AlAs Superlattices. Japanese Journal of Applied Physics, 1984, 23, 1568-1572.	0.8	45