## Tomi Ohtsuki

## List of Publications by Year in descending order

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158 papers 3,516 citations

147566 31 h-index 55 g-index

160 all docs 160 docs citations

160 times ranked  $\begin{array}{c} 1677 \\ \text{citing authors} \end{array}$ 

#	Article	IF	CITATIONS
1	Corrections to Scaling at the Anderson Transition. Physical Review Letters, 1999, 82, 382-385.	2.9	265
2	Random network models and quantum phase transitions in two dimensions. Physics Reports, 2005, 417, 211-342.	10.3	148
3	Density of States Scaling at the Semimetal to Metal Transition in Three Dimensional Topological Insulators. Physical Review Letters, 2014, 112, 016402.	2.9	145
4	The Anderson Transition: Time Reversal Symmetry and Universality. Physical Review Letters, 1997, 78, 4083-4086.	2.9	138
5	Critical exponent for the quantum Hall transition. Physical Review B, 2009, 80, .	1.1	122
6	Deep Learning the Quantum Phase Transitions in Random Two-Dimensional Electron Systems. Journal of the Physical Society of Japan, 2016, 85, 123706.	0.7	113
7	Critical exponent for the Anderson transition in the three-dimensional orthogonal universality class. New Journal of Physics, 2014, 16, 015012.	1.2	111
8	Anderson Transition in Two-Dimensional Systems with Spin-Orbit Coupling. Physical Review Letters, 2002, 89, 256601.	2.9	108
9	Disordered Weak and Strong Topological Insulators. Physical Review Letters, 2013, 110, 236803.	2.9	97
10	Mesoscopic Stern-Gerlach spin filter by nonuniform spin-orbit interaction. Physical Review B, 2005, 72,	1.1	92
11	Reconciling Conductance Fluctuations and the Scaling Theory of Localization. Physical Review Letters, 2001, 86, 3594-3597.	2.9	86
12	Effect of Disorder in a Three-Dimensional Layered Chern Insulator. Physical Review Letters, 2016, 116, 066401.	2.9	84
13	Random laser action in GaN nanocolumns. Applied Physics Letters, 2010, 97, .	1.5	77
14	Anomalous Diffusion at the Anderson Transitions. Journal of the Physical Society of Japan, 1997, 66, 314-317.	0.7	76
15	Inverse Participation Number and Fractal Dimensionality of Electronic States in a Two Dimensional System in Strong Perpendicular Magnetic Field. Journal of the Physical Society of Japan, 1989, 58, 1705-1716.	0.7	61
16	Numerical estimation of the $\hat{l}^2$ function in two-dimensional systems with spin-orbit coupling. Physical Review B, 2004, 70, .	1.1	61
17	Deep Learning the Quantum Phase Transitions in Random Electron Systems: Applications to Three Dimensions. Journal of the Physical Society of Japan, 2017, 86, 044708.	0.7	60
18	Diffusion of electrons in random magnetic fields. Physical Review B, 1995, 51, 10897-10904.	1.1	55

#	Article	IF	Citations
19	Anderson Transition in Three-Dimensional Disordered Systems with Symplectic Symmetry. Physical Review Letters, 1996, 77, 3593-3596.	2.9	54
20	Spin polarization in a T-shaped conductor induced by strong Rashba spin-orbit coupling. Physical Review B, 2005, 72, .	1.1	53
21	Topology Dependent Quantities at the Anderson Transition. Physical Review Letters, 2000, 84, 3915-3918.	2.9	49
22	Universality Classes of the Anderson Transitions Driven by Non-Hermitian Disorder. Physical Review Letters, 2021, 126, 090402.	2.9	48
23	Anderson Transition in a Strong Magnetic Field. Europhysics Letters, 1994, 27, 389-394.	0.7	47
24	Diffusion of electrons in two-dimensional disordered symplectic systems. Physical Review B, 1996, 53, 6975-6978.	1.1	44
25	Finite-size energy gap in weak and strong topological insulators. Physical Review B, 2012, 86, .	1.1	42
26	Drawing Phase Diagrams of Random Quantum Systems by Deep Learning the Wave Functions. Journal of the Physical Society of Japan, 2020, 89, 022001.	0.7	39
27	Scaling of the conductance distribution near the Anderson transition. Physical Review B, 2003, 67, .	1.1	35
28	FINITE SIZE SCALING OF THE CHALKER-CODDINGTON MODEL. International Journal of Modern Physics Conference Series, 2012, 11, 60-69.	0.7	35
29	Anderson Transition in Three-Dimensional Systems in Strong Magnetic Fields. Journal of the Physical Society of Japan, 1993, 62, 224-238.	0.7	34
30	Quantum Hall Conductivity and the Electronic States in Cylinder Geometry with Finite Width. Journal of the Physical Society of Japan, 1989, 58, 956-968.	0.7	33
31	Numerical study of electronic states in confined two dimensional disordered systems under high magnetic fields. Solid State Communications, 1988, 65, 403-407.	0.9	31
32	On the fractal dimensionality of the extended states in disordered two-dimensional systems in a strong magnetic field. Surface Science, 1988, 196, 127-133.	0.8	31
33	Integer quantum magnon Hall plateau-plateau transition in a spin-ice model. Physical Review B, 2016, 94,	1.1	31
34	Critical Exponent of the Anderson Transition Using Massively Parallel Supercomputing. Journal of the Physical Society of Japan, 2018, 87, 094703.	0.7	31
35	Modification and Control of Topological Insulator Surface States Using Surface Disorder. Physical Review Applied, 2015, 3, .	1.5	29
36	Anderson transitions in three-dimensional disordered systems with randomly varying magnetic flux. Physical Review B, 1998, 57, 11842-11845.	1.1	28

#	Article	IF	CITATIONS
37	Numerical verification of universality for the Anderson transition. Physical Review B, 2001, 63, .	1.1	28
38	Complete Scaling Analysis of the Metal–Insulator Transition in Ge:Ga: Effects of Doping-Compensation and Magnetic Field. Journal of the Physical Society of Japan, 2004, 73, 173-183.	0.7	28
39	Review of recent progress on numerical studies of the Anderson transition. Annalen Der Physik, 1999, 8, 655-664.	0.9	27
40	Localization in the quantum Hall regime. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 20, 172-187.	1.3	27
41	FINITE SIZE SCALING ANALYSIS OF THE ANDERSON TRANSITION. International Journal of Modern Physics B, 2010, 24, 1841-1854.	1.0	27
42	Anderson Transition in the Three Dimensional Symplectic Universality Class. Journal of the Physical Society of Japan, 2005, 74, 238-241.	0.7	25
43	Three-Dimensional Quantum Percolation Studied by Level Statistics. Journal of the Physical Society of Japan, 1999, 68, 1488-1491.	0.7	24
44	The hall current distribution in a two dimensional system with finite width. European Physical Journal B, 1987, 68, 445-450.	0.6	22
45	Potential Range Dependence of Mixing of Edge States in Quantum Hall Effect. Journal of the Physical Society of Japan, 1989, 58, 3863-3864.	0.7	22
46	Phase Diagrams of Three-Dimensional Anderson and Quantum Percolation Models Using Deep Three-Dimensional Convolutional Neural Network. Journal of the Physical Society of Japan, 2017, 86, 113704.	0.7	22
47	Numerical evaluation of the critical behavior at the metal-insulator transition in a magnetic field. Solid State Communications, 1992, 81, 477-480.	0.9	21
48	Unifying the Anderson transitions in Hermitian and non-Hermitian systems. Physical Review Research, 2022, 4, .	1.3	21
49	Critical Level Statistics in Two-Dimensional Disordered Electron Systems. Journal of the Physical Society of Japan, 1995, 64, 4088-4091.	0.7	20
50	Slevin and Ohtsuki Reply:. Physical Review Letters, 1999, 82, 669-669.	2.9	19
51	Transfer matrix study of the Anderson transition in non-Hermitian systems. Physical Review B, 2021, $104$ , .	1.1	19
52	Analysis of Two Dimensional Electronic States in Strong Magnetic Field by Random Matrix Model. Journal of the Physical Society of Japan, 1991, 60, 270-279.	0.7	18
53	Comments on the quantum hall conductivity in cylinder geometry with finite width. Solid State Communications, 1988, 68, 787-790.	0.9	17
54	Unconventional conductance plateau transitions in quantum Hall wires with spatially correlated disorder. Physical Review B, 2007, 75, .	1.1	17

#	ARTICLE  Experimental proof of universal conductance fluctuation in quasi-one-dimensional epitaxial	IF	Citations
55	Bi <mml:math\xmlns:mml="http: 1998="" math="" mathml"<br="" www.w3.org="">display="inline"&gt;<mml:msub><mml:mrow /&gt;<mml:mn>2</mml:mn></mml:mrow </mml:msub>Se<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"&gt;<mml:msub><mml:mrow< td=""><td>1.1</td><td>17</td></mml:mrow<></mml:msub></mml:math </mml:math\xmlns:mml="http:>	1.1	17
56	Dimensional crossover of transport characteristics in topological insulator nanofilms. Physical Review B, 2015, 92, .	1.1	17
57	Comparative study of Weyl semimetal and topological/Chern insulators: Thin-film point of view. Physical Review B, 2016, 94, .	1.1	17
58	Quantum multicriticality in disordered Weyl semimetals. Physical Review B, 2018, 97, .	1.1	17
59	Scaling Behavior of Level Spacing Distribution in the Lowest Landau Band of Two-Dimensional Disordered Electrons. Journal of the Physical Society of Japan, 1993, 62, 3813-3817.	0.7	16
60	Metal-Insulator Transition in Three-Dimensional Systems with Random Phase Hopping. Journal of the Physical Society of Japan, 1994, 63, 685-694.	0.7	16
61	Dephasing by Time-Dependent Random Potentials. Journal of the Physical Society of Japan, 1997, 66, 949-952.	0.7	16
62	Hall Current Distributions in Quatum Hall Effect on Finite Cylinder Surface. Journal of the Physical Society of Japan, 1989, 58, 2482-2494.	0.7	15
63	Two-Dimensional Tight-Binding Electrons in Electric and Magnetic Fields. Journal of the Physical Society of Japan, 1995, 64, 2092-2099.	0.7	15
64	Estimate of the Critical Exponent of the Anderson Transition in the Three and Four-Dimensional Unitary Universality Classes. Journal of the Physical Society of Japan, 2016, 85, 104712.	0.7	15
65	Application of Convolutional Neural Network to Quantum Percolation in Topological Insulators. Journal of the Physical Society of Japan, 2019, 88, 123704.	0.7	15
66	Stark Ladders in a Two-Dimensional Tight-Binding Lattice. Journal of the Physical Society of Japan, 1993, 62, 2773-2782.	0.7	14
67	Level Spacing Distribution and î"3-Statistics of Two Dimensional Disordered Electrons in Strong Magnetic Field. Journal of the Physical Society of Japan, 1993, 62, 2762-2772.	0.7	14
68	Light localization characteristics in a random configuration of dielectric cylindrical columns. Physical Review B, 2010, 82, .	1.1	14
69	Near-field optical imaging of light localization in GaN nanocolumn system. Japanese Journal of Applied Physics, 2014, 53, 030301.	0.8	14
70	Quantum transport in novel Chalker–Coddington model. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1677-1680.	1.3	13
71	Conductance distribution at two-dimensional Anderson transitions. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 248-251.	1.3	12
72	Possible Anderson transition below two dimensions in disordered systems of noninteracting electrons. Physical Review B, 2006, 73, .	1.1	12

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73	Conductance distributions in disordered quantum spin-Hall systems. Physical Review B, 2010, 82, .	1.1	12
74	Conductance Fluctuations in Two-Dimensional Systems in Random Magnetic Fields. Journal of the Physical Society of Japan, 1993, 62, 3979-3987.	0.7	11
75	Universality classes of the Anderson transition in the three-dimensional symmetry classes AllI, BDI, C, D, and CI. Physical Review B, 2021, 104, .	1.1	11
76	Conductance fluctuations in the presence of spin scattering. Physical Review B, 2003, 68, .	1.1	10
77	Hall Current Distributions in Quantum Hall Effect on Finite Cylinder Surface. II. Gate Barrier Effect. Journal of the Physical Society of Japan, 1990, 59, 637-648.	0.7	9
78	Anderson Transition of Three Dimensional Phonon Modes. Journal of the Physical Society of Japan, 1998, 67, 2954-2955.	0.7	9
79	Mesoscopic Hall effect driven by chiral spin order. Physical Review B, 2007, 75, .	1.1	9
80	Magnetic Field Induced Localization in Three Dimensional Metallic Systems. Journal of the Physical Society of Japan, 1986, 55, 2343-2356.	0.7	9
81	Nonchiral edge states at the chiral metal-insulator transition in disordered quantum Hall wires. Physical Review B, 2005, 72, .	1.1	8
82	Critical behavior of Anderson transitions in three-dimensional orthogonal classes with particle-hole symmetries. Physical Review B, 2020, $101$ , .	1.1	8
83	Multicriticality of two-dimensional class-D disordered topological superconductors. Physical Review B, 2021, 104, .	1.1	8
84	Scaling Behavior of Level Statistics in Quantum Hall Regime. Journal of the Physical Society of Japan, 1996, 65, 1734-1743.	0.7	7
85	Conductance-plateau transitions in quantum Hall wires with spatially correlated random magnetic fields. Physical Review B, 2008, 78, .	1.1	7
86	Unconventional scaling theory in disorder-driven quantum phase transition. Physical Review B, 2018, 98, .	1.1	7
87	Electronic states in disordered layered systems in the quantum Hall regime. Surface Science, 1992, 263, 134-136.	0.8	6
88	Point-Contact Conductance in Asymmetric Chalker–Coddington Network Model. Journal of the Physical Society of Japan, 2009, 78, 084708.	0.7	6
89	Multifractality and the distribution of the Kondo temperature at the Anderson transition. European Physical Journal B, 2019, 92, 1.	0.6	6
90	Hyperuniform electron distributions controlled by electron interactions in quasicrystals. Physical Review B, 2022, 105, .	1.1	6

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91	Electron Transport and Time-Dependent Perturbation in a Two-Dimensional Symplectic System. Journal of the Physical Society of Japan, 2003, 72, 645-649.	0.7	5
92	The mesoscopic chiral metal-insulator transition. JETP Letters, 2004, 80, 285-289.	0.4	5
93	Numerical study on Anderson transitions in three-dimensional disordered systems in random magnetic fields. Annalen Der Physik, 1999, 8, 487-496.	0.9	4
94	Spin-polarization induced by Rashba spin–orbit coupling in three-terminal devices. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 462-465.	1.3	4
95	Quantum transport phenomena in disordered electron systems with spin–orbit coupling in two dimensions and below. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 34, 228-231.	1.3	4
96	Transport properties in network models with perfectly conducting channels. Journal of Physics: Conference Series, 2009, 150, 022041.	0.3	4
97	Electronic States in 2D Random Systems in High Magnetic Fields. Springer Series in Solid-state Sciences, 1992, , 60-69.	0.3	4
98	Ballistic transport in disordered Dirac and Weyl semimetals. Physical Review Research, 2020, 2, .	1.3	4
99	The Chiral Symplectic Universality Class. Journal of the Physical Society of Japan, 2003, 72, 145-146.	0.7	4
100	Novel Scaling Relation of the Energy Spacing Distribution in Quantum-Hall Systems. Physica Status Solidi (B): Basic Research, 1998, 205, 373-376.	0.7	3
101	Numerical study of inelastic scatterings by time-dependent random potentials in two-dimensional systems. Physica B: Condensed Matter, 1998, 249-251, 801-804.	1.3	3
102	Anderson transitions in a random magnetic field. Journal of Physics Condensed Matter, 1998, 10, 11547-11550.	0.7	3
103	Transport in Two Dimensional Periodic Magnetic Fields. Journal of the Physical Society of Japan, 1998, 67, 3886-3890.	0.7	3
104	Magnetotransport in inhomogeneous magnetic fields. Physical Review B, 2003, 67, .	1.1	3
105	Quantum transport properties of two-dimensional systems in disordered magnetic fields with a fixed sign. Physical Review B, 2005, 71, .	1.1	3
106	Anderson localization of light in two-dimensional random arrays of semiconductor nanocolumns. , 2013, , .		3
107	Machine learning the dynamics of quantum kicked rotor. Annals of Physics, 2021, 435, 168500.	1.0	3
108	Review of recent progress on numerical studies of the Anderson transition. Annalen Der Physik, 1999, 511, 655-664.	0.9	3

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109	Deciphering quantum fingerprints in electric conductance. Nature Communications, 2022, 13, .	5.8	3
110	Two-parameter scaling function in two-dimensional Anderson localization under weak magnetic fields. Surface Science, 1986, 170, 714-718.	0.8	2
111	Effect of boundary conditions at the Anderson transition. Physica B: Condensed Matter, 2000, 284-288, 1549-1550.	1.3	2
112	Quantum Percolation and the Anderson Transition. Journal of the Physical Society of Japan, 2003, 72, 141-142.	0.7	2
113	Spin-polarization in a 3-terminal conductor induced by Rashba spin–orbit coupling. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 490-494.	1.3	2
114	The quantum Hall effect in narrow quantum wires. Physica Status Solidi (B): Basic Research, 2008, 245, 393-408.	0.7	2
115	Quantum transport properties of quantum Hall wires in the presence of correlated disorder. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1072-1074.	1.3	2
116	Engineering Dirac electrons emergent on the surface of a topological insulator. Science and Technology of Advanced Materials, 2015, 16, 014403.	2.8	2
117	Review of recent progress on numerical studies of the Anderson transition. , 1999, 8, 655.		2
118	Spin-Dependent Electron Transport Through a Ferromagnetic Domain Wall. Journal of the Physical Society of Japan, 2003, 72, 209-210.	0.7	2
119	Time-Dependent Perturbation in Two-Dimensional Disordered Symplectic Systems: Dephasing and Scaling. Journal of the Physical Society of Japan, 2003, 72, 185-186.	0.7	2
120	Renormalization group analysis of Dirac fermions with a random mass. Physical Review B, 2021, 104, .	1.1	2
121	Anderson transition in layered systems in quantizing magnetic fields. Physica B: Condensed Matter, 1993, 184, 26-29.	1.3	1
122	Electronic states of a two-dimensional tight-binding model in electric and magnetic fields. Physica B: Condensed Matter, 1993, 184, 310-313.	1.3	1
123	Universal conductance distribution in three-dimensional systems in high magnetic fields. Journal of Physics Condensed Matter, 1998, 10, 11337-11343.	0.7	1
124	The Anderson transition due to random spin–orbit coupling in 2D. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 274-275.	1.3	1
125	Scaling and Fluctuations of the Lyapunov Exponent in a 2D Anderson Localisation Problem. Journal of the Physical Society of Japan, 2003, 72, 173-174.	0.7	1
126	Transport Properties of Two Dimensional Electrons in Magnetic Fields with Sine-Like Modulation. Journal of the Physical Society of Japan, 2003, 72, 594-598.	0.7	1

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127	Anderson localization of light in a random configuration of nanocolumns. Journal of Physics: Conference Series, 2009, 193, 012055.	0.3	1
128	Numerical study on Anderson transitions in three-dimensional disordered systems in random magnetic fields., 1999, 8, 487.		1
129	Effects of Magnetic Field Applied on Leads. Journal of the Physical Society of Japan, 2003, 72, 155-156.	0.7	1
130	Anderson Transition in Homogeneous and Random Magnetic Fields. , 1995, , 21-29.		1
131	Two-parameter scaling function in two-dimensional Anderson localization under weak magnetic fields. Surface Science Letters, 1986, 170, A261.	0.1	O
132	Two-ripplon processes of electrons on the liquid 4He surface. Surface Science, 1992, 263, 671-673.	0.8	0
133	Single parameter scaling of the conductance distribution in mesoscopic conductors. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 282-283.	1.3	0
134	Transport properties of two-dimensional electrons in periodically modulated magnetic fields. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 153-154.	1.3	0
135	The Critical Exponents of the 2D and 3D Anderson Transitions. Journal of the Physical Society of Japan, 2003, 72, 65-66.	0.7	0
136	Spin-polarized current induced by three terminal geometry. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 430-433.	1.3	0
137	Shubnikov-de Haas effect on conductance fluctuations in two-dimensional random magnetic fields. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 34, 104-107.	1.3	O
138	Proposal for electrical detection of spin separation with in-plane magnetic field in mesoscopic Stern-Gerlach spin filter. , 2010, , .		0
139	Light Localization in a Random Configuration of Dielectric Nanocolumns. , 2010, , .		0
140	Anderson localization of light in a random configuration of semiconductor nanocolumns. Proceedings of SPIE, $2011$ , , .	0.8	0
141	Analysis of Anderson localization of light in GaN nanocolumns. , 2011, , .		0
142	Anderson localization of light in two-dimensional random media. , 2011, , .		0
143	Low-energy $\hat{1}_4$ SR Study on the Tetradymite Topological Insulator Bi1.5Sb0.5TeSe2. Physics Procedia, 2015, 75, 100-105.	1.2	0
144	Analysis of Kohn–Sham Eigenfunctions Using a Convolutional Neural Network in Simulations of the Metal–Insulator Transition in Doped Semiconductors. Journal of the Physical Society of Japan, 2021, 90, 094001.	0.7	0

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145	Dephasing by Time-Dependent Random Potentials. Journal of the Physical Society of Japan, 2002, 71, 2074-2074.	0.7	O
146	EFFECT OF A INVASIVE VOLTAGE PROBE ON THE SPIN POLARIZED CURRENT., 2005, , .		O
147	Mesoscopic Hall Effect driven by Chiral Spin Order. AIP Conference Proceedings, 2007, , .	0.3	0
148	Spin Polarized Transport and Spin Relaxation in Quantum Wires. Nanoscience and Technology, 2010, , 277-302.	1.5	0
149	Anderson Localization. , 2012, , 86-110.		O
150	FINITE SIZE SCALING OF THE CHALKER-CODDINGTON MODEL., 2012,,.		0
151	CRITICAL EXPONENT FOR THE QUANTUM SPIN HALL TRANSITION IN â,, P NETWORK MODEL. , 2012, , .		O
152	Random Lasing and Distributed Feedback Lasing in InGaN/GaN Nanocolumn Arrays. , 2013, , .		0
153	Anderson Transition Induced by Strong Magnetic Fields. Springer Series in Solid-state Sciences, 1987, , 377-380.	0.3	O
154	Edge and Bulk Extended States in Two-Dimensional Disordered Electronic Systems in Strong Magnetic Fields. Springer Proceedings in Physics, 1988, , 260-263.	0.1	0
155	Electronic States in Two-Dimensional Random Systems in the Presence of a Strong Magnetic Field. Springer Series in Solid-state Sciences, 1989, , 24-35.	0.3	O
156	Effect of Disorder and Gate Barrier on Edge States. Springer Series in Solid-state Sciences, 1992, , 123-126.	0.3	0
157	Equilibrium and Non-Equilibrium Current in the Quantum Hall Regime. , 1995, , 143-150.		0
158	Numerical study on Anderson transitions in threeâ€dimensional disordered systems in random magnetic fields. Annalen Der Physik, 1999, 511, 487-496.	0.9	O