

# Satoshi Okamoto

## List of Publications by Year in descending order

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142  
papers

7,989  
citations

44042

48  
h-index

51562

86  
g-index

146  
all docs

146  
docs citations

146  
times ranked

8079  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electronic reconstruction at an interface between a Mott insulator and a band insulator. Nature, 2004, 428, 630-633.	13.7	484
2	Stacking-Dependent Magnetism in Bilayer CrI <sub>3</sub> . Nano Letters, 2018, 18, 7658-7664.	4.5	475
3	Interface engineering of quantum Hall effects in digital transition metal oxide heterostructures. Nature Communications, 2011, 2, 596.	5.8	395
4	Magnetic ground state of semiconducting transition-metal trichalcogenide monolayers. Physical Review B, 2015, 91, .	1.1	352
5	Interface Ferromagnetism and Orbital Reconstruction in $\text{BiFeO}_3/\text{LaAlO}_3$ . Physical Review Letters, 2010, 105, 027201.	2.9	335
6	Suppression of Octahedral Tilts and Associated Changes in Electronic Properties at Epitaxial Oxide Heterostructure Interfaces. Physical Review Letters, 2010, 105, 087204.	2.9	308
7	Transition between Two Ferromagnetic States Driven by Orbital Ordering in $\text{La}_{0.88}\text{Sr}_{0.12}\text{MnO}_3$ . Physical Review Letters, 1999, 82, 4328-4331.	2.9	257
8	Lattice Relaxation in Oxide Heterostructures: $\text{LaTiO}_3/\text{SrTiO}_3$ Superlattices. Physical Review Letters, 2006, 97, 056802.	2.9	237
9	Observation of orbital waves as elementary excitations in a solid. Nature, 2001, 410, 180-183.	13.7	204
10	Dimensional-Crossover-Driven Metal-Insulator Transition in $\text{SrVO}_3$ Ultrathin Films. Physical Review Letters, 2010, 104, 147601.	2.9	171
11	Spin Nernst Effect of Magnons in Collinear Antiferromagnets. Physical Review Letters, 2016, 117, 217202.	2.9	171
12	Correlated insulating states at fractional fillings of the $\text{WS}_2/\text{WSe}_2$ moiré lattice. Nature Physics, 2021, 17, 715-719.	6.5	157
13	Spin and orbital Ti magnetism at $\text{LaMnO}_3/\text{SrTiO}_3$ interfaces. Nature Communications, 2010, 1, 82.	5.8	156
14	Spin-current probe for phase transition in an insulator. Nature Communications, 2016, 7, 12670.	5.8	148
15	Possible interaction-driven topological phases in (111) bilayers of $\text{LaNiO}_3$ . Physical Review B, 2011, 84, .	1.1	139
16	Evolution of structural, magnetic, and transport properties in $\text{MnBi}/\text{LaAlO}_3$ heterostructures. Physical Review B, 2019, 100, .	1.1	122
17	Spatial inhomogeneity and strong correlation physics: A dynamical mean-field study of a model Mott-insulator band-insulator heterostructure. Physical Review B, 2004, 70, .	1.1	117

#	ARTICLE	IF	CITATIONS
19	Oxide Heterostructures for Efficient Solar Cells. Physical Review Letters, 2013, 110, 078701.	2.9	113
20	Continuous metal-insulator transition of the antiferromagnetic perovskite $\text{NaOsO}_3$ . Physical Review B, 2009, 80, .	1.1	102
21	Magnetic Order and Dynamics in an Orbital Degenerate Ferromagnetic Insulator. Physical Review Letters, 2002, 89, 167202.	2.9	99
22	Electron doping of cuprates via interfaces with manganites. Physical Review B, 2007, 76, .	1.1	93
23	Tuning the Competition between Ferromagnetism and Antiferromagnetism in a Half-Doped Manganite through Magnetoelectric Coupling. Physical Review Letters, 2013, 111, 127601.	2.9	93
24	Gate-Controllable Magneto-optic Kerr Effect in Layered Collinear Antiferromagnets. Physical Review Letters, 2016, 117, 267203.	2.9	93
25	Photoemission from Buried Interfaces in SrTiO <sub>3</sub> /LaTiO <sub>3</sub> Superlattices. Physical Review Letters, 2006, 97, 057601.	2.9	90
26	Quantum Behavior of Orbitals in Ferromagnetic Titanates: Novel Orderings and Excitations. Physical Review Letters, 2002, 89, 167201.	2.9	86
27	Electronic and Magnetic Reconstructions in $\text{La}_{0.7}\text{MnO}_3$ : A Case of Enhanced Interlayer Coupling Controlled by the Interface. Physical Review Letters, 2011, 106, 147205.	2.9	83
28	Thermal Hall Effect Induced by Magnon-Phonon Interactions. Physical Review Letters, 2019, 123, 167202.	2.9	75
29	Orbital ordering in LaMnO <sub>3</sub> : Electron-electron and electron-lattice interactions. Physical Review B, 2002, 65, .	1.1	68
30	Orbital degree of freedom and phase separation in ferromagnetic manganites at finite temperatures. Physical Review B, 2000, 61, 451-458.	1.1	66
31	Doped Mott Insulators in (111) Bilayers of Perovskite Transition-Metal Oxides with a Strong Spin-Orbit Coupling. Physical Review Letters, 2013, 110, 066403.	2.9	66
32	Theory of Mott insulator to band insulator heterostructures. Physical Review B, 2004, 70, .	1.1	63
33	Correlation effects in (111) bilayers of perovskite transition-metal oxides. Physical Review B, 2014, 89, .	1.1	63
34	Global phase diagram of a doped Kitaev-Heisenberg model. Physical Review B, 2013, 87, .	1.1	62
35	Reversible electric-field control of magnetization at oxide interfaces. Nature Communications, 2014, 5, 4215.	5.8	59
36	Band insulator to Mott insulator transition in a bilayer Hubbard model. Physical Review B, 2007, 75, .	1.1	57

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37	Dynamical and thermal magnetic properties of the Kitaev spin liquid candidate $\hat{I}\pm$ -RuCl <sub>3</sub> . Npj Quantum Materials, 2020, 5, .	1.8	57
38	Gradual localization of Ni $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle \text{mml:mrow} \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mi} \rangle d \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{states in LaNiO} \langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle \text{mml:mrow} \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{ultrathin films induced by dimensional crossover. Physical Review B, 2013, 87, .$	1.1	55
39	Atomically resolved spectroscopic study of Sr <sub>2</sub> IrO <sub>4</sub> : Experiment and theory. Scientific Reports, 2013, 3, 3073.	1.6	55
40	Interplay of Spin and Orbital Orderings in Perovskite Manganites. Journal of the Physical Society of Japan, 1997, 66, 957-960.	0.7	53
41	Charge Transfer in Iridate-Manganite Superlattices. Nano Letters, 2017, 17, 2126-2130.	4.5	53
42	Enhanced Superconductivity in Superlattices of High- $T_c$ Cuprates. Physical Review Letters, 2008, 101, 156401.	2.9	52
43	Flat bands in the CoSn-type compounds. Physical Review B, 2020, 102, .	1.1	52
44	Theory of orbital state and spin interactions in ferromagnetic titanates. Physical Review B, 2003, 68, .	1.1	51
45	Dynamical electronic nematicity from Mott physics. Physical Review B, 2010, 82, .	1.1	51
46	Interfacial tuning of chiral magnetic interactions for large topological Hall effects in LaMnO <sub>3</sub> /SrIrO <sub>3</sub> heterostructures. Science Advances, 2020, 6, eaaz3902.	4.7	50
47	Dynamical mean-field study of model double-exchange superlattices. Physical Review B, 2006, 73, .	1.1	49
48	Magnetic order in single crystals of Na <sub>3</sub> with a honeycomb arrangement of $d$ orbitals. Physical Review Materials, 2019, 3, .	0.9	49
49	Electronic, magnetic, and thermodynamic properties of the kagome layer compound FeSn. Physical Review Materials, 2019, 3, .	0.9	49
50	Topological Hall effect and emergent skyrmion crystal at manganite-iridate oxide interfaces. Physical Review B, 2019, 100, .	1.1	44
51	Nonlinear Transport through Strongly Correlated Two-Terminal Heterostructures: A Dynamical Mean-Field Approach. Physical Review Letters, 2008, 101, 116807.	2.9	43
52	$\text{NaV}_2\text{O}_4$ : A Quasi-1D Metallic Antiferromagnet with Half-Metallic Chains. Physical Review Letters, 2007, 99, 196601.	2.9	41
53	Unconventional Proximity Effect and Inverse Spin-Switch Behavior in a Model Manganite-Cuprate-Manganite Trilayer System. Physical Review Letters, 2010, 105, 256804.	2.9	41
54	Witnessing entanglement in quantum magnets using neutron scattering. Physical Review B, 2021, 103, .	1.1	39

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55	Spin injection and spin transport in paramagnetic insulators. Physical Review B, 2016, 93, .	1.1	36
56	Deriving models for the Kitaev spin-liquid candidate material $\hat{I} \pm$ from first principles. Physical Review B, 2019, 100, .	1.1	36
57	Pressure Effects in Manganites with Layered Perovskite Structure. Journal of the Physical Society of Japan, 1997, 66, 2965-2968.	0.7	35
58	Large intrinsic anomalous Hall effect in SrIrO <sub>3</sub> induced by magnetic proximity effect. Nature Communications, 2021, 12, 3283.	5.8	34
59	Magnetic interaction at an interface between manganite and other transition metal oxides. Physical Review B, 2010, 82, .	1.1	33
60	Quantifying and Controlling Entanglement in the Quantum Magnet $CsMn_2$ Physical Review Letters, 2021, 127, 037201.	2.9	33
61	Ferromagnetic insulating phase in Pr <sup>1-x</sup> CaxMnO <sub>3</sub> . Physical Review B, 2004, 69, .	1.1	32
62	Orbital structure and magnetic ordering in layered manganites: Universal correlation and its mechanism. Physical Review B, 2001, 63, .	1.1	30
63	Interface ordering and phase competition in a model Mott-insulator-band-insulator heterostructure. Physical Review B, 2005, 72, .	1.1	30
64	Realizing gapped surface states in the magnetic topological insulator $MnBi_2$ Physical Review B, 2020, 102, .	1.1	30
65	Interrelation between orbital polarization and magnetic structure in bilayer manganites. Physical Review B, 1999, 59, R14153-R14156.	1.1	29
66	Pressure-induced insulator-metal transition in a bilayer manganite: Pressure control of orbital stability. Physical Review B, 2000, 62, 17-20.	1.1	29
67	Nonequilibrium transport and optical properties of model metal-Mott-insulator-metal heterostructures. Physical Review B, 2007, 76, .	1.1	28
68	Noncollinear magnetic phases of a triangular-lattice antiferromagnet and of doped $CuFeO_2$ Physical Review B, 2010, 81, .	1.1	28
69	Dimensionality Control of d-orbital Occupation in Oxide Superlattices. Scientific Reports, 2014, 4, 6124.	1.6	28
70	Spin-orbit insulating state close to the cubic limit in $Ca_4Mn_3$ Physical Review B, 2014, 89, .	1.1	27
71	Electron-lattice coupling, orbital stability, and the phase diagram of $Ca_2-xSrxRuO_4$ . Physical Review B, 2004, 70, .	1.1	26
72	Unusual Exchange Couplings and Intermediate Temperature Weyl State in $Co_3Mn_2S$ Physical Review Letters, 2021, 127, 117201.	1.1	26

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73	Experimental quest for orbital waves. <i>Nature</i> , 2002, 418, 40-40.	13.7	24
74	Fictive impurity models: An alternative formulation of the cluster dynamical mean-field method. <i>Physical Review B</i> , 2003, 68, .	1.1	24
75	Magnetic Frustration Driven by Itinerancy in Spinel CoV <sub>2</sub> O <sub>4</sub> . <i>Scientific Reports</i> , 2017, 7, 17129.	1.6	24
76	Van Hove singularity in the magnon spectrum of the antiferromagnetic quantum honeycomb lattice. <i>Nature Communications</i> , 2021, 12, 171.	5.8	24
77	Phase transition in perovskite manganites with orbital degree of freedom. <i>Physical Review B</i> , 2000, 61, 14647-14655.	1.1	22
78	Spin-Nernst effect in the paramagnetic regime of an antiferromagnetic insulator. <i>Physical Review B</i> , 2018, 98, .	1.1	21
79	Skyrmion control of Majorana states in planar Josephson junctions. <i>Communications Physics</i> , 2021, 4, .	2.0	21
80	Transition-Metal Oxide (111) Bilayers. <i>Journal of the Physical Society of Japan</i> , 2018, 87, 041006.	0.7	20
81	Giant phonon anomalies in the proximate Kitaev quantum spin liquid $\hat{\pm}$ -RuCl <sub>3</sub> . <i>Nature Communications</i> , 2021, 12, 3513.	5.8	20
82	Charge transfer in heterostructures of strongly correlated materials. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 264002.	0.7	19
83	Anomalous mass enhancement in strongly correlated quantum wells. <i>Physical Review B</i> , 2011, 84, .	1.1	19
84	Tuning Magnetic Soliton Phase via Dimensional Confinement in Exfoliated 2D Cr <sub>1/3</sub> NbS <sub>2</sub> Thin Flakes. <i>Nano Letters</i> , 2018, 18, 4023-4028.	4.5	19
85	Correlated oxide Dirac semimetal in the extreme quantum limit. <i>Science Advances</i> , 2021, 7, eabf9631.	4.7	19
86	Stabilization Mechanisms of LaFeO <sub>3</sub> (010) Surfaces Determined with First Principles Calculations. <i>Journal of the American Ceramic Society</i> , 2011, 94, 1931-1939.	1.9	18
87	Fictive-impurity approach to dynamical mean-field theory: A strong-coupling investigation. <i>Physical Review B</i> , 2007, 75, .	1.1	17
88	Stabilization of weak ferromagnetism by strong magnetic response to epitaxial strain in multiferroic BiFeO <sub>3</sub> . <i>Scientific Reports</i> , 2015, 5, 12969.	1.6	17
89	Flat bands and ferrimagnetic order in electronically correlated dice-lattice ribbons. <i>Physical Review B</i> , 2020, 102, .	1.1	17
90	Raman scattering by orbital waves in perovskite LaMnO <sub>3</sub> . <i>Physica B: Condensed Matter</i> , 1997, 237-238, 51-53.	1.3	16

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91	Reconsideration of the lattice effect on the charge-ordering transition of doped manganites. Physical Review B, 2000, 62, 80-83.	1.1	16
92	Inverse Jahn-Teller Transition in Bimetallic Oxalates. Physical Review Letters, 2008, 101, 116402.	2.9	16
93	Molecule-based magnets with diruthenium building blocks in two and three dimensions. Physical Review B, 2009, 80, .	1.1	16
94	Accuracy of the microcanonical Lanczos method to compute real-frequency dynamical spectral functions of quantum models at finite temperatures. Physical Review E, 2018, 97, 043308.	0.8	16
95	Benchmarkings for a semiclassical impurity solver for dynamical-mean-field theory: Self-energies and magnetic transitions of the single-orbital Hubbard model. Physical Review B, 2005, 71, .	1.1	15
96	Microscopic inhomogeneity and superconducting properties of a two-dimensional Hubbard model for high- $T_c$ cuprates. Physical Review B, 2010, 81, .	1.1	15
97	Robust Ferromagnetism in Highly Strained $\text{SrCoO}_{3-x}$ . Physical Review Letters, 2015, 115, 087201.	2.8	15
98	Strain-induced topological transition in $\text{SrRuO}_2$ . Physical Review B, 2016, 93, .	1.1	14
99	Nonmonotonic temperature dependence of thermopower in strongly correlated electron systems. Physical Review B, 2011, 84, .	1.1	13
100	Ground-state and spin-wave dynamics in Brownmillerite $\text{SrCoO}_{2.5}$ a combined hybrid functional and LSDA + $U$ study. Journal of Physics Condensed Matter, 2014, 26, 036004.	0.7	13
101	Localized-itinerant dichotomy and unconventional magnetism in $\text{SrRu}_2\text{O}_6$ . Scientific Reports, 2017, 7, 11742.	1.6	13
102	Structural, electronic, and magnetic properties of bulk and epitaxial $\text{LaCoO}_3$ through diffusion Monte Carlo. Physical Review Materials, 2019, 3, .	0.9	13
103	Field-induced orbital order-disorder transition in an A-type antiferromagnetic manganite: High-field study of $\text{Nd}_{0.45}\text{Sr}_{0.55}\text{MnO}_3$ . Physical Review B, 2001, 65, .	1.1	12
104	Theory of Raman scattering from orbital excitations in manganese oxides. Physical Review B, 2002, 66, .	1.1	12
105	Resummation of the Holstein-Primakoff expansion and differential equation approach to operator square roots. Physical Review Research, 2020, 2, .	1.3	12
106	Transparent conducting oxides: A $\hat{\Gamma}$ -doped superlattice approach. Scientific Reports, 2014, 4, 6021.	1.6	11
107	Planar topological Hall effect from conical spin spirals. Physical Review B, 2020, 102, .	1.1	11
108	Giant antiferromagnetically coupled moments in a molecule-based magnet with interpenetrating lattices. Physical Review B, 2009, 80, .	1.1	10

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109	Spontaneous fourfold-symmetry breaking driven by electron-lattice coupling and strong correlations in high- $T_c$ cuprates. <i>Physical Review B</i> , 2012, 86.	1.1	10
110	Spin-orbit driven magnetic insulating state with $J_{\text{eff}} < J$ in a $d^4$ system. <i>Physical Review B</i> , 2015, 92, .	1.1	10
111	Critical Spin Fluctuation Mechanism for the Spin Hall Effect. <i>Physical Review Letters</i> , 2019, 123, 196603.	2.9	10
112	Signatures of a liquid-crystal transition in spin-wave excitations of skyrmions. <i>Communications Physics</i> , 2020, 3, .	2.0	10
113	Emergent Ferromagnetism with Fermi-Liquid Behavior in Proton Intercalated $\text{CaRuO}_3$ . <i>Physical Review X</i> , 2021, 11, .	2.8	10
114	Extraction of interaction parameters for $\hat{H}_{\text{eff}}$ from neutron data using machine learning. <i>Physical Review Research</i> , 2022, 4, .	1.1	10
115	A Catastrophic Charge Density Wave in $\text{BaFe}_2\text{Al}_9$ . <i>Chemistry of Materials</i> , 2021, 33, 2855-2863.	3.2	9
116	Multitude of topological phase transitions in bipartite dice and Lieb lattices with interacting electrons and Rashba coupling. <i>Physical Review B</i> , 2021, 104, .	1.1	8
117	Semi-Dirac and Weyl fermions in transition metal oxides. <i>Physical Review B</i> , 2021, 104, .	1.1	8
118	Influence of magnetism on Dirac semimetallic behavior in nonstoichiometric $\text{Sr}_{1-x}\text{La}_x\text{Mg}_2\text{Sb}_2$ . <i>Physical Review B</i> , 2021, 104, .	1.1	8

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127	Electron Confinement and Magnetism of $(\text{LaTiO})_3(\text{SrTiO})_1(\text{SrTiO})_3(\text{SrTiO})_5$ Heterostructure: A Diffusion Quantum Monte Carlo Study. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 643-650.	2.3	4
128	Interface phenomena in correlated electron systems. <i>Physica B: Condensed Matter</i> , 2005, 359-361, 1378-1380.	1.3	3
129	Strain effects on the electronic properties in $\text{Ir}^{2+}$ -doped oxide superlattices. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 085303.	1.3	3
130	Magnetic switching in Weyl semimetal-superconductor heterostructures. <i>Physical Review B</i> , 2020, 102, .	1.1	3
131	Surface magnetic phase transition of the double-exchange ferromagnet: Schwinger-boson mean-field study. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 355601.	0.7	2
132	Magnetic and orbital excitations in manganese oxides. <i>Physica B: Condensed Matter</i> , 1997, 230-232, 1058-1060.	1.3	1
133	Field induced transition from metal to insulator in the colossal magneto-resistance manganites. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1999, 63, 151-158.	1.7	1
134	Spiral spin state with open boundary conditions in a magnetic field. <i>Physical Review B</i> , 2017, 96, .	1.1	1
135	Spin and orbital orderings and their excitations in perovskite Mn oxides. <i>European Physical Journal D</i> , 1996, 46, 3225-3231.	0.4	0
136	Spin and orbital orderings in perovskite manganites. <i>Physica B: Condensed Matter</i> , 1997, 237-238, 48-50.	1.3	0
137	Theory of Orbital Dynamics and their Observation by Polarized Light/X-Ray Scatterings. <i>Journal of the Physical Society of Japan</i> , 2002, 71, 60-63.	0.7	0
138	Two Ferromagnetic States in Magnetoresistive Manganites-First Order Transition Driven by Orbitals. , 2002, , 57-70.		0
139	Dynamics of orbital degree of freedom in transition-metal oxides. <i>Journal of Physics and Chemistry of Solids</i> , 2002, 63, 1343-1346.	1.9	0
140	Electronic reconstruction in correlated electron heterostructures. , 2005, , .		0
141	Competing energetic states in $\text{Ir}^{3+}\text{Fe}_2\text{WO}_6$ with strong spin-charge-lattice coupling. <i>Physical Review B</i> , 2021, 104, .	1.1	0
142	Strongly correlated heterostructures. , 2012, , 214-253.		0