

# Johannes Knolle

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2852835/publications.pdf>

Version: 2024-02-01

57

papers

4,346

citations

172457

29

h-index

144013

57

g-index

57

all docs

57

docs citations

57

times ranked

3076

citing authors

#	ARTICLE		IF	CITATIONS
1	Confinement-induced impurity states in spin chains. Physical Review B, 2022, 105, .	3.2	4	
2	Optical phonons coupled to a Kitaev spin liquid. Physical Review B, 2022, 105, .	3.2	9	
3	Enhancing Disorder-Free Localization through Dynamically Emergent Local Symmetries. PRX Quantum, 2022, 3, .	9.2	18	
4	Berry curvature-induced local spin polarisation in gated graphene/WTe2 heterostructures. Nature Communications, 2022, 13, .	12.8	3	
5	Localization persisting under aperiodic driving. Physical Review B, 2022, 105, .	3.2	4	
6	Anomalous random multipolar driven insulators. Physical Review B, 2022, 105, .	3.2	3	
7	Unveiling the S=3/2 Kitaev honeycomb spin liquids. Nature Communications, 2022, 13, .	12.8	15	
8	Measurement-induced phase transition in a chaotic classical many-body system. Physical Review B, 2022, 106, .	3.2	14	
9	Random Multipolar Driving: Tunably Slow Heating through Spectral Engineering. Physical Review Letters, 2021, 126, 040601.	7.8	30	
10	Seasonal epidemic spreading on small-world networks: Biennial outbreaks and classical discrete time crystals. Physical Review Research, 2021, 3, .	3.6	4	
11	Bistability and time crystals in long-ranged directed percolation. Nature Communications, 2021, 12, 1061.	12.8	13	
12	Anomalous Quantum Oscillations in a Heterostructure of Graphene on a Proximate Quantum Spin Liquid. Physical Review Letters, 2021, 126, 097201.	7.8	18	
13	Gapless state of interacting Majorana fermions in a strain-induced Landau level. Physical Review B, 2021, 103, .	3.2	3	
14	Higher-order and fractional discrete time crystals in clean long-range interacting systems. Nature Communications, 2021, 12, 2341.	12.8	37	
15	Confinement and entanglement dynamics on a digital quantum computer. Scientific Reports, 2021, 11, 11577.	3.3	38	
16	Rigorous Bounds on the Heating Rate in Thue-Morse Quasiperiodically and Randomly Driven Quantum Many-Body Systems. Physical Review Letters, 2021, 127, 050602.	7.8	16	
17	Flat and correlated plasmon bands in $\text{graphene}_{\text{heterostructures}}$ . Physical Review B, 2021, 104, .	7.8	16	
18	Variational quantum algorithm with information sharing. Npj Quantum Information, 2021, 7, .	6.7	15	

#	ARTICLE	IF	CITATIONS
19	One-dimensional long-range Falikov-Kimball model: Thermal phase transition and disorder-free localization. <i>Physical Review B</i> , 2021, 104, .	3.2	5
20	Classical Prethermal Phases of Matter. <i>Physical Review Letters</i> , 2021, 127, 140602.	7.8	37
21	Classical approaches to prethermal discrete time crystals in one, two, and three dimensions. <i>Physical Review B</i> , 2021, 104, .	3.2	20
22	Simple mitigation of global depolarizing errors in quantum simulations. <i>Physical Review E</i> , 2021, 104, 035309.	2.1	51
23	Orthogonal Quantum Many-Body Scars. <i>Physical Review Letters</i> , 2021, 127, 150601.	7.8	24
24	Disorder-free localization in a simple $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle U \langle / \text{mml:mi} \rangle \langle \text{mml:mo} \rangle ( \langle / \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 1 \langle / \text{mml:mn} \rangle ) \langle / \text{mml:mrow} \rangle$ lattice gauge theory. <i>Physical Review B</i> , 2020, 102, .	3.2	39
25	Local probes for charge-neutral edge states in two-dimensional quantum magnets. <i>Physical Review B</i> , 2020, 102, .	3.2	39
26	The range of non-Kitaev terms and fractional particles in $\hat{t}\pm\text{RuCl}_3$ . <i>Npj Quantum Materials</i> , 2020, 5, .	5.2	38
27	Quantum Many-Body Scars in Optical Lattices. <i>Physical Review Letters</i> , 2020, 124, 160604.	7.8	79
28	Period- $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle n \langle / \text{mml:mi} \rangle \langle / \text{mml:mrow} \rangle$ Discrete Time Crystals and Quasicrystals with Ultracold Bosons. <i>Physical Review Letters</i> , 2019, 123, 150601.	7.8	51
29	Orbital magnetic field effects in Mott insulators with strong spin-orbit coupling. <i>Physical Review B</i> , 2019, 100, .	3.2	8
30	Simulating quantum many-body dynamics on a current digital quantum computer. <i>Npj Quantum Information</i> , 2019, 5, .	6.7	173
31	Electronic Properties of $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \hat{t}\pm \langle / \text{mml:mi} \rangle \langle \text{mml:mtext} \rangle \hat{a}^{\dagger} \langle / \text{mml:mtext} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{RuCl}_3 \langle / \text{mml:mi} \rangle \langle / \text{mml:mrow} \rangle \langle / \text{mml:msub} \rangle$ in Proximity to Graphene. <i>Physical Review Letters</i> , 2019, 123, 237201.	7.8	48
32	A Field Guide to Spin Liquids. <i>Annual Review of Condensed Matter Physics</i> , 2019, 10, 451-472.	14.5	297
33	Excitations in the field-induced quantum spin liquid state of $\hat{t}\pm\text{RuCl}_3$ . <i>Npj Quantum Materials</i> , 2018, 3, .	5.2	254
34	Dynamics of a quantum spin liquid beyond integrability: The Kitaev-Heisenberg- $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \text{ mathvariant="normal"} \rangle \hat{t} \langle / \text{mml:mi} \rangle \langle / \text{mml:math} \rangle$ model in an augmented parton mean-field theory. <i>Physical Review B</i> , 2018, 97, .	3.2	36
35	Physics of the Kitaev Model: Fractionalization, Dynamic Correlations, and Material Connections. <i>Annual Review of Condensed Matter Physics</i> , 2018, 9, 17-33.	14.5	272
36	Dynamical localization in $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mo} \rangle \hat{a}_{\alpha} \langle / \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 2 \langle / \text{mml:mn} \rangle \langle / \text{mml:msub} \rangle \langle / \text{mml:math} \rangle$ lattice gauge theories. <i>Physical Review B</i> , 2018, 97, .	3.2	30

#	ARTICLE	IF	CITATIONS
37	Neutron scattering in the proximate quantum spin liquid $\hat{t}\pm\text{-RuCl}_3$ . <i>Science</i> , 2017, 356, 1055-1059.	12.6	499
38	Majorana Landau-level Raman spectroscopy. <i>Physical Review B</i> , 2017, 95, .	3.2	18
39	Absence of Ergodicity without Quenched Disorder: From Quantum Disentangled Liquids to Many-Body Localization. <i>Physical Review Letters</i> , 2017, 119, 176601.	7.8	86
40	Disorder-Free Localization. <i>Physical Review Letters</i> , 2017, 118, 266601.	7.8	167
41	Fermionic response from fractionalization in an insulating two-dimensional magnet. <i>Nature Physics</i> , 2016, 12, 912-915.	16.7	204
42	Proximate Kitaev quantum spin liquid behaviour in a honeycomb magnet. <i>Nature Materials</i> , 2016, 15, 733-740.	27.5	762
43	Resonant Raman scattering theory for Kitaev models and their Majorana fermion boundary modes. <i>Physical Review B</i> , 2016, 94, .	3.2	25
44	Raman scattering in correlated thin films as a probe of chargeless surface states. <i>Physical Review B</i> , 2016, 94, .	3.2	13
45	Neutron scattering signatures of the 3D hyperhoneycomb Kitaev quantum spin liquid. <i>Physical Review B</i> , 2015, 92, .	3.2	22
46	Theory of Raman response in three-dimensional Kitaev spin liquids: Application to $\text{Li}_{1-x}\text{Fe}_x\text{As}$ . <i>Physical Review B</i> , 2015, 92, .	3.2	54
47	Antiferromagnetism in Iron-Based Superconductors: Selection of Magnetic Order and Quasiparticle Interference. <i>Journal of the Physical Society of Japan</i> , 2014, 83, 061015.	1.6	11
48	Superconductivity from repulsion in LiFeAs: Novel $\text{Fe}^{3+}$ -wave symmetry and potential time-reversal symmetry breaking. <i>Physical Review B</i> , 2014, 89, .	3.2	56
49	Dynamics of a Two-Dimensional Quantum Spin Liquid: Signatures of Emergent Majorana Fermions and Fluxes. <i>Physical Review Letters</i> , 2014, 112, .	7.8	263
50	Raman Scattering Signatures of Kitaev Spin Liquids in $\text{Li}_{1-x}\text{Fe}_x\text{As}$ . <i>Physical Review Letters</i> , 2014, 112, .	7.8	141
51	Incommensurate magnetic fluctuations and Fermi surface topology in LiFeAs. <i>Physical Review B</i> , 2012, 86, .	3.2	27
52	Multiorbital spin susceptibility in a magnetically ordered state: Orbital versus excitonic spin density wave scenario. <i>Physical Review B</i> , 2011, 83, .	3.2	32
53	Magnetic resonance from the interplay of frustration and superconductivity. <i>Physical Review B</i> , 2011, 84, .	3.2	18
54	Quasiparticle Interference in the Spin-Density Wave Phase of Iron-Based Superconductors. <i>Physical Review Letters</i> , 2010, 104, 257001.	7.8	43

#	ARTICLE	IF	CITATIONS
55	Pair breaking by nonmagnetic impurities in the noncentrosymmetric superconductor CePt <sub>3</sub> Si. Physical Review B, 2010, 81, .	3.2	13
56	Quasiparticle interference in iron-based superconductors. Physical Review B, 2010, 82, .	3.2	36
57	Theory of itinerant magnetic excitations in the spin-density-wave phase of iron-based superconductors. Physical Review B, 2010, 81, .	3.2	97