

Stephan Rachel

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/4050005/stephan-rachel-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69
papers

2,624
citations

28
h-index

50
g-index

72
ext. papers

3,332
ext. citations

4.7
avg, IF

5.8
L-index

#	Paper	IF	Citations
69	Realization of a discrete time crystal on 57 qubits of a quantum computer.. <i>Science Advances</i> , 2022 , 8, eabm7652	14.3	2
68	Triplet Superconductivity from Nonlocal Coulomb Repulsion in an Atomic Sn Layer Deposited onto a Si(111) Substrate.. <i>Physical Review Letters</i> , 2022 , 128, 167002	7.4	2
67	Topological Shiba bands in artificial spin chains on superconductors. <i>Nature Physics</i> , 2021 , 17, 943-948	16.2	9
66	Topological superconductivity in skyrmion lattices. <i>Npj Quantum Materials</i> , 2021 , 6,	5	9
65	Topological superconductivity induced by a triple-q magnetic structure. <i>Physical Review B</i> , 2020 , 102,	3.3	3
64	High-temperature Majorana fermions in magnet-superconductor hybrid systems. <i>Physical Review B</i> , 2020 , 101,	3.3	4
63	Impurity bound states as detectors of topological band structures revisited. <i>Physical Review B</i> , 2020 , 101,	3.3	3
62	Laser Modulation of Superconductivity in a Cryogenic Wide-field Nitrogen-Vacancy Microscope. <i>Nano Letters</i> , 2020 , 20, 1855-1861	11.5	12
61	Spin-orbit coupled superconductivity: Rashba-Hubbard model on the square lattice. <i>Physical Review B</i> , 2020 , 102,	3.3	4
60	Correlation-Driven Charge Order in a Frustrated Two-Dimensional Atom Lattice. <i>Physical Review Letters</i> , 2019 , 123, 086401	7.4	5
59	Atomic-scale interface engineering of Majorana edge modes in a 2D magnet-superconductor hybrid system. <i>Science Advances</i> , 2019 , 5, eaav6600	14.3	67
58	Magnon Landau Levels and Emergent Supersymmetry in Strained Antiferromagnets. <i>Physical Review Letters</i> , 2019 , 123, 207204	7.4	4
57	Stability of disordered topological superconducting phases in magnet-superconductor hybrid systems. <i>Physical Review B</i> , 2019 , 100,	3.3	3
56	Dimensional tuning of Majorana fermions and real space counting of the Chern number. <i>Physical Review B</i> , 2019 , 100,	3.3	8
55	Quantum and Classical Phases of the Pyrochlore Heisenberg Model with Competing Interactions. <i>Physical Review X</i> , 2019 , 9,	9.1	19
54	Cluster-Glass Phase in Pyrochlore XY Antiferromagnets with Quenched Disorder. <i>Physical Review Letters</i> , 2018 , 120, 097204	7.4	17
53	Interacting topological insulators: a review. <i>Reports on Progress in Physics</i> , 2018 , 81, 116501	14.4	127

52	Unconventional superconductivity in the extended Hubbard model: Weak-coupling renormalization group. <i>Physical Review B</i> , 2018 , 98,	3-3	4
51	Exact excited states of nonintegrable models. <i>Physical Review B</i> , 2018 , 98,	3-3	87
50	Strain- and pressure-tuned magnetic interactions in honeycomb Kitaev materials. <i>Physical Review B</i> , 2018 , 98,	3-3	25
49	Anisotropic susceptibilities in the honeycomb Kitaev system RuCl_3 . <i>Physical Review B</i> , 2018 , 98,	3-3	37
48	Majorana Landau-level Raman spectroscopy. <i>Physical Review B</i> , 2017 , 95,	3-3	11
47	Three-band Hubbard model for Na_2IrO_3 : Topological insulator, zigzag antiferromagnet, and Kitaev-Heisenberg material. <i>Physical Review B</i> , 2017 , 96,	3-3	8
46	Quantized charge transport in chiral Majorana edge modes. <i>Physical Review B</i> , 2017 , 96,	3-3	24
45	Pseudo-Goldstone Magnons in the Frustrated $S=3/2$ Heisenberg Helimagnet ZnCr_2Se_4 with a Pyrochlore Magnetic Sublattice. <i>Physical Review X</i> , 2017 , 7,	9-1	11
44	Spin freezing in the disordered pyrochlore magnet $\text{NaCaCo}_2\text{F}_7$: NMR studies and Monte Carlo simulations. <i>Physical Review B</i> , 2017 , 96,	3-3	10
43	Signatures of a gearwheel quantum spin liquid in a spin-12 pyrochlore molybdate Heisenberg antiferromagnet. <i>Physical Review Materials</i> , 2017 , 1,	3-2	26
42	Quantum phase transitions of topological insulators without gap closing. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 405502	1-8	7
41	Quantum disordered insulating phase in the frustrated cubic-lattice Hubbard model. <i>Physical Review B</i> , 2016 , 93,	3-3	14
40	Landau Levels of Majorana Fermions in a Spin Liquid. <i>Physical Review Letters</i> , 2016 , 116, 167201	7-4	19
39	Transport through a quantum spin Hall antidot as a spectroscopic probe of spin textures. <i>Physical Review B</i> , 2016 , 94,	3-3	6
38	Density wave instabilities and surface state evolution in interacting Weyl semimetals. <i>Physical Review B</i> , 2016 , 94,	3-3	31
37	Strain-Induced Landau Levels in Arbitrary Dimensions with an Exact Spectrum. <i>Physical Review Letters</i> , 2016 , 117, 266801	7-4	14
36	Functional renormalization group for three-dimensional quantum magnetism. <i>Physical Review B</i> , 2016 , 94,	3-3	31
35	Quantum Paramagnet in a Flux Triangular Lattice Hubbard Model. <i>Physical Review Letters</i> , 2015 , 114, 167201	7-4	15

34	Spin texture of generic helical edge states. <i>Physical Review B</i> , 2015 , 91,	3.3	25
33	Interacting Surface States of Three-Dimensional Topological Insulators. <i>Physical Review Letters</i> , 2015 , 115, 017001	7.4	11
32	Dimensional crossover and cold-atom realization of topological Mott insulators. <i>Scientific Reports</i> , 2015 , 5, 8386	4.9	20
31	Entanglement analysis of isotropic spin-1 chains. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2015 , 2015, P07017	1.9	10
30	Phase Diagram and Quantum Order by Disorder in the Kitaev K1K2 Honeycomb Magnet. <i>Physical Review X</i> , 2015 , 5,	9.1	56
29	Giant magnetoresistance and perfect spin filter in silicene, germanene, and stanene. <i>Physical Review B</i> , 2014 , 89,	3.3	182
28	Rashba spin-orbit coupling in the Kane-Mele-Hubbard model. <i>Physical Review B</i> , 2014 , 90,	3.3	55
27	Spiral order in the honeycomb iridate Li2IrO3. <i>Physical Review B</i> , 2014 , 90,	3.3	66
26	Spin-resolved entanglement spectroscopy of critical spin chains and Luttinger liquids. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014 , 2014, P11013	1.9	40
25	Fluctuations and entanglement spectrum in quantum Hall states. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014 , 2014, P10005	1.9	27
24	Tunneling spectra simulation of interacting Majorana wires. <i>Physical Review B</i> , 2013 , 88,	3.3	56
23	Correlated topological phases and exotic magnetism with ultracold fermions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2013 , 46, 134004	1.3	23
22	Time-reversal-invariant Hofstadter-Hubbard model with ultracold fermions. <i>Physical Review Letters</i> , 2012 , 109, 205303	7.4	65
21	Bipartite fluctuations as a probe of many-body entanglement. <i>Physical Review B</i> , 2012 , 85,	3.3	161
20	Inelastic electron backscattering in a generic helical edge channel. <i>Physical Review Letters</i> , 2012 , 108, 156402	7.4	155
19	Magnetic ordering phenomena of interacting quantum spin Hall models. <i>Physical Review B</i> , 2012 , 86,	3.3	55
18	Quantum spin Hall insulators with interactions and lattice anisotropy. <i>Physical Review B</i> , 2012 , 85,	3.3	113
17	Detecting quantum critical points using bipartite fluctuations. <i>Physical Review Letters</i> , 2012 , 108, 116401	7.4	59

16	Family of spin-S chain representations of $SU(2)_k$ Wess-Zumino-Witten models. <i>Physical Review B</i> , 2012 , 85,	3-3	31
15	Entanglement entropy of the two-dimensional Heisenberg antiferromagnet. <i>Physical Review B</i> , 2011 , 83,	3-3	57
14	Entanglement entropy from charge statistics: Exact relations for noninteracting many-body systems. <i>Physical Review B</i> , 2011 , 83,	3-3	85
13	Charge solitons and their dynamical mass in one-dimensional arrays of Josephson junctions. <i>Physical Review B</i> , 2011 , 83,	3-3	10
12	Critical theory of the topological quantum phase transition in an $S=2$ spin chain. <i>Physical Review B</i> , 2010 , 82,	3-3	16
11	Topological insulators and Mott physics from the Hubbard interaction. <i>Physical Review B</i> , 2010 , 82,	3-3	221
10	General relation between entanglement and fluctuations in one dimension. <i>Physical Review B</i> , 2010 , 82,	3-3	80
9	Spontaneous parity violation in a quantum spin chain. <i>Journal of Physics: Conference Series</i> , 2010 , 200, 022049	0-3	13
8	Theory of small charge solitons in one-dimensional arrays of Josephson junctions. <i>Physical Review B</i> , 2009 , 80,	3-3	3
7	Spinon confinement and the Haldane gap in $SU(n)$ spin chains. <i>Physical Review B</i> , 2009 , 80,	3-3	33
6	Spin 3/2 dimer model. <i>Europhysics Letters</i> , 2009 , 86, 37005	1-6	10
5	Exact models for trimerization and tetramerization in spin chains. <i>Physical Review B</i> , 2008 , 78,	3-3	9
4	Valence bond solid states with symplectic symmetry. <i>Physical Review B</i> , 2008 , 78,	3-3	29
3	DMRG studies of critical $SU(N)$ spin chains. <i>Annalen Der Physik</i> , 2008 , 17, 922-936	2-6	52
2	Valence bond solids for $SU(n)$ spin chains: Exact models, spinon confinement, and the Haldane gap. <i>Physical Review B</i> , 2007 , 75,	3-3	75
1	Exact results for $SU(3)$ spin chains: Trimer states, valence bond solids, and their parent Hamiltonians. <i>Physical Review B</i> , 2007 , 75,	3-3	42