

Peter Horsch

List of Publications by Citations

Source: <https://exaly.com/author-pdf/4386196/peter-horsch-publications-by-citations.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.

137
papers

4,997
citations

39
h-index

66
g-index

138
ext. papers

5,181
ext. citations

3.5
avg, IF

5.4
L-index

#	Paper	IF	Citations
137	Spin polarons in the t-J model. <i>Physical Review B</i> , 1991 , 44, 317-331	3.3	399
136	Single-particle excitations in a quantum antiferromagnet. <i>Physical Review B</i> , 1990 , 41, 2017-2029	3.3	194
135	Precise quasiparticle energies and Hartree-Fock bands of semiconductors and insulators. <i>Physical Review B</i> , 1988 , 37, 8351-8362	3.3	191
134	Close Relation between Localized-Electron Magnetism and the Paramagnetic Wave Function of Completely Itinerant Electrons. <i>Physical Review Letters</i> , 1982 , 49, 889-892	7.4	189
133	Fermi surface and dynamics of the t-J model at moderate doping. <i>Physical Review Letters</i> , 1991 , 66, 2258-2261	7.4	177
132	Correlation effects on bond alternation in polyacetylene. <i>Physical Review B</i> , 1981 , 24, 7351-7360	3.3	154
131	Spin order due to orbital fluctuations: cubic vanadates. <i>Physical Review Letters</i> , 2001 , 86, 3879-82	7.4	149
130	Fingerprints of spin-orbital physics in cubic Mott insulators: Magnetic exchange interactions and optical spectral weights. <i>Physical Review B</i> , 2005 , 72,	3.3	140
129	Optical properties of one- and two-dimensional Hubbard and t-J models. <i>Physical Review B</i> , 1990 , 42, 8736-8739	3.3	124
128	Spin-correlations and low lying excited states of the spin-1/2 Heisenberg antiferromagnet on a square lattice. <i>Zeitschrift für Physik B-Condensed Matter</i> , 1988 , 72, 181-193		114
127	Orbital dynamics in ferromagnetic transition-metal oxides. <i>Physical Review B</i> , 1999 , 59, 6795-6805	3.3	110
126	A new view of the electronic structure of the spin-Peierls compound -NaVO. <i>European Physical Journal B</i> , 1998 , 5, 367-370	1.2	90
125	Helicoidal magnetic order in the spin-chain compound NaCu2O2. <i>Physical Review B</i> , 2005 , 71,	3.3	89
124	Dimerization versus orbital-moment ordering in a Mott insulator YVO3. <i>Physical Review Letters</i> , 2003 , 91, 257203	7.4	87
123	Spin-orbital entanglement and violation of the Goodenough-Kanamori rules. <i>Physical Review Letters</i> , 2006 , 96, 147205	7.4	80
122	Electronic excitations in semiconductors. II. Application of the theory to diamond. <i>Physical Review B</i> , 1984 , 29, 1870-1881	3.3	75
121	Missing bond-charge repulsion. <i>Physical Review Letters</i> , 1988 , 60, 70	7.4	73

120	Optical conductivity of colossal-magnetoresistance compounds: Role of orbital degeneracy in the ferromagnetic phase. <i>Physical Review B</i> , 1999 , 59, 6217-6228	3-3	68
119	Evolution of spin-orbital-lattice coupling in the RVO3 perovskites. <i>Physical Review Letters</i> , 2008 , 100, 167205	7-4	67
118	Critical Behavior of the S=3/2 Antiferromagnetic Heisenberg Chain. <i>Physical Review Letters</i> , 1996 , 76, 4955-4958	7-4	66
117	Theory of optical spectral weights in Mott insulators with orbital degrees of freedom. <i>Physical Review B</i> , 2004 , 70,	3-3	65
116	Spin and charge dynamics of the t-J model. <i>Physical Review Letters</i> , 1995 , 74, 980-983	7-4	65
115	On the theory of electronic correlations in solids. <i>Zeitschrift für Physik B Condensed Matter and Quanta</i> , 1979 , 36, 23-35		60
114	Numerical renormalization-group study of the correlation functions of the antiferromagnetic spin-1/2 Heisenberg chain. <i>Physical Review B</i> , 1995 , 52, R719-R722	3-3	57
113	Planar Cu and O hole densities in high-Tc cuprates determined with NMR. <i>Physical Review B</i> , 2004 , 69,	3-3	56
112	Absence of hole confinement in transition-metal oxides with orbital degeneracy. <i>Physical Review Letters</i> , 2008 , 100, 066403	7-4	55
111	Doping dependence of long-range magnetic order in the t-J model. <i>Physical Review B</i> , 1993 , 47, 463-469	3-3	54
110	Photoemission spectra of LaMnO3 controlled by orbital excitations. <i>Physical Review Letters</i> , 2000 , 85, 5174-7	7-4	53
109	Renormalized pseudoparticle description of the one-dimensional Hubbard model thermodynamics. <i>Physical Review B</i> , 1991 , 44, 9967-9980	3-3	51
108	Effective mass of quasiparticles in a t-J model with electron-phonon interactions. <i>Physical Review B</i> , 1992 , 46, 14305-14308	3-3	50
107	Electronic excitations in semiconductors. General theory. <i>Physical Review B</i> , 1983 , 28, 5977-5991	3-3	50
106	Thermally activated Peierls dimerization in ferromagnetic spin chains. <i>Physical Review Letters</i> , 2008 , 101, 157204	7-4	47
105	Quasiparticles and photoemission spectra in correlated fermion systems. <i>Physica C: Superconductivity and Its Applications</i> , 1989 , 162-164, 783-784	1-3	46
104	Optical Conductivity in Doped Manganites with Planar x ² - y ² Orbital Order. <i>Physical Review Letters</i> , 1999 , 82, 3160-3163	7-4	45
103	Theory of the density fluctuation spectrum of strongly correlated electrons. <i>Physical Review B</i> , 1996 , 54, R9600-R9603	3-3	45

102	Attractive interactions from repulsive forces in a multiband Hubbard model. <i>Physical Review B</i> , 1989 , 39, 2924-2927	3-3	45
101	Spin polarons in the t-J model: Shape and backflow. <i>Physical Review B</i> , 1993 , 48, 10559-10562	3-3	43
100	Wigner crystallization in Na ₃ Cu ₂ O ₄ and Na ₈ Cu ₅ O ₁₀ chain compounds. <i>Physical Review Letters</i> , 2005 , 94, 076403	7-4	40
99	Compass-Heisenberg model on the square lattice β pin order and elementary excitations. <i>Europhysics Letters</i> , 2010 , 91, 40005	1.6	39
98	Ground state of the one-dimensional antiferromagnetic Heisenberg model. <i>Physical Review B</i> , 1985 , 31, 1590-1599	3-3	39
97	Charge-spin recombination in the one-dimensional supersymmetric t-J model. <i>Physical Review B</i> , 1992 , 46, 14624-14654	3-3	38
96	Static properties of one-dimensional generalized Landau liquids. <i>Physical Review B</i> , 1992 , 45, 7899-7917	3-3	38
95	Order Parameter in Quantum Antiferromagnets. <i>Journal of the Physical Society of Japan</i> , 1989 , 58, 3894-3898	3-3	38
94	Two-particle spectral properties of generalized Landau liquids. <i>Physical Review Letters</i> , 1992 , 68, 871-874	4-4	37
93	Superconducting pairing of spin polarons in the t-J model. <i>Physical Review B</i> , 1997 , 55, R11997-R12000	3-3	35
92	Orbitally induced string formation in the spin-orbital polarons. <i>Physical Review B</i> , 2009 , 79,	3-3	33
91	Spectral properties of orbital polarons in Mott insulators. <i>Physical Review B</i> , 2008 , 78,	3-3	33
90	Spatial structure of spin polarons in the t-J model. <i>Physical Review B</i> , 1998 , 57, 4308-4320	3-3	33
89	SINGLE-PARTICLE AND OPTICAL EXCITATIONS IN DOPED MOTT- HUBBARD INSULATORS. <i>International Journal of Modern Physics B</i> , 1992 , 06, 589-602	1.1	33
88	Effects of spin vacancies on magnetic properties of the Kitaev-Heisenberg model. <i>Physical Review B</i> , 2011 , 84,	3-3	32
87	One-dimensional orbital fluctuations and the exotic magnetic properties of YVO ₃ . <i>Physical Review B</i> , 2007 , 75,	3-3	32
86	Generalizing the t-J model: Triplet holes. <i>Physical Review B</i> , 1992 , 46, 5798-5801	3-3	32
85	von Neumann entropy spectra and entangled excitations in spin-orbital models. <i>Physical Review B</i> , 2012 , 86,	3-3	30

84	Two-particle fluctuations in one-dimensional generalized Landau liquids. <i>Physical Review B</i> , 1992 , 46, 14728-14771	3.3	30
83	A new aspect of superconductivity in A-15 compounds. <i>Zeitschrift für Physik B Condensed Matter and Quanta</i> , 1977 , 27, 153-160		30
82	Magnetic properties of spin-orbital polarons in lightly doped cobaltates. <i>Physical Review Letters</i> , 2006 , 96, 216404	7.4	29
81	Density fluctuations and phonon renormalization in the t-J model. <i>Physica C: Superconductivity and Its Applications</i> , 1997 , 282-287, 1751-1752	1.3	28
80	Magnetic properties of nanoscale compass-Heisenberg planar clusters. <i>Physical Review B</i> , 2012 , 86,	3.3	27
79	Theoretical study of the optical conductivity of NaV_2O_5 . <i>Physical Review B</i> , 1999 , 60, R8438-R8441	3.3	27
78	Spontaneous symmetry breaking in the Lieb-Mattis model of antiferromagnetism. <i>Physical Review B</i> , 1990 , 42, 4663-4669	3.3	27
77	Frequency-dependent conductivity of the one-dimensional Hubbard model at strong coupling. <i>Physical Review B</i> , 1993 , 48, 10595-10598	3.3	26
76	On the self-energy of electrons in metals. <i>Solid State Communications</i> , 1987 , 62, 359-363	1.6	26
75	Magnetic effects, dynamical form factors, and electronic instabilities in the Hubbard chain. <i>Physical Review B</i> , 1993 , 48, 4200-4203	3.3	25
74	Hidden quasiparticles and incoherent photoemission spectra in Na_2IrO_3 . <i>Physical Review Letters</i> , 2013 , 111, 037205	7.4	24
73	Self-localization of composite spin-lattice polarons. <i>Physical Review Letters</i> , 2006 , 96, 086402	7.4	24
72	Exact treatment of magnetism-driven ferroelectricity in the one-dimensional compass model. <i>Physical Review B</i> , 2014 , 90,	3.3	23
71	Temperature dependence of optical spectral weights in quarter-filled ladder systems. <i>Physical Review B</i> , 2002 , 65,	3.3	23
70	Defect states and excitations in a Mott insulator with orbital degrees of freedom: Mott-Hubbard gap versus optical and transport gaps in doped systems. <i>Physical Review B</i> , 2013 , 87,	3.3	22
69	Domain-wall excitations and optical conductivity in one-dimensional Wigner lattices. <i>Physical Review B</i> , 2006 , 73,	3.3	22
68	Defect states and spin-orbital physics in doped vanadates $\text{Y}_{1-x}\text{Ca}_x\text{VO}_3$. <i>Physical Review B</i> , 2011 , 84,	3.3	21
67	Manganites at quarter filling: Role of Jahn-Teller interactions. <i>Physical Review B</i> , 2004 , 69,	3.3	20

66	Density response of the t-J model and renormalization of breathing and half-breathing phonon modes: A slave-fermion calculation. <i>Physica C: Superconductivity and Its Applications</i> , 2000 , 341-348, 117-120	1.3	20
65	Dissipationless spin current between two coupled ferromagnets. <i>Physical Review B</i> , 2014 , 89,	3.3	19
64	Hole propagation in the Kitaev-Heisenberg model: From quasiparticles in quantum Nèl states to non-Fermi liquid in the Kitaev phase. <i>Physical Review B</i> , 2014 , 90,	3.3	18
63	Quantum phase transitions in exactly solvable one-dimensional compass models. <i>Physical Review B</i> , 2014 , 89,	3.3	18
62	Finite-size scaling in the ground state of spin-1/2 antiferromagnetic XXZ rings. <i>Physical Review B</i> , 1987 , 35, 1877-1880	3.3	18
61	Defects, Disorder, and Strong Electron Correlations in Orbital Degenerate, Doped Mott Insulators. <i>Physical Review Letters</i> , 2015 , 115, 206403	7.4	17
60	Exciton doublet in the Mott-Hubbard insulator LiCuVO ₄ identified by spectral ellipsometry. <i>Physical Review Letters</i> , 2009 , 103, 187401	7.4	17
59	Doping dependence of density response and bond-stretching phonons in cuprates. <i>Physica B: Condensed Matter</i> , 2005 , 359-361, 620-622	2.8	17
58	Self-energy corrections to the local density band structure of semiconductors and insulators. <i>Solid State Communications</i> , 1986 , 59, 485-490	1.6	17
57	Quasiparticles and the structure of orbital polarons in ferromagnetic LaMnO ₃ . <i>Physical Review B</i> , 2002 , 65,	3.3	16
56	Magnetic excitations in one-dimensional spin-orbital models. <i>Physical Review B</i> , 2011 , 83,	3.3	15
55	Electron-energy loss spectra and plasmon resonance in cuprates. <i>Physical Review B</i> , 1999 , 60, R3735-R3738	3.3	14
54	Spin exchange dominated by charge fluctuations of the Wigner lattice in the chain cuprate Na ₅ Cu ₃ O ₆ . <i>Physical Review B</i> , 2011 , 84,	3.3	13
53	Double-exchange magnets: Spin dynamics in the paramagnetic phase. <i>Physical Review B</i> , 1999 , 59, R14149, R14152	3.3	13
52	Fingerprints of spin-orbital polarons and of their disorder in the photoemission spectra of doped Mott insulators with orbital degeneracy. <i>Physical Review B</i> , 2018 , 97,	3.3	12
51	Spin-orbital physics in the optical conductivity of quarter-filled manganites. <i>Physical Review B</i> , 2005 , 72,	3.3	12
50	A single hole in a quantum antiferromagnet: selfconsistent Green's function approach. <i>International Journal of Modern Physics B</i> , 1991 , 05, 207-217	1.1	12
49	Comment on "Phase diagram of the one-dimensional t-J model from variational theory". <i>Physical Review Letters</i> , 1992 , 68, 3110	7.4	12

48	Entanglement driven phase transitions in spin-orbital models. <i>New Journal of Physics</i> , 2015 , 17, 083009	2.9	11
47	Spin-orbital entanglement near quantum phase transitions. <i>Physica Status Solidi (B): Basic Research</i> , 2007 , 244, 2378-2383	1.3	11
46	Exact evaluation of the nearest-neighbor Jastrow wave function for the two-dimensional spin-(1/2 Heisenberg antiferromagnet. <i>Physical Review B</i> , 1989 , 40, 7435-7438	3.3	11
45	Spin-correlations of the spin-1/2 Heisenberg antiferromagnet on a square lattice. <i>Physica C: Superconductivity and Its Applications</i> , 1988 , 153-155, 1285-1286	1.3	11
44	Defect-Induced Orbital Polarization and Collapse of Orbital Order in Doped Vanadium Perovskites. <i>Physical Review Letters</i> , 2019 , 122, 127206	7.4	10
43	Quantum entanglement in the one-dimensional spin-orbital SU(2) \times XXZ model. <i>Physical Review B</i> , 2015 , 92,	3.3	10
42	Flux quantization due to monopole and dipole currents. <i>Physical Review B</i> , 2013 , 87,	3.3	9
41	Dimerized ferromagnetic Heisenberg chain. <i>Physical Review B</i> , 2011 , 84,	3.3	9
40	Fractional charges and spin-charge separation in one-dimensional Wigner lattices. <i>Physical Review B</i> , 2007 , 75,	3.3	9
39	Quasi-Particles in the Strong-Coupling Limit of the 2D Hubbard Model. <i>Europhysics Letters</i> , 1990 , 11, 675-680	1.6	8
38	A simple state-dependent exchange functional for calculating Hartree-Fock bandstructures in semiconductors and insulators. <i>Solid State Communications</i> , 1985 , 54, 741-744	1.6	8
37	Comment on "Generalization of a Fermi Liquid to a Liquid with Fractional Exclusion Statistics in Arbitrary Dimensions: Theory of a Haldane Liquid" <i>Physical Review Letters</i> , 1998 , 81, 489-489	7.4	7
36	Angular resolved photoemission spectra, spin-correlations, and Fermi surface of the t-J model at moderate doping. <i>Physica C: Superconductivity and Its Applications</i> , 1991 , 185-189, 1585-1586	1.3	7
35	Electron-phonon interaction due to interchain coupling in Nb ₃ Sn. <i>Solid State Communications</i> , 1976 , 18, 27-30	1.6	7
34	Spin-polaron wave function for a single hole in an antiferromagnet. <i>Journal of Low Temperature Physics</i> , 1994 , 95, 343-352	1.3	6
33	Extension of the Local Approach to excited states of molecules. <i>Zeitschrift für Physik B Condensed Matter and Quanta</i> , 1979 , 33, 43-49		5
32	Magnetism of one-dimensional Wigner lattices and its impact on charge order. <i>Physical Review B</i> , 2008 , 78,	3.3	4
31	Microscopic theory of magnetic interactions in KCuF ₃ and LaMnO ₃ – The role of charge transfer. <i>Physica Status Solidi (B): Basic Research</i> , 2006 , 243, 89-93	1.3	4

30	Spin-wave theory for dimerized ferromagnetic chains. <i>Journal of Physics: Conference Series</i> , 2010 , 200, 022017	0.3	3
29	Application of the Landau-Luttinger Liquid Formulation to the Study of the Magnetic Properties of the 1-D Hubbard Model. <i>International Journal of Modern Physics B</i> , 1991 , 05, 3-30	1.1	3
28	Effective mass decrease due to electron-phonon interaction in heavy fermion systems. <i>European Physical Journal B</i> , 1993 , 90, 125-126	1.2	3
27	Accurate selfenergy-corrections to local-density bands of semiconductors and insulators. <i>Physica Scripta</i> , 1988 , 38, 617-622	2.6	3
26	Localization of holes near charged defects in orbitally degenerate, doped Mott insulators. <i>Physica B: Condensed Matter</i> , 2018 , 536, 738-741	2.8	2
25	Orbital Fluctuations in the RVO3 Perovskites. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , 2009 , 299-324	0.2	2
24	Anisotropic optical response of the mixed-valent Mott-Hubbard insulator NaCu2O2. <i>Physical Review B</i> , 2011 , 84,	3.3	2
23	Magnetic interactions and optical spectral weights in Mott insulators with orbital degrees of freedom. <i>Physica Status Solidi (B): Basic Research</i> , 2005 , 242, 384-391	1.3	2
22	Exact diagonalization study of spin and charge dynamics in the t-J model. <i>Physica C: Superconductivity and Its Applications</i> , 1994 , 235-240, 2231-2232	1.3	2
21	Reiter's Polaron Wave Function Applied to a t _{2g} Orbital t-J Model. <i>Acta Physica Polonica A</i> , 2009 , 115, 110-113	0.6	2
20	Orbital rotations induced by charges of polarons and defects in doped vanadates. <i>Physical Review B</i> , 2021 , 103,	3.3	2
19	Spin and orbital correlations in spin-orbital models for t _{2g} orbitals. <i>Journal of Magnetism and Magnetic Materials</i> , 2004 , 272-276, 440-441	2.8	1
18	Quasiparticle spectra in a t _{2g} J model with electron-phonon interactions. <i>Physica B: Condensed Matter</i> , 1994 , 194-196, 1567-1568	2.8	1
17	Low-frequency conductivity of the one-dimensional strong coupling Hubbard model. <i>Physica B: Condensed Matter</i> , 1994 , 199-200, 325-327	2.8	1
16	Excitation spectra of strong coupling Hubbard Hamiltonian. <i>Physica C: Superconductivity and Its Applications</i> , 1988 , 153-155, 1265-1266	1.3	1
15	On dielectric response and quasiparticles in semiconductors and insulators. <i>Physica Scripta</i> , 1988 , 38, 613-616	2.6	1
14	Coulomb localization in orbital degenerate, doped Mott insulators. <i>AIP Advances</i> , 2018 , 8, 101309	1.5	0
13	Wave function and size of spin-polarons in the t-J model. <i>Physica C: Superconductivity and Its Applications</i> , 1997 , 282-287, 1805-1806	1.3	

- 12 Quasiparticles and superconductivity in the $t - t' - J$ model. *Physica C: Superconductivity and Its Applications*, **1997**, 282-287, 1739-1740 1.3
- 11 CE correlations in a spin-orbital model for half-doped manganites. *Journal of Magnetism and Magnetic Materials*, **2004**, 272-276, 1794-1795 2.8
- 10 Orbital polarons in LaMnO₃. *Physica B: Condensed Matter*, **2002**, 312-313, 740-742 2.8
- 9 Temperature dependence of the optical spectral weights in. *Physica B: Condensed Matter*, **2005**, 359-361, 1288-1290 2.8
- 8 Orbitons in ferromagnetic insulating manganites. *Physica B: Condensed Matter*, **1999**, 259-261, 807-809 2.8
- 7 Stephan and Horsch reply. *Physical Review Letters*, **1994**, 72, 2817 7.4
- 6 Ground state of the 1-dimensional antiferromagnetic Heisenberg model (abstract). *Journal of Applied Physics*, **1985**, 57, 3360-3360 2.5
- 5 Suppression of anisotropy of kinetic energy in doped vanadium perovskites by charged defects and spin-orbital polarons. *Journal of Magnetism and Magnetic Materials*, **2022**, 169101 2.8
- 4 Optical Conductivity of Doped Manganites: Comparison of Perromagnetic Kondo Lattice Models with and without Orbital Degeneracy **2002**, 103-126
- 3 Spin Structure and Dynamical Magnetic Response of Spin-Orbital Polarons in Lightly Doped Cobaltates. *NATO Science for Peace and Security Series B: Physics and Biophysics*, **2008**, 49-55 0.2
- 2 Drude Weight and f-Sum Rule of the Hubbard Model at Strong Coupling. *NATO ASI Series Series B: Physics*, **1995**, 193-200
- 1 Electronic Correlation Effects in Cyclic Polyenes and in Polyacetylene. *Springer Series in Solid-state Sciences*, **1981**, 126-131 0.4