

Roser Valenti

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7418677/publications.pdf>

Version: 2024-02-01

187
papers

6,961
citations

71102

41
h-index

71685

76
g-index

188
all docs

188
docs citations

188
times ranked

5715
citing authors

#	ARTICLE	IF	CITATIONS
1	Monoclinic crystal structure of LiIr_2O_7 and the zigzag antiferromagnetic ground state. Physical Review B, 2015, 92, .	3.2	316
2	Models and materials for generalized Kitaev magnetism. Journal of Physics Condensed Matter, 2017, 29, 493002.	1.8	384
3	Challenges in design of Kitaev materials: Magnetic interactions from competing energy scales. Physical Review B, 2016, 93, .	3.2	368
4	Similarities between structural distortions under pressure and chemical doping in superconducting BaFe_2As_2 . Nature Materials, 2009, 8, 471-475.	27.5	266
5	Effect of magnetic frustration on nematicity and superconductivity in iron chalcogenides. Nature Physics, 2015, 11, 953-958.	16.7	255
6	Breakdown of magnons in a strongly spin-orbital coupled magnet. Nature Communications, 2017, 8, 1152.	12.8	173
7	Revision of Model Parameters for IrO_2 -Type Charge Transfer Salts: An <i>Ab Initio</i> Study. Physical Review Letters, 2009, 103, 067004.	7.8	170
8	Theoretical prediction of a strongly correlated Dirac metal. Nature Communications, 2014, 5, 4261.	12.8	167
9	<i>Ab initio</i> analysis of the tight-binding parameters and magnetic interactions in Na_2IrO_4 . Physical Review B, 2013, 88, .	3.2	164
10	Na_2IrO_4 as a Molecular Orbital Crystal. Physical Review Letters, 2012, 109, 197201.	7.8	155
11	Probing RuCl_2 Beyond Magnetic Order: Effects of Temperature and Magnetic Field. Physical Review Letters, 2018, 120, 077203.	7.8	120
12	The 2021 quantum materials roadmap. JPhys Materials, 2020, 3, 042006.	4.2	111
13	Multistep Approach to Microscopic Models for Frustrated Quantum Magnets: The Case of the Natural Mineral Azurite. Physical Review Letters, 2011, 106, 217201.	7.8	109
14	Cluster expansion for the self-energy: A simple many-body method for interpreting the photoemission spectra of correlated Fermi systems. Physical Review B, 1993, 48, 418-425.	3.2	94
15	Valence bond liquid phase in the honeycomb lattice material LiRuO_3 . Physical Review B, 2014, 89, .	4.2	92
16	LDA+DMFT study of the effects of correlation in LiFeAs . Physical Review B, 2012, 85, .	3.2	91
17	Orbital Order in ZnV_2O_4 . Physical Review Letters, 2007, 99, 126401.	7.8	89
18	Proposed Orbital Ordering in MnV_2O_4 from First-Principles Calculations. Physical Review Letters, 2009, 102, 216405.	7.8	87

#	ARTICLE	IF	CITATIONS
19	Hedgehog spin-vortex crystal stabilized in a hole-doped iron-based superconductor. Npj Quantum Materials, 2018, 3, .	5.2	85
20	First-principles determination of Heisenberg Hamiltonian parameters for the spin-12 kagome antiferromagnet $\text{ZnCu}_3(\text{OH})_6\text{Cl}_2$. Physical Review B, 2013, 88, .	3.2	81
21	Evidence for an Unconventional Magnetic Instability in the Spin-Tetrahedra System $\text{Cu}_2\text{Te}_2\text{O}_5\text{Br}_2$. Physical Review Letters, 2001, 87, 227201.	7.8	79
22	The 2021 room-temperature superconductivity roadmap. Journal of Physics Condensed Matter, 2022, 34, 183002.	1.8	79
23	Paramagnetism in the kagome compounds $\text{Zn}_2\text{Cu}_2\text{O}_7$ and $\text{Zn}_2\text{Cu}_2\text{S}_7$. Physical Review B, 2015, 92, .	3.2	71
24	Internal screening and dielectric engineering in magic-angle twisted bilayer graphene. Physical Review B, 2019, 100, .	3.2	67
25	Luttinger liquid instability of the 2D t - J model: A variational study. Physical Review Letters, 1992, 68, 2402-2405.	7.8	64
26	Competition between spin-orbit coupling, magnetism, and dimerization in the honeycomb iridates: Ir_2O_7 and Ir_2Te_7 under pressure. Physical Review B, 2018, 97, .	3.2	61
27	Formation of Hubbard-like bands as a fingerprint of strong electron-electron interactions in FeSe. Physical Review B, 2017, 95, .	3.2	59
28	Origin of the insulating state in honeycomb iridates and rhodates. Physical Review B, 2013, 88, .	3.2	57
29	Magnetism, Spin Texture, and In-Gap States: Atomic Specialization at the Surface of Oxygen-Deficient SrTiO_3 . Physical Review Letters, 2016, 116, 157203.	7.8	55
30	Ab initio study of the two-dimensional metallic state at the surface of SrTiO_3 : Importance of oxygen vacancies. Physical Review B, 2012, 86, .	3.2	54
31	Absence of Metallicity in K-doped Picene: Importance of Electronic Correlations. Physical Review Letters, 2013, 110, 216403.	7.8	53
32	Magnon Splitting Induced by Charge Ordering in NaV_2O_5 . Physical Review Letters, 1999, 82, 976-979.	7.8	52
33	Frustration-induced Raman scattering in CuGeO_3 . Physical Review B, 1996, 54, R9635-R9638.	3.2	50
34	High-field quantum disordered state in $\text{Zn}_2\text{Cu}_2\text{O}_7$: Spin flips, bound states, and multiparticle continuum. Physical Review B, 2020, 101, .	3.2	50
35	Electronic Properties of $\text{Zn}_2\text{Cu}_2\text{O}_7$ in Proximity to Graphene. Physical Review Letters, 2019, 123, 237201.	7.8	48
36	Localized versus itinerant states created by multiple oxygen vacancies in SrTiO_3 . New Journal of Physics, 2015, 17, 023034.	2.9	47

#	ARTICLE	IF	CITATIONS
37	Hubbard band versus oxygen vacancy states in the correlated electron metal SrVO_3 . Physical Review B, 2016, 94, .	3.2	46
38	TiOCl, an orbital-ordered system?. Europhysics Letters, 2004, 67, 63-69.	2.0	44
39	Spontaneous dissociation of $\text{Co}_2(\text{CO})_8$ and autocatalytic growth of Co on SiO_2 : A combined experimental and theoretical investigation. Beilstein Journal of Nanotechnology, 2012, 3, 546-555.	2.8	44
40	Effect of isoelectronic doping on the honeycomb-lattice iridate A_2IrO_3 . Physical Review B, 2014, 89, .	3.2	42
41	Thermodynamic Perspective on Field-Induced Behavior of RuCl_3 . Physical Review Letters, 2020, 125, 097203.	7.8	42
42	Signatures of a gearwheel quantum spin liquid in a spin- $\frac{1}{2}$ pyrochlore molybdate Heisenberg antiferromagnet. Physical Review Materials, 2017, 1, .	2.4	42
43	Modeling the Electronic Behavior of LiV_2O_5 : A Microscopic Study. Physical Review Letters, 2001, 86, 5381-5384.	7.8	41
44	Critical spin liquid versus valence-bond glass in a triangular-lattice organic antiferromagnet. Nature Communications, 2019, 10, 2561.	12.8	41
45	Microscopic nature of correlations in multiorbital FeAs_2 .		

#	ARTICLE	IF	CITATIONS
55	Near-degeneracy of extended $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle s \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle + \langle \text{mml:mo} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle$ $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle d \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle x \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle$ Physical Review B, 2016, 94, .	3.2	34
56	Correlation effects in the tetragonal and collapsed-tetragonal phase of $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle$ $\text{mathvariant="normal"} \rangle \text{CaFe} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle$ $\text{mathvariant="normal"} \rangle \text{As} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$. Physical Review B, 2014, 90, .	3.2	33
57	Evidence for Eight-Node Mixed-Symmetry Superconductivity in a Correlated Organic Metal. Physical Review Letters, 2016, 116, 237001.	7.8	33
58	Microscopic Model of Nonreciprocal Optical Effects in Cr2O3. Physical Review Letters, 1995, 75, 2766-2769.	7.8	32
59	Theory of nonreciprocal optical effects in antiferromagnets: The case of Cr2O3. Physical Review B, 1996, 54, 433-440.	3.2	32
60	Microscopic origin of the mobility enhancement at a spinel/perovskite oxide heterointerface revealed by photoemission spectroscopy. Physical Review B, 2017, 96, .	3.2	32
61	Two Pressure-Induced Transitions in TiOCl: Mott Insulator to Anisotropic Metal. Physical Review Letters, 2008, 101, 136406.	7.8	31
62	Influence of molecular conformations on the electronic structure of organic charge transfer salts. Physical Review B, 2015, 92, .	3.2	30
63	Reduction of magnetic interlayer coupling in barlowite through isoelectronic substitution. Physical Review B, 2016, 94, .	3.2	30
64	Interplay of nematic and magnetic orders in FeSe under pressure. Physical Review B, 2017, 95, .	3.2	30
65	Evidence for Electronically Driven Ferroelectricity in a Strongly Correlated Dimerized BEDT-TTF Molecular Conductor. Physical Review Letters, 2018, 120, 247601.	7.8	30
66	One-dimensional spin liquid, collinear, and spiral phases from uncoupled chains to the triangular lattice. Physical Review B, 2014, 89, .	3.2	29
67	Analysis of the optical conductivity for $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle A \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle$ first principles. Physical Review B, 2015, 91, .	3.2	29
68	Prospect of quantum anomalous Hall and quantum spin Hall effect in doped kagome lattice Mott insulators. Scientific Reports, 2016, 6, 25988.	3.3	28
69	Unraveling the microscopic nature of correlated organic conductors: The case of $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \rangle I \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle -(EI) \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle$ $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Cu} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle [N(CN) \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle$ $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle] \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle$ $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$ International Journal of Quantum Chemistry, 1997, 65, 421-438.	3.2	27
70	Many-body valence-bond theory. International Journal of Quantum Chemistry, 1997, 65, 421-438.	2.0	26
71	Dynamical cluster approximation within an augmented plane wave framework: Spectral properties of SrVO3. Physical Review B, 2012, 85, .	3.2	26
72	Origin of the superconducting state in the collapsed tetragonal phase of $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{KFe} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle$ $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$ Physical Review B, 2015, 91, .	3.2	26

#	ARTICLE	IF	CITATIONS
73	Electron dichotomy on the surface augmented by many-body effects. Physical Review B, 2016, 93, .	3.2	26
74	Na ₂ V ₃ O ₇ : A Frustrated Nanotubular System with Spin-1/2 Diamond Ring Geometry. Physical Review Letters, 2005, 95, 107201.	7.8	25
75	Containment efficiency and control strategies for the corona pandemic costs. Scientific Reports, 2021, 11, 6848.	3.3	25
76	Magnetoelastic coupling and effects of uniaxial strain in RuCl ₃ from first principles. Physical Review B, 2021, 103, .	3.2	25
77	Spin gap formation in the quantum spin systems TiOX, X=Cr, Mn, Fe, Co, Ni, Cu, Zn, Cd and Br. New Journal of Physics, 2005, 7, 74-74.	2.9	24
78	Kitaev honeycomb models in magnetic fields: Dynamical response and dual models. Physical Review B, 2019, 100, .	3.2	24
79	Angle-dependent thermodynamics of RuCl ₃ . Physical Review B, 2021, 103, .	3.2	24
80	Fermi Surface Topology of LaFePO and LiFeP. Physical Review Letters, 2012, 109, 236403.	7.8	23
81	Effect of Nonlocal Correlations on the Electronic Structure of LiFeAs. Physical Review Letters, 2019, 123, 256401.	7.8	23
82	Topological long-range order for resonating-valence-bond structures. Physical Review B, 1991, 43, 723-727.	3.2	22
83	Microscopic modeling of a spin crossover transition. New Journal of Physics, 2007, 9, 448-448.	2.9	22
84	Sawtooth Torque in Anisotropic Magnets: Application to RuCl ₃ . Physical Review Letters, 2019, 122, 197202.	7.8	22
85	Pressure-induced ferromagnetism in the topological semimetal EuCd ₂ Si ₂ . Physical Review B, 2021, 104, .	3.2	21
86	Unconventional magnetism on a honeycomb lattice in RuCl ₃ by muon spin rotation. Physical Review B, 2016, 94, .	3.2	21
87	Superconductivity in correlated BEDT-TTF molecular conductors: Critical temperatures and gap symmetries. Physical Review B, 2018, 97, .	3.2	21
88	Uncovering the Mechanism of the Impurity-Selective Mott Transition in Paramagnetic VVO ₂ . Physical Review Letters, 2018, 121, 106401.	7.8	21
89	Nonlocal correlations in iron pnictides and chalcogenides. Physical Review B, 2020, 102, .	3.2	21
90	Microscopic model for transitions from Mott to spin-Peierls insulator in TiOCl. Physical Review B, 2008, 78, .	3.2	20

#	ARTICLE	IF	CITATIONS
91	Mott correlated states in the underdoped two-dimensional Hubbard model: Variational Monte Carlo versus a dynamical cluster approximation. <i>Physical Review B</i> , 2013, 87, .	3.2	20
92	Orbital-Resolved Partial Charge Transfer from the Methoxy Groups of Substituted Pyrenes in Complexes with Tetracyanoquinodimethane—A NEXAFS Study. <i>Journal of the American Chemical Society</i> , 2012, 134, 4694-4699.	13.7	19
93	Statistical analysis of the Chern number in the interacting Haldane-Hubbard model. <i>Physical Review B</i> , 2019, 100, .	3.2	19
94	Ab Initio Approaches for Low-Energy Spin Hamiltonians. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800684.	1.5	19
95	Electronic structure and spin-orbit driven magnetism in BaMn_2Sb_2 . <i>Physical Review B</i> , 2015, 92, .	3.2	18
96	Influence of oxygen vacancies on two-dimensional electron systems at SrTiO ₃ -based interfaces and surfaces. <i>European Physical Journal: Special Topics</i> , 2017, 226, 2457-2475.	2.6	18
97	Trends in pressure-induced layer-selective half-collapsed tetragonal phases in the iron-based superconductor family FeAs_2 . <i>Physical Review B</i> , 2018, 98, .	1.8	18
98	Anomalous Quantum Oscillations in a Heterostructure of Graphene on a Proximate Quantum Spin Liquid. <i>Physical Review Letters</i> , 2021, 126, 097201.	7.8	18
99	Band-Order Anomaly at the $\text{Al}_2\text{O}_3/\text{SrTiO}_3$ Interface Drives the Electron-Mobility Boost. <i>ACS Nano</i> , 2021, 15, 4347-4356.	14.6	18
100	Spin-Peierls vs Peierls distortions in a family of conjugated polymers. <i>Physical Review B</i> , 1997, 56, 1751-1761.	3.2	17
101	Electronic structure and de Haas-van Alphen frequencies in KFe_2As_2 within LDA+DMFT. <i>New Journal of Physics</i> , 2014, 16, 083025.	2.9	17
102	Charge transfer tuning by chemical substitution and uniaxial pressure in the organic complex tetramethoxypyrene-tetracyanoquinodimethane. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 4118-4126.	2.8	17
103	Electronic structure and coexistence of superconductivity with magnetism in $\text{RbEuFe}_4\text{As}_4$. <i>Physical Review B</i> , 2021, 103, .	3.2	17
104	Phase diagram of a distorted kagome antiferromagnet and application to Y-kapellasite. <i>Npj Computational Materials</i> , 2022, 8, .	8.7	17
105	A self-consistent cluster study of the Emery model. <i>Annalen Der Physik</i> , 1994, 506, 460-466.	2.4	16
106	Role of vertex corrections in the matrix formulation of the random phase approximation for the multiorbital Hubbard model. <i>Physical Review B</i> , 2016, 94, .	3.2	16
107	Ab initio perspective on structural and electronic properties of iron-based superconductors. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600164.	1.5	16
108	Nature of optical excitations in the frustrated kagome compound herbertsmithite. <i>Physical Review B</i> , 2017, 96, .	3.2	16

#	ARTICLE	IF	CITATIONS
109	Magnetization Process of Atacamite: A Case of Weakly Coupled $S=1$ Sawtooth Chains. Physical Review Letters, 2021, 126, 207201.	7.8	16
110	Thermally induced crystal-to-crystal transformations accompanied by changes in the magnetic properties of a Cu^{II} -p-hydroquinonate polymer. CrystEngComm, 2011, 13, 391-395.	2.6	15
111	Evolution from B2g Nematics to B1g Nematics in Heavily Hole-Doped Iron-Based Superconductors. Physical Review Letters, 2019, 123, 146402.	7.8	15
112	Lower bounds for the ground-state energies of the two-dimensional Hubbard and t-J models. Physical Review B, 1991, 43, 13743-13746.	3.2	14
113	Comparative study between two quantum spin systems $KCuCl_3$ and $TlCuCl_3$. Europhysics Letters, 2002, 60, 309-315.	2.0	14
114	Charge orders in organic charge-transfer salts. New Journal of Physics, 2017, 19, 103033.	2.9	14
115	Role of the Open-Shell Character on the Pressure-Induced Conductivity of an Organic Donor-Acceptor Radical Dyad. Chemistry - A European Journal, 2018, 24, 5500-5505.	3.3	14
116	Modified Curie-Weiss law for $S=1$ magnets. Physical Review B, 2021, 103, .	3.2	14
117	J1-J2 model revisited: Phenomenology of $CuGeO_3$. Physical Review B, 1997, 55, 5944-5952.	3.2	13
118	Deconfinement of Mott localized electrons into topological and spin-orbit-coupled Dirac fermions. Npj Quantum Materials, 2020, 5, .	5.2	13
119	Alleviating the sign problem in quantum Monte Carlo simulations of spin-orbit-coupled multiorbital Hubbard models. Physical Review B, 2020, 101, .	3.2	13
120	Lattice dynamics in the spin-1/2 frustrated kagome compound herbertsmithite. Physical Review B, 2020, 101, .	3.2	13
121	Rigorous bounds for ground-state properties of correlated Fermi systems. Physical Review B, 1991, 44, 13203-13212.	3.2	12
122	Order-disorder transition in the $S=1/2$ kagome antiferromagnets claringbullite and barlowite. Chemical Communications, 2019, 55, 11587-11590.	4.1	12
123	Electronic excitations in $S=1$ Kagome antiferromagnets. Physical Review B, 2017, 95, .	3.2	12
124	Ultrasharp Lateral p-n Junctions in Modulation-Doped Graphene. Nano Letters, 2022, 22, 4124-4130.	9.1	12
125	Exact lower bounds to the ground-state energy of spin systems: The two-dimensional $S=1/2$ antiferromagnetic Heisenberg model. Physical Review B, 1990, 41, 9611-9613.	3.2	11
126	The Mott-Hubbard Transition on the $D = \infty$ Bethe Lattice. Europhysics Letters, 1994, 27, 299-304.	2.0	11

#	ARTICLE	IF	CITATIONS
127	Cluster dynamical mean-field calculations for TiOCl. <i>New Journal of Physics</i> , 2007, 9, 380-380.	2.9	11
128	Can the Mott Insulator TiOCl be Metallized by Doping? A First-Principles Study. <i>Physical Review Letters</i> , 2010, 104, 146402.	7.8	11
129	Momentum spectrometer for electron-electron coincidence studies on superconductors. <i>Review of Scientific Instruments</i> , 2012, 83, 103905.	1.3	11
130	Hydrostatic pressure response of an oxide-based two-dimensional electron system. <i>Physical Review B</i> , 2016, 93, .	3.2	11
131	Electron and X-Ray Spectroscopies of Organic Charge-Transfer Complexes. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800745.	1.5	11
132	Lattice Dynamics Coupled to Charge and Spin Degrees of Freedom in the Molecular Dimer-Mott Insulator $\text{BEDT-TTF}^{\text{I}}$	7.8	11
133	Pressure-induced formation of rhodium zigzag chains in the honeycomb rhodate Li_2RhO_3 . <i>Physical Review B</i> , 2019, 100, .	3.2	11
134	Suppression of topological Mott-Hubbard phases by multiple charge orders in the honeycomb extended Hubbard model. <i>Physical Review B</i> , 2018, 97, .	3.2	10
135	Dynamics and fragmentation mechanism of $(\text{C}_5\text{H}_4\text{CH}_3)_3\text{Pt}(\text{CH}_3)_3$ on SiO_2 surfaces. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 711-720.	2.8	10
136	Rigorous lower bounds on the ground-state energy of correlated Fermi systems. <i>Physical Review B</i> , 1991, 44, 3995-3998.	3.2	9
137	Resonating-valence-bond theory for the square-planar lattice. <i>Physical Review B</i> , 1991, 43, 719-722.	3.2	9
138	Test of the frustrated spin-cluster model to describe the low-temperature physics of NaV_2O_5 . <i>Physical Review B</i> , 2000, 62, R14617-R14620.	3.2	9
139	Modified 1,4-hydroquinone ligands bridging CuII ions – Building blocks for a new class of quantum magnets. <i>Comptes Rendus Chimie</i> , 2007, 10, 109-115.	0.5	9
140	Role of layer packing for the electronic properties of the organic superconductor mTh		

#	ARTICLE	IF	CITATIONS
145	Emergent lattices with geometrical frustration in doped extended Hubbard models. <i>Physical Review B</i> , 2016, 94, .	3.2	7
146	Self-energy dispersion in the Hubbard model. <i>Physical Review B</i> , 2018, 98, .	3.2	7
147	Variational wave functions for the spin-Peierls transition in the Su-Schrieffer-Heeger model with quantum phonons. <i>Physical Review B</i> , 2020, 102, .	3.2	7
148	Elementary band representations for the single-particle Green's function of interacting topological insulators. <i>Physical Review B</i> , 2021, 104, .	3.2	7
149	Orbital occupancy and hybridization in strained SrVO_3 epitaxial films. <i>Physical Review Materials</i> , 2021, 5, .	2.4	7
150	Towards a topological quantum chemistry description of correlated systems: The case of the Hubbard diamond chain. <i>Physical Review B</i> , 2021, 104, .	3.2	7
151	Dzyaloshinskii-Moriya interaction in NaV_2O_5 : A microscopic study. <i>Physical Review B</i> , 2000, 62, 14164-14170.	3.2	6
152	Importance of itinerancy and quantum fluctuations for the magnetism in ironpnictides. <i>Journal of Physics and Chemistry of Solids</i> , 2011, 72, 324-328.	4.0	6
153	Dynamics of tungsten hexacarbonyl, dicobalt octacarbonyl, and their fragments adsorbed on silica surfaces. <i>Journal of Chemical Physics</i> , 2014, 140, 184706.	3.0	6
154	Microscopic Modeling of Correlated Systems Under Pressure: Representative Examples. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1900229.	1.5	6
155	Engineering topological phases guided by statistical and machine learning methods. <i>Physical Review Research</i> , 2021, 3, .	3.6	6
156	Statistical learning of engineered topological phases in the kagome superlattice of AV_3Sb_5 . <i>Npj Computational Materials</i> , 2022, 8, .	8.7	6
157	Ferromagnetism in the Fe-substituted spinel semiconductor ZnGa_2O_4 . <i>Journal of Physics Condensed Matter</i> , 2005, 17, 7417-7431.	1.8	5
158	Field-induced phase transition in a metalorganic spin-dimer system—a potential model system to study Bose-Einstein condensation of magnons. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 1319-1321.	2.3	5
159	Simulation of structural and electronic properties of amorphous tungsten oxycarbides. <i>New Journal of Physics</i> , 2012, 14, 113028.	2.9	5
160	Simulation of electron transport during electron-beam-induced deposition of nanostructures. <i>Beilstein Journal of Nanotechnology</i> , 2013, 4, 781-792.	2.8	5
161	Prediction of double-Weyl points in the iron-based superconductor $\text{Ca}_x\text{K}_{1-x}\text{Fe}_4\text{As}_8$. <i>Physical Review B</i> , 2021, 104, .	3.2	5
162	Covalent excitations of a polyphene polymer via A Herndon-Simpson model. <i>Computational and Theoretical Chemistry</i> , 1989, 185, 287-296.	1.5	4

#	ARTICLE	IF	CITATIONS
163	Spin-charge separation at small length scales in the two-dimensional J-model. Physical Review B, 1994, 50, 11313-11317.	3.2	4
164	Pressure-driven phase transitions in TiOCl and the family (Ca, Sr, Ba)Fe ₂ As ₂ . Journal of Physics Condensed Matter, 2010, 22, 164208.	1.8	4
165	ORBITAL SELECTIVE PHASE TRANSITION. Modern Physics Letters B, 2013, 27, 1330015.	1.9	4
166	Synthesis successes. Nature Chemistry, 2017, 9, 608-609.	13.6	4
167	Magnetostructural Properties of the Layered Quasi-2D Triangular Lattice Antiferromagnets Cs ₂ CuCl ₄ ^x Br _x for x = 0, 1, 2, and 4. Physica Status Solidi (B): Basic Research, 2019, 256, 1900044.	1.5	4
168	Chemical tuning between triangular and honeycomb structures in a spin-orbit Mott insulator. Physical Review B, 2019, 100, .	3.2	4
169	Predicting the cumulative medical load of COVID-19 outbreaks after the peak in daily fatalities. PLoS ONE, 2021, 16, e0247272.	2.5	4
170	Effects of spin-phonon coupling in frustrated Heisenberg models. Physical Review B, 2021, 104, .	3.2	4
171	Classical and ab initio preparation of reliable structures for polymeric coordination compounds. Comptes Rendus Chimie, 2007, 10, 82-88.	0.5	3
172	Surface excitations in the modelling of electron transport for electron-beam-induced deposition experiments. Beilstein Journal of Nanotechnology, 2015, 6, 1260-1267.	2.8	3
173	Spin Vortex Crystal Order in Organic Triangular Lattice Compound. Physical Review Letters, 2021, 127, 147204.	7.8	3
174	Construction of heterolayer intermetallic crystals: Case studies of the 1144-phase TM-phosphides (TM) and mixed-valence semimetals.	2.4	3
175	Semimetallic square-octagon two-dimensional polymer with high mobility. Physical Review B, 2021, 104, .	3.2	3
176	Role of disorder in electronic and magnetic properties of Ag ₃ O ₆ . Physical Review B, 2022, 105, .	3.2	3
177	Cu-based metalorganic systems: an ab initio study of the electronic structure. New Journal of Physics, 2007, 9, 26-26.	2.9	2
179	Combined experimental and theoretical studies of pressure effects in La ₂ Sb. Physica Status Solidi (B): Basic Research, 2017, 254, 1600168.	1.5	2
180	Anisotropic superconductivity in the spin-vortex antiferromagnetic superconductor CaK ₂ Mo ₂ O ₈ . Physical Review B, 2021, 103, .	3.2	2

#	ARTICLE	IF	CITATIONS
181	Pseudoelasticity of SrNi ₂ P ₂ Micropillar via Double Lattice Collapse and Expansion. Nano Letters, 2021, 21, 7913-7920.	9.1	2
182	Multi-Center Magnon Excitations Open the Entire Brillouin Zone to Terahertz Magnetometry of Quantum Magnets. Advanced Quantum Technologies, 0, , 2200023.	3.9	2
183	Investigation of Many-Body Effects in the Quasi-Two-Dimensional Electronic System of Organic Charge-Transfer Salts. Physica Status Solidi (B): Basic Research, 2019, 256, 1800674.	1.5	1
184	Charge ordering and low-temperature lattice distortion in the $\hat{I}^2\hat{a}^2$ -(BEDT-TTF) ₂ CF ₃ CF ₂ SO ₃ dimer Mott insulator. Physical Review B, 2020, 101, .	3.2	1
185	Novel nonreciprocal acoustic effects in antiferromagnets. Europhysics Letters, 1999, 45, 242-248.	2.0	0
186	First principles determination of the model parameters in. Physica B: Condensed Matter, 2010, 405, S224-S228.	2.7	0
187	Addendum: Orbital selective phase transition. Modern Physics Letters B, 2014, 28, 1491001.	1.9	0