

Oleg Tchernyshyov

List of Publications by Year in descending order

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98
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81900

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99
all docs

99
docs citations

99
times ranked

5578
citing authors

#	ARTICLE	IF	CITATIONS
1	Interface-induced phenomena in magnetism. <i>Reviews of Modern Physics</i> , 2017, 89, .	45.6	672
2	Bose-Einstein condensation in magnetic insulators. <i>Nature Physics</i> , 2008, 4, 198-204.	16.7	597
3	Order by Distortion and String Modes in Pyrochlore Antiferromagnets. <i>Physical Review Letters</i> , 2002, 88, 067203.	7.8	239
4	Dynamics of Domain Walls in Magnetic Nanostrips. <i>Physical Review Letters</i> , 2008, 100, 127204.	7.8	214
5	Fractional Vortices and Composite Domain Walls in Flat Nanomagnets. <i>Physical Review Letters</i> , 2005, 95, 197204.	7.8	183
6	Magnetic Bistability and Controllable Reversal of Asymmetric Ferromagnetic Nanorings. <i>Physical Review Letters</i> , 2006, 96, 027205.	7.8	170
7	Probing Spin Correlations with Phonons in the Strongly Frustrated Magnet ZnCr ₂ O ₄ . <i>Physical Review Letters</i> , 2005, 94, 137202.	7.8	168
8	Inertia and Chiral Edge Modes of a Skyrmion Magnetic Bubble. <i>Physical Review Letters</i> , 2012, 109, 217201.	7.8	165
9	Two-Stage Ordering of Spins in Dipolar Spin Ice on the Kagome Lattice. <i>Physical Review Letters</i> , 2011, 106, 207202.	7.8	157
10	Structural, Orbital, and Magnetic Order in Vanadium Spinels. <i>Physical Review Letters</i> , 2004, 93, 157206.	7.8	155
11	Spin-Peierls phases in pyrochlore antiferromagnets. <i>Physical Review B</i> , 2002, 66, .	3.2	142
12	Vortices in thin ferromagnetic films and the skyrmion number. <i>Physical Review B</i> , 2007, 75, .	3.2	124
13	Muon spin relaxation study of the stripe phase order in La _{1.6} Nd _{0.4} Sr _x CuO ₄ and related 214 cuprates. <i>Physical Review B</i> , 1998, 58, 8760-8772.	3.2	115
14	Dynamics of a vortex domain wall in a magnetic nanostrip: Application of the collective-coordinate approach. <i>Physical Review B</i> , 2008, 78, .	3.2	115
15	Propulsion of a domain wall in an antiferromagnet by magnons. <i>Physical Review B</i> , 2014, 90, .	3.2	115
16	Spin waves in a skyrmion crystal. <i>Physical Review B</i> , 2011, 84, .	3.2	105
17	Dynamics of Magnetic Charges in Artificial Spin Ice. <i>Physical Review Letters</i> , 2010, 105, 187206.	7.8	83
18	Hierarchy of Bound States in the One-Dimensional Ferromagnetic Ising Chain CoNb_6S_6 by High-Resolution Time-Domain Terahertz Spectroscopy. <i>Physical Review Letters</i> , 2014, 112, 137403.	7.8	82

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19	Noninteracting Cooper pairs inside a pseudogap. Physical Review B, 1997, 56, 3372-3380.	3.2	75
20	Reducing Disorder in Artificial Kagome Ice. Physical Review Letters, 2011, 107, 167201.	7.8	69
21	Antisymmetric Magnetoresistance in Magnetic Multilayers with Perpendicular Anisotropy. Physical Review Letters, 2005, 94, 017203.	7.8	61
22	Partial order from disorder in a classical pyrochlore antiferromagnet. Physical Review B, 2008, 78, .	3.2	54
23	Bond order from disorder in the planar pyrochlore magnet. Physical Review B, 2003, 68, .	3.2	53
24	Asymmetric Domain Nucleation and Unusual Magnetization Reversal in Ultrathin Co Films with Perpendicular Anisotropy. Physical Review Letters, 2007, 98, 117204.	7.8	50
25	Magnetolectric domain wall dynamics and its implications for magnetolectric memory. Applied Physics Letters, 2016, 108, .	3.3	50
26	Sensitivity of the magnetic properties of the ZnCr O_2	3.2	49
27	Neutron resonance in high-Tc superconductors is not the $\tilde{\Gamma}_6$ particle. Physical Review B, 2001, 63, .	3.2	47
28	Broken parity and a chiral ground state in the frustrated magnet CdCr ₂ O ₄ . Physical Review B, 2006, 74, .	3.2	46
29	Dispersion of the neutron resonance in cuprate superconductors. Physical Review B, 2001, 63, .	3.2	44
30	Magnetic charge and ordering in kagome spin ice. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 5718-5737.	3.4	44
31	Low-energy electrodynamics of novel spin excitations in the quantum spin ice Yb ₂ Ti ₂ O ₇ . Nature Communications, 2014, 5, 4970.	12.8	44
32	Reentrant Phase Diagram of Yb O_7	7.8	43
33	Dynamical Structure Factor of the Three-Dimensional Quantum Spin Liquid Candidate NaCaNi F_7	7.8	43
34	Planar Pyrochlore, Quantum Ice and Sliding Ice. Journal of Statistical Physics, 2004, 116, 755-772.	1.2	41
35	Flux expulsion and greedy bosons: Frustrated magnets at large N. Europhysics Letters, 2006, 73, 278-284.	2.0	41
36	Quantum Strings in Quantum Spin Ice. Physical Review Letters, 2012, 108, 247210.	7.8	41

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37	Condensation of magnons and spinons in a frustrated ladder. Physical Review B, 2006, 73, .	3.2	40
38	Dynamics of artificial spin ice: a continuous honeycomb network. New Journal of Physics, 2012, 14, 035022.	2.9	40
39	Thermophoresis of an antiferromagnetic soliton. Physical Review B, 2015, 92, .	3.2	40
40	Conserved momenta of a ferromagnetic soliton. Annals of Physics, 2015, 363, 98-113.	2.8	36
41	Quantum Criticality in an Organic Magnet. Physical Review Letters, 2006, 96, 257203.	7.8	34
42	Field-driven phase transitions in a quasi-two-dimensional quantum antiferromagnet. New Journal of Physics, 2007, 9, 31-31.	2.9	34
43	Stripes in thin ferromagnetic films with out-of-plane anisotropy. Physical Review B, 2007, 75, .	3.2	32
44	Unpaired Majorana modes on dislocations and string defects in Kitaev's honeycomb model. Physical Review B, 2014, 90, .	3.2	32
45	Pinning of a Bloch point by an atomic lattice. Physical Review B, 2013, 88, .	3.2	31
46	Antichiral spin order, its soft modes, and their hybridization with phonons in the topological semimetal Mn_3P_2 . Physical Review B, 2020, 102, .	3.2	29
47	Fermionic Spin Excitations in Two- and Three-Dimensional Antiferromagnets. Physical Review Letters, 2009, 103, 187203.	7.8	28
48	Topological defects in flat nanomagnets: The magnetostatic limit. Journal of Applied Physics, 2006, 99, 08Q505.	2.5	26
49	Quantum dimer model for the spin-1 liquid. Physical Review B, 2014, 90, .	3.2	23
50	Pseudogap in one dimension. Physical Review B, 1999, 59, 1358-1368.	3.2	22
51	Field-induced gap in ordered Heisenberg antiferromagnets. Physical Review B, 2004, 70, .	3.2	22
52	Extended bound states and resonances of two fermions on a periodic lattice. Physical Review B, 1997, 55, 6035-6043.	3.2	21
53	Energy-momentum tensor of a ferromagnet. Physical Review B, 2018, 98, .	3.2	21
54	Theory of spin waves in a hexagonal antiferromagnet. Physical Review B, 2020, 102, .	3.2	21

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55	Composite domain walls in flat nanomagnets: The magnetostatic limit. Journal of Applied Physics, 2006, 99, 08B101.	2.5	20
56	Ising Phases of Heisenberg Ladders in a Magnetic Field. Physical Review Letters, 2007, 99, 117201.	7.8	20
57	Spin- $\frac{1}{2}$ Heisenberg antiferromagnet on the kagome lattice: spin liquid with fermionic spinons. Physical Review B, 2013, 87, .	3.2	18
58	Gauge fields and related forces in antiferromagnetic soliton physics. Physical Review B, 2017, 95, .	3.2	18
59	Phenomenological lattice gauge theory of the spin-liquid state of the kagome Heisenberg antiferromagnet. Physical Review B, 2010, 81, .	3.2	17
60	Structure factor of low-energy spin excitations in a kagome antiferromagnet. Physical Review B, 2010, 81, .	3.2	16
61	Liquid "gas" and other unusual thermal phase transitions in some large-N magnets. Nuclear Physics B, 2002, 639, 429-449.	2.5	15
62	No longer on thin ice. Nature Physics, 2010, 6, 323-324.	16.7	15
63	Unpaired Majorana modes in the gapped phase of Kitaev's honeycomb model. Physical Review B, 2013, 88, .	3.2	15
64	Freedom for the poles. Nature, 2008, 451, 22-23.	27.8	14
65	Asymmetric Splitting of an Antiferromagnetic Resonance via Quartic Exchange Interactions in Multiferroic Hexagonal HoMnO_3 . Physical Review Letters, 2017, 119, 227601.	7.8	14
66	Quantum Statistics of Vortices from a Dual Theory of the XY Ferromagnet. Physical Review Letters, 2020, 124, 157203.	7.8	14
67	Spin-Peierls and spin-glass phases in pure and doped CuGeO_3 : a $^{1/4}\text{SR}$ study. Journal of Magnetism and Magnetic Materials, 1995, 140-144, 1687-1688.	2.3	12
68	Destruction of valence-bond order in a $\text{S}=\text{S}$ chain with a Dzyaloshinskii-Moriya term. Physical Review B, 2011, 84, .	3.2	12
69	Chiral magnetism: a geometric perspective. SciPost Physics, 2021, 10, .	4.9	12
70	Wrinkling of a bilayer membrane. Physical Review E, 2007, 75, 016609.	2.1	11
71	Quantum spin liquids: a large-S route. Journal of Physics Condensed Matter, 2004, 16, S709-S714.	1.8	10
72	Viscous dynamics of vortices in a ferromagnetic film. Physical Review B, 2018, 97, .	3.2	10

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73	Holons on a meandering stripe: Quantum numbers. Physical Review B, 2000, 61, 12503-12515.	3.2	9
74	Ferromagnetic domain wall as a nonreciprocal string. Physical Review B, 2018, 98, .	3.2	9
75	Magnon-induced non-Markovian friction of a domain wall in a ferromagnet. Physical Review B, 2018, 97, .	3.2	9
76	Parity and time-reversal anomaly in a semiconductor. Physical Review B, 2000, 62, 16751-16755.	3.2	7
77	Valence-bond crystal in a {111} slice of the pyrochlore antiferromagnet. Physical Review B, 2004, 69, .	3.2	7
78	Projective symmetry of partons in the Kitaev honeycomb model. Physical Review B, 2015, 91, .	3.2	7
79	Cyrotropic elastic response of skyrmion crystals to current-induced tensions. Physical Review B, 2017, 96, .	3.2	7
80	Annihilation of domain walls in a ferromagnetic wire. Physical Review B, 2017, 95, .	3.2	7
81	A comparison of numerical simulations and analytical theory of the dynamics of interacting magnetic vortices. Journal of Applied Physics, 2015, 117, 123916.	2.5	6
82	Low-energy magnons in the chiral ferrimagnet Cu_2OSeO_3 : A strong magnetoelectric. Physical Review B, 2020, 101, .	3.2	6
83	Strong magnetoelectricity in $Mn_3Tf_5O_{14}$. Physical Review B, 2020, 101, .	3.2	5
84	Noncollinear Ground State from a Four-Spin Chiral Exchange in a Tetrahedral Magnet. Physical Review Letters, 2021, 127, 127204.	7.8	5
85	Orientation dependence of the magnetic phase diagram of Yb_2O_7 . Physical Review B, 2020, 101, .	3.2	5
86	NOVEL PHENOMENA IN CHARGED BOSE LIQUID. Modern Physics Letters A, 1998, 13, 987-994.	1.2	4
87	Comment on 'Boson-fermion model beyond the mean-field approximation'. Journal of Physics Condensed Matter, 1998, 10, 3089-3092.	1.8	3
88	Phase transitions in one dimension and less. Nuclear Physics B, 2002, 639, 411-428.	2.5	3
89	Spin-Lattice Coupling in Frustrated Antiferromagnets. Springer Series in Solid-state Sciences, 2011, , 269-291.	0.3	3
90	Conserved momenta of ferromagnetic solitons through the prism of differential geometry. SciPost Physics, 2021, 11, .	4.9	3

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91	Charged stripes from an alternating static magnetic field. Physical Review B, 2000, 62, 4208-4210.	3.2	2
92	Quantum spin liquid with seven elementary particles. Physical Review B, 2017, 95, .	3.2	2
93	How a skyrmion can appear both massive and massless. SciPost Physics, 2022, 12, .	4.9	2
94	Pseudogaps: A third peak in the fermion spectral function. Physical Review B, 1998, 57, 2728-2731.	3.2	1
95	<title>Fluctuations of laser pulse parameters in photon-echo memory device</title> . , 1993, 1806, 201.		0
96	Cooper pairs as low-energy excitations in the normal state. Physica C: Superconductivity and Its Applications, 1997, 282-287, 1809-1810.	1.2	0
97	Search for effective models of stripes in the cuprates. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1791-1792.	1.2	0
98	Halfvortices in Flat Nanomagnets. NATO Science for Peace and Security Series B: Physics and Biophysics, 2008, , 35-48.	0.3	0