

# Filipp N Rybakov

## List of Publications by Year in descending order

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34  
papers

1,369  
citations

623574

14  
h-index

454834

30  
g-index

35  
all docs

35  
docs citations

35  
times ranked

1307  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental observation of chiral magnetic bobbars in B20-type FeGe. Nature Nanotechnology, 2018, 13, 451-455.	15.6	243
2	New Type of Stable Particlelike States in Chiral Magnets. Physical Review Letters, 2015, 115, 117201.	2.9	182
3	Three-dimensional skyrmion states in thin films of cubic helimagnets. Physical Review B, 2013, 87, .	1.1	136
4	Lifetime of racetrack skyrmions. Scientific Reports, 2018, 8, 3433.	1.6	127
5	Control of morphology and formation of highly geometrically confined magnetic skyrmions. Nature Communications, 2017, 8, 15569.	5.8	103
6	Interaction of Individual Skyrmions in a Nanostructured Cubic Chiral Magnet. Physical Review Letters, 2018, 120, 197203.	2.9	88
7	Chiral magnetic skyrmions with arbitrary topological charge. Physical Review B, 2019, 99, .	1.1	79
8	New spiral state and skyrmion lattice in 3D model of chiral magnets. New Journal of Physics, 2016, 18, 045002.	1.2	75
9	Spin-Orbit Protection of Induced Superconductivity in Majorana Nanowires. Physical Review Letters, 2019, 122, 187702.	2.9	60
10	Magnetic skyrmions, chiral kinks, and holomorphic functions. Physical Review B, 2020, 102, .	1.1	49
11	Hall effect and transmission electron microscopy of epitaxial MnSi thin films. Physical Review B, 2014, 90, .	1.1	36
12	Variational Principles of Micromagnetics Revisited. SIAM Journal on Mathematical Analysis, 2020, 52, 3580-3599.	0.9	29
13	Coupled quasimonopoles in chiral magnets. Physical Review B, 2020, 101, .	1.1	27
14	Magnetic skyrmion braids. Nature Communications, 2021, 12, 5316.	5.8	22
15	Skyrmion-antiskyrmion pair creation and annihilation in a cubic chiral magnet. Nature Physics, 2022, 18, 863-868.	6.5	17
16	Geometry and symmetry in skyrmion dynamics. Physical Review B, 2021, 104, .	1.1	14
17	Coexistence of type-I and type-II superconductivity signatures in ZrB12 probed by muon spin rotation measurements. Physical Review B, 2020, 102, .	1.1	13
18	Vortex nucleation barrier in superconductors beyond the Bean-Livingston approximation: A numerical approach for the sphaleron problem in a gauge theory. Physical Review B, 2020, 101, .	1.1	12

#	ARTICLE	IF	CITATIONS
19	Stable Hopf-Skyrme topological excitations in the superconducting state. Physical Review B, 2019, 100, .	1.1	11
20	Three-dimensional static vortex solitons in incommensurate magnetic crystals. Low Temperature Physics, 2010, 36, 766-771.	0.2	7
21	Synthetic nuclear Skyrme matter in imbalanced Fermi superfluids with a multicomponent order parameter. Physical Review A, 2020, 101, .	1.0	7
22	Antichiral ferromagnetism. Physical Review B, 2021, 104, .	1.1	7
23	Dynamical toroidal Hopfions in a ferromagnet with easy-axis anisotropy. JETP Letters, 2009, 90, 544-547.	0.4	6
24	Charge Order-to-Superfluid Transition for 2D Hard-Core Bosons and Emergent Domain Structures. Journal of Superconductivity and Novel Magnetism, 2017, 30, 43-48.	0.8	6
25	Stationary precession topological solitons with nonzero Hopf invariant in a uniaxial ferromagnet. JETP Letters, 2008, 88, 264-267.	0.4	5
26	Three-dimensional magnetic solitons. Physics of Metals and Metallography, 2011, 112, 745-766.	0.3	2
27	Spiral structures in helicoidal magnets. JETP Letters, 2012, 96, 521-524.	0.4	2
28	Diversity of states in a chiral magnet nanocylinder. APL Materials, 2022, 10, .	2.2	2
29	Unusual Domain Structure and Filamentary Superfluidity for 2D Hard-Core Bosons in Insulating Charge-Ordered Phase. Journal of Low Temperature Physics, 2016, 185, 488-494.	0.6	1
30	The absence of superconductivity in the next-to-leading order Ginzburg-Landau functional for Bardeen-Cooper-Schrieffer superconductor. Journal of Mathematical Physics, 2021, 62, 121901.	0.5	1
31	A Distributed Model of the Organization of Joule-Heating-Induced Autooscillations in a Semiconductor. Technical Physics Letters, 2005, 31, 706.	0.2	0
32	Contraction of the conducting region in an intrinsic semiconductor due to joule self-heating. Semiconductors, 2007, 41, 18-21.	0.2	0
33	Nutational two-dimensional structures in magnets. Low Temperature Physics, 2008, 34, 515-521.	0.2	0
34	Charge order-superfluidity transition in a two-dimensional system of hard-core bosons and emerging domain structures. Physics of the Solid State, 2017, 59, 2127-2132.	0.2	0