V B Eltsov

List of Publications by Year in descending order

75	2,666	266019	182759
papers	citations	23 h-index	51 g-index

77	77	77	1506
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnon Boseâ€“Einstein condensates: From time crystals and quantum chromodynamics to vortex sensing and cosmology. Applied Physics Letters, 2024, 124, .	3.2	1
2	Superfluid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math> as a rigorous test bench for different damping models in nanoelectromechanical resonators. Physical Review B, 2023, 107, .	3.3	2
3	Rotating quantum wave turbulence. Nature Physics, 2023, 19, 898-903.	11.8	11
4	Transition in vortex skyrmion structures in superfluid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts><mml:mtext>â^'</mml:mtext><mml:mi>A</mml:mi></mml:mrow></mml:math> driven by an analog of the zero-charge effect. Physical Review B, 2023, 107, .	3.3	3
5	Vortex-bound solitons in topological superfluid ³He. Journal of Physics Condensed Matter, 2023, 35, 214001.	1.9	5
6	Topological nodal line in superfluid 3He and the Anderson theorem. Nature Communications, 2023, 14, .	13.2	4
7	Dimensional control of tunneling two-level systems in nanoelectromechanical resonators. Physical Review B, 2022, 105, .	3.3	5
8	Nonlinear two-level dynamics of quantum time crystals. Nature Communications, 2022, 13, .	13.2	9
9	AC Josephson effect between two superfluid time crystals. Nature Materials, 2021, 20, 171-174.	26.6	46
10	Vortex-mediated relaxation of magnon BEC into light Higgs quasiparticles. Physical Review Research, 2021, 3, .	3.6	4
11	Suppressing the Kibble-Zurek Mechanism by a Symmetry-Violating Bias. Physical Review Letters, 2021, 127, 115702.	8.0	17
12	Amplitude of Waves in the Kelvin-Wave Cascade. JETP Letters, 2020, 111, 389-391.	1.5	7
13	Reply to Comment on â€œAmplitude of Waves in the Kelvin-Wave Cascadeâ€•(JETP Letters 111, 389 (2020)). JETP Letters, 2020, 111, 600-601.	1.5	1
14	Exceeding the Landau speed limit with topological Bogoliubov Fermi surfaces. Physical Review Research, 2020, 2, .	3.6	29
15	Effects of 4He Film on Quartz Tuning Forks in 3He at Ultra-low Temperatures. Journal of Low Temperature Physics, 2019, 196, 73-81.	1.4	8
16	Nanomechanical Resonators for Cryogenic Research. Journal of Low Temperature Physics, 2019, 196, 283-292.	1.4	12
17	Spin, Orbital, Weyl and Other Glasses in Topological Superfluids. Journal of Low Temperature Physics, 2019, 196, 82-101.	1.4	13
18	Kelvin-Helmholtz instability of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>A</mml:mi><mml:mi>B</mml:mi></mml:mrow></mml:ma interface in superfluid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi mathvariant="normal">He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review B, 2019, 99, .	3.3	5

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19	Half-quantum vortices and walls bounded by strings in the polar-distorted phases of topological superfluid 3He. Nature Communications, 2019, 10, 237.	13.2	55
20	Mutual friction in superfluid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mrow><mml:mi>He</mml:mi><mml:mo>â^’</mml:mo mathvariant="normal">B</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:math> in the low-temperature regime. Physical Review B, 2018, 97, .	3.3	11
21	Vortex-ring <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Q</mml:mi></mml:math> -ball solitons in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:math> universe. Physical Review B, 2018, 97, .	3.3	14
22	Observation of a Time Quasicrystal and Its Transition to a Superfluid Time Crystal. Physical Review Letters, 2018, 120, 215301.	8.0	122
23	Bose-Einstein Condensation of Magnons and Spin Superfluidity in the Polar Phase of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>He</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review Letters, 2018, 120, 185301.	8.0	19
24	Observation of Half-Quantum Vortices in Topological Superfluid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>He</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review Letters, 2016, 117, 255301.	8.0	108
25	Light Higgs channel of the resonant decay of magnon condensate in superfluid 3He-B. Nature Communications, 2016, 7, 10294.	13.2	39
26	Measurements of the anisotropic mass of magnons confined in a harmonic trap in superfluid 3He-B. JETP Letters, 2015, 101, 802-807.	1.5	11
27	Andreev reflection in rotating superfluid 3He-B. Journal of Experimental and Theoretical Physics, 2014, 119, 1069-1083.	1.0	3
28	Relaxation of Bose-Einstein Condensates of Magnons in Magneto-Textural Traps in Superfluid 3He-B. Journal of Low Temperature Physics, 2014, 175, 3-16.	1.4	15
29	Microkelvin Thermometry with Boseâ€“Einstein Condensates of Magnons and Applications to Studies of the AB Interface in Superfluid ^{3} 3 He. Journal of Low Temperature Physics, 2014, 175, 681-705.	1.4	16
30	Thermal Detection of Turbulent and Laminar Dissipation in Vortex Front Motion. Journal of Low Temperature Physics, 2013, 171, 473-484.	1.4	2
31	Energy and angular momentum balance in wall-bounded quantum turbulence at very low temperatures. Nature Communications, 2013, 4, 1614.	13.2	18
32	Quasiparticle-scattering measurements of laminar and turbulent vortex flow in the spin-down of superfluid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>3</mml:mn></mml:msup></mml:math>He-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>B</mml:mi></mml:math>. Physical Review B, 2012, 85, .	3.3	12
33	Self-Trapping of Magnon Bose-Einstein Condensates in the Ground State and on Excited Levels: From Harmonic to Box Confinement. Physical Review Letters, 2012, 108, 145303.	8.0	39
34	Bose analogs of the MIT bag model of hadrons in coherent precession. JETP Letters, 2012, 95, 544-548.	1.5	8
35	Vortex Core Contribution to Textural Energy in 3Heâ€“B Below 0.4T c. Journal of Low Temperature Physics, 2011, 162, 212-225.	1.4	16
36	Textures of Superfluid 3He-B in Applied Flow andÂComparison with Hydrostatic Theory. Journal of Low Temperature Physics, 2011, 163, 238-261.	1.4	8

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37	Superfluid Vortex Front atTâ†'0: Decoupling from the Reference Frame. Physical Review Letters, 2011, 107, 135302.	8.0	25
38	Propagation of thermal excitations in a cluster of vortices in superfluid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>3</mml:mn></mml:msup></mml:math>He-B. Physical Review B, 2011, 84, .	3.3	17
39	Turbulent vortex flow responses at theABinterface in rotating superfluid3He-B. Physical Review B, 2011, 84, .	3.3	7
40	Vortex Formation and Annihilation inÂRotating Superfluid 3He-B at Low Temperatures. Journal of Low Temperature Physics, 2010, 161, 474-508.	1.4	16
41	Stability and Dissipation of Laminar Vortex Flow in SuperfluidHe3â^'B. Physical Review Letters, 2010, 105, 125301.	8.0	29
42	Precessing Vortex Motion and Instability in a Rotating Column of Superfluid 3He-B. Journal of Low Temperature Physics, 2009, 155, 98-113.	1.4	7
43	Experiments on the Twisted Vortex State in Superfluid 3He-B. Journal of Low Temperature Physics, 2008, 150, 373-383.	1.4	8
44	Vibrating Quartz Forkâ€"A Tool for Cryogenic Helium Research. Journal of Low Temperature Physics, 2008, 150, 525-535.	1.4	61
45	The Dynamics of Vortex Generation inÂSuperfluidÂ3He-B. Journal of Low Temperature Physics, 2008, 153, 197-227.	1.4	8
46	Quantum Turbulence in a Propagating Superfluid Vortex Front. Physical Review Letters, 2007, 99, 265301.	8.0	61
47	Quartz Tuning Fork: Thermometer, Pressure- and Viscometer for Helium Liquids. Journal of Low Temperature Physics, 2007, 146, 537-562.	1.4	204
48	Dynamic Remanent Vortices in Superfluid 3He-B. Journal of Low Temperature Physics, 2007, 148, 311-316.	1.4	11
49	NMR Response of a Vortex Tangle in Rotating 3He-B. AIP Conference Proceedings, 2006, , .	1.0	1
50	Onset of Turbulence in Superfluid 3He-B and its Dependence on Vortex Injection in Applied Flow. AIP Conference Proceedings, 2006, , .	1.0	4
51	Transition to Superfluid Turbulence. Journal of Low Temperature Physics, 2006, 145, 89-106.	1.4	41
52	Dynamics of vortices and interfaces in superfluid3He. Reports on Progress in Physics, 2006, 69, 3157-3230.	20.3	69
53	Twisted Vortex State. Physical Review Letters, 2006, 96, 215302.	8.0	53
54	Vortex Multiplication in Applied Flow: A Precursor to Superfluid Turbulence. Physical Review Letters, 2006, 96, 085301.	8.0	26

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55	Time-of-Flight Measurements on Quantized Vortex Lines in Rotating3He-B. Journal of Low Temperature Physics, 2004, 134, 375-380.	1.4	14
56	Vortex Formation in Neutron-Irradiated Rotating Superfluid3He-B. Journal of Low Temperature Physics, 2004, 135, 479-512.	1.4	10
57	Superfluid He in Rotation: Single-Vortex Resolution and Requirements on Rotation. Journal of Low Temperature Physics, 2003, 132, 263-279.	1.4	4
58	An intrinsic velocity-independent criterion for superfluid turbulence. Nature, 2003, 424, 1022-1025.	36.2	177
59	Structure of the Surface Vortex Sheet between Two RotatingHe3Superfluids. Physical Review Letters, 2003, 90, 225301.	8.0	28
60	Transitions from Vortex Lines to Sheets: Interplay of Topology and Dynamics in an Anisotropic Superfluid. Physical Review Letters, 2002, 88, 065301.	8.0	21
61	Shear Flow and Kelvin-Helmholtz Instability in Superfluids. Physical Review Letters, 2002, 89, 155301.	8.0	161
62	What Can Superconductivity Learn from Quantized Vorticity in 3He Superfluids?. Springer Series in Solid-state Sciences, 2002, , 21-48.	0.0	1
63	Superconducting Nb-filmLCresonator. Review of Scientific Instruments, 2001, 72, 3682-3686.	1.4	2
64	NMR Spectroscopy of the Double-Quantum Vortex in Superfluid 3He-A. Journal of Low Temperature Physics, 2001, 124, 123-146.	1.4	2
65	Double-quantum vortex in superfluid 3He-A. Nature, 2000, 404, 471-473.	36.2	167
66	Numerical Simulations of the Multiply-connected Vortex Sheet in 3He-A. Journal of Low Temperature Physics, 2000, 121, 387-392.	1.4	3
67	NMR Line Shape of Rotating 3He-B at Large Counterflow Velocity. Journal of Low Temperature Physics, 2000, 120, 213-232.	1.4	11
68	Composite Defect Extends Analogy between Cosmology andH3e. Physical Review Letters, 2000, 85, 4739-4742.	8.0	70
69	Superflow-stabilized nonlinear NMR in rotating3Heâ^'B. Physical Review B, 1999, 59, 165-168.	3.3	9
70	Title is missing!. Journal of Low Temperature Physics, 1998, 110, 219-224.	1.4	15
71	New Modes of Stable Spin Precession in Superfluid 3He-B. Journal of Low Temperature Physics, 1998, 113, 645-650.	1.4	8
72	Defect Formation in Quench-Cooled Superfluid Phase Transition. Physical Review Letters, 1998, 80, 1465-1468.	8.0	86

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73	Optical spectra of the triplet molecules4He 2 * in superfluid helium in a magnetic field. European Physical Journal D, 1996, 46, 361-362.	0.4	1
74	Vortex formation in neutron-irradiated superfluid 3He as an analogue of cosmological defect formation. Nature, 1996, 382, 334-336.	36.2	529
75	Polar Phase of ^{3}He in Nematic Aerogel and Quartz Tuning Fork as Sensitive Detectors of Surface Boundary Conditions. Journal of Low Temperature Physics, 0, , 1.	1.4	1