

V B Eltsov

List of Publications by Year in descending order

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75
papers

2,666
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266019

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all docs

77
docs citations

77
times ranked

1506
citing authors

#	ARTICLE	IF	CITATIONS
1	Vortex formation in neutron-irradiated superfluid ^3He as an analogue of cosmological defect formation. <i>Nature</i> , 1996, 382, 334-336.	36.2	529
2	Quartz Tuning Fork: Thermometer, Pressure- and Viscometer for Helium Liquids. <i>Journal of Low Temperature Physics</i> , 2007, 146, 537-562.	1.4	204
3	An intrinsic velocity-independent criterion for superfluid turbulence. <i>Nature</i> , 2003, 424, 1022-1025.	36.2	177
4	Double-quantum vortex in superfluid ^3He -A. <i>Nature</i> , 2000, 404, 471-473.	36.2	167
5	Shear Flow and Kelvin-Helmholtz Instability in Superfluids. <i>Physical Review Letters</i> , 2002, 89, 155301.	8.0	161
6	Observation of a Time Quasicrystal and Its Transition to a Superfluid Time Crystal. <i>Physical Review Letters</i> , 2018, 120, 215301.	8.0	122
7	Observation of Half-Quantum Vortices in Topological Superfluid ^3He . <i>Physical Review Letters</i> , 2016, 117, 255301.	8.0	108
8	Defect Formation in Quench-Cooled Superfluid Phase Transition. <i>Physical Review Letters</i> , 1998, 80, 1465-1468.	8.0	86
9	Composite Defect Extends Analogy between Cosmology and ^3He . <i>Physical Review Letters</i> , 2000, 85, 4739-4742.	8.0	70
10	Dynamics of vortices and interfaces in superfluid ^3He . <i>Reports on Progress in Physics</i> , 2006, 69, 3157-3230.	20.3	69
11	Quantum Turbulence in a Propagating Superfluid Vortex Front. <i>Physical Review Letters</i> , 2007, 99, 265301.	8.0	61
12	Vibrating Quartz Fork – A Tool for Cryogenic Helium Research. <i>Journal of Low Temperature Physics</i> , 2008, 150, 525-535.	1.4	61
13	Half-quantum vortices and walls bounded by strings in the polar-distorted phases of topological superfluid ^3He . <i>Nature Communications</i> , 2019, 10, 237.	13.2	55
14	Twisted Vortex State. <i>Physical Review Letters</i> , 2006, 96, 215302.	8.0	53
15	AC Josephson effect between two superfluid time crystals. <i>Nature Materials</i> , 2021, 20, 171-174.	26.6	46
16	Transition to Superfluid Turbulence. <i>Journal of Low Temperature Physics</i> , 2006, 145, 89-106.	1.4	41
17	Self-Trapping of Magnon Bose-Einstein Condensates in the Ground State and on Excited Levels: From Harmonic to Box Confinement. <i>Physical Review Letters</i> , 2012, 108, 145303.	8.0	39
18	Light Higgs channel of the resonant decay of magnon condensate in superfluid ^3He -B. <i>Nature Communications</i> , 2016, 7, 10294.	13.2	39

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19	Stability and Dissipation of Laminar Vortex Flow in Superfluid $^3\text{He-B}$. Physical Review Letters, 2010, 105, 125301.	8.0	29
20	Exceeding the Landau speed limit with topological Bogoliubov Fermi surfaces. Physical Review Research, 2020, 2, .	3.6	29
21	Structure of the Surface Vortex Sheet between Two Rotating ^3He Superfluids. Physical Review Letters, 2003, 90, 225301.	8.0	28
22	Vortex Multiplication in Applied Flow: A Precursor to Superfluid Turbulence. Physical Review Letters, 2006, 96, 085301.	8.0	26
23	Superfluid Vortex Front at $T \neq 0$: Decoupling from the Reference Frame. Physical Review Letters, 2011, 107, 135302.	8.0	25
24	Transitions from Vortex Lines to Sheets: Interplay of Topology and Dynamics in an Anisotropic Superfluid. Physical Review Letters, 2002, 88, 065301.	8.0	21
25	Bose-Einstein Condensation of Magnons and Spin Superfluidity in the Polar Phase of ^3He . Physical Review Letters, 2018, 121, 025303.	8.0	19
26	Energy and angular momentum balance in wall-bounded quantum turbulence at very low temperatures. Nature Communications, 2013, 4, 1614.	13.2	18
27	Propagation of thermal excitations in a cluster of vortices in superfluid $^3\text{He-B}$. Physical Review B, 2011, 84, .	3.3	17
28	Suppressing the Kibble-Zurek Mechanism by a Symmetry-Violating Bias. Physical Review Letters, 2021, 127, 115702.	8.0	17
29	Vortex Formation and Annihilation in Rotating Superfluid $^3\text{He-B}$ at Low Temperatures. Journal of Low Temperature Physics, 2010, 161, 474-508.	1.4	16
30	Vortex Core Contribution to Textural Energy in $^3\text{He-B}$ Below 0.4T c. Journal of Low Temperature Physics, 2011, 162, 212-225.	1.4	16
31	Microkelvin Thermometry with Bose-Einstein Condensates of Magnons and Applications to Studies of the AB Interface in Superfluid ^3He . Journal of Low Temperature Physics, 2014, 175, 681-705.	1.4	16
32	Title is missing!. Journal of Low Temperature Physics, 1998, 110, 219-224.	1.4	15
33	Relaxation of Bose-Einstein Condensates of Magnons in Magneto-Textural Traps in Superfluid $^3\text{He-B}$. Journal of Low Temperature Physics, 2014, 175, 3-16.	1.4	15
34	Time-of-Flight Measurements on Quantized Vortex Lines in Rotating $^3\text{He-B}$. Journal of Low Temperature Physics, 2004, 134, 375-380.	1.4	14
35	Propagation of self-localized Q -ball solitons in the ^3He universe. Physical Review B, 2018, 97, .	3.3	14
36	Spin, Orbital, Weyl and Other Glasses in Topological Superfluids. Journal of Low Temperature Physics, 2019, 196, 82-101.	1.4	13

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37	Quasiparticle-scattering measurements of laminar and turbulent vortex flow in the spin-down of superfluid ^3He . <i>Physical Review B</i> , 2012, 85, .	3.3	12
38	Nanomechanical Resonators for Cryogenic Research. <i>Journal of Low Temperature Physics</i> , 2019, 196, 283-292.	1.4	12
39	NMR Line Shape of Rotating ^3He -B at Large Counterflow Velocity. <i>Journal of Low Temperature Physics</i> , 2000, 120, 213-232.	1.4	11
40	Dynamic Remanent Vortices in Superfluid ^3He -B. <i>Journal of Low Temperature Physics</i> , 2007, 148, 311-316.	1.4	11
41	Measurements of the anisotropic mass of magnons confined in a harmonic trap in superfluid ^3He -B. <i>JETP Letters</i> , 2015, 101, 802-807.	1.5	11
42	Mutual friction in superfluid ^3He -B in the low-temperature regime. <i>Physical Review B</i> , 2018, 97, .	3.3	11
43	Rotating quantum wave turbulence. <i>Nature Physics</i> , 2023, 19, 898-903.	11.8	11
44	Vortex Formation in Neutron-Irradiated Rotating Superfluid ^3He -B. <i>Journal of Low Temperature Physics</i> , 2004, 135, 479-512.	1.4	10
45	Superflow-stabilized nonlinear NMR in rotating ^3He -B. <i>Physical Review B</i> , 1999, 59, 165-168.	3.3	9
46	Nonlinear two-level dynamics of quantum time crystals. <i>Nature Communications</i> , 2022, 13, .	18.2	9
47	New Modes of Stable Spin Precession in Superfluid ^3He -B. <i>Journal of Low Temperature Physics</i> , 1998, 113, 645-650.	1.4	8
48	Experiments on the Twisted Vortex State in Superfluid ^3He -B. <i>Journal of Low Temperature Physics</i> , 2008, 150, 373-383.	1.4	8
49	The Dynamics of Vortex Generation in Superfluid ^3He -B. <i>Journal of Low Temperature Physics</i> , 2008, 153, 197-227.	1.4	8
50	Textures of Superfluid ^3He -B in Applied Flow and Comparison with Hydrostatic Theory. <i>Journal of Low Temperature Physics</i> , 2011, 163, 238-261.	1.4	8
51	Bose analogs of the MIT bag model of hadrons in coherent precession. <i>JETP Letters</i> , 2012, 95, 544-548.	1.5	8
52	Effects of ^4He Film on Quartz Tuning Forks in ^3He at Ultra-low Temperatures. <i>Journal of Low Temperature Physics</i> , 2019, 196, 73-81.	1.4	8
53	Precessing Vortex Motion and Instability in a Rotating Column of Superfluid ^3He -B. <i>Journal of Low Temperature Physics</i> , 2009, 155, 98-113.	1.4	7
54	Turbulent vortex flow responses at the interface in rotating superfluid ^3He -B. <i>Physical Review B</i> , 2011, 84, .	3.3	7

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55	Amplitude of Waves in the Kelvin-Wave Cascade. JETP Letters, 2020, 111, 389-391.	1.5	7
56	Kelvin-Helmholtz instability of $A \times B$ interface in superfluid ^3He	3.3	5
57	Dimensional control of tunneling two-level systems in nanoelectromechanical resonators. Physical Review B, 2022, 105, .	3.3	5
58	Vortex-bound solitons in topological superfluid ^3He . Journal of Physics Condensed Matter, 2023, 35, 214001.	1.9	5
59	Superfluid He in Rotation: Single-Vortex Resolution and Requirements on Rotation. Journal of Low Temperature Physics, 2003, 132, 263-279.	1.4	4
60	Onset of Turbulence in Superfluid ^3He -B and its Dependence on Vortex Injection in Applied Flow. AIP Conference Proceedings, 2006, .	1.0	4
61	Vortex-mediated relaxation of magnon BEC into light Higgs quasiparticles. Physical Review Research, 2021, 3, .	3.6	4
62	Topological nodal line in superfluid ^3He and the Anderson theorem. Nature Communications, 2023, 14, .	13.2	4
63	Numerical Simulations of the Multiply-connected Vortex Sheet in ^3He -A. Journal of Low Temperature Physics, 2000, 121, 387-392.	1.4	3
64	Andreev reflection in rotating superfluid ^3He -B. Journal of Experimental and Theoretical Physics, 2014, 119, 1069-1083.	1.0	3
65	Transition in vortex skyrmion structures in superfluid ^3He driven by an analog of the zero-charge effect. Physical Review B, 2023, 107, .	3.3	3
66	Superconducting Nb-film LC resonator. Review of Scientific Instruments, 2001, 72, 3682-3686.	1.4	2
67	NMR Spectroscopy of the Double-Quantum Vortex in Superfluid ^3He -A. Journal of Low Temperature Physics, 2001, 124, 123-146.	1.4	2
68	Thermal Detection of Turbulent and Laminar Dissipation in Vortex Front Motion. Journal of Low Temperature Physics, 2013, 171, 473-484.	1.4	2
69	Superfluid ^4He as a rigorous test bench for different damping models in nanoelectromechanical resonators. Physical Review B, 2023, 107, .	3.3	2
70	Optical spectra of the triplet molecules $^4\text{He}_2^*$ in superfluid helium in a magnetic field. European Physical Journal D, 1996, 46, 361-362.	0.4	1
71	NMR Response of a Vortex Tangle in Rotating ^3He -B. AIP Conference Proceedings, 2006, .	1.0	1
72	Reply to Comment on "Amplitude of Waves in the Kelvin-Wave Cascade" (JETP Letters 111, 389 (2020)). JETP Letters, 2020, 111, 600-601.	1.5	1

#	ARTICLE	IF	CITATIONS
73	What Can Superconductivity Learn from Quantized Vorticity in ^3He Superfluids?. Springer Series in Solid-state Sciences, 2002, , 21-48.	0.0	1
74	Polar Phase of ^3He in Nematic Aerogel and Quartz Tuning Fork as Sensitive Detectors of Surface Boundary Conditions. Journal of Low Temperature Physics, 0, , 1.	1.4	1
75	Magnon Bose-Einstein condensates: From time crystals and quantum chromodynamics to vortex sensing and cosmology. Applied Physics Letters, 2024, 124, .	3.2	1