

Viktor Tsepelin

List of Publications by Year in descending order

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81
papers

1,227
citations

394421

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82
all docs

82
docs citations

82
times ranked

420
citing authors

#	ARTICLE	IF	CITATIONS
1	Decay of Pure Quantum Turbulence in Superfluid ^3He . Physical Review Letters, 2006, 96, 035301.	7.8	128
2	Emission of Discrete Vortex Rings by a Vibrating Grid In Superfluid ^3He : A Precursor to Quantum Turbulence. Physical Review Letters, 2005, 95, 035302.	7.8	89
3	Fluctuations and Correlations of Pure Quantum Turbulence in Superfluid ^3He . Physical Review Letters, 2008, 101, 065302.	7.8	65
4	Transition to Turbulence for a Quartz Tuning Fork in Superfluid ^4He . Journal of Low Temperature Physics, 2009, 156, 116-131.	1.4	59
5	Crossover from hydrodynamic to acoustic drag on quartz tuning forks in normal and superfluid ^4He . Physical Review B, 2012, 85, .	3.2	57
6	The Damping of a Quartz Tuning Fork in Superfluid ^3He -B at Low Temperatures. Journal of Low Temperature Physics, 2009, 157, 476-501.	1.4	46
7	Direct measurement of the energy dissipated by quantum turbulence. Nature Physics, 2011, 7, 473-476.	16.7	44
8	Relic topological defects from brane annihilation simulated in superfluid ^3He . Nature Physics, 2008, 4, 46-49.	16.7	38
9	On the origin of the controversial electrostatic field effect in superconductors. Nature Communications, 2021, 12, 2747.	12.8	33
10	Generation, evolution, and decay of pure quantum turbulence: A full Biot-Savart simulation. Physical Review B, 2010, 81, .	3.2	32
11	Melting Curve of ^4He : No Sign of a Supersolid Transition down to 10 mK . Physical Review Letters, 2006, 97, 165302.	7.8	27
12	The Transition to Turbulent Drag for a Cylinder Oscillating in Superfluid ^4He : A Comparison of Quantum and Classical Behavior. Journal of Low Temperature Physics, 2009, 154, 97-116.	1.4	27
13	Breaking the superfluid speed limit in a fermionic condensate. Nature Physics, 2016, 12, 1017-1021.	16.7	24
14	Frequency-dependent drag from quantum turbulence produced by quartz tuning forks in superfluid ^4He . Physical Review B, 2014, 89, .	3.2	23
15	Vibrating Wire Measurements in Superfluid ^3He at the Melting Curve Down to 0.53 mK . Journal of Low Temperature Physics, 2002, 126, 1449-1455.	1.4	22
16	Morphology and Growth Kinetics of ^3He Crystals Below 1 mK . Journal of Low Temperature Physics, 2002, 129, 489-530.	1.4	21
17	Andreev reflection, a tool to investigate vortex dynamics and quantum turbulence in ^3He -B. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4659-4666.	7.1	21
18	Anisotropy of Growth Kinetics of ^3He Crystals below 1 mK . Physical Review Letters, 2002, 88, 045302.	7.8	19

#	ARTICLE	IF	CITATIONS
19	Turbulent drag on a low-frequency vibrating grid in superfluid ^4He at very low temperatures. Physical Review B, 2012, 85, .	3.2	19
20	Observation of Higher Order Facets on ^3He Crystals. Physical Review Letters, 2001, 86, 1042-1045.	7.8	18
21	Absence of low-temperature anomaly on the melting curve of ^4He . JETP Letters, 2007, 85, 454-457.	1.4	17
22	Operating Nanobeams in a Quantum Fluid. Scientific Reports, 2017, 7, 4876.	3.3	17
23	Visualizing Pure Quantum Turbulence in Superfluid ^4He and its Spectral Properties. Physical Review Letters, 2015, 115, 015302. Stability of flow and the transition to turbulence around a quartz tuning fork in superfluid ^4He and its Spectral Properties. Physical Review Letters, 2015, 115, 015302.	7.8	16
24	Multiple critical velocities in oscillatory flow of superfluid ^4He due to quartz tuning forks. Physical Review B, 2016, 94, .	3.2	15
25	Measuring the Prong Velocity of Quartz Tuning Forks Used to Probe Quantum Fluids. Journal of Low Temperature Physics, 2010, 161, 536-547.	3.2	15
26	Nanoscale real-time detection of quantum vortices at millikelvin temperatures. Nature Communications, 2021, 12, 2645.	1.4	14
27	Probing Bogoliubov Quasiparticles in Superfluid ^3He with a "Vibrating-Wire Like" MEMS Device. Journal of Low Temperature Physics, 2016, 183, 284-291.	1.4	14
28	Probing superfluid ^4He with high-frequency nanomechanical resonators down to millikelvin temperatures. Physical Review B, 2019, 100, .	12.8	14
29	Dynamical similarity and instabilities in high-Stokes-number oscillatory flows of superfluid helium. Physical Review B, 2019, 99, .	8.2	13
30	Contrasting Mechanical Anisotropies of the Superfluid ^3He Phases in Aerogel. Physical Review Letters, 2007, 98, 075302.	3.2	13
31	Thermometry in Normal Liquid ^3He Using a Quartz Tuning Fork Viscometer. Journal of Low Temperature Physics, 2013, 171, 750-756.	1.4	13
32	Fundamental dissipation due to bound fermions in the zero-temperature limit. Nature Communications, 2020, 11, 4742.	12.8	12
33	Direct Observation of (110), (100) and (211) Facets on ^3He Crystals. Journal of Low Temperature Physics, 2000, 121, 695-700.	1.4	12
34	Grid Turbulence in Superfluid $^3\text{He-B}$ at Low Temperatures. Journal of Low Temperature Physics, 2008, 150, 364-372.	1.4	12
35	A Quasiparticle Detector for Imaging Quantum Turbulence in Superfluid $^3\text{He-B}$. Journal of Low Temperature Physics, 2014, 175, 725-738.	1.4	11
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37	Measurements of Vortex Line Density Generated by a Quartz Tuning Fork in Superfluid ${}^4\text{He}$. Journal of Low Temperature Physics, 2016, 183, 208-214.	1.4	11
38	Vortex Rings in Superfluid ${}^3\text{He-B}$ at Low Temperatures. Journal of Low Temperature Physics, 2007, 148, 235-243.	1.4	10
39	A New Device for Studying Low or Zero Frequency Mechanical Motion at Very Low Temperatures. Journal of Low Temperature Physics, 2011, 165, 114-131.	1.4	10
40	Detecting a phonon flux in superfluid He_4 by a nanomechanical resonator. Physical Review B, 2020, 101, .	3.2	9
41	Observations on Faceting of ${}^3\text{He}$ Crystals at $T=0.55$ mK. Journal of Low Temperature Physics, 2001, 124, 189-196.	1.4	8
42	Surface of a He_3 Crystal: Crossover from Quantum to Classical Behavior. Physical Review Letters, 2004, 93, 175301.	7.8	8
43	History Dependence of Turbulence Generated by a Vibrating Wire in Superfluid ${}^4\text{He}$ at 1.5K . Journal of Low Temperature Physics, 2011, 162, 375-382.	1.4	8
44	Response of a Mechanical Oscillator in Solid ${}^4\text{He}$. Journal of Low Temperature Physics, 2014, 175, 140-146.	1.4	8
45	Probing Liquid ${}^4\text{He}$ with Quartz Tuning Forks Using a Novel Multifrequency Lock-in Technique. Journal of Low Temperature Physics, 2016, 184, 1080-1091.	1.4	8
46	Visualization of quantum turbulence in superfluid ${}^3\text{He}$: Combined numerical and experimental study of Andreev reflection. Physical Review B, 2017, 96, .	3.2	8
47	Elementary Steps on the ${}^4\text{He}$ Crystal Interface Probed by ${}^3\text{He}$ Atoms. Physical Review Letters, 1999, 83, 4804-4807.	7.8	7
48	The Onset of Vortex Production by a Vibrating Wire in Superfluid ${}^3\text{He-B}$. Journal of Low Temperature Physics, 2013, 171, 582-588.	1.4	7
49	Hysteresis, Switching and Anomalous Behaviour of a Quartz Tuning Fork in Superfluid ${}^4\text{He}$. Journal of Low Temperature Physics, 2014, 175, 379-384.	1.4	7
50	Elementary Excitations in Solid and Liquid ${}^4\text{He}$ at the Melting Pressure. Journal of Low Temperature Physics, 2008, 150, 258-266.	1.4	6
51	Scattering length of Andreev reflection from quantized vortices in ${}^3\text{He}$. Physical Review B, 2015, 91, .	3.2	6
52	Andreev Reflection in Superfluid ${}^3\text{He}$: A Probe for Quantum Turbulence. Annual Review of Condensed Matter Physics, 2017, 8, 407-430.	14.5	6
53	Effect of the boundary condition on the Kapitza resistance between superfluid ${}^3\text{He-B}$ and sintered metal. Physical Review B, 2020, 102, .	3.2	6
54	Faceting of crystals. Physica B: Condensed Matter, 2003, 329-333, 386-387.	2.7	5

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55	Magnetic Phase Transition in a Nanonetwork of Solid He ³ in Aerogel. <i>Physical Review Letters</i> , 2010, 105, 125303.	7.8	5
56	Observation of quantum turbulence in superfluid He ³ -B using reflection and transmission of ballistic thermal excitations. <i>Physical Review B</i> , 2017, 95, .	3.2	5
57	Nucleation and growth of ³ He crystals below 1 mK. <i>Physica B: Condensed Matter</i> , 2000, 284-288, 351-352.	2.7	4
58	Measurements on the Surface Tension of ³ He Crystals near 100 mK. <i>Journal of Low Temperature Physics</i> , 2005, 138, 811-816.	1.4	4
59	Magnetic Distortion of the B-like Phase of Superfluid ³ He Confined in Aerogel. <i>Journal of Low Temperature Physics</i> , 2008, 150, 445-452.	1.4	4
60	Plastic Properties of Solid ⁴ He Probed by a Moving Wire: Viscoelastic and Stochastic Behavior Under High Stress. <i>Journal of Low Temperature Physics</i> , 2014, 175, 147-153.	1.4	4
61	LEGO® Block Structures as a Sub-Kelvin Thermal Insulator. <i>Scientific Reports</i> , 2019, 9, 19642.	3.3	4
62	Producing and imaging quantum turbulence via pair-breaking in superfluid ^3He . <i>Physical Review B</i> , 2022, 105, .	3.2	4
63	The Thermal Boundary Resistance of the Superfluid ³ He A-B Phase Interface in the Low Temperature Limit. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	3
64	Thermal Transport by Ballistic Quasiparticles in Superfluid ³ He-B in the Low Temperature Limit. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	3
65	The Annihilation of Two Phase Interfaces in Superfluid ³ He: Simulated Brane Annihilation in the Laboratory. <i>Journal of the Physical Society of Japan</i> , 2008, 77, 111005.	1.6	3
66	Multimode probing of superfluid ⁴ He by tuning forks. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	3
67	A Levitated Droplet of Superfluid ³ He-B Entirely Surrounded by ³ He-A. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	2
68	First Observation of the Critical Size of Facets on ³ He Crystals near 1 mK. <i>Journal of Low Temperature Physics</i> , 2007, 146, 85-93.	1.4	2
69	The AB Interface in Superfluid ³ He as a Simulated Cosmological Brane. <i>Journal of Low Temperature Physics</i> , 2007, 148, 465-473.	1.4	2
70	Annihilation of an AB/BA interface pair in superfluid helium-3 as a simulation of cosmological brane interaction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2008, 366, 2803-2812.	3.4	2
71	Anomalous Damping of a Low Frequency Vibrating Wire in Superfluid ³ He-B due to Vortex Shielding. <i>Journal of Low Temperature Physics</i> , 2014, 175, 372-378.	1.4	2
72	Acoustic damping of quartz tuning forks in normal and superfluid He ³ . <i>Physical Review B</i> , 2019, 100, .	3.2	2

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73	Faceting on ^3He crystals. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 1796-1800.	7.1	1
74	Coupling between Solid ^3He on Aerogel and Superfluid ^3He in the Low Temperature Limit. AIP Conference Proceedings, 2006, , .	0.4	1
75	Experimental setup for the observation of crystallization waves in ^3He . Journal of Physics: Conference Series, 2009, 150, 012026.	0.4	1
76	Faceting and growth kinetics of crystals. Physica B: Condensed Matter, 2003, 329-333, 360-363.	2.7	0
77	The Generation Of Quantum Turbulence In $^3\text{He-B}$ By A Vibrating Grid At Low Temperatures. AIP Conference Proceedings, 2006, , .	0.4	0
78	The Decay of Quantum Turbulence Generated by a Vibrating Grid at Low Temperatures in Superfluid $^3\text{He-B}$. AIP Conference Proceedings, 2006, , .	0.4	0
79	Growth Dynamics and Faceting of ^3He Crystals. Journal of Low Temperature Physics, 2007, 148, 635-643.	1.4	0
80	Non-linear Mechanical Response of the A-like Phase of Superfluid ^3He in Aerogel. Journal of Low Temperature Physics, 2007, 148, 603-607.	1.4	0
81	Using a superfluid to image its own vortices. SPIE Newsroom, 0, , .	0.1	0