

Ladislav Skrbek

List of Publications by Year in descending order

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165
papers

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times ranked

1389
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal Waves and Heat Transfer Efficiency Enhancement in Harmonically Modulated Turbulent Thermal Convection. <i>Physical Review Letters</i> , 2022, 128, 134502.	7.8	9
2	Spherical Thermal Counterflow of He All . <i>Journal of Low Temperature Physics</i> , 2022, 208, 426-434.	1.4	4
3	Ubiquity of particle-vortex interactions in turbulent counterflow of superfluid helium. <i>Journal of Fluid Mechanics</i> , 2021, 911, .	3.4	7
4	Quantum storm in a cold cup. <i>Europhysics News</i> , 2021, 52, 25-27.	0.3	0
5	Phenomenology of quantum turbulence in superfluid helium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	26
6	Transition to quantum turbulence in oscillatory thermal counterflow of He4. <i>Physical Review B</i> , 2021, 103, .	3.2	4
7	Effect of boundary conditions in turbulent thermal convection ^(a) . <i>Europhysics Letters</i> , 2021, 134, 34003.	2.0	4
8	Mass of Abrikosov vortex in high-temperature superconductor YBa $\text{$_2Cu_3O_{7-\delta}$}$. <i>Scientific Reports</i> , 2021, 11, 21708.	3.3	5
9	Thermal radiation in Rayleigh-Bénard convection experiments. <i>Physical Review E</i> , 2020, 101, 043106.	2.1	4
10	The Use of Second Sound in Investigations of Quantum Turbulence in He II. <i>Journal of Low Temperature Physics</i> , 2019, 197, 130-148.	1.4	13
11	Elusive transition to the ultimate regime of turbulent Rayleigh-Bénard convection. <i>Physical Review E</i> , 2019, 99, 011101.	2.1	10
12	Dynamical similarity and instabilities in high-Stokes-number oscillatory flows of superfluid helium. <i>Physical Review B</i> , 2019, 99, .	3.2	13
13	Thermal counterflow of superfluid He4 : Temperature gradient in the bulk and in the vicinity of the heater. <i>Physical Review B</i> , 2019, 100, .	3.2	5
14	Dynamics of the density of quantized vortex lines in counterflow turbulence: Experimental investigation. <i>Physical Review B</i> , 2018, 97, .	3.2	9
15	Convective heat transport in two-phase superfluid/vapor 4He system. <i>Low Temperature Physics</i> , 2018, 44, 1001-1004.	0.6	2
16	Terahertz wire-grid circular polarizer tuned by lock-in detection method. <i>Review of Scientific Instruments</i> , 2018, 89, 083114.	1.3	3
17	Intermittency enhancement in quantum turbulence in superfluid He . <i>Physical Review Fluids</i> , 2018, 3, .	2.5	21
18	Anisotropic behaviour of transmission through thin superconducting NbN film in parallel magnetic field. <i>Physica C: Superconductivity and Its Applications</i> , 2017, 533, 154-157.	1.2	3

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19	Reynolds number scaling in cryogenic turbulent Rayleigh-Bénard convection in a cylindrical aspect ratio one cell. <i>Journal of Fluid Mechanics</i> , 2017, 832, 721-744.	3.4	14
20	Streaming flow due to a quartz tuning fork oscillating in normal and superfluid He4. <i>Physical Review B</i> , 2017, 96, .	3.2	13
21	Transition to Quantum Turbulence and Streamwise Inhomogeneity of Vortex Tangle in Thermal Counterflow. <i>Journal of Low Temperature Physics</i> , 2017, 187, 531-537.	1.4	8
22	Cavitation Bubbles Generated by Vibrating Quartz Tuning Fork in Liquid \$4\$ He Close to the \$\lambda\$. <i>Journal of Low Temperature Physics</i> , 2017, 187, 376-382.	1.4	6
23	Coexistence and interplay of quantum and classical turbulence in superfluid λ . Decay, velocity fluctuations, and energy spectrum. <i>Physical Review B</i> , 2016, 94, .	3.2	21
24	Multiple critical velocities in oscillatory flow of superfluid λ . <i>Physical Review B</i> , 2016, 94, .	3.2	15
25	Backreaction of Tracer Particles on Vortex Tangle in Helium II Counterflow. <i>Journal of Low Temperature Physics</i> , 2016, 183, 215-221.	1.4	7
26	Decay of counterflow turbulence in superfluid 4He. <i>JETP Letters</i> , 2016, 103, 648-652.	1.4	40
27	Small-scale universality of particle dynamics in quantum turbulence. <i>Physical Review B</i> , 2016, 94, .	3.2	31
28	Measurements of Vortex Line Density Generated by a Quartz Tuning Fork in Superfluid \$4\$ He. <i>Journal of Low Temperature Physics</i> , 2016, 183, 208-214.	1.4	11
29	Has the ultimate state of turbulent thermal convection been observed?. <i>Journal of Fluid Mechanics</i> , 2015, 785, 270-282.	3.4	20
30	Visualization of viscous and quantum flows of liquid λ . λ due to an oscillating cylinder of rectangular cross section. <i>Physical Review B</i> , 2015, 92, .	3.2	20
31	Quantum turbulence of bellows driven λ . λ superflow: Decay. <i>Physical Review B</i> , 2015, 92, .	3.2	14
32	Second-sound studies of coflow and counterflow of superfluid 4He in channels. <i>Physics of Fluids</i> , 2015, 27, .	4.0	27
33	Heat transfer in cryogenic helium gas by turbulent Rayleigh-Bénard convection in a cylindrical cell of aspect ratio 1. <i>New Journal of Physics</i> , 2014, 16, 053042.	2.9	38
34	Effective viscosity in quantum turbulence: A steady-state approach. <i>Europhysics Letters</i> , 2014, 106, 24006.	2.0	30
35	Quantum, or classical turbulence?. <i>Europhysics Letters</i> , 2014, 105, 46002.	2.0	45
36	Quantum turbulence generated by oscillating structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 4699-4706.	7.1	27

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55	Quantum turbulence of bellows-driven $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \text{ display="block">\rangle \langle \text{mml:msup} \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 4 \langle \text{mml:msup} \rangle \langle \text{mml:math} \rangle \text{He superflow: Steady state. Physical Review B, 2012, 86, .}$	3.2	50
56	Testing the performance of a cryogenic visualization system on thermal counterflow by using hydrogen and deuterium solid tracers. <i>Review of Scientific Instruments</i> , 2012, 83, 055109.	1.3	33
57	Interpretation of transmission through type II superconducting thin film on dielectric substrate as observed by laser thermal spectroscopy. <i>Physica C: Superconductivity and Its Applications</i> , 2012, 483, 127-135.	1.2	1
58	Crossover from hydrodynamic to acoustic drag on quartz tuning forks in normal and superfluid ^4He . <i>Physical Review B</i> , 2012, 85, .	3.2	57
59	How Similar is Quantum Turbulence to Classical Turbulence?., 2012, , 405-437.		5
60	Applications of the quartz tuning fork in classical and superfluid hydrodynamics. <i>EPJ Web of Conferences</i> , 2012, 25, 02025.	0.3	1
61	A flow source for the study of quantum turbulence in superfluid ^4He . <i>EPJ Web of Conferences</i> , 2012, 25, 02001.	0.3	0
62	Developed quantum turbulence and its decay. <i>Physics of Fluids</i> , 2012, 24, .	4.0	156
63	Terahertz thermal spectroscopy of a NbN superconductor. <i>Physical Review B</i> , 2011, 84, .	3.2	8
64	Novel experimental apparatus to visualise low-temperature flows. <i>Journal of Physics: Conference Series</i> , 2011, 318, 092029.	0.4	1
65	New experimental set-up to analyse cryogenic flows by visualisation. <i>Journal of Physics: Conference Series</i> , 2011, 333, 012009.	0.4	1
66	Comments on heat transfer efficiency in cryogenic helium turbulent Rayleigh-Bénard convection. <i>Journal of Physics: Conference Series</i> , 2011, 318, 082012.	0.4	2
67	Quantum turbulence. <i>Journal of Physics: Conference Series</i> , 2011, 318, 012004.	0.4	16
68	Acoustic Emission by Quartz Tuning Forks and Other Oscillating Structures in Cryogenic ^4He Fluids. <i>Journal of Low Temperature Physics</i> , 2011, 163, 317-344.	1.4	63
69	Efficiency of Heat Transfer in Turbulent Rayleigh-Bénard Convection. <i>Physical Review Letters</i> , 2011, 107, 014302.	7.8	48
70	Experiments on a High Quality Grid Oscillating in Superfluid ^4He at Very Low Temperatures. <i>Journal of Low Temperature Physics</i> , 2010, 158, 462-467.	1.4	17
71	A Simple Phenomenological Model for the Effective Kinematic Viscosity of Helium Superfluids. <i>Journal of Low Temperature Physics</i> , 2010, 161, 555-560.	1.4	6
72	Terahertz transmission of NbN superconductor thin film. <i>Physica C: Superconductivity and Its Applications</i> , 2010, 470, 932-934.	1.2	8

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73	Experiments relating to the flow induced by a vibrating quartz tuning fork and similar structures in a classical fluid. Physical Review E, 2010, 81, 066316.	2.1	17
74	Far-infrared transmission of a superconducting NbN film. Physical Review B, 2010, 81, .	3.2	13
75	Helium cryostat for experimental study of natural turbulent convection. Review of Scientific Instruments, 2010, 81, 085103.	1.3	20
76	Saturation of decaying counterflow turbulence in helium II. Physical Review B, 2010, 82, . <i>Generation of turbulence by vibrating forks and other structures in superfluid</i> He_4 . Physical Review B, 2009, 79, 014512.	3.2	7
77	He_4 <i>On their ability to detect an externally applied flow in superfluid</i> He_4 . Journal of Physics: Conference Series, 2009, 150, 012048.	3.2	62
78	The Use of Vibrating Structures in the Study of Quantum Turbulence. Progress in Low Temperature Physics, 2009, , 195-246.	0.4	4
79	Cavitation in Liquid Helium Observed in a Flow Due to A Vibrating Quartz Fork. Journal of Low Temperature Physics, 2008, 150, 194-199.	0.2	21
80	Vibrating Quartz Fork - A Tool for Cryogenic Helium Research. Journal of Low Temperature Physics, 2008, 150, 525-535.	1.4	26
81	On Flow of He II in Channels with Ends Blocked by Superleaks. Journal of Low Temperature Physics, 2008, 153, 162-188.	1.4	9
82	On cavitation in liquid helium in a flow due to a vibrating quartz fork. Low Temperature Physics, 2008, 34, 298-307.	0.6	19
83	Characteristics of the transition to turbulence in superfluid He4 at low temperatures. Low Temperature Physics, 2008, 34, 875-883.	0.6	39
84	Steady and Decaying Flow of He II in a Channel with Ends Blocked by Superleaks. Physical Review Letters, 2008, 100, 215302.	7.8	19
85	Counterflow Turbulence in He II and Its Decay. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2008, , 91-137.	0.6	0
86	Effective kinematic viscosity of turbulent	2.1	39
87	$\text{He}_4 \ll \text{He}_4$. Physical Review E, 2007, 76, 027301.	2.1	39
88	Transition from laminar to turbulent drag in flow due to a vibrating quartz fork. Physical Review E, 2007, 75, 025302.	2.1	59
89	On Decaying Counterflow Turbulence in He II. Journal of Low Temperature Physics, 2007, 146, 5-30.	1.4	19
90	Quartz Tuning Fork: Thermometer, Pressure- and Viscometer for Helium Liquids. Journal of Low Temperature Physics, 2007, 146, 537-562.	1.4	200

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91	Quantum Turbulence Generated and Detected by a Vibrating Quartz Fork. <i>Journal of Low Temperature Physics</i> , 2007, 148, 305-310.	1.4	51
92	Quantum Turbulence at Very Low Temperatures: Status and Prospects. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	0
93	Is Quantized Vorticity in Pure He II at Low Temperature Directly Related to Cavitation and Spinodal Pressure?. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	0
94	Turbulence in He II Generated by Superflow. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	0
95	Vibrating Grid as a Tool for Studying the Flow of Pure He II and its Transition to Turbulence. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	1
96	Energy spectra of quantum turbulence in He II and 3He-B: A unified view. <i>JETP Letters</i> , 2006, 83, 127-131.	1.4	7
97	Energy Spectra of Developed Turbulence in Helium Superfluids. <i>Journal of Low Temperature Physics</i> , 2006, 145, 125-142.	1.4	59
98	Quantum Turbulence in 4He, Oscillating Grids, and Where Do We Go Next?. <i>Journal of Low Temperature Physics</i> , 2006, 145, 107-124.	1.4	6
99	Experimental investigation of the dynamics of a vibrating grid in superfluid He4 over a range of temperatures and pressures. <i>Physical Review E</i> , 2006, 74, 036307.	2.1	66
100	Experiments on the rapid mechanical expansion of liquid He4 through its superfluid transition. <i>Physical Review E</i> , 2006, 74, 056305.	2.1	7
101	Depolarization of decaying counterflow turbulence in He II. <i>Physical Review E</i> , 2006, 74, 026309.	2.1	39
102	Questions Related to the Oscillatory Flow of He II through a Grid at Low Temperatures. <i>Journal of Low Temperature Physics</i> , 2005, 138, 543-548.	1.4	1
103	Decaying Counterflow Turbulence in He II. <i>Journal of Low Temperature Physics</i> , 2005, 138, 549-554.	1.4	27
104	Flow of He II due to an Oscillating Grid in the Low-Temperature Limit. <i>Physical Review Letters</i> , 2004, 92, 244501.	7.8	57
105	Experimental investigation of the macroscopic flow of He II due to an oscillating grid in the zero temperature limit. <i>Physical Review E</i> , 2004, 70, 056307.	2.1	40
106	A flow phase diagram for helium superfluids. <i>JETP Letters</i> , 2004, 80, 474-478.	1.4	13
107	Time-of-Flight Measurements on Quantized Vortex Lines in Rotating 3He-B. <i>Journal of Low Temperature Physics</i> , 2004, 134, 375-380.	1.4	14
108	The Nucleation of Superfluid Turbulence at Very Low Temperatures by Flow Through a Grid. <i>Journal of Low Temperature Physics</i> , 2004, 135, 423-445.	1.4	22

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109	Turbulence in cryogenic helium. <i>Physica C: Superconductivity and Its Applications</i> , 2004, 404, 354-362.	1.2	6
110	Vortex flow in rotating superfluid ^4He . <i>Physica B: Condensed Matter</i> , 2003, 329-333, 106-107.	2.7	3
111	AB interface in rotating superfluid : the first example of a superfluid shear-flow instability. <i>Physica B: Condensed Matter</i> , 2003, 329-333, 57-61.	2.7	3
112	An intrinsic velocity-independent criterion for superfluid turbulence. <i>Nature</i> , 2003, 424, 1022-1025.	27.8	176
113	Decay of counterflow He II turbulence in a finite channel: Possibility of missing links between classical and quantum turbulence. <i>Physical Review E</i> , 2003, 67, 047302.	2.1	55
114	Temperature structure functions in the Bolgiano regime of thermal convection. <i>Physical Review E</i> , 2002, 66, 036303.	2.1	20
115	Shear Flow and Kelvin-Helmholtz Instability in Superfluids. <i>Physical Review Letters</i> , 2002, 89, 155301.	7.8	153
116	Self-Sustained Large-Scale Flow in Turbulent Cryogenic Convection. <i>Journal of Low Temperature Physics</i> , 2002, 126, 297-302.	1.4	4
117	The wind in confined thermal convection. <i>Journal of Fluid Mechanics</i> , 2001, 449, 169-178.	3.4	223
118	Energy spectrum of grid-generated He II turbulence. <i>Physical Review E</i> , 2001, 64, 067301.	2.1	8
119	Grid-Generated He II Turbulence in a Finite Channel - Experiment. , 2001, , 80-86.	1	
120	Comments on high Rayleigh number convection. <i>Fluid Mechanics and Its Applications</i> , 2001, , 269-277.	0.2	0
121	Grid Generated He II Turbulence in a Finite Channel – Theoretical Interpretation. , 2001, , 191-197.	0	
122	Cryogenic fluid dynamics. <i>Physica B: Condensed Matter</i> , 2000, 280, 41-42.	2.7	0
123	Ultra-high Rayleigh number convection in cryogenic helium gas. <i>Physica B: Condensed Matter</i> , 2000, 284-288, 61-62.	2.7	4
124	Hydrodynamic stability of He II periodic boundary layer flows. <i>Physica B: Condensed Matter</i> , 2000, 284-288, 63-64.	2.7	1
125	Turbulent convection at very high Rayleigh numbers. <i>Nature</i> , 2000, 404, 837-840.	27.8	579
126	New Results in Cryogenic Helium Flows at Ultra-high Reynolds and Rayleigh Numbers. <i>Journal of Low Temperature Physics</i> , 2000, 121, 417-422.	1.4	2

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127	On the decay of homogeneous isotropic turbulence. Physics of Fluids, 2000, 12, 1997-2019.		4.0	122
128	Four Regimes of Decaying Grid Turbulence in a Finite Channel. Physical Review Letters, 2000, 85, 2973-2976.		7.8	91
129	Capillary-wave crystallography: Crystallization of two-dimensional sheets of He+ ions. Physical Review B, 2000, 61, 1396-1409.		3.2	5
130	Turbulent flows at cryogenic temperatures: a new frontier. Journal of Physics Condensed Matter, 1999, 11, 7761-7781.		1.8	18
131	Decay of Grid Turbulence in a Finite Channel. Physical Review Letters, 1999, 82, 4831-4834.		7.8	284
132	Soft Edge Magnetoplasmons in 2D Circular Pools of He4 ions. Journal of Low Temperature Physics, 1998, 110, 237-242.		1.4	4
133	Modes of transverse response in a two-dimensional Coulomb system above the melting temperature. Physica B: Condensed Matter, 1998, 249-251, 664-667.		2.7	3
134	Damage and annealing in two-dimensional Coulomb crystals. Physica B: Condensed Matter, 1998, 249-251, 668-671.		2.7	4
135	Magnetoplasmons in two-dimensional circular sheets of 4He+ ions. Physical Review B, 1997, 56, 3447-3456.		3.2	13
136	The Ion Crystal. Physics and Chemistry of Materials With Low-dimensional Structures, 1997, , 363-393.		1.0	2
137	Shear modes in 2D ion crystals trapped below the surface of superfluid helium. Surface Science, 1996, 361-362, 843-846.		1.9	7
138	Experimental investigation of low-frequency edge magnetoplasma modes in two-dimensional sheets of ions trapped below the surface of superfluid helium. European Physical Journal D, 1996, 46, 331-332.		0.4	6
139	Damage and annealing in two-dimensional Coulomb crystals. European Physical Journal D, 1996, 46, 333-334.		0.4	7
140	Shear modes in two-dimensional ionic Coulomb crystals. European Physical Journal D, 1996, 46, 335-336.		0.4	5
141	Resistance relaxation in carbon and RuO2 based thermometers. Journal of Low Temperature Physics, 1996, 103, 209-236.		1.4	10
142	Plastic dilution refrigerators. Journal of Low Temperature Physics, 1995, 99, 151-166.		1.4	14
143	Target with a frozen nuclear polarization for experiments at low energies. AIP Conference Proceedings, 1995, , .		0.4	0
144	Magnetoplasma resonances and nonlinear mode coupling in pools of ions trapped below the surface of superfluid helium. Physical Review B, 1995, 51, 5892-5898.		3.2	14

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145	Novel Edge Magnetoplasmons in a Two-Dimensional Sheet of He+4Ions. Physical Review Letters, 1995, 75, 3713-3715.	7.8	27
146	Pools of ions trapped below the surface of superfluid helium: modes of response in a steady vertical magnetic field. Journal of Physics Condensed Matter, 1995, 7, 8939-8952.	1.8	9
147	Time-dependent resistance relaxation in carbon and RuO ₂ based thermometers. Review of Scientific Instruments, 1994, 65, 3804-3808.	1.3	4
148	Quantum effects on pâ€Hg _{1-x} Cd _x Te native surfaces. Physica Status Solidi (B): Basic Research, 1994, 183, K59.	1.5	2
149	The ripplon-limited mobility of ions trapped below the free surface of superfluid helium. Journal of Low Temperature Physics, 1994, 97, 349-364.	1.4	7
150	Ionic Coulomb crystals in superfluid helium. Physica B: Condensed Matter, 1994, 197, 360-368.	2.7	21
151	Ripplon-limited mobility of negative ions trapped below the free surface of superfluid ⁴ He. Physica B: Condensed Matter, 1994, 194-196, 727-728.	2.7	2
152	Plasma mode coupling in pools of ions trapped below the free surface of superfluid ⁴ He. Physica B: Condensed Matter, 1994, 194-196, 729-730.	2.7	5
153	Target with a frozen nuclear polarization for experiments at low energies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1994, 345, 421-428.	1.6	11
154	Reproducible fluctuations of carrier concentration in Si - MOSFET below 1K. Solid State Communications, 1992, 81, 9-12.	1.9	2
155	Two dimensional variable range hopping in La _{2-x} S _x CuO _{4-y} compounds at low temperatures. Journal of Magnetism and Magnetic Materials, 1990, 90-91, 641-643.	2.3	5
156	Direct CW - NMR observation of forbidden transitions at double larmor frequency in hydrogen. Physica B: Condensed Matter, 1990, 165-166, 919-920.	2.7	0
157	Surface spin waves in A ₃ , a probe for vortex phenomena in narrow gaps. Physical Review Letters, 1987, 58, 678-681.	7.8	19
158	Two different vortex states in rotating A ₃ observed by use of negative ions. Physical Review Letters, 1987, 58, 904-907.	7.8	87
159	Experiments with negative ions in rotating superfluid ³ He. Canadian Journal of Physics, 1987, 65, 1449-1452.	1.1	1
160	Fast negative ion thermometer for ³ He superfluids. Cryogenics, 1987, 27, 391-395.	1.7	36
161	Focusing of Negative Ions by Vortices in Rotating ³ He. Japanese Journal of Applied Physics, 1987, 26, 189.	1.5	3
162	Two Different Vortex States In Rotating ³ He Observed by Use of Negative Ions. Japanese Journal of Applied Physics, 1987, 26, 191.	1.5	1

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163	A Fast Negative Ion Thermometer for ^3He Superfluids. Japanese Journal of Applied Physics, 1987, 26, 1735.	1.5	0
164	Focusing of Negative Ions by Vortices in Rotating ^3He . Physical Review Letters, 1986, 57, 1923-1926.	7.8	93
165	VISUALIZATION OF LARGE-SCALE FLOW DUE TO AN OSCILLATING TUNING FORK IN NORMAL AND SUPERFLUID HELIUM., 0,..	0	0