

Bunkov Yuriy

List of Publications by Year in descending order

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141
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times ranked

984
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#	ARTICLE	IF	CITATIONS
1	Nonlinear NMR and magnon BEC in antiferromagnetic materials with coupled electron and nuclear spin precession. <i>Physical Review B</i> , 2018, 97, .	1.1	18
2	Magnon condensation and spin superfluidity. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 452, 30-34.	1.0	27
3	The magnon BEC observation by switch off method. <i>Low Temperature Physics</i> , 2017, 43, 930-935.	0.2	2
4	The ^{55}Mn Spin Echo Test of Magnon BEC State in MnCO_3 . <i>Applied Magnetic Resonance</i> , 2017, 48, 625-633.	0.6	1
5	Nuclear magnetic relaxation induced by the relaxation of electron spins. <i>JETP Letters</i> , 2017, 105, 21-25.	0.4	8
6	Goldstone mode of a magnon Bose-Einstein condensate in MnCO_3 . <i>JETP Letters</i> , 2017, 106, 677-681.	0.4	11
7	Magnon BEC Versus Atomic BEC. <i>Journal of Low Temperature Physics</i> , 2016, 185, 399-408.	0.6	15
8	Critical parameters of nuclear magnon Bose-Einstein condensation in systems with dynamic frequency shift. <i>JETP Letters</i> , 2015, 102, 766-770.	0.4	7
9	Normal-Mode Splitting in the Coupled System of Hybridized Nuclear Magnons and Microwave Photons. <i>Physical Review Letters</i> , 2015, 114, 226402.	2.9	36
10	Evolution of a neutron-initiated micro big bang in superfluid ^3He . <i>Physical Review B</i> , 2014, 90, .	1.1	9
11	3D-XY critical behavior of CsMnF_3 from static and dynamic thermal properties. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 096001.	0.7	11
12	Magnon BEC in Antiferromagnets with Suhl-Nakamura Interaction. <i>Journal of Low Temperature Physics</i> , 2014, 175, 167-176.	0.6	11
13	Direct Observation of a Majorana Quasiparticle Heat Capacity in ^3He . <i>Journal of Low Temperature Physics</i> , 2014, 175, 385-394.	0.6	15
14	Observation of Majorana Quasiparticles' Edge States in Superfluid ^3He . <i>Applied Magnetic Resonance</i> , 2014, 45, 1219-1224.	0.6	2
15	Bose-Einstein condensation in antiferromagnets at low temperatures. <i>Journal of Physics: Conference Series</i> , 2014, 568, 042001.	0.3	4
16	The multiuniverse transition in superfluid ^3He . <i>Journal of Physics Condensed Matter</i> , 2013, 25, 404205.	0.7	4
17	Experimental Setup for Observation the Bose-Einstein Condensation of Magnons in Solid Antiferromagnets CsMnF_3 and MnCO_3 . <i>Applied Magnetic Resonance</i> , 2013, 44, 595-603.	0.6	7
18	Magnon Bose-Einstein condensation at inhomogeneous conditions. <i>Journal of Physics: Conference Series</i> , 2013, 478, 012004.	0.3	1

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19	High- $\langle \langle T_c \rangle \rangle$ Spin Superfluidity in Antiferromagnets. Physical Review Letters, 2012, 108, 177002.	2.9	49
20	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.	2.9	39
21	Superfluid transition in superfluid ³ He in radially compressed aerogel. Journal of Physics: Conference Series, 2012, 400, 012019.	0.3	4
22	Atomic type magnon Bose-Einstein condensation in antiferromagnet.. Journal of Physics: Conference Series, 2012, 400, 032001.	0.3	3
23	In-situ comprehensive calibration of a tri-port nano-electro-mechanical device. Review of Scientific Instruments, 2012, 83, 045005.	0.6	12
24	Nonlinear parametric amplification in a triport nanoelectromechanical device. Physical Review B, 2011, 84, .	1.1	12
25	Magnon Bose-Einstein condensation in CsMnF ₃ and MnCO ₃ . Journal of Physics: Conference Series, 2011, 324, 012006.	0.3	10
26	Discovery of the classical Bose-Einstein condensation of magnons in solid antiferromagnets. JETP Letters, 2011, 94, 68-72.	0.4	27
27	A Tunable Hybrid Electro-magnetomotive NEMS Device for Low Temperature Physics. Journal of Low Temperature Physics, 2011, 162, 653-660.	0.6	17
28	Publisher's Note: Nonlinear parametric amplification in a triport nanoelectromechanical device [Phys. Rev. B84, 054108 (2011)]. Physical Review B, 2011, 84, .	1.1	0
29	Metallic coatings of microelectromechanical structures at low temperatures: Stress, elasticity, and nonlinear dissipation. Journal of Applied Physics, 2010, 107, .	1.1	16
30	Novel "Vibrating Wire Like" NEMS and MEMS Structures for Low Temperature Physics. Journal of Low Temperature Physics, 2010, 158, 678-684.	0.6	8
31	Evidence for Magnon BEC in Superfluid 3He-A. Journal of Low Temperature Physics, 2010, 158, 129-134.	0.6	22
32	3He Experiments: Insights into Cosmology and Atomic Physics. Journal of Low Temperature Physics, 2010, 158, 118-128.	0.6	4
33	Magnon Bose-Einstein condensation and spin superfluidity. Journal of Physics Condensed Matter, 2010, 22, 164210.	0.7	44
34	Spin superfluidity and magnons Bose-Einstein condensation. Physics-Uspexhi, 2010, 53, 848-853.	0.8	28
35	Addressing geometric nonlinearities with cantilever microelectromechanical systems: Beyond the Duffing model. Physical Review B, 2010, 82, .	1.1	23
36	Fast-exchange model visualized with $\langle \langle H \rangle \rangle$ confined in aerogel: A Fermi liquid in contact with a ferromagnetic solid. Physical Review B, 2009, 80, .	1.1	18

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37	Spin superfluidity and coherent spin precession. Journal of Physics Condensed Matter, 2009, 21, 164201.	0.7	32
38	Magnon BEC in superfluid 3He-A. JETP Letters, 2009, 89, 306-310.	0.4	11
39	Magnetic susceptibility of liquid 3He. Journal of Physics: Conference Series, 2009, 150, 032024.	0.3	2
40	Coherent precession of magnetization in superfluid 3He A-phase in aerogel. Journal of Physics: Conference Series, 2009, 150, 032052.	0.3	2
41	Quantum Fluid Dynamics of Rotating Superfluid 3He in Aerogel. Journal of Low Temperature Physics, 2008, 150, 435-444.	0.6	5
42	Electron-Nuclear Recoil Discrimination by Pulse Shape Analysis. Journal of Low Temperature Physics, 2008, 150, 536-543.	0.6	4
43	Silicon Vibrating Wires at Low Temperatures. Journal of Low Temperature Physics, 2008, 150, 739-790.	0.6	16
44	ULTIMA: Magnetic Field Dependence of the Calibration Factor. Journal of Low Temperature Physics, 2008, 151, 860-864.	0.6	1
45	Observation of vortex-creep in superfluid 3He B-like phase in aerogel by the HPD. Physica C: Superconductivity and Its Applications, 2008, 468, 605-608.	0.6	0
46	Spin vortex in magnon BEC of superfluid 3He "B. Physica C: Superconductivity and Its Applications, 2008, 468, 609-612.	0.6	9
47	Bose-Einstein Condensation of Magnons in Superfluid 3He. Journal of Low Temperature Physics, 2008, 150, 135-144.	0.6	63
48	Strong Orientational Effect of Stretched Aerogel on the He3 Order Parameter. Physical Review Letters, 2008, 100, 215304.	2.9	49
49	Coherent Precession of Magnetization in the Superfluid ^3He . Physical Review Letters, 2008, 101, 055301.	2.9	36
50	^3He : cosmological and atomic physics experiments. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 2821-2832.	1.6	5
51	Magnon Condensation into a QBall in ^3He "B. Physical Review Letters, 2007, 98, 265302.	2.9	80
52	Bolometric calibration of a superfluid 3He detector for Dark Matter search: Direct measurement of the scintillated energy fraction for neutron, electron and muon events. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 574, 264-271.	0.7	15
53	Spin supercurrent. Journal of Magnetism and Magnetic Materials, 2007, 310, 1476-1478.	1.0	8
54	Orientation effect on superfluid 3He in anisotropic aerogel. JETP Letters, 2007, 86, 216-220.	0.4	55

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55	“Catastrophic Relaxation”; Two Decades of Controversy. Journal of Low Temperature Physics, 2007, 148, 475-482.	0.6	1
56	Heat Capacity of Adsorbed Helium-3 at Ultra-Low Temperatures. Journal of Low Temperature Physics, 2007, 148, 749-753.	0.6	7
57	Textures of Superfluid 3He A-like and B-like Phases in Aerogel under Rotation. Journal of Low Temperature Physics, 2007, 148, 591-596.	0.6	3
58	Ultra Low Temperature Instrumentation for Measurements in Astrophysics : ULTIMA. AIP Conference Proceedings, 2006, , .	0.3	0
59	Solution of the problem of catastrophic relaxation of homogeneous spin precession in superfluid 3He-B. JETP Letters, 2006, 83, 530-535.	0.4	14
60	On the problem of catastrophic relaxation in superfluid 3He-B. JETP Letters, 2006, 84, 289-293.	0.4	11
61	ULTIMA: A bolometric detector for dark matter search using superfluid 3He. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 559, 384-386.	0.7	11
62	Probing “Cosmological” Defects in Superfluid $^3\text{He-B}$ with a Vibrating-Wire Resonator. Physical Review Letters, 2006, 96, 205301.	2.9	12
63	Ferromagnetic nanoclusters in two-dimensional ^3He . Physical Review B, 2006, 73, .	1.1	6
64	An analysis method for time ordered data processing of “dark” matter experiments. Astronomy and Astrophysics, 2006, 453, 761-768.	2.1	2
65	^3He NMR in aerogel. Journal of Physics and Chemistry of Solids, 2005, 66, 1325-1329.	1.9	4
66	Low-energy conversion electron detection in superfluid 3He at ultra-low temperature. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 548, 411-417.	0.7	7
67	Persistent Signal; Coherent NMR state trapped by orbital texture. Journal of Low Temperature Physics, 2005, 138, 753-758.	0.6	12
68	Magnetization and spin diffusion of liquid ^3He in aerogel. Physical Review B, 2005, 72, .	1.1	39
69	Pinning of Texture and Vortices of the Rotating B-like Phase of Superfluid ^3He Confined in a 98% Aerogel. Physical Review Letters, 2005, 94, 075301.	2.9	15
70	On the spin-liquid phase of two-dimensional ^3He . Journal of Physics Condensed Matter, 2004, 16, S691-S699.	0.7	5
71	NMR in Superfluid Helium-3 in the Non-Hydrodynamic Regime. Journal of Low Temperature Physics, 2004, 135, 337-359.	0.6	17
72	Spin-Orbital Dynamics in the B-Phase of Superfluid Helium-3. Journal of Low Temperature Physics, 2004, 137, 625-654.	0.6	6

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73	Topological defects and coherent magnetization precession of in aerogel. Physica B: Condensed Matter, 2003, 329-333, 305-306.	1.3	9
74	EU dissemination of the provisional ultra-low-temperature scale, PLTS-2000. Physica B: Condensed Matter, 2003, 329-333, 1564-1565.	1.3	1
75	Superfluid ^3He from cosmology to particle detection. Physica B: Condensed Matter, 2003, 329-333, 70-74.	1.3	6
76	Search for supersymmetric Dark Matter with superfluid ^3He (MACHe3). Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 538, 257-265.	1.5	23
77	Quantum Frustration in the ^3He Spin Liquid Phase of Two-Dimensional ^3He . Physical Review Letters, 2001, 86, 2447-2450.	2.9	46
78	New concepts on the A-B transition in superfluid ^3He . Physica B: Condensed Matter, 2000, 284-288, 246-247.	1.3	1
79	Superfluidity of ^3He contained in aerogel. Physica B: Condensed Matter, 2000, 284-288, 311-312.	1.3	1
80	Design optimization of MACHe3, a project of superfluid ^3He detector for direct Dark Matter search. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 455, 554-563.	0.7	10
81	Semisuperfluidity of ^3He in Aerogel?. Physical Review Letters, 2000, 85, 3456-3459.	2.9	32
82	Bunkov and Timofeevskaya Reply:. Physical Review Letters, 1999, 82, 3926-3926.	2.9	11
83	Temperature scale and heat capacity of superfluid ^3He in the $100 \pm 1/4 \text{K}$ range. Physical Review B, 1998, 57, 14381-14386.	1.1	60
84	Multiple-Spin Exchange on a Triangular Lattice: A Quantitative Interpretation of Thermodynamic Properties of Two-Dimensional Solid ^3He . Physical Review Letters, 1998, 80, 1308-1311.	2.9	161
85	^3He Cosmological Scenario for A-B Phase Transition in Superfluid ^3He . Physical Review Letters, 1998, 80, 4927-4930.	2.9	70
86	Surface oscillations of homogeneously precessing domain with axial symmetry. Europhysics Letters, 1997, 40, 539-544.	0.7	6
87	Magnetic dissipation in superfluid ^3He -B in the transition regime to nonhydrodynamic conditions. Journal of Low Temperature Physics, 1997, 108, 461-486.	0.6	44
88	Spin dynamics of superfluid ^3He in non-hydrodynamic regime. European Physical Journal D, 1996, 46, 3003-3010.	0.4	4
89	Simulated cosmic strings in a ^3He big bang in superfluid ^3He at $100 \pm 1/4 \text{K}$. European Physical Journal D, 1996, 46, 5-6.	0.4	4
90	Surface instability of coherent precession in the non-hydrodynamic regime. European Physical Journal D, 1996, 46, 213-214.	0.4	9

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91	Temperature dependence of the Leggett-Takagi relaxation time and spin diffusion coefficient in $^3\text{He-B}$ for 6 bar. European Physical Journal D, 1996, 46, 223-224.	0.4	0
92	Coherent spin precession and texture in $^3\text{He-B}$. European Physical Journal D, 1996, 46, 231-232.	0.4	2
93	Texture dependence of the persistent NMR signal in superfluid $^3\text{He-B}$. European Physical Journal D, 1996, 46, 233-234.	0.4	1
94	Systematic study of ^3He adsorbed on graphite by NMR techniques. European Physical Journal D, 1996, 46, 399-400.	0.4	3
95	^3He /graphite commensurate bilayer films in the antiferromagnetic regime. European Physical Journal D, 1996, 46, 401-402.	0.4	5
96	Magnetic field dependence of the nuclear magnetization of ^3He films adsorbed on graphite in the ferromagnetic regime. European Physical Journal D, 1996, 46, 403-404.	0.4	6
97	The new grenoble 100 \hat{m} 4K refrigerator. European Physical Journal D, 1996, 46, 2791-2792.	0.4	4
98	Laboratory simulation of cosmic string formation in the early Universe using superfluid ^3He . Nature, 1996, 382, 332-334.	13.7	451
99	Two-dimensional Fermi liquid in the highly correlated regime: The second layer of ^3He adsorbed on graphite. Physical Review B, 1996, 53, 2658-2661.	1.1	96
100	Field dependence of the magnetization of adsorbed ^3He films at ultra low temperatures. Journal of Low Temperature Physics, 1995, 101, 457-462.	0.6	6
101	A highly sensitive nuclear recoil detector based on superfluid $^3\text{He-B}$. Journal of Low Temperature Physics, 1995, 101, 9-16.	0.6	2
102	NMR in superfluid ^3He at very low temperatures. Journal of Low Temperature Physics, 1995, 101, 123-134.	0.6	4
103	2D liquid ^3He near solidification: a highly correlated Fermi liquid. Journal of Low Temperature Physics, 1995, 101, 161-166.	0.6	5
104	A geometry dependent thermal resistance between a saturated dilute $^3\text{He-4He}$ solution and sintered silver powder. Journal of Low Temperature Physics, 1995, 101, 259-264.	0.6	2
105	Potential Dark Matter Detector? The Detection of Low Energy Neutrons by Superfluid ^3He . Physical Review Letters, 1995, 75, 1887-1890.	2.9	130
106	Chapter 2 Spin supercurrent and novel properties of nmr in ^3He . Progress in Low Temperature Physics, 1995, 14, 69-158.	0.2	25
107	Single-Vortex Nucleation in Rotating Superfluid $^3\text{He-B}$. Europhysics Letters, 1995, 31, 449-454.	0.7	83
108	Nonwetting Conditions for Coherent Quantum Precession in Superfluid $^3\text{He-B}$. Physical Review Letters, 1994, 73, 1817-1820.	2.9	23

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109	Exchange interactions in multilayer ³ He films adsorbed on graphite. Physica B: Condensed Matter, 1994, 194-196, 675-676.	1.3	13
110	The magnetic envelope of the propagating A-B boundary in ³ He.. Physica B: Condensed Matter, 1994, 194-196, 759-760.	1.3	0
111	Studies with coherently precessing magnetization on counterflow and vortices in rotating ³ He-B. Physica B: Condensed Matter, 1994, 194-196, 761-762.	1.3	1
112	Observation of a new relaxation mechanism in ³ He-B. Physica B: Condensed Matter, 1994, 194-196, 803-804.	1.3	3
113	Persistent spin precession in superfluid ³ He. Physica B: Condensed Matter, 1994, 194-196, 827-828.	1.3	11
114	A chaotic regime of internal precession in ³ He-B. Journal of Low Temperature Physics, 1993, 90, 167-179.	0.6	5
115	High-Field Magnetotransport in a Percolating Medium. Europhysics Letters, 1993, 21, 851-857.	0.7	21
116	Resonant observation of the Landau field in superfluid ³ He by NMR. Physical Review Letters, 1992, 68, 600-603.	2.9	22
117	Persistent spin precession in ³ He in the regime of vanishing quasiparticle density. Physical Review Letters, 1992, 69, 3092-3095.	2.9	74
118	Spin supercurrent solitons: The magnetic envelope of the propagating A-B boundary in ³ He. Physical Review Letters, 1992, 69, 3662-3665.	2.9	5
119	Homogeneous spin precession in rotating vortex-free ³ He-B: Measurement of the superfluid density anisotropy. Physical Review B, 1992, 46, 13983-13990.	1.1	13
120	A new NMR mode in the Landau field in superfluid ³ He-B. Journal of Low Temperature Physics, 1992, 89, 27-36.	0.6	4
121	Anomalous magnetic relaxation in normal ³ He at low temperatures. Physica B: Condensed Matter, 1992, 178, 181-186.	1.3	2
122	Principles of HPD NMR spectroscopy of ³ He-B. Physica B: Condensed Matter, 1992, 178, 187-195.	1.3	2
123	Low frequency oscillations of the homogeneously precessing domain in ³ He-B. Physica B: Condensed Matter, 1992, 178, 196-201.	1.3	31
124	NMR and magnetic supercurrent in ³ He-B. Physica Scripta, 1991, T35, 136-140.	1.2	0
125	A compact dilution refrigerator with vertical heat exchangers for operation to 2 mK. Journal of Low Temperature Physics, 1991, 83, 257-272.	0.6	26
126	Simultaneous spin and space rotation experiments in ³ He-B. Journal of Low Temperature Physics, 1991, 83, 323-330.	0.6	11

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127	Diffusion-welded laminar nuclear stage. Physica B: Condensed Matter, 1990, 165-166, 53-54.	1.3	6
128	Observation of vortex-like spin supercurrent in $^3\text{He-B}$. Physica B: Condensed Matter, 1990, 165-166, 649-650.	1.3	7
129	Instability of the homogeneous precession in $^3\text{He-B}$ (catastrophic relaxation). Physica B: Condensed Matter, 1990, 165-166, 675-676.	1.3	3
130	Magnetic relaxation in superfluid $^3\text{He-B}$. Physica B: Condensed Matter, 1990, 165-166, 681-682.	1.3	0
131	Nonhydrodynamic spin transport in superfluid ^3He . Physical Review Letters, 1990, 65, 867-870.	2.9	38
132	Investigation of spin supercurrents in ^3He . Physical Review Letters, 1989, 62, 1631-1634.	2.9	108
133	Catastrophic Relaxation in $^3\text{He-B}$ at 0.4 T . Europhysics Letters, 1989, 8, 645-649.	0.7	37
134	Superconducting aluminium heat switch prepared by diffusion welding. Cryogenics, 1989, 29, 938-939.	0.9	20
135	A Nuclear Demagnetization Cryostat and $^3\text{He-}^4\text{He}$ Dilution Refrigerator. Japanese Journal of Applied Physics, 1987, 26, 1719.	0.8	8
136	Spin Supercurrent in $^3\text{He-B}$. Japanese Journal of Applied Physics, 1987, 26, 1809.	0.8	13
137	Observation of Phase Slips in Spin Supercurrents in $^3\text{He-B}$. Japanese Journal of Applied Physics, 1987, 26, 175.	0.8	5
138	$^3\text{He-B}$ texture relaxation with parallel-plate geometry. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 102, 194-196.	0.9	3
139	Magnetic Vortices in Rotating Superfluid $^3\text{He-B}$. Physical Review Letters, 1983, 51, 1362-1365.	2.9	177
140	Proton Zeeman relaxation in NH_4ClO_4 with natural and enriched deuterium concentrations. Journal of Physics C: Solid State Physics, 1977, 10, 4149-4154.	1.5	8
141	The new types of nuclear spin echo experiments in antiferromagnets. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1977, 86-88, 1301-1302.	0.9	5