

Vladislav Demidov

List of Publications by Year in descending order

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63
papers

3,577
citations

147566

31
h-index

128067

60
g-index

63
all docs

63
docs citations

63
times ranked

2449
citing authors

#	ARTICLE	IF	CITATIONS
1	Bose-Einstein condensation of quasi-equilibrium magnons at room temperature under pumping. Nature, 2006, 443, 430-433.	13.7	732
2	The 2021 Magnonics Roadmap. Journal of Physics Condensed Matter, 2021, 33, 413001.	0.7	287
3	Generation of coherent spin-wave modes in yttrium iron garnet microdiscs by spin-orbit torque. Nature Communications, 2016, 7, 10377.	5.8	206
4	Nanoconstriction-based spin-Hall nano-oscillator. Applied Physics Letters, 2014, 105, .	1.5	165
5	Control of Magnetic Fluctuations by Spin Current. Physical Review Letters, 2011, 107, 107204.	2.9	145
6	Nanomagnonic devices based on the spin-transfer torque. Nature Nanotechnology, 2014, 9, 509-513.	15.6	130
7	Synchronization of spin Hall nano-oscillators to external microwave signals. Nature Communications, 2014, 5, 3179.	5.8	116
8	Observation of Spontaneous Coherence in Bose-Einstein Condensate of Magnons. Physical Review Letters, 2008, 100, 047205.	2.9	111
9	Excitation of short-wavelength spin waves in magnonic waveguides. Applied Physics Letters, 2011, 99, 082507.	1.5	97
10	Spin-wave propagation in ultra-thin YIG based waveguides. Applied Physics Letters, 2017, 110, .	1.5	91
11	Thermalization of a Parametrically Driven Magnon Gas Leading to Bose-Einstein Condensation. Physical Review Letters, 2007, 99, 037205.	2.9	89
12	Spin-current nano-oscillator based on nonlocal spin injection. Scientific Reports, 2015, 5, 8578.	1.6	82
13	High-efficiency control of spin-wave propagation in ultra-thin yttrium iron garnet by the spin-orbit torque. Applied Physics Letters, 2016, 108, .	1.5	79
14	Spatially non-uniform ground state and quantized vortices in a two-component Bose-Einstein condensate of magnons. Scientific Reports, 2012, 2, 482.	1.6	75
15	Nonlinear Propagation of Spin Waves in Microscopic Magnetic Stripes. Physical Review Letters, 2009, 102, 177207.	2.9	57
16	Magnon Kinetics and Bose-Einstein Condensation Studied in Phase Space. Physical Review Letters, 2008, 101, 257201.	2.9	54
17	Mapping of localized spin-wave excitations by near-field Brillouin light scattering. Applied Physics Letters, 2010, 97, .	1.5	53
18	Wide-range control of ferromagnetic resonance by spin Hall effect. Applied Physics Letters, 2011, 99, .	1.5	51

#	ARTICLE	IF	CITATIONS
19	Spin pumping by parametrically excited short-wavelength spin waves. Applied Physics Letters, 2011, 99, .	1.5	49
20	Micromagnetic study of auto-oscillation modes in spin-Hall nano-oscillators. Applied Physics Letters, 2014, 104, 042407.	1.5	42
21	Spin-orbit-torque magnonics. Journal of Applied Physics, 2020, 127, .	1.1	41
22	Electrical properties of epitaxial yttrium iron garnet ultrathin films at high temperatures. Physical Review B, 2018, 97, .	1.1	39
23	Bose-Einstein Condensation of Magnons under Incoherent Pumping. Physical Review Letters, 2009, 102, 187205.	2.9	38
24	Optimization of Pt-based spin-Hall-effect spintronic devices. Applied Physics Letters, 2013, 102, .	1.5	38
25	Spin Hall controlled magnonic microwaveguides. Applied Physics Letters, 2014, 104, .	1.5	38
26	Reconfigurable heat-induced spin wave lenses. Applied Physics Letters, 2016, 109, 232407.	1.5	37
27	Spin Hall-induced auto-oscillations in ultrathin YIG grown on Pt. Scientific Reports, 2018, 8, 1269.	1.6	36
28	Nonlinear spin conductance of yttrium iron garnet thin films driven by large spin-orbit torque. Physical Review B, 2018, 97, .	1.1	35
29	Ginzburg-Landau model of Bose-Einstein condensation of magnons. Physical Review B, 2010, 81, .	1.1	33
30	Spin-torque nano-emitters for magnonic applications. Applied Physics Letters, 2012, 100, 162406.	1.5	33
31	Generation of the second harmonic by spin waves propagating in microscopic stripes. Physical Review B, 2011, 83, .	1.1	32
32	Parametric excitation of magnetization oscillations controlled by pure spin current. Physical Review B, 2012, 86, .	1.1	31
33	Chemical potential of quasi-equilibrium magnon gas driven by pure spin current. Nature Communications, 2017, 8, 1579.	5.8	31
34	Nonlinear Hybridization of the Fundamental Eigenmodes of Microscopic Ferromagnetic Ellipses. Physical Review Letters, 2010, 104, 217203.	2.9	30
35	Direct observation of dynamic modes excited in a magnetic insulator by pure spin current. Scientific Reports, 2016, 6, 32781.	1.6	30
36	Direct observation of Bose-Einstein condensation in a parametrically driven gas of magnons. New Journal of Physics, 2007, 9, 64-64.	1.2	25

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37	Quantum coherence due to Bose-Einstein condensation of parametrically driven magnons. <i>New Journal of Physics</i> , 2008, 10, 045029.	1.2	25
38	Direct evidence of spatial stability of Bose-Einstein condensate of magnons. <i>Nature Communications</i> , 2020, 11, 1691.	5.8	23
39	Monochromatic microwave radiation from the system of strongly excited magnons. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	22
40	Magnetic droplet solitons generated by pure spin currents. <i>Physical Review B</i> , 2017, 96, .	1.1	22
41	Resonant frequency multiplication in microscopic magnetic dots. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	21
42	Evidence for spin current driven Bose-Einstein condensation of magnons. <i>Nature Communications</i> , 2021, 12, 6541.	5.8	21
43	Nanoconstriction spin-Hall oscillator with perpendicular magnetic anisotropy. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	20
44	Route toward high-speed nano-magnonics provided by pure spin currents. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	16
45	Relation between unidirectional spin Hall magnetoresistance and spin current-driven magnon generation. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	16
46	Some special features of the transition to chaos in the self-modulation of surface spin waves. <i>JETP Letters</i> , 1997, 66, 261-265.	0.4	13
47	Excitation of two spatially separated Bose-Einstein condensates of magnons. <i>Physical Review B</i> , 2009, 80, .	1.1	13
48	Formation of longitudinal patterns and dimensionality crossover of nonlinear spin waves in ferromagnetic stripes. <i>Physical Review B</i> , 2006, 74, .	1.1	12
49	Excitation of coherent second sound waves in a dense magnon gas. <i>Scientific Reports</i> , 2019, 9, 9063.	1.6	12
50	Mutual synchronization of nano-oscillators driven by pure spin current. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	11
51	Effect of the magnetic film thickness on the enhancement of the spin current by multi-magnon processes. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	10
52	Spatial separation of degenerate components of magnon Bose-Einstein condensate by using a local acceleration potential. <i>Scientific Reports</i> , 2020, 10, 14881.	1.6	9
53	Bose-Einstein condensation of spin wave quanta at room temperature. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 3575-3587.	1.6	8
54	Spectral linewidth of spin-current nano-oscillators driven by nonlocal spin injection. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	8

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55	Sub-micrometer near-field focusing of spin waves in ultrathin YIG films. Applied Physics Letters, 2020, 116, .	1.5	8
56	Giant nonlinear self-phase modulation of large-amplitude spin waves in microscopic YIG waveguides. Scientific Reports, 2022, 12, 7246.	1.6	8
57	Dynamic behavior of Ni80Fe20 nanowires with controlled defects. Applied Physics Letters, 2014, 104, 143105.	1.5	7
58	Interplay Between Nonlinear Spectral Shift and Nonlinear Damping of Spin Waves in Ultrathin Yttrium Iron Garnet Waveguides. Physical Review Applied, 2022, 17, .	1.5	6
59	Controllable excitation of quasi-linear and bullet modes in a spin-Hall nano-oscillator. Applied Physics Letters, 2019, 114, .	1.5	5
60	Efficient geometrical control of spin waves in microscopic YIG waveguides. Applied Physics Letters, 2021, 119, .	1.5	3
61	Nanoconstriction-based spin-Hall oscillators. , 2015, , .		0
62	Excitation of magnetization dynamics by pure spin currents. , 2015, , .		0
63	Effects of spin-orbit torque on the magnon gas. , 2018, , .		0