Roman V Verba

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Reconfigurable nanoscale spin-wave directional coupler. Science Advances, 2018, 4, e1701517.	10.3	150
2	A magnonic directional coupler for integrated magnonic half-adders. Nature Electronics, 2020, 3, 765-774.	26.0	139
3	Spin Pinning and Spin-Wave Dispersion in Nanoscopic Ferromagnetic Waveguides. Physical Review Letters, 2019, 122, 247202.	7.8	93
4	Collective spin-wave excitations in a two-dimensional array of coupled magnetic nanodots. Physical Review B, 2012, 85, .	3.2	85
5	Nonreciprocal Surface Acoustic Waves in Multilayers with Magnetoelastic and Interfacial Dzyaloshinskii-Moriya Interactions. Physical Review Applied, 2018, 9, .	3.8	74
6	Parametric Resonance of Magnetization Excited by Electric Field. Nano Letters, 2017, 17, 572-577.	9.1	71
7	Parametric Excitation of Spin Waves by Voltage-Controlled Magnetic Anisotropy. Physical Review Applied, 2014, 1, .	3.8	64
8	Conditions for the spin wave nonreciprocity in an array of dipolarly coupled magnetic nanopillars. Applied Physics Letters, 2013, 103, .	3.3	46
9	Wide-Band Nonreciprocity of Surface Acoustic Waves Induced by Magnetoelastic Coupling with a Synthetic Antiferromagnet. Physical Review Applied, 2019, 12, .	3.8	46
10	Excitation of propagating spin waves in ferromagnetic nanowires by microwave voltage-controlled magnetic anisotropy. Scientific Reports, 2016, 6, 25018.	3.3	45
11	Backscattering Immunity of Dipole-Exchange Magnetostatic Surface Spin Waves. Physical Review Letters, 2019, 122, 197201.	7.8	43
12	Reduction of phase noise in nanowire spin orbit torque oscillators. Scientific Reports, 2015, 5, 16942.	3.3	38
13	Spin-Hall nano-oscillator with oblique magnetization and Dzyaloshinskii-Moriya interaction as generator of skyrmions and nonreciprocal spin-waves. Scientific Reports, 2016, 6, 36020.	3.3	38
14	Fast switching of a ground state of a reconfigurable array of magnetic nano-dots. Applied Physics Letters, 2012, 100, .	3.3	34
15	A nonlinear magnonic nano-ring resonator. Npj Computational Materials, 2020, 6, .	8.7	29
16	Spin-wave excitation modes in thick vortex-state circular ferromagnetic nanodots. Physical Review B, 2016, 93, .	3.2	25
17	Overcoming the Limits of Vortex Formation in Magnetic Nanodots by Coupling to Antidot Matrix. Physical Review Applied, 2018, 10, .	3.8	24
18	Damping of linear spin-wave modes in magnetic nanostructures: Local, nonlocal, and coordinate-dependent damping. Physical Review B, 2018, 98, .	3.2	24

#	Article	IF	Citations
19	Nonlocal Stimulation of Three-Magnon Splitting in a Magnetic Vortex. Physical Review Letters, 2020, 125, 207203.	7.8	24
20	Excitation of Spin Waves in an In-Plane-Magnetized Ferromagnetic Nanowire Using Voltage-Controlled Magnetic Anisotropy. Physical Review Applied, 2017, 7, .	3.8	23
21	Amplification and stabilization of large-amplitude propagating spin waves by parametric pumping. Applied Physics Letters, 2018, 112, .	3.3	21
22	Theory of ground-state switching in an array of magnetic nanodots by application of a short external magnetic field pulse. Physical Review B, 2013, 87, .	3.2	19
23	Theory of three-magnon interaction in a vortex-state magnetic nanodot. Physical Review B, 2021, 103, .	3.2	19
24	Recent Trends in Microwave Magnetism and Superconductivity. Ukrainian Journal of Physics, 2019, 64, 888.	0.2	19
25	Large four-fold magnetic anisotropy in two-dimensional modulated Ni80Fe20 films. Applied Physics Letters, 2015, 107, .	3.3	17
26	Influence of interfacial Dzyaloshinskii-Moriya interaction on the parametric amplification of spin waves. Applied Physics Letters, 2015, 107, .	3.3	16
27	Route to form skyrmions in soft magnetic films. APL Materials, 2019, 7, .	5.1	15
28	Hamiltonian formalism for nonlinear spin wave dynamics under antisymmetric interactions: Application to Dzyaloshinskii-Moriya interaction. Physical Review B, 2019, 99, .	3.2	15
29	Phase Nonreciprocity of Microwaveâ€Frequency Surface Acoustic Waves in Hybrid Heterostructures with Magnetoelastic Coupling. Advanced Electronic Materials, 2021, 7, 2100263.	5.1	14
30	Nonlinear Ferromagnetic Resonance in the Presence of Three-Magnon Scattering in Magnetic Nanostructures. IEEE Magnetics Letters, 2019, 10, 1-5.	1.1	13
31	Controlling Magnon Interaction by a Nanoscale Switch. ACS Applied Materials & Interfaces, 2021, 13, 20288-20295.	8.0	13
32	Spin-Wave Relaxation by Eddy Currents in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="normal">Y</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi>Fe</mml:mi><mml:mn>5 mathvariant="normal">O</mml:mi></mml:mrow><mml:mn>12</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:mi>Pt</mml:mi> Bilayers and a Way to Suppress It. Physical Review Applied, 2020, 14, .	3.8	12
33	Spin-wave transmission through an internal boundary: Beyond the scalar approximation. Physical Review B, 2020, 101, .	3.2	12
34	Helicity of magnetic vortices and skyrmions in soft ferromagnetic nanodots and films biased by stray radial fields. Physical Review B, 2020, 101, .	3.2	11
35	Influence of the properties of soft collective spin wave modes on the magnetization reversal in finite arrays of dipolarly coupled magnetic dots. Journal of Magnetism and Magnetic Materials, 2015, 384, 166-174.	2.3	10
36	Parametric generation of spin waves in nanoscaled magnonic conduits. Physical Review B, 2022, 105, .	3.2	9

#	Article	IF	Citations
37	Parametric Generation of Propagating Spin Waves in Ultrathin Yttrium Iron Garnet Waveguides. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000011.	2.4	7
38	Nonreciprocal Spin Waves in a Magnonic Crystal with In-Plane Static Magnetization. Spin, 2016, 06, 1640013.	1.3	6
39	Antiferromagnetic Parametric Resonance Driven by Voltage-Controlled Magnetic Anisotropy. Physical Review Applied, 2022, 17, .	3.8	6
40	Localized Defect Modes in a Two-Dimensional Array of Magnetic Nanodots. IEEE Magnetics Letters, 2013, 4, 4000404-4000404.	1.1	4
41	Correction of Phase Errors in a Spin-Wave Transmission Line by Nonadiabatic Parametric Pumping. Physical Review Applied, 2019, 11, .	3.8	3
42	Spin-wave modes localized on isolated defects in a two-dimensional array of dipolarly coupled magnetic nanodots. Physical Review B, 2020, 102, .	3.2	2
43	Merging of spin-wave modes in obliquely magnetized circular nanodots. Physical Review B, 2022, 105, .	3.2	2
44	Excitation of propagating spin waves in an in-plane magnetized ferromagnetic strip by voltage-controlled magnetic anisotropy. , 2015, , .		1
45	Dipole-dominated dissipative magnetic solitons in quasi-one-dimensional spin-torque oscillators. Low Temperature Physics, 2020, 46, 773-778.	0.6	1
46	Interplay of Linear and Nonlinear Localization Mechanisms in Spin-Torque Oscillators with a Field Well. Ukrainian Journal of Physics, 2019, 64, 947.	0.2	1
47	Parametric Excitation and Amplification of Spin Waves in Ultrathin Ferromagnetic Nanowires by Microwave Electric Field. , 2017, , 385-425.		1
48	Linear Magnetization Dynamics in an Array of Dipolarly Coupled Magnetic Nanodots. Handbook of Surface Science, 2015, 5, 215-241.	0.3	0
49	Influence of interfacial Dzyaloshinskii-Moriya interaction on parametric amplification of spin waves in ultrathin magnetic films. , 2015, , .		0
50	Non-uniform along thickness spin excitations in magnetic vortex-state nanodots. Low Temperature Physics, 2020, 46, 863-868.	0.6	0