

# Mikhail Lapine

## List of Publications by Year in descending order

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Version: 2024-02-01

71  
papers

3,713  
citations

236833

25  
h-index

214721

47  
g-index

73  
all docs

73  
docs citations

73  
times ranked

5260  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wide-band negative permeability of nonlinear metamaterials. Scientific Reports, 2012, 2, 1-4.	1.6	1,152
2	<i>Colloquium</i>: Nonlinear metamaterials. Reviews of Modern Physics, 2014, 86, 1093-1123.	16.4	348
3	Magnetoelastic metamaterials. Nature Materials, 2012, 11, 30-33.	13.3	229
4	Active and tunable metamaterials. Laser and Photonics Reviews, 2011, 5, 287-307.	4.4	189
5	Nonlinearity of a metamaterial arising from diode insertions into resonant conductive elements. Physical Review E, 2003, 67, 065601.	0.8	182
6	Structural tunability in metamaterials. Applied Physics Letters, 2009, 95, .	1.5	144
7	Metamaterial tuning by manipulation of near-field interaction. Physical Review B, 2010, 82, .	1.1	126
8	Contemporary notes on metamaterials. IET Microwaves, Antennas and Propagation, 2007, 1, 3.	0.7	125
9	Effective magnetic properties of a composite material with circular conductive elements. European Physical Journal B, 2002, 28, 263-269.	0.6	121
10	On the applications of metamaterial lenses for magnetic resonance imaging. Journal of Magnetic Resonance, 2010, 203, 81-90.	1.2	95
11	Spontaneous chiral symmetry breaking in metamaterials. Nature Communications, 2014, 5, 4441.	5.8	64
12	Flexible Helices for Nonlinear Metamaterials. Advanced Materials, 2013, 25, 3409-3412.	11.1	61
13	Focus issue: hyperbolic metamaterials. Optics Express, 2013, 21, 14895.	1.7	59
14	Tuning of a nonlinear metamaterial band gap by an external magnetic field. Physical Review B, 2004, 70, .	1.1	54
15	Three-wave coupling of microwaves in metamaterial with nonlinear resonant conductive elements. Physical Review E, 2004, 70, 066601.	0.8	49
16	Tilted response of fishnet metamaterials at near-infrared optical wavelengths. Physical Review B, 2010, 81, .	1.1	49
17	Metamaterials with conformational nonlinearity. Scientific Reports, 2011, 1, 138.	1.6	49
18	Tailoring spontaneous infrared emission of HgTe quantum dots with laser-printed plasmonic arrays. Light: Science and Applications, 2020, 9, 16.	7.7	45

#	ARTICLE	IF	CITATIONS
19	Nonlinear response via intrinsic rotation in metamaterials. <i>Physical Review B</i> , 2013, 87, .	1.1	36
20	Directional Optical Sorting of Silicon Nanoparticles. <i>ACS Photonics</i> , 2017, 4, 2312-2319.	3.2	35
21	New avenues for phase matching in nonlinear hyperbolic metamaterials. <i>Scientific Reports</i> , 2015, 5, 8983.	1.6	34
22	10-million-elements-per-second printing of infrared-resonant plasmonic arrays by multiplexed laser pulses. <i>Optics Letters</i> , 2019, 44, 283.	1.7	32
23	Analysis of the resolution of split-ring metamaterial lenses with application in parallel magnetic resonance imaging. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	30
24	Metamaterial control of stimulated Brillouin scattering. <i>Optics Letters</i> , 2016, 41, 2338.	1.7	29
25	Bulk Metamaterials Made of Resonant Rings. <i>Proceedings of the IEEE</i> , 2011, 99, 1660-1668.	16.4	27
26	Boundary conditions for the effective-medium description of subwavelength multilayered structures. <i>Physical Review B</i> , 2020, 101, .	1.1	26
27	Exact modelling method for discrete finite metamaterial lens. <i>IET Microwaves, Antennas and Propagation</i> , 2010, 4, 1132.	0.7	25
28	Realistic metamaterial lenses: Limitations imposed by discrete structure. <i>Physical Review B</i> , 2010, 82, .	1.1	25
29	Direct laser printing of tunable IR resonant nanoantenna arrays. <i>Applied Surface Science</i> , 2019, 469, 514-520.	3.1	25
30	Self-oscillations in nonlinear torsional metamaterials. <i>New Journal of Physics</i> , 2013, 15, 073036.	1.2	22
31	Broadband diamagnetism in anisotropic metamaterials. <i>Physical Review B</i> , 2013, 87, .	1.1	21
32	Broadband isotropic $\hat{\epsilon}$ -near-zero metamaterials. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	20
33	Electrostriction enhancement in metamaterials. <i>Physical Review B</i> , 2015, 91, .	1.1	20
34	Surface mesoscopic effects in finite metamaterials. <i>Optics Express</i> , 2012, 20, 18297.	1.7	19
35	Nonlinear interaction of meta-atoms through optical coupling. <i>Applied Physics Letters</i> , 2014, 104, 014104.	1.5	19
36	Nonlocal homogenization for nonlinear metamaterials. <i>Physical Review B</i> , 2016, 93, .	1.1	19

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37	Detection of the local H <sup>+</sup> gradients on the internal mitochondrial membrane. FEBS Letters, 1998, 440, 223-225.	1.3	18
38	New degrees of freedom in nonlinear metamaterials. Physica Status Solidi (B): Basic Research, 2017, 254, 1600462.	0.7	15
39	Stimulated Brillouin scattering in metamaterials. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 2162.	0.9	11
40	Artificial lines with exotic dispersion for phase shifters and delay lines. , 2006, , .		9
41	Slow convergence to effective medium in finite discrete metamaterials. Physical Review B, 2016, 93, .	1.1	9
42	Methods of crystal optics for studying electromagnetic phenomena in metamaterials: Review. Crystallography Reports, 2006, 51, 1048-1062.	0.1	8
43	Nonlinear symmetry breaking in photometamaterials. Physical Review B, 2018, 97, .	1.1	7
44	Magnetoelastic metamaterials. , 2011, , .		5
45	Enhanced acousto-optic properties in layered media. Physical Review B, 2017, 96, .	1.1	5
46	Applicability of nonresonant artificial diamagnetics. Physical Review B, 2014, 90, .	1.1	4
47	Stimulated Brillouin scattering enhancement in silicon inverse opal waveguides. Optics Express, 2016, 24, 25148.	1.7	3
48	VECTOR CIRCUIT THEORY FOR SPATIALLY DISPERSIVE UNIAXIAL MAGNETO-DIELECTRIC SLABS. Progress in Electromagnetics Research, 2006, 63, 279-294.	1.6	3
49	Ab initio experimental analysis of realistic resonant ring metamaterial lenses. , 2010, , .		1
50	Photosensitive SRR-metamaterials. , 2013, , .		1
51	Light coupling in microwave metamaterials. , 2013, , .		1
52	Microwave devices with enhanced phase-compensation principle. , 2006, , .		0
53	Analysing and manipulating near-field interaction in metamaterials. , 2010, , .		0
54	Tuning methods for metamaterials. Proceedings of SPIE, 2010, , .	0.8	0

#	ARTICLE	IF	CITATIONS
55	Nonlinear spiral metamaterials. , 2012, , .		0
56	Mechanical nonlinearities in electromagnetic metamaterials. , 2013, , .		0
57	Dynamic optical activity and self-oscillation in torsional metamaterials. , 2013, , .		0
58	Tailoring lattice parameters for broadband artificial diamagnetism. , 2013, , .		0
59	Novel nonlinear chiral metamaterials. , 2013, , .		0
60	Twists and shifts make nonlinear metamaterials. , 2013, , .		0
61	Structural tricks for enhanced metamaterial properties. , 2014, , .		0
62	Coupled Electromagnetic and Elastic Dynamics in Metamaterials. Springer Series in Materials Science, 2015, , 59-87.	0.4	0
63	New aspects of artificial diamagnetics. , 2015, , .		0
64	Mesoscopic effects in discretised metamaterial spheres. , 2015, , .		0
65	Suppression of stimulated Brillouin scattering in composite media. , 2016, , .		0
66	Strong boundary effects in microwave metamaterial samples. , 2016, , .		0
67	On the deviation of metamaterial spheres from effective medium. , 2016, , .		0
68	Metamaterials for opto-acoustic interactions. AIP Conference Proceedings, 2017, , .	0.3	0
69	Ultra-Fast Laser Printing of IR-Resonant Plasmonic Metasurfaces. , 2019, , .		0
70	Metamaterial Tuning Using near-Field Interaction. , 2010, , .		0
71	Elastic modelling of electrostriction in dielectric composite materials. , 2016, , .		0