Ilya Shadrivov

List of Publications by Year in Descending Order

177 papers	8,070 citations	48 h-index	84 g-index
246 ext. papers	9,197 ext. citations	4.3 avg, IF	6.3 L-index

#	Paper	IF	Citations
177	Infrared all-dielectric Kerker metasurfaces. *Optics Express*, **2021**, 29, 10518-10526	3.3	8
176	Mid-infrared cylindrical vector beams enabled by dielectric metasurfaces. *APL Materials*, **2021**, 9, 121113	5.7	0
175	Dual-Region Resonant Meander Metamaterial. *Advanced Optical Materials*, **2020**, 8, 1901658	8.1	5
174	Low-loss volume modes in a lamellar hyperbolic metamaterial slab. *Journal of the Optical Society of America B: Optical Physics*, **2020**, 37, 1065	1.7	
173	Mie-Resonant Membrane Huygens' Metasurfaces. *Advanced Functional Materials*, **2020**, 30, 1906851	15.6	21
172	Polarization-Sensitive Dielectric Membrane Metasurfaces. *Advanced Optical Materials*, **2020**, 8, 2000555	8.1	7
171	Reply to Comment on Plasmons in Waveguide Structures Formed by Two Graphene Layers *JETP Letters*, **2019**, 109, 770-770	1.2	0
170	Deeply Subwavelength Metasurface Resonators for Terahertz Wavefront Manipulation. *Advanced Optical Materials*, **2019**, 7, 1900736	8.1	13
169	Dynamic bound states in the continuum. *Optica*, **2019**, 6, 169	8.6	60
168	Time-varying Metasurfaces for Broadband Spectral Camouflage. *Physical Review Applied*, **2019**, 12,	4.3	19
167	Purcell effect in active diamond nanoantennas. *Nanoscale*, **2018**, 10, 8721-8727	7.7	27
166	Enhanced terahertz magnetic dipole response by subwavelength fiber. *APL Photonics*, **2018**, 3, 051701	5.2	4
165	Engineering scattering patterns with asymmetric dielectric nanorods. *Optics Express*, **2018**, 26, 32624-32630	3.3	13
164	Circularly polarized antenna for coherent manipulation of NV-centers in diamond. *Journal of Physics: Conference Series*, **2018**, 1092, 012168	0.3	4
163	Huygens Metadevices for Parametric Waves. *Physical Review X*, **2018**, 8,	9.1	56
162	Control of spontaneous emission rate in luminescent resonant diamond particles. *Journal of Physics: Conference Series*, **2018**, 961, 012007	0.3	3
161	Polarization-Induced Chirality in Metamaterials via Optomechanical Interaction. *Advanced Optical Materials*, **2017**, 5, 1600760	8.1	23

160	Ultrathin tunable terahertz absorber based on MEMS-driven metamaterial. *Microsystems and Nanoengineering*, **2017**, 3, 17033	7.7	51
159	Guided modes in non-Hermitian optical waveguides. *Physical Review A*, **2017**, 96,	2.6	10
158	Strong Broadband Terahertz Optical Activity through Control of the Blaschke Phase with Chiral Metasurfaces. *Physical Review Applied*, **2017**, 8,	4.3	12
157	A Terahertz Controlled-NOT Gate Based on Asymmetric Rotation of Polarization in Chiral Metamaterials. *Advanced Optical Materials*, **2017**, 5, 1700108	8.1	8
156	Tunable focusing by a flexible metasurface. *Photonics and Nanostructures - Fundamentals and Applications*, **2017**, 26, 62-68	2.6	3
155	Tunable Metamaterials. *World Scientific Series in Nanoscience and Nanotechnology*, **2017**, 387-418	0.1	2
154	Photonic metadevices: introduction. *Journal of the Optical Society of America B: Optical Physics*, **2017**, 34, PM1	1.7	1
153	Experimental realization of a terahertz all-dielectric metasurface absorber. *Optics Express*, **2017**, 25, 191-201	3.5	197
152	Grading plasmonic nanoparticles with light. *Physical Review A*, **2016**, 93,	2.6	4
151	Elastic metamaterials for tuning circular polarization of electromagnetic waves. *Scientific Reports*, **2016**, 6, 28273	4.9	10
150	Tunable Meta-Liquid Crystals. *Advanced Materials*, **2016**, 28, 1553-8	24	29
149	Electrically tunable terahertz metamaterials with embedded large-area transparent thin-film transistor arrays. *Scientific Reports*, **2016**, 6, 23486	4.9	12
148	Terahertz focusing of multiple wavelengths by graphene metasurfaces. *Applied Physics Letters*, **2016**, 108, 031106	3.4	24
147	Transverse optical forces for manipulating nanoparticles. *Physical Review A*, **2016**, 94,	2.6	1
146	Nonlinear coupling in graphene-coated nanowires. *Scientific Reports*, **2016**, 6, 38924	4.9	8
145	Graphene metasurfaces for arbitrary wavefront control **2016**,		1
144	Strong Magnetic Response of Optical Nanofibers. *ACS Photonics*, **2016**, 3, 972-978	6.3	13
143	Strong terahertz absorption in all-dielectric Huygens' metasurfaces. *Nanotechnology*, **2016**, 27, 424003	3.4	42

142	Second harmonic generation in graphene-coated nanowires. *Optics Letters*, **2016**, 41, 3623-6	3	14
141	Electroactive Tuning of Double-Layered Metamaterials Based on Conjugated Polymer Actuators. *Advanced Optical Materials*, **2016**, 4, 135-140	8.1	11
140	Directional excitation of surface plasmons by dielectric resonators. *Physical Review B*, **2015**, 91,	3.3	13
139	All-dielectric multilayer cylindrical structures for invisibility cloaking. *Scientific Reports*, **2015**, 5, 9574	4.9	37
138	Wave scattering by metal-dielectric multilayer structures with gain. *JETP Letters*, **2015**, 100, 731-736	1.2	2
137	Superabsorption of light by nanoparticles. *Nanoscale*, **2015**, 7, 18897-901	7.7	11
136	Superabsorption of light by multilayer nanowires. *Nanoscale*, **2015**, 7, 17658-63	7.7	20
135	Optical Metacages. *Physical Review Letters*, **2015**, 115, 215501	7.4	16
134	Dissipative plasmon-solitons in multilayer graphene. *Laser and Photonics Reviews*, **2014**, 8, 291-296	8.3	58
133	Nonlinear interaction of meta-atoms through optical coupling. *Applied Physics Letters*, **2014**, 104, 014104	3.4	16
132	Broadband chiral metamaterials with large optical activity. *Physical Review B*, **2014**, 89,	3.3	48
131	Optimization of cloaking in all dielectric multi-layer structures **2014**,		1
130	Spontaneous chiral symmetry breaking in metamaterials. *Nature Communications*, **2014**, 5, 4441	17.4	51
129	Second-harmonic generation by a graphene nanoparticle. *Physical Review B*, **2014**, 90,	3.3	58
128	Colloquium: Nonlinear metamaterials. *Reviews of Modern Physics*, **2014**, 86, 1093-1123	40.5	274
127	Light scattering by nonlinear cylindrical multilayer structures. *Journal of the Optical Society of America B: Optical Physics*, **2014**, 31, 1595	1.7	14
126	Multilayer graphene waveguides. *JETP Letters*, **2014**, 99, 456-460	1.2	28
125	Soliton generation in active nonlinear metamaterials. *Applied Physics Letters*, **2014**, 104, 084105	3.4	23

124	Deeply subwavelength electromagnetic Tamm states in graphene metamaterials. *Physical Review B* , **2014**, 89,	3.3	29
123	Superscattering of light optimized by a genetic algorithm. *Applied Physics Letters*, **2014**, 105, 011109	3.4	52
122	Post-processing approach for tuning multi-layered metamaterials. *Applied Physics Letters*, **2014**, 105, 151102	3.4	14
121	Electromagnetic tuning of resonant transmission in magnetoelastic metamaterials. *Applied Physics Letters*, **2014**, 104, 161117	3.4	15
120	Nonlinear response via intrinsic rotation in metamaterials. *Physical Review B*, **2013**, 87,	3.3	33
119	Plasmons in waveguide structures formed by two graphene layers. *JETP Letters*, **2013**, 97, 535-539	1.2	45
118	Tunable hybrid surface waves supported by a graphene layer. *JETP Letters*, **2013**, 97, 249-252	1.2	32
117	Hyperbolic metamaterials for terahertz applications **2013**,		1
116	Temperature Control of Terahertz Metamaterials With Liquid Crystals. *IEEE Transactions on Terahertz Science and Technology*, **2013**, 3, 827-831	3.4	26
115	Nonlinear switching with a graphene coupler. *Physical Review B*, **2013**, 88,	3.3	67
114	Cavity-enhanced absorption and Fano resonances in graphene nanoribbons. *Physical Review B*, **2013** , 88,	3.3	8
113	Self-oscillations in nonlinear torsional metamaterials. *New Journal of Physics*, **2013**, 15, 073036	2.9	18
112	Hyperbolic metamaterials based on multilayer graphene structures. *Physical Review B*, **2013**, 87,	3.3	224
111	Loss compensation in metal-dielectric layered metamaterials. *Physical Review B*, **2013**, 87,	3.3	38
110	Pneumatically switchable graded index metamaterial lens. *Applied Physics Letters*, **2013**, 102, 031904	3.4	7
109	Flexible helices for nonlinear metamaterials. *Advanced Materials*, **2013**, 25, 3409-12	24	49
108	Dispersionless optical activity in metamaterials. *Applied Physics Letters*, **2013**, 102, 201121	3.4	33
107	Publisher Note: Hyperbolic metamaterials based on multilayer graphene structures [Phys. Rev. B 87, 075416 (2013)]. *Physical Review B*, **2013**, 88,	3.3	4

106	Circular dichroism of four-wave mixing in nonlinear metamaterials. *Physical Review B*, **2013**, 88,	3.3	35
105	Self-focusing of femtosecond surface plasmon polaritons. *Optics Express*, **2013**, 21, 1121-7	3.3	16
104	Cloaking and enhanced scattering of core-shell plasmonic nanowires. *Optics Express*, **2013**, 21, 10454-9	3.3	56
103	Competing nonlinearities with metamaterials. *Applied Physics Letters*, **2012**, 101, 231904	3.4	12
102	Liquid crystal based nonlinear fishnet metamaterials. *Applied Physics Letters*, **2012**, 100, 121113	3.4	111
101	Transmission and Anderson localization in dispersive metamaterials. *Physical Review B*, **2012**, 85,	3.3	24
100	Pure nonlinear optical activity in metamaterials. *Applied Physics Letters*, **2012**, 101, 041911	3.4	11
99	Metamaterials controlled with light. *Physical Review Letters*, **2012**, 109, 083902	7.4	85
98	Nonlinear Tamm states in nanostructured plasmonic metamaterials. *Physical Review A*, **2012**, 86,	2.6	18
97	Metamaterials with tunable nonlinearity. *JETP Letters*, **2012**, 95, 613-617	1.2	17
96	Light-controllable magnetic metamaterials based on loaded split-ring resonators **2012**,		1
95	Tuning the nonlinear response of coupled split-ring resonators. *Applied Physics Letters*, **2012**, 100, 081113	3.4	10
94	Wide-band negative permeability of nonlinear metamaterials. *Scientific Reports*, **2012**, 2, 1-4	4.9	781
93	Nonlinear Tamm states in layered metal–dielectric metamaterials. *Physica Status Solidi - Rapid Research Letters*, **2012**, 6, 43-45	2.5	8
92	Anderson localization in metamaterials and other complex media (Review Article). *Low Temperature Physics*, **2012**, 38, 570-602	0.7	28
91	Nonlinear control of invisibility cloaking. *Optics Express*, **2012**, 20, 14954-9	3.3	18
90	Nonreciprocal Anderson localization in magneto-optical random structures. *Physical Review B*, **2012**, 85,	3.3	15
89	Optical activity and coupling in twisted dimer meta-atoms. *Applied Physics Letters*, **2012**, 100, 111114	3.4	32

88	Chiral meta-atoms rotated by light. *Applied Physics Letters*, **2012**, 101, 031105	3.4	9
87	Switchable graded index microwave metamaterial lens design using pneumatic actuation **2012**,		1
86	Magnetoelastic metamaterials. *Nature Materials*, **2011**, 11, 30-3	27	187
85	Controlling split-ring resonators with light. *Applied Physics Letters*, **2011**, 99, 251914	3.4	26
84	Metamaterials with conformational nonlinearity. *Scientific Reports*, **2011**, 1, 138	4.9	39
83	Hiding in the corner. *Optics Express*, **2011**, 19, 20827-32	3.3	15
82	Discrete dissipative localized modes in nonlinear magnetic metamaterials. *Optics Express*, **2011**, 19, 26500-6	3.3	20
81	Symmetry breaking in plasmonic waveguides with metal nonlinearities. *Optics Letters*, **2011**, 36, 930-2	3	17
80	Plasmonic Airy beam manipulation in linear optical potentials. *Optics Letters*, **2011**, 36, 1164-6	3	101
79	Metamaterials and metaoptics. *NPG Asia Materials*, **2011**, 3, 100-108	10.3	42
78	Hysteresis of switching waves and dissipative solitons in nonlinear magnetic metamaterials. *JETP Letters*, **2011**, 93, 743-746	1.2	13
77	Near-field interaction of twisted split-ring resonators. *Physical Review B*, **2011**, 83,	3.3	57
76	Observation of tunneling of slow and fast electromagnetic modes in coupled periodic waveguides. *Applied Physics Letters*, **2011**, 98, 061909	3.4	6
75	Polychromatic nanofocusing of surface plasmon polaritons. *Physical Review B*, **2011**, 83,	3.3	19
74	Bouncing plasmonic waves in half-parabolic potentials. *Physical Review A*, **2011**, 84,	2.6	2
73	Plasmonic crystal waveguides. *Applied Physics A: Materials Science and Processing*, **2011**, 103, 615-617	2.6	5
72	Electromagnetic wave analogue of an electronic diode. *New Journal of Physics*, **2011**, 13, 033025	2.9	87
71	Mode transformation in waveguiding plasmonic structures. *Photonics and Nanostructures - Fundamentals and Applications*, **2011**, 9, 207-212	2.6	12

70	Manipulation of Airy plasmon beams by linear optical potentials **2011**,		1
69	Interaction of twisted split ring resonators **2011**,		1
68	Second harmonic generation with zero phase velocity waves. *Applied Physics Letters*, **2011**, 98, 161111	3.4	9
67	Double-nonlinear metamaterials. *Applied Physics Letters*, **2010**, 97, 231114	3.4	8
66	Anderson localization of classical waves in weakly scattering metamaterials. *Physical Review B*, **2010**, 81,	3.3	25
65	Bistability of anderson localized States in nonlinear random media. *Physical Review Letters*, **2010**, 104, 123902	7.4	49
64	Tunable fishnet metamaterials infiltrated by liquid crystals. *Applied Physics Letters*, **2010**, 96, 193103	3.4	76
63	Backward and forward modes guided by metal-dielectric-metal plasmonic waveguides. *Journal of Nanophotonics*, **2010**, 4, 043509	1.1	33
62	Tilted response of fishnet metamaterials at near-infrared optical wavelengths. *Physical Review B*, **2010**, 81,	3.3	42
61	Metamaterial tuning by manipulation of near-field interaction. *Physical Review B*, **2010**, 82,	3.3	107
60	Effects of polarization on the transmission and localization of classical waves in weakly scattering metamaterials. *Physical Review B*, **2010**, 82,	3.3	18
59	Optimal tapers for compensating losses in plasmonic waveguides. *Physica Status Solidi - Rapid Research Letters*, **2010**, 4, 277-279	2.5	14
58	Nonlinear nanofocusing in tapered plasmonic waveguides. *Physical Review Letters*, **2010**, 105, 116804	7.4	94
57	Nonlinear Metamaterials. *Springer Series in Optical Sciences*, **2010**, 241-257	0.5	1
56	Beam oscillations and curling in chirped periodic structures with metamaterials. *Physical Review A*, **2009**, 79,	2.6	12
55	Plasmonic Bloch oscillations in chirped metal-dielectric structures. *Applied Physics Letters*, **2009**, 94, 161105	3.4	30
54	Surface Bloch waves in metamaterial and metal-dielectric superlattices. *Applied Physics Letters*, **2009**, 95, 041902	3.4	35
53	Goos-H□chen and Imbert-Fedorov shifts of polarized vortex beams. *Optics Letters*, **2009**, 34, 389-91	3	116

52	Dispersion extraction with near-field measurements in periodic waveguides. *Optics Express*, **2009**, 17, 3716-21	3.3	12
51	Nonlinear plasmonic slot waveguides: erratum. *Optics Express*, **2009**, 17, 4833	3.3	5
50	Quadratic phase matching in nonlinear plasmonic nanoscale waveguides. *Optics Express*, **2009**, 17, 20063-8	3.3	43
49	Self-focusing and spatial plasmon-polariton solitons. *Optics Express*, **2009**, 17, 21732-7	3.3	91
48	Asymmetric parametric amplification in nonlinear left-handed transmission lines. *Applied Physics Letters*, **2009**, 94, 084105	3.4	28
47	Nonlinear electric metamaterials. *Applied Physics Letters*, **2009**, 95, 084102	3.4	64
46	Structural tunability in metamaterials. *Applied Physics Letters*, **2009**, 95, 084105	3.4	113
45	Tunable transmission and harmonic generation in nonlinear metamaterials. *Applied Physics Letters*, **2008**, 93, 161903	3.4	99
44	Bloch oscillations in chirped layered structures with metamaterials. *Optics Express*, **2008**, 16, 3299-304	3.3	15
43	Inside-out electromagnetic cloaking. *Optics Express*, **2008**, 16, 4615-20	3.3	21
42	Cut-wire-pair structures as two-dimensional magnetic metamaterials. *Optics Express*, **2008**, 16, 15185-90	3.3	16
41	Nonlinear magnetic metamaterials. *Optics Express*, **2008**, 16, 20266-71	3.3	87
40	Nonlinear plasmonic slot waveguides. *Optics Express*, **2008**, 16, 21209-14	3.3	89
39	Ideal and nonideal invisibility cloaks. *Optics Express*, **2008**, 16, 21369-74	3.3	8
38	Multistability in nonlinear left-handed transmission lines. *Applied Physics Letters*, **2008**, 92, 264104	3.4	10
37	Excitation of backward Tamm states at an interface between a periodic photonic crystal and a left-handed metamaterial. *Physical Review A*, **2007**, 75,	2.6	27
36	Nonlinear Effects in Left-Handed Metamaterials. *Springer Series in Materials Science*, **2007**, 331-371	0.9	1
35	Suppression of Anderson localization in disordered metamaterials. *Physical Review Letters*, **2007**, 99, 193902	7.4	68

34	Magnetoinductive waves in arrays of split-ring resonators. *Physica B: Condensed Matter*, **2007**, 394, 180-188	1.8	50
33	Self-tuning mechanisms of nonlinear split-ring resonators. *Applied Physics Letters*, **2007**, 91, 144107	3.4	80
32	Scattering of electromagnetic waves in metamaterial superlattices. *Applied Physics Letters*, **2007**, 90, 201919	3.4	20
31	Wave scattering and splitting by magnetic metamaterials. *Optics Express*, **2007**, 15, 11714-22	3.3	12
30	Wave scattering by metamaterial wedges and interfaces. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, **2006**, 19, 105-117	1	23
29	Microscopic disorder in metamaterials **2006**, WD2		
28	Enhanced parametric processes in binary metamaterials. *Applied Physics Letters*, **2006**, 88, 071912	3.4	37
27	Backward Tamm states in left-handed metamaterials. *Applied Physics Letters*, **2006**, 89, 114104	3.4	56
26	Effect of microscopic disorder on magnetic properties of metamaterials. *Physical Review E*, **2006**, 73, 056605	2.4	62
25	Second-harmonic generation in nonlinear left-handed metamaterials. *Journal of the Optical Society of America B: Optical Physics*, **2006**, 23, 529	1.7	152
24	Tunable split-ring resonators for nonlinear negative-index metamaterials. *Optics Express*, **2006**, 14, 9344-9	3.3	204
23	Nonlinear magnetoinductive waves and domain walls in composite metamaterials. *Photonics and Nanostructures - Fundamentals and Applications*, **2006**, 4, 69-74	2.6	43
22	Birefringent left-handed metamaterials and perfect lenses for vectorial fields. *New Journal of Physics*, **2005**, 7, 220-220	2.9	19
21	Excitation of guided waves in layered structures with negative refraction. *Optics Express*, **2005**, 13, 481-92	3.3	63
20	Nonlinear transmission and spatiotemporal solitons in metamaterials with negative refraction. *Optics Express*, **2005**, 13, 1291-8	3.3	46
19	Spatial solitons in nonlinear left-handed metamaterials. *Journal of Optics*, **2005**, 7, S68-S72		42
18	Suppression of left-handed properties in disordered metamaterials. *Journal of Applied Physics*, **2005**, 97, 113906	2.5	33
17	Complete band gaps in one-dimensional left-handed periodic structures. *Physical Review Letters*, **2005**, 95, 193903	7.4	94

16	Bistable diode action in left-handed periodic structures. *Physical Review E*, **2005**, 71, 037602	2.4	109
15	One-dimensional periodic structures with complete spectral gap **2005**, 6038, 200		2
14	Nonlinear left-handed metamaterials. *Radio Science*, **2005**, 40, n/a-n/a	1.4	16
13	Subwavelength imaging with opaque nonlinear left-handed lenses. *Applied Physics Letters*, **2005**, 87, 091104	3.4	44
12	Tunable transmission and bistability in left-handed band-gap structures. *Applied Physics Letters*, **2004**, 85, 1451-1453	3.4	59
11	Defect modes and transmission properties of left-handed bandgap structures. *Physical Review E*, **2004**, 70, 046615	2.4	26
10	Nonlinear surface waves in left-handed materials. *Physical Review E*, **2004**, 69, 016617	2.4	228
9	Nonlinear guided waves and symmetry breaking in left-handed waveguides. *Photonics and Nanostructures - Fundamentals and Applications*, **2004**, 2, 175-180	2.6	20
8	Giant Goos-H□chen effect at the reflection from left-handed metamaterials. *Applied Physics Letters*, **2003**, 83, 2713-2715	3.4	207
7	Interaction of vector solitons with a nonlinear interface. *Optics Communications*, **2003**, 216, 47-54	2	8
6	Beam shaping by a periodic structure with negative refraction. *Applied Physics Letters*, **2003**, 82, 3820-3822	3.4	108
5	Guided modes in negative-refractive-index waveguides. *Physical Review E*, **2003**, 67, 057602	2.4	259
4	Nonlinear properties of left-handed metamaterials. *Physical Review Letters*, **2003**, 91, 037401	7.4	425
3	Dynamics of optical spatial solitons near the interface between two quadratically nonlinear media. *Journal of the Optical Society of America B: Optical Physics*, **2002**, 19, 596	1.7	30
2	Parametric Emission of Radiation at Spatial Solitons Interaction **2001**, 257-260		
1	Electrically tunable terahertz metamaterials with embedded large-area transparent thin-film transistor arrays		1