

# Nikolaos Efremidis

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

101  
papers

5,725  
citations

32  
h-index

75  
g-index

133  
ext. papers

6,858  
ext. citations

3.7  
avg, IF

5.9  
L-index

#	Paper	IF	Citations
101	Fundamental entropic processes in the theory of optical thermodynamics. <i>Physical Review A</i> , <b>2021</b> , 103,	2.6	2
100	Free-space realization of tunable pin-like optical vortex beams. <i>Photonics Research</i> , <b>2021</b> , 9, 1204	6	4
99	Tunable self-similar Bessel-like beams of arbitrary order. <i>Optics Letters</i> , <b>2020</b> , 45, 1830-1833	3	2
98	Direct comparison of anti-diffracting optical pin beams and abruptly autofocusing beams. <i>OSA Continuum</i> , <b>2020</b> , 3, 1525	1.4	8
97	Fragility of the bosonic Laughlin state. <i>Physical Review A</i> , <b>2019</b> , 99,	2.6	2
96	Valley Vortex States and Degeneracy Lifting via Photonic Higher-Band Excitation. <i>Physical Review Letters</i> , <b>2019</b> , 122, 123903	7.4	13
95	Robust propagation of pin-like optical beam through atmospheric turbulence. <i>APL Photonics</i> , <b>2019</b> , 4, 076103	5.2	19
94	Airy beams and accelerating waves: an overview of recent advances. <i>Optica</i> , <b>2019</b> , 6, 686	8.6	164
93	Observation of microscale nonparaxial optical bottle beams. <i>Optics Letters</i> , <b>2018</b> , 43, 3878-3881	3	9
92	Precise amplitude, trajectory, and beam-width control of accelerating and abruptly autofocusing beams. <i>Physical Review A</i> , <b>2018</b> , 97,	2.6	13
91	Independent amplitude and trajectory/beam-width control of nonparaxial beams. <i>Optics Express</i> , <b>2018</b> , 26, 18969-18974	3.3	8
90	Excitation spectrum of a mixture of two Bose gases confined in a ring potential with interaction asymmetry. <i>New Journal of Physics</i> , <b>2018</b> , 20, 045006	2.9	2
89	Exact bidirectional X-wave solutions in fiber Bragg gratings. <i>Physical Review A</i> , <b>2017</b> , 96,	2.6	3
88	Rotating Bose-Einstein condensates with a finite number of atoms confined in a ring potential: Spontaneous symmetry breaking beyond the mean-field approximation. <i>Physical Review A</i> , <b>2017</b> , 95,	2.6	7
87	Cross-phase modulation mediated pulse control with Airy pulses in optical fibers. <i>Journal of Optics (United Kingdom)</i> , <b>2017</b> , 19, 115505	1.7	3
86	Spatiotemporal diffraction-free pulsed beams in free-space of the Airy and Bessel type. <i>Optics Letters</i> , <b>2017</b> , 42, 5038-5041	3	29
85	Nonlinear imaging in photonic lattices. <i>Optics Letters</i> , <b>2017</b> , 42, 147-150	3	

84	Parity breaking with a nonlinear optical double-slit configuration. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2017</b> , 34, 257	1.7	
83	Nonparaxial abruptly autofocusing beams. <i>Optics Letters</i> , <b>2016</b> , 41, 1042-5	3	44
82	Composite multi-vortex diffraction-free beams and van-Hove singularities in honeycomb lattices. <i>Optics Letters</i> , <b>2015</b> , 40, 1037-40	3	2
81	Curved singular beams for three-dimensional particle manipulation. <i>Scientific Reports</i> , <b>2015</b> , 5, 12086	4.9	86
80	Controlled generation of pseudospin-mediated vortices in photonic graphene. <i>2D Materials</i> , <b>2015</b> , 2, 034007	5.9	7
79	Closed-form expressions for nonparaxial accelerating beams with pre-engineered trajectories. <i>Optics Letters</i> , <b>2015</b> , 40, 1444-7	3	17
78	Mean-field yrast spectrum and persistent currents in a two-component Bose gas with interaction asymmetry. <i>Physical Review A</i> , <b>2015</b> , 92,	2.6	6
77	Modifying the optical path in a nonlinear double-slit experiment. <i>Optics Letters</i> , <b>2015</b> , 40, 5208-11	3	1
76	Hysteresis and metastability of Bose-Einstein-condensed clouds of atoms confined in ring potentials. <i>Physical Review A</i> , <b>2015</b> , 91,	2.6	8
75	Unveiling pseudospin and angular momentum in photonic graphene. <i>Nature Communications</i> , <b>2015</b> , 6, 6272	17.4	89
74	Accelerating diffraction-free beams in photonic lattices. <i>Optics Letters</i> , <b>2014</b> , 39, 2129-32	3	12
73	An ultra-bright atom laser. <i>New Journal of Physics</i> , <b>2014</b> , 16, 033036	2.9	9
72	Accelerating beam propagation in refractive-index potentials. <i>Physical Review A</i> , <b>2014</b> , 89,	2.6	21
71	Persistent currents in a two-component Bose-Einstein condensate confined in a ring potential. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2014</b> , 47, 215302	1.3	4
70	Accelerating and Abruptly-Autofocusing Beam Waves in the Fresnel Zone of Antenna Arrays. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2013</b> , 61, 5048-5056	4.9	14
69	Nonparaxial accelerating Bessel-like beams. <i>Physical Review A</i> , <b>2013</b> , 88,	2.6	36
68	Trapping and guiding microparticles with self-accelerating vortex beams <b>2013</b> ,		2
67	Accelerating and abruptly autofocusing matter waves. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	52

66	Observation of self-accelerating Bessel-like optical beams along arbitrary trajectories. <i>Optics Letters</i> , <b>2013</b> , 38, 498-500	3	83
65	Localized waves with spherical harmonic symmetries. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	6
64	A note on perfect revivals in finite waveguide arrays. <i>Optics Communications</i> , <b>2012</b> , 285, 4364-4367	2	4
63	Observation and optical tailoring of photonic lattice filaments. <i>Physical Review Letters</i> , <b>2012</b> , 109, 113905	5.4	20
62	Self-accelerating Airy Beams: Generation, Control, and Applications. <i>Springer Series in Optical Sciences</i> , <b>2012</b> , 1-46	0.5	38
61	Optical analogues for massless dirac particles and conical diffraction in one dimension. <i>Physical Review Letters</i> , <b>2012</b> , 109, 023602	7.4	54
60	Linear and nonlinear waves in surface and wedge index potentials. <i>Optics Letters</i> , <b>2012</b> , 37, 1874-6	3	1
59	Surface optical Bloch oscillations in semi-infinite waveguide arrays. <i>Optics Letters</i> , <b>2012</b> , 37, 1892-4	3	8
58	Caustic design in periodic lattices. <i>Optics Letters</i> , <b>2012</b> , 37, 1277-9	3	13
57	Reflection and refraction of an Airy beam at a dielectric interface. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2012</b> , 29, 861-8	1.8	23
56	Band-specific phase engineering for curving and focusing light in waveguide arrays. <i>Physical Review A</i> , <b>2012</b> , 85,	2.6	11
55	Abruptly autofocusing and autodefocusing optical beams with arbitrary caustics. <i>Physical Review A</i> , <b>2012</b> , 85,	2.6	86
54	Bessel-like optical beams with arbitrary trajectories. <i>Optics Letters</i> , <b>2012</b> , 37, 5003-5	3	87
53	Intense dynamic bullets in a periodic lattice. <i>Optics Express</i> , <b>2011</b> , 19, 10057-62	3.3	11
52	Observation of abruptly autofocusing waves. <i>Optics Letters</i> , <b>2011</b> , 36, 1842-4	3	265
51	Pre-engineered abruptly autofocusing beams. <i>Optics Letters</i> , <b>2011</b> , 36, 1890-2	3	151
50	Trapping and guiding microparticles with morphing autofocusing Airy beams. <i>Optics Letters</i> , <b>2011</b> , 36, 2883-5	3	394
49	Airy trajectory engineering in dynamic linear index potentials. <i>Optics Letters</i> , <b>2011</b> , 36, 3006-8	3	100

48	Fourier-space generation of abruptly autofocusing beams and optical bottle beams. <i>Optics Letters</i> , <b>2011</b> , 36, 3675-7	3	122
47	Abruptly autofocusing waves <b>2011</b> ,		1
46	Reconfigurable 3D photonic lattices by optical induction for optical control of beam propagation. <i>Applied Physics B: Lasers and Optics</i> , <b>2011</b> , 104, 553-560	1.9	5
45	Fourier-mode dynamics for the nonlinear Schrödinger equation in one-dimensional bounded domains. <i>Physical Review E</i> , <b>2011</b> , 84, 036601	2.4	0
44	Wave propagation in waveguide arrays with alternating positive and negative couplings <b>2010</b> ,		1
43	Wave propagation in waveguide arrays with alternating positive and negative couplings. <i>Physical Review A</i> , <b>2010</b> , 81,	2.6	38
42	Tailoring the filamentation of intense femtosecond laser pulses with periodic lattices. <i>Physical Review A</i> , <b>2010</b> , 82,	2.6	19
41	Observation of coherent destruction of tunneling and unusual beam dynamics due to negative coupling in three-dimensional photonic lattices. <i>Optics Letters</i> , <b>2010</b> , 35, 3252-4	3	34
40	Abruptly autofocusing waves. <i>Optics Letters</i> , <b>2010</b> , 35, 4045-7	3	344
39	Introduction to Solitons in Photonic Lattices. <i>Springer Series in Optical Sciences</i> , <b>2010</b> , 73-99	0.5	2
38	Nonlinear from linear states in two-component Bose-Einstein condensates. <i>Journal of Physics A: Mathematical and Theoretical</i> , <b>2009</b> , 42, 045206	2	2
37	Exact X-wave solutions of the hyperbolic nonlinear Schrödinger equation with a supporting potential. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2009</b> , 373, 4073-4076	2.3	7
36	Two-dimensional disordered lattice solitons. <i>Optics Letters</i> , <b>2009</b> , 34, 596-8	3	5
35	Bifurcations of nonlinear localized modes in disordered lattices. <i>Physical Review A</i> , <b>2009</b> , 79,	2.6	5
34	Interlaced linear-nonlinear optical waveguide arrays. <i>Optics Express</i> , <b>2008</b> , 16, 18296-311	3.3	25
33	Analytic theory of narrow lattice solitons. <i>Nonlinearity</i> , <b>2008</b> , 21, 509-536	1.7	9
32	Nonlocal lattice solitons in thermal media. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	25
31	Disordered lattice solitons. <i>Physical Review Letters</i> , <b>2008</b> , 101, 143903	7.4	17

30	Two-dimensional discrete Ginzburg-Landau solitons. <i>Physical Review A</i> , <b>2007</b> , 76,	2.6	22
29	Three-dimensional vortex solitons in self-defocusing media. <i>Physical Review Letters</i> , <b>2007</b> , 98, 113901	7.4	25
28	LOCALIZED MODES IN A CIRCULAR ARRAY OF COUPLED NONLINEAR OPTICAL WAVEGUIDES. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2006</b> , 16, 1739-1752	2	11
27	Soliton dynamics and interactions in dynamically photo-induced lattices <b>2006</b> , 6187, 359		
26	Spatial photonics in nonlinear waveguide arrays. <i>Optics Express</i> , <b>2005</b> , 13, 1780-96	3.3	165
25	Bandgap lattices: low index solitons and linear properties. <i>Optics Express</i> , <b>2005</b> , 13, 10571-88	3.3	20
24	Revivals in engineered waveguide arrays. <i>Optics Communications</i> , <b>2005</b> , 246, 345-356	2	17
23	Pulse compression using nonlinear waveguide arrays <b>2005</b> , WD23		
22	Random-phase solitons in nonlinear periodic lattices. <i>Physical Review Letters</i> , <b>2004</b> , 92, 223901	7.4	37
21	Anisotropic diffraction and elliptic discrete solitons in two-dimensional waveguide arrays. <i>Optics Letters</i> , <b>2004</b> , 29, 268-70	3	23
20	Bessel X waves in two- and three-dimensional bidisperse optical systems. <i>Optics Letters</i> , <b>2004</b> , 29, 1446-8	3.8	60
19	Bloch oscillations in optical dissipative lattices. <i>Optics Letters</i> , <b>2004</b> , 29, 2485-7	3	12
18	Centrally Coupled Circular Array of Optical Waveguides: The Existence of Stable Steady-State Continuous Waves and Breathing Modes. <i>Physica Scripta</i> , <b>2004</b> , T107, 13	2.6	15
17	Observation of two-dimensional discrete solitons in optically induced nonlinear photonic lattices. <i>Nature</i> , <b>2003</b> , 422, 147-50	50.4	1036
16	White-light solitons. <i>Optics Letters</i> , <b>2003</b> , 28, 1239-41	3	49
15	Observation of discrete solitons in optically induced real time waveguide arrays. <i>Physical Review Letters</i> , <b>2003</b> , 90, 023902	7.4	430
14	Discrete Ginzburg-Landau solitons. <i>Physical Review E</i> , <b>2003</b> , 67, 026606	2.4	53
13	Two-dimensional optical lattice solitons. <i>Physical Review Letters</i> , <b>2003</b> , 91, 213906	7.4	192

12	Lattice solitons in Bose-Einstein condensates. <i>Physical Review A</i> , <b>2003</b> , 67,	2.6	154
11	Discrete solitons in nonlinear zigzag optical waveguide arrays with tailored diffraction properties. <i>Physical Review E</i> , <b>2002</b> , 65, 056607	2.4	61
10	Multichannel pulse dynamics in a stabilized Ginzburg-Landau system. <i>Physical Review E</i> , <b>2002</b> , 65, 036605.	2.4	27
9	Discrete temporal solitons along a chain of nonlinear coupled microcavities embedded in photonic crystals. <i>Optics Letters</i> , <b>2002</b> , 27, 568-70	3	90
8	Photonic Structures: Solitons in Optically Induced Nonlinear Photonic Lattices. <i>Optics and Photonics News</i> , <b>2002</b> , 13, 49	1.9	6
7	Complex-cubic Ginzburg-Landau equation-based model for erbium-doped fiber-amplifier-supported nonreturn-to-zero communications. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2002</b> , 19, 63	1.7	5
6	Discrete solitons in photorefractive optically induced photonic lattices. <i>Physical Review E</i> , <b>2002</b> , 66, 046602	2.4	429
5	Design of switching junctions for two-dimensional discrete soliton networks. <i>Optics Letters</i> , <b>2001</b> , 26, 1978-80	3	32
4	Navigating Discrete Solitons In Two-Dimensional Nonlinear Waveguide Array Networks. <i>Optics and Photonics News</i> , <b>2001</b> , 12, 57	1.9	4
3	Stabilization of dark solitons in the cubic ginzburg-landau equation. <i>Physical Review E</i> , <b>2000</b> , 62, 7410-4	2.4	16
2	STATIC PROPERTIES AND WAVEGUIDE MODES OF A WIDE LATERAL WINDOW JOSEPHSON JUNCTION. <i>International Journal of Modern Physics C</i> , <b>2000</b> , 11, 493-517	1.1	2
1	Stable transmission of solitons in the region of normal dispersion. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2000</b> , 17, 952	1.7	16