Mordechai Segev

List of Publications by Year
in descending order

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127	17,908	31976	33894
papers	citations	53 h-index	99 g-index

129	129	129	9283
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Light emission by free electrons in photonic time-crystals. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	35
2	Incoherent Branched Flow of Light. Physical Review X, 2022, 12, .	8.9	5
3	Spatiotemporal photonic crystals. Optica, 2022, 9, 585.	9.3	34
4	Fractal photonic topological insulators. Science, 2022, 376, 1114-1119.	12.6	42
5	Observation of Anderson localization beyond the spectrum of the disorder. Science Advances, 2022, 8, .	10.3	11
6	Amplified emission and lasing in photonic time crystals. Science, 2022, 377, 425-428.	12.6	57
7	Photonic Topological Insulators Controlled by Nonlocal Nonlinearity in Synthetic Dimensions. , 2021, , .		0
8	Topological insulator vertically-emitting laser array. , 2021, , .		0
9	Laser Tractor-Beam of 2D Flow in Soap Films. , 2021, , .		1
10	Mark Stockman: Evangelist for Plasmonics. ACS Photonics, 2021, 8, 683-698.	6.6	2
11	Disordered Photonic Time Crystals. Physical Review Letters, 2021, 126, 163902.	7.8	56
12	Topological photonics in synthetic dimensions. Advances in Optics and Photonics, 2021, 13, 426.	25.5	60
13	Highlighting photonics: looking into the next decade. ELight, 2021, 1, .	23.9	218
14	Synthetic-Space Photonic Topological Insulators Utilizing Dynamically Invariant Structure. Physical Review Letters, 2021, 127, 093901.	7.8	7
15	Imprinting the quantum statistics of photons on free electrons. Science, 2021, 373, eabj7128.	12.6	75
16	Topological insulator vertical-cavity laser array. Science, 2021, 373, 1514-1517.	12.6	80
17	Photonic Floquet topological insulators in a fractal lattice. Light: Science and Applications, 2020, 9, 128.	16.6	68
18	Identifying Topological Phase Transitions in Experiments Using Manifold Learning. Physical Review Letters, 2020, 125, 127401.	7.8	22

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19	Mode-Locked Topological Insulator Laser Utilizing Synthetic Dimensions. Physical Review X, 2020, 10, .	8.9	38
20	Observation of branched flow of light. Nature, 2020, 583, 60-65.	27.8	58
21	Generalized laws of refraction and reflection at interfaces between different photonic artificial gauge fields. Light: Science and Applications, 2020, 9, 200.	16.6	18
22	Topological insulator VCSEL array. , 2020, , .		3
23	Observation of Anderson localization by virtual transitions. , 2020, , .		1
24	Topological photonics: Where do we go from here?. Nanophotonics, 2020, 10, 425-434.	6.0	76
25	Branched Flow of Light. Optics and Photonics News, 2020, 31, 32.	0.5	0
26	A humble leader. Nature Photonics, 2019, 13, 581-582.	31.4	0
27	Localization by virtual transitions in correlated disorder. Physical Review B, 2019, 100, .	3.2	8
28	Topologically robust entangled states in silicon. , 2019, , .		0
29	Topologically protected entangled photonic states. Nanophotonics, 2019, 8, 1327-1335.	6.0	68
30	Light guiding by artificial gauge fields. Nature Photonics, 2019, 13, 339-345.	31.4	69
31	Photonic topological insulator in synthetic dimensions. Nature, 2019, 567, 356-360.	27.8	215
32	Topological Photonics. , 2019, , .		0
33	Coherent metamaterial absorption of two-photon states with 40% efficiency. Physical Review A, 2019, 99, .	2.5	25
34	Coaction of Disorder and PT-symmetry in Deep Subwavelength Multilayers. , 2019, , .		1
35	Topological Insulator Laser. , 2019, , .		0
36	Topological insulator laser: Theory. Science, 2018, 359, .	12.6	634

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37	Topological insulator laser: Experiments. Science, 2018, 359, .	12.6	949
38	â€˜Twistedâ€™ electrons. Contemporary Physics, 2018, 59, 126-144.	1.8	40
39	Observation of Accelerating Wave Packets in Curved Space. Physical Review X, 2018, 8, .	8.9	18
40	Edge-Mode Lasing in 1D Topological Active Arrays. Physical Review Letters, 2018, 120, 113901.	7.8	406
41	Topological aspects of photonic time crystals. Optica, 2018, 5, 1390.	9.3	166
42	Self-Induced Diffusion in Disordered Nonlinear Photonic Media. Physical Review Letters, 2018, 121, 233901.	7.8	17
43	Topological protection of biphoton states. Science, 2018, 362, 568-571.	12.6	203
44	Quantum entanglement of the spin and orbital angular momentum of photons using metamaterials. Science, 2018, 361, 1101-1104.	12.6	294
45	Photonic topological Anderson insulators. Nature, 2018, 560, 461-465.	27.8	205
46	Interaction of light with thin liquid membranes. , 2018, , .		3
47	Topological Insulator Laser. , 2018, , .		4
48	Observation of Anderson localization in disordered nanophotonic structures. Science, 2017, 356, 953-956.	12.6	70
49	Control of light by curved space in nanophotonic structures. Nature Photonics, 2017, 11, 664-670.	31.4	75
50	Curved-space topological phases in photonic lattices. Physical Review A, 2017, 96, .	2.5	25
51	Non-diffracting multi-ï»¿electron vortex beams balancing their electronâ€“electron interactions. Nature Communications, 2017, 8, 650.	12.8	7
52	Sparsity-Based Super Resolution for SEM Images. Nano Letters, 2017, 17, 5437-5445.	9.1	18
53	Chiral state conversion without encircling an exceptional point. Physical Review A, 2017, 96, .	2.5	52
54	Sparsity based super-resolution optical imaging using correlation information. , 2017, , .		3

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55	Coherent absorption of two-photon states in metamaterials. , 2017, , .		0
56	Quantum state tomography with a single measurement setup. Optica, 2017, 4, 993.	9.3	23
57	Sparsity-based recovery of three-photon quantum states from two-fold correlations. Optica, 2016, 3, 226.	9.3	11
58	Topological protection of photonic path entanglement. Optica, 2016, 3, 925.	9.3	77
59	Wavefront shaping through emulated curved space in waveguide settings. Nature Communications, 2016, 7, 10747.	12.8	52
60	Instability of bosonic topological edge states in the presence of interactions. Physical Review A, 2016, 94, .	2.5	55
61	Topological Optical Waveguiding in Silicon and the Transition between Topological and Trivial Defect States. Physical Review Letters, 2016, 116, 163901.	7.8	195
62	Quantum ÄŒerenkov Radiation: Spectral Cutoffs and the Role of Spin and Orbital Angular Momentum. Physical Review X, 2016, 6, .	8.9	51
63	Interplay between evanescence and disorder in deep subwavelength photonic structures. Nature Communications, 2016, 7, 12927.	12.8	33
64	Topological Photonic Quasicrystals: Fractal Topological Spectrum and Protected Transport. Physical Review X, 2016, 6, .	8.9	151
65	Topological Lasers. , 2016, , .		4
66	Self-accelerating Dirac particles and prolonging the lifetime of relativistic fermions. Nature Physics, 2015, 11, 261-267.	16.7	48
67	Accelerating Self-Imaging: The Airy-Talbot Effect. Physical Review Letters, 2015, 115, 013901.	7.8	52
68	Phase Retrieval with Application to Optical Imaging: A contemporary overview. IEEE Signal Processing Magazine, 2015, 32, 87-109.	5.6	735
69	Observation of a Topological Transition in the Bulk of a Non-Hermitian System. Physical Review Letters, 2015, 115, 040402.	7.8	551
70	Sparsity-based Ankylography for Recovering 3D molecular structures from single-shot 2D scattered light intensity. Nature Communications, 2015, 6, 7950.	12.8	12
71	Optical simulations of gravitational effects in the Newtonâ€“SchrÃ¶dinger system. Nature Physics, 2015, 11, 872-878.	16.7	107
72	Sparsity-based super-resolved coherent diffraction imaging of one-dimensional objects. Nature Communications, 2015, 6, 8209.	12.8	32

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73	Subwavelength Multilayer Dielectrics: Ultrasensitive Transmission and Breakdown of Effective-Medium Theory. Physical Review Letters, 2014, 113, 243901.	7.8	56
74	Loss-proof self-accelerating beams and their use in non-paraxial manipulation of particlesâ€™ trajectories. Nature Communications, 2014, 5, 5189.	12.8	89
75	Topological Creation and Destruction of Edge States in Photonic Graphene. Physical Review Letters, 2013, 111, 103901.	7.8	228
76	Self-Localized States in Photonic Topological Insulators. Physical Review Letters, 2013, 111, 243905.	7.8	221
77	Strain-induced pseudomagnetic field and photonic Landau levels in dielectric structures. Nature Photonics, 2013, 7, 153-158.	31.4	329
78	Anderson localization of light. Nature Photonics, 2013, 7, 197-204.	31.4	589
79	Photonic Floquet topological insulators. Nature, 2013, 496, 196-200.	27.8	2,446
80	Nonlinearly Induced<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>P</mml:mi><mml:mi>T</mml:mi></mml:math>Transition in Photonic Systems. Physical Review Letters, 2013, 111, 263901.	7.8	135
81	Hyper-transport of light and stochastic acceleration by evolving disorder. Nature Physics, 2012, 8, 912-917.	16.7	103
82	Sparsity-based single-shot sub-wavelength coherent diffractive imaging. , 2012, , .		1
83	Super-diffusion in optical realizations of Anderson localization. New Journal of Physics, 2012, 14, 043047.	2.9	31
84	Sparsity based sub-wavelength imaging with partially incoherent light via quadratic compressed sensing. Optics Express, 2011, 19, 14807.	3.4	142
85	Experimental Observation of Optical Bound States in the Continuum. Physical Review Letters, 2011, 107, 183901.	7.8	500
86	Disorder-Enhanced Transport in Photonic Quasicrystals. Science, 2011, 332, 1541-1544.	12.6	158
87	Amorphous Photonic Lattices: Band Gaps, Effective Mass, and Suppressed Transport. Physical Review Letters, 2011, 106, 193904.	7.8	69
88	Diverging Rabi Oscillations in Subwavelength Photonic Lattices. Physical Review Letters, 2011, 106, 073901.	7.8	21
89	Accelerating light beams along arbitrary trajectories. , 2011, , .		0
90	Magnetic field effects and Landau solitons in strained photonic graphene. , 2011, , .		0

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91	Observation of parityâ€“time symmetry in optics. Nature Physics, 2010, 6, 192-195.	16.7	2,860
92	Optical Control of Thermocapillary Effects in Complex Nanofluids. Physical Review Letters, 2009, 103, 264503.	7.8	24
93	Nonlinear Waves in Subwavelength Waveguide Arrays: Evanescent Bands and the â€œPhoenix Solitonâ€• Physical Review Letters, 2009, 102, 163902.	7.8	21
94	Solitonets: complex networks of interacting fields. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 1093-1101.	2.1	5
95	Looking into a self-distorting world. Nature Photonics, 2009, 3, 195-197.	31.4	2
96	Super-resolution and reconstruction of sparse sub-wavelength images. Optics Express, 2009, 17, 23920.	3.4	169
97	Light-induced ionic polarization in CdZnTe:V semiconductor crystals as a source of giant enhancement of nonlinear effects. Physical Review B, 2009, 79, .	3.2	9
98	Incoherent spatial solitons in effectively instantaneous nonlinear media. Nature Photonics, 2008, 2, 371-376.	31.4	73
99	Spatial modulation instability driven by light-enhanced nonlinearities in semiconductor CdZnTe:V crystals. Applied Physics Letters, 2008, 93, .	3.3	6
100	Phasons and pure phason strain in nonlinear photonic quasicrystals. , 2007, , .		0
101	Nonlinearity and localization in disordered lattices. , 2007, , .		0
102	Solitons phenomena in highly nonlocal media: From soliton wiring and surface solitons to random-phase solitons and controlling solitons from afar. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
103	Transport and Anderson localization in disordered two-dimensional photonic lattices. Nature, 2007, 446, 52-55.	27.8	1,304
104	Long-range interactions between optical solitons. Nature Physics, 2006, 2, 769-774.	16.7	340
105	Wave and defect dynamics in nonlinear photonic quasicrystals. Nature, 2006, 440, 1166-1169.	27.8	240
106	Light-induced ionic displacement in CdZnTe:V crystals giving rise to crystalline symmetry breaking and giant nonlinearities. , 2006, , .		0
107	Spatial four wave mixing in photonic lattices. , 2006, , .		0
108	Observation of random phase gap solitons in 2D photonic lattices. , 2006, , .		0

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109	Nonlinear waves and solitons in photonic lattices. , 2006, , .		0
110	Infinite-range interactions between solitons in highly-nonlocal nonlinear media. , 2006, , .		0
111	Transport and anderson localization in 2-dimensional photonic lattices. , 2006, , .		1
112	Grating-Mediated Waveguiding. Physical Review Letters, 2004, 93, 103902.	7.8	17
113	Integer and Fractional Angular Momentum Borne on Self-Trapped Necklace-Ring Beams. Physical Review Letters, 2001, 86, 420-423.	7.8	101
114	Interactions between two-dimensional composite vector solitons carrying topological charges. Physical Review E, 2001, 63, 066608.	2.1	36
115	Delayed-Action Interaction and Spin-Orbit Coupling between Solitons. Physical Review Letters, 2001, 86, 799-802.	7.8	21
116	Eliminating the Transverse Instabilities of Kerr Solitons. Physical Review Letters, 2000, 85, 4888-4891.	7.8	76
117	Self-similarity and fractals in soliton-supporting systems. Physical Review E, 2000, 61, R1048-R1051.	2.1	72
118	Cantor Set Fractals from Solitons. Physical Review Letters, 2000, 84, 1902-1905.	7.8	50
119	Self-trapping of â€œnecklace-ringâ€•beams in self-focusing Kerr media. Physical Review E, 2000, 62, 2810-2820.	2.1	64
120	Modulation Instability of Incoherent Beams in Noninstantaneous Nonlinear Media. Physical Review Letters, 2000, 84, 467-470.	7.8	236
121	Composite Multihump Vector Solitons Carrying Topological Charge. Physical Review Letters, 2000, 84, 1164-1167.	7.8	133
122	Spontaneous Self-Trapping of Optical Beams in Metastable Paraelectric Crystals. Physical Review Letters, 1999, 83, 1954-1957.	7.8	39
123	Photorefractive selfâ€defocusing. Applied Physics Letters, 1990, 56, 1086-1088.	3.3	29
124	Mode locking and frequency tuning of a laser diode array in an extended cavity with a photorefractive phase conjugate mirror. Applied Physics Letters, 1990, 57, 2523-2525.	3.3	18
125	Photorefractive waveguides and nonlinear mode coupling effects. Applied Physics Letters, 1989, 54, 684-686.	3.3	37
126	Coupling of diode laser arrays with photorefractive passive phase conjugate mirrors. Applied Physics Letters, 1987, 50, 1397-1399.	3.3	59

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127	Non-Hermitian Topological Systems. Physics Magazine, 0, 11, .	0.1	11