Mark J Ablowitz

List of Publications by Year
in descending order

45 papers	8,082 citations	318942 23 h-index	312153 41 g-index
47 all docs	47 docs citations	47 times ranked	2651 citing authors

#	Article	IF	Citations
1	Fractional Integrable Nonlinear Soliton Equations. Physical Review Letters, 2022, 128, 184101.	2.9	26
2	Nonlinear optical waveguide lattices: Asymptotic analysis, solitons, and topological insulators. Physica D: Nonlinear Phenomena, 2022, 440, 133440.	1.3	10
3	Peierls-Nabarro barrier effect in nonlinear Floquet topological insulators. Physical Review E, 2021, 103, 042214.	0.8	7
4	Transverse Instability of Rogue Waves. Physical Review Letters, 2021, 127, 104101.	2.9	13
5	Solitons and topological waves. Science, 2020, 368, 821-822.	6.0	5
6	Discrete approximation of topologically protected modes in magneto-optical media. Physical Review A, 2020, 101, .	1.0	4
7	Whitham equations and phase shifts for the Kortewegâ€“de Vries equation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200300.	1.0	9
8	Topological insulators in longitudinally driven waveguides: Lieb and kagome lattices. Physical Review A, 2019, 99, .	1.0	29
9	On the Whitham system for the radial nonlinear SchrÃ¶dinger equation. Studies in Applied Mathematics, 2019, 142, 269-313.	1.1	7
10	Inverse scattering transform for the nonlocal nonlinear SchrÃ¶dinger equation with nonzero boundary conditions. Journal of Mathematical Physics, 2018, 59, .	0.5	125
11	Whitham modulation theory for the two-dimensional Benjamin-Ono equation. Physical Review E, 2017, 96, 032225.	0.8	15
12	Tight-binding methods for general longitudinally driven photonic lattices: Edge states and solitons. Physical Review A, 2017, 96, .	1.0	46
13	Whitham modulation theory for the Kadomtsevâ€“ Petviashvili equation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160695.	1.0	22
14	Rogue waves in nonlocal media. Physical Review E, 2017, 95, 042211.	0.8	15
15	Dispersive shock waves in the Kadomtsevâ€“Petviashvili and two dimensional Benjaminâ€“Ono equations. Physica D: Nonlinear Phenomena, 2016, 333, 84-98.	1.3	24
16	Interacting nonlinear wave envelopes and rogue wave formation in deep water. Physics of Fluids, 2015, 27, .	1.6	41
17	Strong transmission and reflection of edge modes in bounded photonic graphene. Optics Letters, 2015, 40, 4635.	1.7	21
18	Unveiling pseudospin and angular momentum in photonic graphene. Nature Communications, 2015, 6, 6272.	5.8	125

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19	Linear and nonlinear traveling edge waves in optical honeycomb lattices. Physical Review A, 2014, 90, .	1.0	100
20	Integrable discrete<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>P</mml:mi><mml:mi>T</mml:mi></mml:mrow></mml:ma model. Physical Review E, 2014, 90, 032912.	0.8	172
21	Integrable Nonlocal Nonlinear SchrÃ¶dinger Equation. Physical Review Letters, 2013, 110, 064105.	2.9	633
22	Dispersive shock wave interactions and asymptotics. Physical Review E, 2013, 87, 022906.	0.8	16
23	Conservation laws and non-decaying solutions for the Benneyâ€“Luke equation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20120690.	1.0	14
24	Nonlinear shallow ocean-wave soliton interactions on flat beaches. Physical Review E, 2012, 86, 036305.	0.8	91
25	Dark solitons in mode-locked lasers. Optics Letters, 2011, 36, 793.	1.7	26
26	Nonlinear diffraction in photonic graphene. Optics Letters, 2011, 36, 3762.	1.7	16
27	Nonlinear Waves in Optics and Fluid Dynamics. , 2009, , .		0
28	Quantum-Noise Limit on the Linewidth of Frequency Combs. , 2007, , .		1
29	Solitons in two-dimensional lattices possessing defects, dislocations, and quasicrystal structures. Physical Review E, 2006, 74, 035601.	0.8	51
30	Wave dynamics in optically modulated waveguide arrays. Physical Review E, 2005, 71, 055602.	0.8	5
31	Spectral renormalization method for computing self-localized solutions to nonlinear systems. Optics Letters, 2005, 30, 2140.	1.7	176
32	Dynamics of Nonlinear and Dispersion Managed Solitons. Physical Review Letters, 2005, 94, .	2.9	27
33	Dispersion management for randomly varying optical fibers. Optics Letters, 2004, 29, 821.	1.7	11
34	Carrier-envelope phase slip of ultrashort dispersion-managed solitons. Optics Letters, 2004, 29, 1808.	1.7	36
35	Discrete spatial solitons in a diffraction-managed nonlinear waveguide array: a unified approach. Physica D: Nonlinear Phenomena, 2003, 184, 276-303.	1.3	66
36	Dark and gray strong dispersion-managed solitons. Physical Review E, 2003, 67, 025601.	0.8	30

#	Article	IF	Citations
37	Discrete vector spatial solitons in a nonlinear waveguide array. Physical Review E, 2002, 65, 056618.	0.8	44
38	Methods for discrete solitons in nonlinear lattices. Physical Review E, 2002, 65, 026602.	0.8	59
39	Optical solitons: Perspectives and applications. Chaos, 2000, 10, 471-474.	1.0	52
40	On the Discrete Spectrum of the Nonstationary SchrÃ¶dinger Equation and Multipole Lumps of the Kadomtsev-Petviashvili I Equation. Communications in Mathematical Physics, 1999, 207, 1-42.	1.0	91
41	Solutions to the Time Dependent SchrÃ¶dinger and the Kadomtsev-Petviashvili Equations. Physical Review Letters, 1997, 78, 570-573.	2.9	80
42	Numerical Stochasticity, Hamiltonian Integrators, and the Nonlinear SchrÃ¶dinger Equationa. Annals of the New York Academy of Sciences, 1995, 751, 162-181.	1.8	0
43	A self-dual Yang-Mills hierarchy and its reductions to integrable systems in 1+1 and 2+1 dimensions. Communications in Mathematical Physics, 1993, 158, 289-314.	1.0	78
44	SOLITONS, NUMERICAL CHAOS AND CELLULAR AUTOMATA. , 1990, , 46-79.		0
45	The Inverse Scattering Transformâ€Fourier Analysis for Nonlinear Problems. Studies in Applied Mathematics, 1974, 53, 249-315.	1.1	2,473