Walter Craig

List of Publications by Year
in descending order

51 papers	2,585 citations	279798 23 h-index	189892 50 g-index
55 all docs	55 docs citations	55 times ranked	927 citing authors

#	ARTICLE	IF	CITATIONS
1	Newton's method and periodic solutions of nonlinear wave equations. Communications on Pure and Applied Mathematics, 1993, 46, 1409-1498.	3.1	362
2	An existence theory for water waves and the boussinesq and korteweg-devries scaling limits. Communications in Partial Differential Equations, 1985, 10, 787-1003.	2.2	271
3	Hamiltonian long-wave expansions for free surfaces and interfaces. Communications on Pure and Applied Mathematics, 2005, 58, 1587-1641.	3.1	186
4	Hamiltonian long-wave approximations to the water-wave problem. Wave Motion, 1994, 19, 367-389.	2.0	160
5	Photoacoustic Point Source. Physical Review Letters, 2001, 86, 3550-3553.	7.8	140
6	Traveling Two and Three Dimensional Capillary Gravity Water Waves. SIAM Journal on Mathematical Analysis, 2000, 32, 323-359.	1.9	134
7	Microlocal dispersive smoothing for the Schrödinger equation. Communications on Pure and Applied Mathematics, 1995, 48, 769-860.	3.1	103
8	The modulational regime of three-dimensional water waves and the Davey-Stewartson system. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 1997, 14, 615-667.	1.4	99
9	Symmetry of solitary waves. Communications in Partial Differential Equations, 1988, 13, 603-633.	2.2	93
10	Log hï¿½lder continuity of the integrated density of states for stochastic Jacobi matrices. Communications in Mathematical Physics, 1983, 90, 207-218.	2.2	91
11	Hamiltonian long–wave expansions for water waves over a rough bottom. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 839-873.	2.1	83
12	The trace formula for Schrödinger operators on the line. Communications in Mathematical Physics, 1989, 126, 379-407.	2.2	76
13	Traveling gravity water waves in two and three dimensions. European Journal of Mechanics, B/Fluids, 2002, 21, 615-641.	2.5	74
14	An integrable normal form for water waves in infinite depth. Physica D: Nonlinear Phenomena, 1995, 84, 513-531.	2.8	56
15	Non–existence of solitary water waves in three dimensions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 2127-2135.	3.4	54
16	Global Wellposedness for the 3D Inhomogeneous Incompressible Navier–Stokes Equations. Journal of Mathematical Fluid Mechanics, 2013, 15, 747-758.	1.0	54
17	Pure point spectrum for discrete almost periodic Schrï¿½dinger operators. Communications in Mathematical Physics, 1983, 88, 113-131.	2.2	47
18	Coupling between internal and surface waves. Natural Hazards, 2011, 57, 617-642.	3.4	47

#	Article	IF	Citations
19	A Hamiltonian approach to nonlinear modulation of surface water waves. Wave Motion, 2010, 47, 552-563.	2.0	44
20	Linear dispersive equations of Airy type. Journal of Differential Equations, 1990, 87, 38-61.	2.2	41
21	On determinism and well-posedness in multiple time dimensions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 3023-3046.	2.1	36
22	Normal forms for wave motion in fluid interfaces. Wave Motion, 2000, 31, 21-41.	2.0	34
23	Surface Water Waves and Tsunamis. Journal of Dynamics and Differential Equations, 2006, 18, 525-549.	1.9	29
24	Long wave expansions for water waves over random topography. Nonlinearity, 2008, 21, 2143-2178.	1.4	21
25	Hamiltonian higher-order nonlinear Schrödinger equations for broader-banded waves on deep water. European Journal of Mechanics, B/Fluids, 2012, 32, 22-31.	2.5	21
26	Nonstrictly hyperbolic nonlinear systems. Mathematische Annalen, 1987, 277, 213-232.	1.4	20
27	A new model for large amplitude long internal waves. Comptes Rendus - Mecanique, 2004, 332, 525-530.	2.1	18
28	Mapping properties of normal forms transformations for water waves. Bolletino Dell Unione Matematica Italiana, 2016, 9, 289-318.	1.0	18
29	Periodic Solutions of Nonlinear Schrödinger Equations and the Nash-Moser Method. NATO ASI Series Series B: Physics, 1994, , 103-122.	0.2	18
30	Symmetry of free-surface flows. Archive for Rational Mechanics and Analysis, 1992, 118, 1-36.	2.4	15
31	Water waves over a rough bottom in the shallow water regime. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2012, 29, 233-259.	1.4	11
32	On the initial value problem for the wave equation in Friedmann–Robertson–Walker space–times. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140361.	2.1	10
33	Normal Form Transformations and Dysthe's Equation for the Nonlinear Modulation of Deep-Water Gravity Waves. Water Waves, 2021, 3, 127-152.	1.0	10
34	Water Waves, Hamiltonian Systems and Cauchy Integrals. The IMA Volumes in Mathematics and Its Applications, 1991, , 37-45.	0.5	9
35	Stable three-dimensional waves of nearly permanent form on deep water. Mathematics and Computers in Simulation, 2007, 74, 135-144.	4.4	8
36	Towards a new proof of Anderson localization. European Physical Journal C, 2012, 72, 1.	3.9	8

#	Article	IF	Citations
37	Standing Waves in Near-Parallel Vortex Filaments. Communications in Mathematical Physics, 2017, 350, 175-203.	2.2	8
38	Internal waves coupled to surface gravity waves in three dimensions. Communications in Mathematical Sciences, 2015, 13, 893-910.	1.0	7
39	Comparison principles for free-surface flows with gravity. Journal of Fluid Mechanics, 1991, 230, 231-243.	3.4	6
40	Bloch Theory and Spectral Gaps for Linearized Water Waves. SIAM Journal on Mathematical Analysis, 2018, 50, 5477-5501.	1.9	6
41	On the Badulin, Kharif and Shrira model of resonant water waves. Physica D: Nonlinear Phenomena, 2001, 152-153, 434-450.	2.8	5
42	The wave equation in Friedmann-Robertson-Walker space-times and asymptotics of the intensity and distance relationship of a localised source. Journal of Mathematical Physics, 2018, 59, 042502.	1.1	4
43	Transformation theory of Hamiltonian PDE and the problem of water waves. , 2008, , 67-83.		3
44	Asymptotics of surface waves over random bathymetry. Quarterly of Applied Mathematics, 2009, 68, 91-112.	0.7	3
45	Bounds on Kolmogorov spectra for the Navier–Stokes equations. Physica D: Nonlinear Phenomena, 2012, 241, 426-438.	2.8	3
46	Nonlinear waves and the KAM theorem: Nonlinear degeneracies. , 1991, , 37-49.		3
47	Information and Phylogenetic Systematic Analysis. Information (Switzerland), 2015, 6, 811-832.	2.9	1
48	Standing Waves of Fixed Period for $$n+1$$ Vortex Filaments. Journal of Dynamics and Differential Equations, 2020, 32, 1631-1640.	1.9	1
49	The Water Wave Problem and Hamiltonian Transformation Theory. Advances in Mathematical Fluid Mechanics, 2021, , 113-196.	0.1	1
50	Floquet exponents for Jacobi fields. Ergodic Theory and Dynamical Systems, 1991, 11, 41-63.	0.6	0
51	Mathematical Theory of Water Waves. Oberwolfach Reports, 2007, 3, 3007-30056.	0.0	0