Helge Holden

List of Publications by Year
in descending order

90	3,143	172457 29	197818 49
papers	citations	h-index	g-index

96	96	96	1052
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Mathematical Model of Traffic Flow on a Network of Unidirectional Roads. SIAM Journal on Mathematical Analysis, 1995, 26, 999-1017.	1.9	230
2	Global Conservative Solutions of the Camassaâ€"Holm Equationâ€"A Lagrangian Point of View. Communications in Partial Differential Equations, 2007, 32, 1511-1549.	2.2	194
3	Front Tracking for Hyperbolic Conservation Laws. Applied Mathematical Sciences (Switzerland), 2002, , .	0.8	152
4	The Kolmogorovâ€"Riesz compactness theorem. , 2010, 28, 385-394.		145
5	Dissipative solutions for the Camassa-Holm equation. Discrete and Continuous Dynamical Systems, 2009, 24, 1047-1112.	0.9	123
6	Wellposedness for a parabolic-elliptic system. Discrete and Continuous Dynamical Systems, 2005, 13, 659-682.	0.9	95
7	A numerical method for first order nonlinear scalar conservation laws in one-dimension. Computers and Mathematics With Applications, 1988, 15, 595-602.	2.7	94
8	A convergent numerical scheme for the Camassa--Holm equation based on multipeakons. Discrete and Continuous Dynamical Systems, 2006, 14, 505-523.	0.9	79
9	On absence of diffusion near the bottom of the spectrum for a random Schrï¿½dinger operator onL 2(?)+. Communications in Mathematical Physics, 1984, 93, 197-217.	2.2	70
10	Algebro-Geometric Solutions of the Baxterâ€"SzegÅ' Difference Equation. Communications in Mathematical Physics, 2005, 258, 149-177.	2.2	65
11	Trapping and cascading of eigenvalues in the large coupling limit. Communications in Mathematical Physics, 1988, 118, 597-634.	2.2	59
12	Operator splitting for the KdV equation. Mathematics of Computation, 2011, 80, 821-821.	2.1	58
13	A New Front-Tracking Method for Reservoir Simulation. SPE Reservoir Engineering, 1992, 7, 107-116.	0.5	57
14	Operator splitting for partial differential equations with Burgers nonlinearity. Mathematics of Computation, 2012, 82, 173-185.	2.1	57
15	Convergence of a Finite Difference Scheme for the Camassaâ€"Holm Equation. SIAM Journal on Numerical Analysis, 2006, 44, 1655-1680.	2.3	51
16	On the riemann problem for a prototype of a mixed type conservation law. Communications on Pure and Applied Mathematics, 1987, 40, 229-264.	3.1	50
17	GLOBAL CONSERVATIVE MULTIPEAKON SOLUTIONS OF THE CAMASSAâ€"HOLM EQUATION. Journal of Hyperbolic Differential Equations, 2007, 04, 39-64.	0.5	49
18	Global conservative solutions of the generalized hyperelastic-rod wave equation. Journal of Differential Equations, 2007, 233, 448-484.	2.2	49

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19	Operator Splitting Methods for Generalized Kortewegâ€“De Vries Equations. Journal of Computational Physics, 1999, 153, 203-222.	3.8	47
20	Periodic conservative solutions of the Camassaâ€“Holm equation. Annales De L'Institut Fourier, 2008, 58, 945-988.	0.6	47
21	Borg-Type Theorems for Matrix-Valued SchrÃ¶dinger Operators. Journal of Differential Equations, 2000, 167, 181-210.	2.2	46
22	Lipschitz metric for the Hunterâ€“Saxton equation. Journal Des Mathematiques Pures Et Appliquees, 2010, 94, 68-92.	1.6	43
23	Global Solutions for the Two-Component Camassaâ€“Holm System. Communications in Partial Differential Equations, 2012, 37, 2245-2271.	2.2	41
24	A method of fractional steps for scalar conservation laws without the CFL condition. Mathematics of Computation, 1993, 60, 221-232.	2.1	39
25	Global Semigroup of Conservative Solutions of the Nonlinear Variational Wave Equation. Archive for Rational Mechanics and Analysis, 2011, 201, 871-964.	2.4	37
26	Real-valued algebro-geometric solutions of the Camassaâ€“Holm hierarchy. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 1025-1054.	3.4	33
27	An Unconditionally Stable Method for the Euler Equations. Journal of Computational Physics, 1999, 150, 76-96.	3.8	32
28	Title is missing!. Computational Geosciences, 2000, 4, 287-322.	2.4	30
29	Stochastic multiplicative measures, generalized Markov semigroups, and group-valued stochastic processes and fields. Journal of Functional Analysis, 1988, 78, 154-184.	1.4	29
30	Lipschitz metric for the periodic Camassaâ€“Holm equation. Journal of Differential Equations, 2011, 250, 1460-1492.	2.2	27
31	Unconditionally Stable Splitting Methods for the Shallow Water Equations. BIT Numerical Mathematics, 1999, 39, 451-472.	2.0	26
32	Lipschitz metric for the Camassa--Holm equation on the line. Discrete and Continuous Dynamical Systems, 2013, 33, 2809-2827.	0.9	26
33	Evolutionarily stable strategies in stable and periodically fluctuating populations: The Rosenzweigâ€“MacArthur predatorâ€“prey model. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2017463118.	7.1	25
34	A unified approach to eigenvalues and resonances of SchrÃ¶dinger operators using Fredholm determinants. Journal of Mathematical Analysis and Applications, 1987, 123, 181-198.	1.0	24
35	Riemann Problems with a Kink. SIAM Journal on Mathematical Analysis, 1999, 30, 497-515.	1.9	24
36	Stochastic boundary value problems: a white noise functional approach. Probability Theory and Related Fields, 1993, 95, 391-419.	1.8	22

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37	On energy gaps in a new type of analytically solvable model in quantum mechanics. Journal of Mathematical Analysis and Applications, 1988, 134, 9-29.	1.0	21
38	A law of large numbers and a central limit theorem for the Schrï¿½dinger operator with zero-range potentials. Journal of Statistical Physics, 1988, 51, 205-214.	1.2	19
39	Representation and construction of multiplicative noise. Journal of Functional Analysis, 1989, 87, 250-272.	1.4	19
40	Convergence of a fully discrete finite difference scheme for the Kortewegâ€“de Vries equation. IMA Journal of Numerical Analysis, 2015, 35, 1047-1077.	2.9	19
41	Global conservative solutions to the Camassa--Holm equation for initial data with nonvanishing asymptotics. Discrete and Continuous Dynamical Systems, 2012, 32, 4209-4227.	0.9	18
42	The continuum limit of Follow-the-Leader models â€” a short proof. Discrete and Continuous Dynamical Systems, 2018, 38, 715-722.	0.9	18
43	A CONTINUOUS INTERPOLATION BETWEEN CONSERVATIVE AND DISSIPATIVE SOLUTIONS FOR THE TWO-COMPONENT CAMASSAâ€“HOLM SYSTEM. Forum of Mathematics, Sigma, 2015, 3, .	0.7	17
44	Explicit construction of solutions of the modified Kadomtsev-Petviashvili equation. Journal of Functional Analysis, 1991, 98, 211-228.	1.4	16
45	The damped string problem revisited. Journal of Differential Equations, 2011, 251, 1086-1127.	2.2	16
46	Abstract wave equations and associated Dirac-type operators. Annali Di Matematica Pura Ed Applicata, 2012, 191, 631-676.	1.0	16
47	An improvement of the Kolmogorovâ€“Riesz compactness theorem. , 2019, 37, 84-91.		16
48	Stability of solutions of quasilinear parabolic equations. Journal of Mathematical Analysis and Applications, 2005, 308, 221-239.	1.0	15
49	Follow-the-Leader models can be viewed as a numerical approximation to the Lighthill-Whitham-Richards model for traffic flow. Networks and Heterogeneous Media, 2018, 13, 409-421.	1.1	15
50	Discrete wick calculus and stochastic functional equations. Potential Analysis, 1992, 1, 291-306.	0.9	14
51	THE SOLUTION OF THE CAUCHY PROBLEM WITH LARGE DATA FOR A MODEL OF A MIXTURE OF GASES. Journal of Hyperbolic Differential Equations, 2009, 06, 25-106.	0.5	14
52	Global dissipative solutions of the two-component Camassaâ€“Holm system for initial data with nonvanishing asymptotics. Nonlinear Analysis: Real World Applications, 2014, 17, 203-244.	1.7	14
53	Stochastic Properties of the Scalar Buckley-Leverett Equation. SIAM Journal on Applied Mathematics, 1991, 51, 1472-1488.	1.8	13
54	Models for Dense Multilane Vehicular Traffic. SIAM Journal on Mathematical Analysis, 2019, 51, 3694-3713.	1.9	13

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55	The Hunterâ€“Saxton equation with noise. Journal of Differential Equations, 2021, 270, 725-786.	2.2	13
56	Local Conservation Laws and the Hamiltonian Formalism for the Ablowitzâ€“Ladik Hierarchy. Studies in Applied Mathematics, 2008, 120, 361-423.	2.4	12
57	On an inverse problem for scalar conservation laws. Inverse Problems, 2014, 30, 035015.	2.0	11
58	Strong compactness of approximate solutions to degenerate elliptic-hyperbolic equations with discontinuous flux function. Acta Mathematica Scientia, 2009, 29, 1573-1612.	1.0	10
59	The general peakonâ€“antipeakon solution for the Camassaâ€“Holm equation. Journal of Hyperbolic Differential Equations, 2016, 13, 353-380.	0.5	10
60	Real-Valued Algebro-Geometric Solutions of the Two-Component Camassaâ€“Holm Hierarchy. Annales De L'Institut Fourier, 2017, 67, 1185-1230.	0.6	9
61	Front tracking for a model of immiscible gas flow withÂlarge data. BIT Numerical Mathematics, 2010, 50, 331-376.	2.0	8
62	Dirichlet-to-Neumann maps, abstract Weylâ€“Titchmarsh M-functions, and a generalized index of unbounded meromorphic operator-valued functions. Journal of Differential Equations, 2016, 261, 3551-3587.	2.2	8
63	A Lipschitz metric for the Hunterâ€“Saxton equation. Communications in Partial Differential Equations, 2019, 44, 309-334.	2.2	8
64	The spectrum of defect periodic point interactions. Letters in Mathematical Physics, 1983, 7, 221-228.	1.1	7
65	The algebro-geometric Toda hierarchy initial value problem for complex-valued initial data. Revista Matematica Iberoamericana, 2008, 24, 117-182.	0.9	6
66	Symmetric Waves Are Traveling Waves. International Mathematics Research Notices, 0, , .	1.0	5
67	On Factorizations of Analytic Operator-Valued Functions and Eigenvalue Multiplicity Questions. Integral Equations and Operator Theory, 2015, 82, 61-94.	0.8	5
68	Convergence of finite difference schemes for the Benjaminâ€“Ono equation. Numerische Mathematik, 2016, 134, 249-274.	1.9	5
69	On the Braess Paradox with Nonlinear Dynamics and Control Theory. Journal of Optimization Theory and Applications, 2016, 168, 216-230.	1.5	5
70	The Fermi surface for point interactions. Journal of Mathematical Physics, 1986, 27, 385-405.	1.1	4
71	Contract adjustment under uncertainty. Journal of Economic Dynamics and Control, 2010, 34, 657-680.	1.6	4
72	Operator splitting for two-dimensional incompressible fluid equations. Mathematics of Computation, 2012, 82, 719-748.	2.1	4

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73	Optimal rebalancing of portfolios with transaction costs. Stochastics, 2013, 85, 371-394.	1.1	4
74	L^infty Solutions for a Model of Nonisothermal Polytropic Gas Flow. SIAM Journal on Mathematical Analysis, 2011, 43, 2253-2274.	1.9	3
75	Operator Splitting for Well-Posed Active Scalar Equations. SIAM Journal on Mathematical Analysis, 2013, 45, 152-180.	1.9	2
76	Addendum to â€œThe Kolmogorovâ€"Riesz compactness theoremâ€•[Expo. Math. 28 (2010) 385â€"394]. , 2016, 34, 243-245.		2
77	Isentropic fluid dynamics in a curved pipe. Zeitschrift Fur Angewandte Mathematik Und Physik, 2016, 67, 1.	1.4	2
78	On the Microscopic Modeling of Vehicular Traffic on General Networks. SIAM Journal on Applied Mathematics, 2020, 80, 1377-1391.	1.8	2
79	On the Equivalence of Eulerian and Lagrangian Variables for the Two-Component Camassaâ€"Holm System. Springer Optimization and Its Applications, 2018, , 157-201.	0.9	2
80	The Ablowitz-Ladik Hierarchy Revisited. , 2008, , 139-190.		2
81	Uniqueness of conservative solutions for the Hunterâ€"Saxton equation. Research in Mathematical Sciences, 2022, 9, 1.	1.0	2
82	On the index of meromorphic operator-valued functions and some applications. , 2017, , 95-127.		2
83	Operator Splitting for Convection-Dominated Nonlinear Partial Differential Equations. , 2001, , 469-475.		1
84	Ground states of the SchrÃ¶dinger-Maxwell system with dirac mass: Existence and asymptotics. Discrete and Continuous Dynamical Systems, 2010, 27, 117-132.	0.9	1
85	Strong solutions of a stochastic differential equation with irregular random drift. Stochastic Processes and Their Applications, 2022, 150, 655-677.	0.9	1
86	On absence of diffusion for low energy for a random SchrÃ¶dinger operator on L2(R). Physica A: Statistical Mechanics and Its Applications, 1984, 124, 413-417.	2.6	0
87	A LIPSCHITZ METRIC FOR THE CAMASSAâ€"HOLM EQUATION. Forum of Mathematics, Sigma, 2020, 8, .	0.7	0
88	Singular diffusion with Neumann boundary conditions. Nonlinearity, 2021, 34, 1633-1662.	1.4	0
89	Reply to Best and Ashby: The concept of evolutionarily stable strategies (ESS) helps link ecology and evolution. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2102861118.	7.1	0
90	Camassaâ€"Holm Equations. , 2015, , 176-178.		0