

Darryl D Holm

List of Publications by Year in descending order

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251
papers

13,554
citations

44069
48
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110
g-index

254
all docs

254
docs citations

254
times ranked

3237
citing authors

#	ARTICLE	IF	CITATIONS
1	An integrable shallow water equation with peaked solitons. Physical Review Letters, 1993, 71, 1661-1664.	7.8	2,793
2	Nonlinear stability of fluid and plasma equilibria. Physics Reports, 1985, 123, 1-116.	25.6	753
3	A New Integrable Shallow Water Equation. Advances in Applied Mechanics, 1994, , 1-33.	2.3	720
4	The Euler-Poincaré Equations and Semidirect Products with Applications to Continuum Theories. Advances in Mathematics, 1998, 137, 1-81.	1.1	711
5	The Navier-Stokes-alpha model of fluid turbulence. Physica D: Nonlinear Phenomena, 2001, 152-153, 505-519.	2.8	311
6	An Integrable Shallow Water Equation with Linear and Nonlinear Dispersion. Physical Review Letters, 2001, 87, 194501.	7.8	294
7	Title is missing!. Journal of Dynamics and Differential Equations, 2002, 14, 1-35.	1.9	293
8	Camassa-Holm Equations as a Closure Model for Turbulent Channel and Pipe Flow. Physical Review Letters, 1998, 81, 5338-5341.	7.8	272
9	Camassa-Holm, Korteweg-de Vries-5 and other asymptotically equivalent equations for shallow water waves. Fluid Dynamics Research, 2003, 33, 73-95.	1.3	241
10	Euler-Poincaré Models of Ideal Fluids with Nonlinear Dispersion. Physical Review Letters, 1998, 80, 4173-4176.	7.8	240
11	Wave Structure and Nonlinear Balances in a Family of Evolutionary PDEs. SIAM Journal on Applied Dynamical Systems, 2003, 2, 323-380.	1.6	223
12	On a Leray- η model of turbulence. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 629-649.	2.1	215
13	Low-dimensional behaviour in the complex Ginzburg-Landau equation. Nonlinearity, 1988, 1, 279-309.	1.4	200
14	The geometry of peaked solitons and billiard solutions of a class of integrable PDE's. Letters in Mathematical Physics, 1994, 32, 137-151.	1.1	184
15	On asymptotically equivalent shallow water wave equations. Physica D: Nonlinear Phenomena, 2004, 190, 1-14.	2.8	182
16	Regularization modeling for large-eddy simulation. Physics of Fluids, 2003, 15, L13-L16.	4.0	161
17	Variational principles for stochastic fluid dynamics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140963.	2.1	155
18	Direct numerical simulations of the Navier-Stokes alpha model. Physica D: Nonlinear Phenomena, 1999, 133, 66-83.	2.8	150

#	ARTICLE	IF	CITATIONS
19	Richardson Number Criterion for the Nonlinear Stability of Three-Dimensional Stratified Flow. Physical Review Letters, 1984, 52, 2352-2355.	7.8	146
20	Nonlinear balance and exchange of stability in dynamics of solitons, peakons, ramps/cliffs and leftons in a 1+1 nonlinear evolutionary PDE. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 308, 437-444.	2.1	141
21	Poisson brackets and clebsch representations for magnetohydrodynamics, multifluid plasmas, and elasticity. Physica D: Nonlinear Phenomena, 1983, 6, 347-363.	2.8	132
22	Fluctuation effects on 3D Lagrangian mean and Eulerian mean fluid motion. Physica D: Nonlinear Phenomena, 1999, 133, 215-269.	2.8	119
23	Singular solutions of a modified two-component Camassa-Holm equation. Physical Review E, 2009, 79, 016601.	2.1	113
24	Intermittency in the Joint Cascade of Energy and Helicity. Physical Review Letters, 2003, 90, 214503.	7.8	91
25	Hamiltonian chaos in nonlinear optical polarization dynamics. Physics Reports, 1990, 187, 281-367.	25.6	89
26	Traveling Wave Solutions for a Class of One-Dimensional Nonlinear Shallow Water Wave Models. Journal of Dynamics and Differential Equations, 2004, 16, 167-178.	1.9	87
27	The Complex Geometry of Weak Piecewise Smooth Solutions of Integrable Nonlinear PDE's of Shallow Water and Dym Type. Communications in Mathematical Physics, 2001, 221, 197-227.	2.2	81
28	Simultaneous Multi-scale Registration Using Large Deformation Diffeomorphic Metric Mapping. IEEE Transactions on Medical Imaging, 2011, 30, 1746-1759.	8.9	75
29	Solution Properties of a 3D Stochastic Euler Fluid Equation. Journal of Nonlinear Science, 2019, 29, 813-870.	2.1	74
30	Resonant interactions in rotating homogeneous three-dimensional turbulence. Journal of Fluid Mechanics, 2005, 542, 139.	3.4	71
31	Quaternions and particle dynamics in the Euler fluid equations. Nonlinearity, 2006, 19, 1969-1983.	1.4	71
32	Numerically Modeling Stochastic Lie Transport in Fluid Dynamics. Multiscale Modeling and Simulation, 2019, 17, 192-232.	1.6	65
33	Modeling Mesoscale Turbulence in the Barotropic Double-Gyre Circulation. Journal of Physical Oceanography, 2003, 33, 2355-2365.	1.7	64
34	The ideal Craik-Leibovich equations. Physica D: Nonlinear Phenomena, 1996, 98, 415-441.	2.8	63
35	The Maxwell-Vlasov equations in Euler-Poincaré form. Journal of Mathematical Physics, 1998, 39, 3138-3157.	1.1	62
36	Stepwise Precession of the Resonant Swinging Spring. SIAM Journal on Applied Dynamical Systems, 2002, 1, 44-64.	1.6	62

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37	Soliton dynamics in computational anatomy. <i>NeuroImage</i> , 2004, 23, S170-S178.	4.2	61
38	Formation of clumps and patches in self-aggregation of finite-size particles. <i>Physica D: Nonlinear Phenomena</i> , 2006, 220, 183-196.	2.8	61
39	Long-time effects of bottom topography in shallow water. <i>Physica D: Nonlinear Phenomena</i> , 1996, 98, 258-286.	2.8	60
40	Averaged Lagrangians and the mean effects of fluctuations in ideal fluid dynamics. <i>Physica D: Nonlinear Phenomena</i> , 2002, 170, 253-286.	2.8	56
41	Aggregation of Finite-Size Particles with Variable Mobility. <i>Physical Review Letters</i> , 2005, 95, 226106.	7.8	56
42	Nonlinear stability conditions and a priori estimates for barotropic hydrodynamics. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1983, 98, 15-21.	2.1	54
43	Lagrangian averages, averaged Lagrangians, and the mean effects of fluctuations in fluid dynamics. <i>Chaos</i> , 2002, 12, 518-530.	2.5	53
44	The Euler-Poincaré theory of metamorphosis. <i>Quarterly of Applied Mathematics</i> , 2009, 67, 661-685.	0.7	53
45	Leray and LANS-Î± modelling of turbulent mixing. <i>Journal of Turbulence</i> , 2006, 7, N10.	1.4	52
46	Quantum computer on a class of one-dimensional Ising systems. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1994, 193, 444-450.	2.1	51
47	Complexified dynamical systems. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, F793-F804.	2.1	51
48	Complex trajectories of a simple pendulum. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, F81-F89.	2.1	48
49	The Momentum Map Representation of Images. <i>Journal of Nonlinear Science</i> , 2011, 21, 115-150.	2.1	48
50	Poisson structures of superfluids. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1982, 91, 425-430.	2.1	47
51	Symmetry Reduced Dynamics of Charged Molecular Strands. <i>Archive for Rational Mechanics and Analysis</i> , 2010, 197, 811-902.	2.4	47
52	Multiple lie-poisson structures, reductions, and geometric phases for the Maxwell-Bloch travelling wave equations. <i>Journal of Nonlinear Science</i> , 1992, 2, 241-262.	2.1	46
53	A Class of Equations with Peakon and Pulson Solutions (with an Appendix by Harry Braden and John) <i>Tj ETQq1 1 0.784314 rgBT /Overbo</i>	1.3	46
54	One-dimensional closure models for three-dimensional incompressible viscoelastic free jets: von Kármán flow geometry and elliptical cross-section. <i>Journal of Fluid Mechanics</i> , 1988, 196, 241-262.	3.4	45

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55	Multi-component generalizations of the CH equation: geometrical aspects, peakons and numerical examples. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 492001.	2.1	45
56	Invariant Higher-Order Variational Problems. Communications in Mathematical Physics, 2012, 309, 413-458.	2.2	44
57	Oscillation center theory and ponderomotive stabilization of low-frequency plasma modes. Physics of Fluids, 1986, 29, 1908.	1.4	43
58	Momentum maps and measure-valued solutions (peakons, filaments, and sheets) for the EPDiff equation. , 2005, , 203-235.		43
59	Stochastic partial differential fluid equations as a diffusive limit of deterministic Lagrangian multi-time dynamics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170388.	2.1	43
60	Geometric Mechanics. , 2008, , .		43
61	Self-consistent Hamiltonian dynamics of wave mean-flow interaction for a rotating stratified incompressible fluid. Physica D: Nonlinear Phenomena, 1996, 98, 343-378.	2.8	42
62	Geometric Mechanics. , 2011, , .		42
63	Canonical maps between poisson brackets in eulerian and Lagrangian descriptions of continuum mechanics. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 98, 389-395.	2.1	41
64	Hall magnetohydrodynamics: Conservation laws and Lyapunov stability. Physics of Fluids, 1987, 30, 1310.	1.4	39
65	Zero-helicity Lagrangian kinematics of three-dimensional advection. Physics of Fluids A, Fluid Dynamics, 1991, 3, 1033-1038.	1.6	38
66	On billiard solutions of nonlinear PDEs. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 264, 171-178.	2.1	38
67	Nonlinear stability analysis of inviscid flows in three dimensions: Incompressible fluids and barotropic fluids. Physics of Fluids, 1987, 30, 3369.	1.4	37
68	Exact Lyapunov Dimension of the Universal Attractor for the Complex Ginzburg-Landau Equation. Physical Review Letters, 1987, 59, 2911-2914.	7.8	36
69	Noncanonical Hamiltonian formulation of ideal magnetohydrodynamics. Physica D: Nonlinear Phenomena, 1983, 7, 330-333.	2.8	35
70	Long-time shallow-water equations with a varying bottom. Journal of Fluid Mechanics, 1997, 349, 173-189.	3.4	35
71	The Hamiltonian structure of classical chromohydrodynamics. Physica D: Nonlinear Phenomena, 1983, 6, 179-194.	2.8	34
72	Hamiltonian formulation of the baroclinic quasigeostrophic fluid equations. Physics of Fluids, 1986, 29, 7.	1.4	34

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73	Extended-geostrophic Hamiltonian models for rotating shallow water motion. Physica D: Nonlinear Phenomena, 1996, 98, 229-248.	2.8	34
74	Integrable vs. nonintegrable geodesic soliton behavior. Physica D: Nonlinear Phenomena, 2001, 150, 237-263.	2.8	34
75	Transient Vortex Events in the Initial Value Problem for Turbulence. Physical Review Letters, 2002, 88, 244501.	7.8	33
76	Implementation of the LANS- β turbulence model in a primitive equation ocean model. Journal of Computational Physics, 2008, 227, 5691-5716.	3.8	33
77	Gauge-invariant poisson brackets for chromohydrodynamics. Physics Letters, Section A: General, Atomic and Solid State Physics, 1982, 90, 281-283.	2.1	32
78	Euler-alpha and vortex blob regularization of vortex filament and vortex sheet motion. Journal of Fluid Mechanics, 2006, 555, 149.	3.4	32
79	Hamiltonian formalism for general-relativistic adiabatic fluids. Physica D: Nonlinear Phenomena, 1985, 17, 1-36.	2.8	31
80	Geometric Mechanics. , 2011, , .		31
81	Hamiltonian balance equations. Physica D: Nonlinear Phenomena, 1996, 98, 379-414.	2.8	30
82	The analogy between spin glasses and Yang-Mills fluids. Journal of Mathematical Physics, 1988, 29, 21-30.	1.1	28
83	Three regularization models of the Navier-Stokes equations. Physics of Fluids, 2008, 20, .	4.0	28
84	Stochastic Geometric Models with Non-stationary Spatial Correlations in Lagrangian Fluid Flows. Journal of Nonlinear Science, 2018, 28, 873-904.	2.1	28
85	Stochastic discrete Hamiltonian variational integrators. BIT Numerical Mathematics, 2018, 58, 1009-1048.	2.0	28
86	Relativistic fluid dynamics as a Hamiltonian system. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 101, 23-26.	2.1	27
87	Hamilton's principle for quasigeostrophic motion. Physics of Fluids, 1998, 10, 800-806.	4.0	27
88	Higher order Lagrange-Poincaré and Hamilton-Poincaré reductions. Bulletin of the Brazilian Mathematical Society, 2011, 42, 579-606.	0.8	27
89	Invariant Higher-Order Variational Problems II. Journal of Nonlinear Science, 2012, 22, 553-597.	2.1	27
90	Noise and Dissipation on Coadjoint Orbits. Journal of Nonlinear Science, 2018, 28, 91-145.	2.1	27

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91	The Lie-transformed Vlasov action principle: Relativistically covariant wave propagation and self-consistent ponderomotive effects. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 105, 277-279.	2.1	25
92	Hamiltonian dynamics of a charged fluid, including electro- and magnetohydrodynamics. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 114, 137-141.	2.1	25
93	Lagrangeâ€™PoincarÃ© field equations. Journal of Geometry and Physics, 2011, 61, 2120-2146.	1.4	25
94	Dispersive barotropic equations for stratified mesoscale ocean dynamics. Physica D: Nonlinear Phenomena, 1992, 60, 1-15.	2.8	24
95	Highly turbulent solutions of the Lagrangian-averaged Navier-Stokes<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î±</mml:mi></mml:mrow></mml:math> model and their large-eddy-simulation potential. Physical Review E, 2007, 76, 056310.	2.1	24
96	Vlasov moments, integrable systems and singular solutions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 1024-1033.	2.1	24
97	Geometric Mechanics. , 2008, , .		24
98	Lyapunov stability analysis of magnetohydrodynamic plasma equilibria with axisymmetric toroidal flow. Physics of Fluids, 1988, 31, 1930.	1.4	23
99	Elliptical vortices and integrable Hamiltonian dynamics of the rotating shallow-water equations. Journal of Fluid Mechanics, 1991, 227, 393-406.	3.4	23
100	Euler-PoincarÃ© Dynamics of Perfect Complex Fluids. , 2002, , 169-180.		23
101	Continuous and Discrete Clebsch Variational Principles. Foundations of Computational Mathematics, 2009, 9, 221-242.	2.5	23
102	Variational principles for stochastic soliton dynamics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150827.	2.1	23
103	Wave breaking for the Stochastic Camassaâ€™Holm equation. Physica D: Nonlinear Phenomena, 2018, 376-377, 138-143.	2.8	23
104	Hamiltonian techniques for relativistic fluid dynamics and stability theory. Lecture Notes in Mathematics, 1989, , 65-151.	0.2	22
105	Euler-PoincarÃ© formulation of hybrid plasma models. Communications in Mathematical Sciences, 2012, 10, 191-222.	1.0	22
106	Poisson structures of superconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 93, 177-181.	2.1	21
107	Superfluid plasmas: Multivelocity nonlinear hydrodynamics of superfluid solutions with charged condensates coupled electromagnetically. Physical Review A, 1987, 36, 3947-3956.	2.5	21
108	Hamiltonian structure for two-dimensional hydrodynamics with nonlinear dispersion. Physics of Fluids, 1988, 31, 2371.	1.4	21

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109	Integrable and chaotic polarization dynamics in nonlinear optical beams. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 137, 355-364.	2.1	21
110	Homoclinic chaos in a laser-matter system. Physica D: Nonlinear Phenomena, 1992, 56, 270-300.	2.8	21
111	Geodesic flows on semidirect-product Lie groups: geometry of singular measure-valued solutions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 457-476.	2.1	21
112	Smooth and peaked solitons of the CH equation. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 434003.	2.1	21
113	The Rotor and the Pendulum. , 1991, , 189-203.		21
114	Crossover-Time in Quantum Boson and Spin Systems. Lecture Notes in Physics Monographs, 1994, , .	0.5	21
115	Lyapunov stability of relativistic fluids and plasmas. Physics of Fluids, 1986, 29, 49.	1.4	20
116	Chaotic laser-matter interaction. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 154, 346-352.	2.1	20
117	Lagrangian particle paths and ortho-normal quaternion frames. Nonlinearity, 2007, 20, 1745-1759.	1.4	20
118	Selective decay by Casimir dissipation in inviscid fluids. Nonlinearity, 2013, 26, 495-524.	1.4	20
119	Circulation and Energy Theorem Preserving Stochastic Fluids. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2020, 150, 2776-2814.	1.2	20
120	Simultaneous Fine and Coarse Diffeomorphic Registration: Application to Atrophy Measurement in Alzheimer's Disease. Lecture Notes in Computer Science, 2010, 13, 610-617.	1.3	20
121	A Particle Filter for Stochastic Advection by Lie Transport: A Case Study for the Damped and Forced Incompressible Two-Dimensional Euler Equation. SIAM-ASA Journal on Uncertainty Quantification, 2020, 8, 1446-1492.	2.0	20
122	Commutator errors in large-eddy simulation. Journal of Physics A, 2006, 39, 2213-2229.	1.6	19
123	Geometry of Vlasov kinetic moments: A bosonic Fock space for the symmetric Schouten bracket. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 4184-4196.	2.1	19
124	Alpha-modeling Strategy for LES of Turbulent Mixing. , 2002, , 237-278.		19
125	The LANS- β and Leray turbulence parameterizations in primitive equation ocean modeling. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 344009.	2.1	18
126	Hamiltonian theory of relativistic magnetohydrodynamics with anisotropic pressure. Physics of Fluids, 1986, 29, 3889.	1.4	17

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127	Variational principles for Lagrangian-averaged fluid dynamics. Journal of Physics A, 2002, 35, 679-688.	1.6	17
128	K�rm�n��Howarth theorem for the Lagrangian-averaged Navier��Stokes��alpha model of turbulence. Journal of Fluid Mechanics, 2002, 467, 205-214.	3.4	17
129	The dynamics of the gradient of potential vorticity. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 172001.	2.1	17
130	Expansion of a cold ion cloud. Applied Physics Letters, 1981, 38, 519-521.	3.3	16
131	Yang-Mills magnetohydrodynamics: Nonrelativistic theory. Physical Review D, 1984, 30, 2557-2560.	4.7	16
132	Length-scale estimates for the LANS��equations in terms of the Reynolds��number. Physica D: Nonlinear Phenomena, 2006, 220, 69-78.	2.8	16
133	Geometry of Nonadiabatic Quantum Hydrodynamics. Acta Applicandae Mathematicae, 2019, 162, 63-103.	1.0	16
134	Variational principles for spin systems and the Kirchhoff rod. Journal of Geometric Mechanics, 2009, 1, 417-444.	0.8	16
135	Low-noise picosecond soliton transmission by use of concatenated nonlinear amplifying loop mirrors. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 1850.	2.1	15
136	Baroclinic Instabilities of the Two-Layer Quasigeostrophic Alpha Model. Journal of Physical Oceanography, 2005, 35, 1287-1296.	1.7	15
137	Momentum Maps and Stochastic Clebsch Action Principles. Communications in Mathematical Physics, 2018, 357, 873-912.	2.2	15
138	Lyapunov stability of ideal stratified fluid equilibria in hydrostatic balance. Nonlinearity, 1989, 2, 23-35.	1.4	14
139	Secondary Instabilities of Flows with Elliptic Streamlines. Physical Review Letters, 1997, 78, 1900-1903.	7.8	14
140	A Geometric Framework for Stochastic Shape Analysis. Foundations of Computational Mathematics, 2019, 19, 653-701.	2.5	14
141	Implications of Kunita��It��Wentzell Formula for k-Forms in Stochastic Fluid Dynamics. Journal of Nonlinear Science, 2020, 30, 1421-1454.	2.1	14
142	Relativistic chromohydrodynamics and Yang-Mills Vlasov plasma. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 105, 225-228.	2.1	13
143	Lie-Poisson description of Hamiltonian ray optics. Physica D: Nonlinear Phenomena, 1991, 51, 189-199.	2.8	13
144	Geometry of Image Registration: The Diffeomorphism Group and Momentum Maps. Fields Institute Communications, 2015, , 19-56.	1.3	13

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145	Modelling the Climate and Weather of a 2D Lagrangian-Averaged Euler–Boussinesq Equation with Transport Noise. <i>Journal of Statistical Physics</i> , 2020, 179, 1267-1303.	1.2	13
146	Stochastic mesoscale circulation dynamics in the thermal ocean. <i>Physics of Fluids</i> , 2021, 33, .	4.0	13
147	Lagrangian Averaged Stochastic Advection by Lie Transport for Fluids. <i>Journal of Statistical Physics</i> , 2020, 179, 1304-1342.	1.2	13
148	Multipressure regularization for multiphase flow. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1984, 106, 165-168.	2.1	12
149	Hamiltonian differencing of fluid dynamics. <i>Advances in Applied Mathematics</i> , 1985, 6, 52-84.	0.7	12
150	Hamiltonian dynamics and stability analysis of neutral electromagnetic fluids with induction. <i>Physica D: Nonlinear Phenomena</i> , 1987, 25, 261-287.	2.8	12
151	Nonlocal orientation-dependent dynamics of charged strands and ribbons. <i>Comptes Rendus Mathematique</i> , 2009, 347, 1093-1098.	0.3	12
152	Multiscale turbulence models based on convected fluid microstructure. <i>Journal of Mathematical Physics</i> , 2012, 53, .	1.1	12
153	G-Strands. <i>Journal of Nonlinear Science</i> , 2012, 22, 517-551.	2.1	12
154	A multipressure regularization for multiphase flow. <i>International Journal of Multiphase Flow</i> , 1986, 12, 681-697.	3.4	11
155	Horseshoe chaos in a periodically perturbed polarized optical beam. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1989, 138, 29-36.	2.1	11
156	Boundary Effects on Exact Solutions of the Lagrangian-Averaged Navier–Stokes– \pm Equations. <i>Journal of Statistical Physics</i> , 2003, 113, 841-854.	1.2	11
157	Mean Effects of Turbulence on Elliptic Instability in Fluids. <i>Physical Review Letters</i> , 2003, 90, 124501.	7.8	11
158	Geometric gradient-flow dynamics with singular solutions. <i>Physica D: Nonlinear Phenomena</i> , 2008, 237, 2952-2965.	2.8	11
159	Waltzing peakons and compacton pairs in a cross-coupled Camassa–Holm equation. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2011, 44, 265205.	2.1	11
160	The Effect of Subfilter-Scale Physics on Regularization Models. <i>Journal of Scientific Computing</i> , 2011, 49, 21-34.	2.3	11
161	On Noether’s Theorem for the Euler–Poincaré Equation on the Diffeomorphism Group with Advected Quantities. <i>Foundations of Computational Mathematics</i> , 2013, 13, 457-477.	2.5	11
162	A geometric theory of selective decay with applications in MHD. <i>Nonlinearity</i> , 2014, 27, 1747-1777.	1.4	11

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163	Variational formulations of sound-proof models. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 1966-1973.	2.7	11
164	Stochastic effects of waves on currents in the ocean mixed layer. Journal of Mathematical Physics, 2021, 62, .	1.1	11
165	Converging finite-strength shocks. Physica D: Nonlinear Phenomena, 1981, 2, 194-202.	2.8	10
166	Ponderomotive hamiltonian and Lyapunov stability for magnetically confined plasma in the presence of rf field. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 106, 29-33.	2.1	10
167	A tri-Hamiltonian formulation of the self-induced transparency equations. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 160, 143-148.	2.1	10
168	Homoclinic chaos for ray optics in a fiber. Physica D: Nonlinear Phenomena, 1991, 51, 177-188.	2.8	10
169	Nonlinear resonance and dynamical chaos in a diatomic molecule driven by a resonant ir field. Physical Review A, 1995, 52, 3074-3081.	2.5	10
170	Formation and evolution of singularities in anisotropic geometric continua. Physica D: Nonlinear Phenomena, 2007, 235, 33-47.	2.8	10
171	Inexact trajectory planning and inverse problems in the Hamiltonâ€Pontryagin framework. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130249.	2.1	10
172	Stochastic Closures for Waveâ€Current Interaction Dynamics. Journal of Nonlinear Science, 2019, 29, 2987-3031.	2.1	10
173	Stochastic Waveâ€Current Interaction in Thermal Shallow Water Dynamics. Journal of Nonlinear Science, 2021, 31, 1.	2.1	10
174	Stochastic Variational Formulations of Fluid Waveâ€Current Interaction. Journal of Nonlinear Science, 2021, 31, 4.	2.1	10
175	Lagrangian analysis of alignment dynamics for isentropic compressible magnetohydrodynamics. New Journal of Physics, 2007, 9, 292-292.	2.9	9
176	A Eulerâ€PoincarÃ© framework for the multilayer Greenâ€Nagdhi equations. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 344018.	2.1	9
177	Exact geometric theory of dendronized polymer dynamics. Advances in Applied Mathematics, 2012, 48, 535-574.	0.7	9
178	A Stochastic Large Deformation Model for Computational Anatomy. Lecture Notes in Computer Science, 2017, , 571-582.	1.3	9
179	Geometric dynamics of optimization. Communications in Mathematical Sciences, 2013, 11, 163-231.	1.0	9
180	Recovery of solitons with nonlinear amplifying loop mirrors. Optics Letters, 1995, 20, 2490.	3.3	8

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181	Geometric dissipation in kinetic equations. Comptes Rendus Mathematique, 2007, 345, 297-302.	0.3	8
182	Variational principles for fluid dynamics on rough paths. Advances in Mathematics, 2022, 404, 108409.	1.1	8
183	Magnetic tornadoes: Three-dimensional affine motions in ideal magnetohydrodynamics. Physica D: Nonlinear Phenomena, 1983, 8, 170-182.	2.8	7
184	Gyroscopic analog for collective motion of a stratified fluid. Journal of Mathematical Analysis and Applications, 1986, 117, 57-80.	1.0	7
185	Introduction to HVBK Dynamics. , 2001, , 114-130.		7
186	Craik's "Criminale solutions and elliptic instability in nonlinear-reactive closure models for turbulence. Physics of Fluids, 2004, 16, 853-866.	4.0	7
187	Quantum Splines. Physical Review Letters, 2012, 109, 100501.	7.8	7
188	New variational and multisymplectic formulations of the Euler-Poincaré equation on the Virasoro-Bott group using the inverse map. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20180052.	2.1	7
189	Stochastic Parametrization of the Richardson Triple. Journal of Nonlinear Science, 2019, 29, 89-113.	2.1	7
190	Dual pairs in resonances. Journal of Geometric Mechanics, 2012, 4, 297-311.	0.8	7
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192	Hamiltonian statistical mechanics. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 502002.	2.1	6
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