Yisong Yang

List of Publications by Year
in descending order

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79	1,940	304743	254184
papers	citations	22	43
		h-index	g-index

86	86	86	363
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Solitons in Field Theory and Nonlinear Analysis. Springer Monographs in Mathematics, 2001, , .	0.2	327
2	Vortex condensation in the Chern-Simons Higgs model: An existence theorem. Communications in Mathematical Physics, 1995, 168, 321-336.	2.2	187
3	The existence of non-topological solitons in the self-dual Chern-Simons theory. Communications in Mathematical Physics, 1992, 149, 361-376.	2.2	121
4	Topological solutions in the self-dual Chern-Simons theory: existence and approximation. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 1995, 12, 75-97.	1.4	107
5	Nonlinear non-local elliptic equation modelling electrostatic actuation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 1323-1337.	2.1	83
6	The Relativistic non-abelian Chern-Simons Equations. Communications in Mathematical Physics, 1997, 186, 199-218.	2.2	72
7	Classical solutions in the Bornâ€"Infeld theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2000, 456, 615-640.	2.1	69
8	Existence of Energy Minimizers as Stable Knotted Solitons in the Faddeev Model. Communications in Mathematical Physics, 2004, 249, 273-303.	2.2	62
9	On multivortices in the electroweak theory I: Existence of periodic solutions. Communications in Mathematical Physics, 1992, 144, 1-16.	2.2	57
10	Abrikosovâ€™s Vortices in the Critical Coupling. SIAM Journal on Mathematical Analysis, 1992, 23, 1125-1140.	1.9	56
11	A system of elliptic equations arising in Chernâ€"Simons field theory. Journal of Functional Analysis, 2007, 247, 289-350.	1.4	44
12	Prescribing topological defects for the coupled Einstein and Abelian Higgs equations. Communications in Mathematical Physics, 1995, 170, 541-582.	2.2	36
13	Strings of opposite magnetic charges in a gauge field theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 601-629.	2.1	36
14	Electrically and magnetically charged vortices in the Chernâ€"Simonsâ€"Higgs theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 3489-3516.	2.1	36
15	Topological and nontopological self-dual Chern-Simons solitons in a gauged O(3)Ï*f* model. Physical Review D, 1996, 54, 5245-5258.	4.7	33
16	Existence of multiple vortices in supersymmetric gauge field theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 3923-3946.	2.1	32
17	On multivortices in the electroweak theory II: Existence of Bogomol'nyi solutions in â„2. Communications in Mathematical Physics, 1992, 144, 215-234.	2.2	31
18	A necessary and sufficient condition for the existence of multisolitons in a self-dual gauged sigma model. Communications in Mathematical Physics, 1996, 181, 485-506.	2.2	31

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19	Abelian gauge theory on Riemann surfaces and new topological invariants. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2000, 456, 593-613.	2.1	31
20	A matrix trace inequality. Journal of Mathematical Analysis and Applications, 1988, 133, 573-574.	1.0	26
21	Coexistence of Vortices and Antivortices in an Abelian Gauge Theory. Physical Review Letters, 1998, 80, 26-29.	7.8	26
22	Skyrme models with selfâ€dual limits: d=2,3. Journal of Mathematical Physics, 1996, 37, 2569-2584.	1.1	24
23	Existence, regularity, and asymptotic behavior of the solutions to the Ginzburg-Landau equations on ?3. Communications in Mathematical Physics, 1989, 123, 147-161.	2.2	22
24	Non-Abelian Multiple Vortices in Supersymmetric Field Theory. Communications in Mathematical Physics, 2011, 304, 433-457.	2.2	22
25	Sharp existence and uniqueness theorems for non-Abelian multiple vortex solutions. Nuclear Physics B, 2011, 846, 650-676.	2.5	21
26	Obstructions to the existence of static cosmic strings in an Abelian Higgs model. Physical Review Letters, 1994, 73, 10-13.	7.8	20
27	Moduli Space of BPS Walls in Supersymmetric Gauge Theories. Communications in Mathematical Physics, 2006, 267, 783-800.	2.2	18
28	Non-Abelian Vortices in Supersymmetric Gauge Field Theory via Direct Methods. Communications in Mathematical Physics, 2012, 313, 445-478.	2.2	18
29	Self duality of the gauge field equations and the cosmological constant. Communications in Mathematical Physics, 1994, 162, 481-498.	2.2	17
30	Steady state solutions for nonlinear SchrÃ¶dinger equation arising in optics. Journal of Mathematical Physics, 2009, 50, 053501.	1.1	16
31	On the Bardeen-Cooper-Schrieffer integral equation in the theory of superconductivity. Letters in Mathematical Physics, 1991, 22, 27-37.	1.1	15
32	On a System of Nonlinear Elliptic Equations Arising in Theoretical Physics. Journal of Functional Analysis, 2000, 170, 1-36.	1.4	15
33	Multiple Instantons Representing Higher-Order Chern-Pontryagin Classes. Communications in Mathematical Physics, 1997, 188, 737-751.	2.2	14
34	Chernâ€“Simons vortices in the Gudnason model. Journal of Functional Analysis, 2014, 267, 678-726.	1.4	14
35	The Ginzburgâ€“Landau equations for superconducting films and the Meissner effect. Journal of Mathematical Physics, 1990, 31, 1284-1289.	1.1	12
36	Existence of Optical Vortices. SIAM Journal on Mathematical Analysis, 2014, 46, 484-498.	1.9	12

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37	The uniqueness and approximation of a positive solution of the Bardeenâ€“Cooperâ€“Schrieffer gap equation. Journal of Mathematical Physics, 2000, 41, 6007-6025.	1.1	11
38	Proof of the Juliaâ€“Zee Theorem. Communications in Mathematical Physics, 2009, 291, 347-356.	2.2	11
39	Dynamics of electrostatic microelectromechanical systems actuators. Journal of Mathematical Physics, 2012, 53, 022703.	1.1	11
40	Domain wall equations, Hessian of superpotential, and Bogomol'nyi bounds. Nuclear Physics B, 2016, 904, 470-493.	2.5	11
41	Existence of the massive SO(3) vortices. Journal of Mathematical Physics, 1991, 32, 1395-1399.	1.1	10
42	Mathematical analysis of the multiband BCS gap equations in superconductivity. Physica D: Nonlinear Phenomena, 2005, 200, 60-74.	2.8	10
43	Magnetic impurity inspired Abelian Higgs vortices. Journal of High Energy Physics, 2016, 2016, 1.	4.7	10
44	Generalized Bernstein property and gravitational strings in Bornâ€“Infeld theory. Nonlinearity, 2007, 20, 1193-1213.	1.4	8
45	Resolution of Chernâ€“Simonsâ€“Higgs Vortex Equations. Communications in Mathematical Physics, 2016, 343, 701-724.	2.2	8
46	The critical temperature and gap solution in the Bardeen-Cooper-Schrieffer theory of superconductivity. Letters in Mathematical Physics, 1993, 29, 133-150.	1.1	7
47	Topological solitons in the Weinberg-Salam theory. Physica D: Nonlinear Phenomena, 1997, 101, 55-94.	2.8	7
48	On a vegetation pattern formation model governed by a nonlinear parabolic system. Nonlinear Analysis: Real World Applications, 2013, 14, 507-525.	1.7	7
49	Relativistic Chernâ€“Simonsâ€“Higgs vortex equations. Transactions of the American Mathematical Society, 2015, 368, 3565-3590.	0.9	6
50	Dyonically charged black holes arising in generalized Bornâ€“Infeld theory of electromagnetism. Annals of Physics, 2022, 443, 168996.	2.8	6
51	Vortices on asymptotically Euclidean Riemann surfaces. Nonlinear Analysis: Theory, Methods & Applications, 1990, 15, 577-596.	1.1	5
52	The Lee-Weinberg magnetic monopole of unit charge: existence and uniqueness. Physica D: Nonlinear Phenomena, 1998, 117, 215-240.	2.8	5
53	Topologically stratified energy minimizers in a product Abelian field theory. Nuclear Physics B, 2015, 898, 605-626.	2.5	5
54	Determination of angle of light deflection in higher-derivative gravity theories. Journal of Mathematical Physics, 2018, 59, 032501.	1.1	5

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55	Existence Theorems for Vortices in the Aharonyâ€“Bergmanâ€“Jaferisâ€“Maldacena Model. Communications in Mathematical Physics, 2015, 333, 229-259.	2.2	4
56	Integer-squared laws for global vortices in the Bornâ€“Infeld wave equations. Annals of Physics, 2019, 400, 303-319.	2.8	4
57	Phase transition solutions in geometrically constrained magnetic domain wall models. Journal of Mathematical Physics, 2010, 51, 023504.	1.1	3
58	Existence of Dyons in the Coupled Georgiâ€“Glashowâ€“Skyrme Model. Annales Henri Poincare, 2011, 12, 329-349.	1.7	3
59	Solutions to the master equations governing fractional vortices. Journal of Differential Equations, 2013, 254, 1437-1463.	2.2	3
60	Critical pull-in curves of MEMS actuators in presence of Casimir force. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2016, 96, 1406-1422.	1.6	3
61	Solutions to the minimization problem arising in a dark monopole model in gauge field theory. Nuclear Physics B, 2020, 951, 114851.	2.5	3
62	On Pokrovskii's anisotropic gap equations in superconductivity theory. Nonlinearity, 2003, 16, 2061-2073.	1.4	2
63	Domain Wall Solitons Arising in Classical Gauge Field Theories. Communications in Mathematical Physics, 2019, 369, 317-349.	2.2	2
64	Determination of bending angle of light deflection subject to possible weak and strong quantum gravity effects. International Journal of Modern Physics A, 2020, 35, 2050188.	1.5	2
65	Existence of hyperbolic calorons. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140970.	2.1	1
66	Non-Abelian clouds around Reissner-NordstrÃ¶m black holes: The existence line. Physical Review D, 2016, 93, .	4.7	1
67	Determination of gap solution and critical temperature in doped graphene superconductivity. Zeitschrift Fur Angewandte Mathematik Und Physik, 2017, 68, 1.	1.4	1
68	Boundary charges and integral identities for solitons in (d + 1)-dimensional field theories. Nuclear Physics B, 2017, 925, 500-535.	2.5	1
69	Determination of anti-de Sitter monopole wall via minimization. Journal of Mathematical Physics, 2019, 60, 073509.	1.1	0
70	Yangâ€“Mills monopoles in extremal Reissnerâ€“NordstrÃ¶m black hole metric. Journal of Mathematical Physics, 2021, 62, 052304.	1.1	0
71	Coexisting vortices and antivortices generated by dually gauged harmonic maps. Journal of Mathematical Physics, 2021, 62, 103503.	1.1	0
72	Notation and convention. , 0, , xiii-xiv.		0

#	Article	IF	Citations
73	Linear mappings. , 0, , 34-77.		0
74	Scalar products. , 0, , 115-146.		0
75	Real quadratic forms and self-adjoint mappings. , 0, , 147-179.		0
76	Complex quadratic forms and self-adjoint mappings. , 0, , 180-204.		0
77	Jordan decomposition. , 0, , 205-225.		0
78	Selected topics. , 0, , 226-247.		0
79	Excursion: Quantum mechanics in a nutshell. , 0, , 248-266.		0