

# Christoph Adam

## List of Publications by Year in descending order

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129  
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129  
all docs

129  
docs citations

129  
times ranked

503  
citing authors

#	ARTICLE	IF	CITATIONS
1	Relativistic moduli space for kink collisions. Physical Review D, 2022, 105, .	4.7	18
2	Dense matter equation of state and phase transitions from a generalized Skyrme model. Physical Review D, 2022, 105, .	4.7	7
3	Quasiuniversal relations for generalized Skyrme stars. Physical Review D, 2021, 103, .	4.7	6
4	Spectral walls in multifield kink dynamics. Journal of High Energy Physics, 2021, 2021, 1.	4.7	18
5	Sphalerons and resonance phenomenon in kink-antikink collisions. Physical Review D, 2021, 104, .	4.7	10
6	The dielectric Skyrme model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 807, 135560.	4.1	11
7	Kink-antikink scattering in the $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \text{ display="inline"} \rangle \langle \text{mml:msup} \langle \text{mml:mi} \rangle ^4 \langle \text{mml:mn} \rangle 4 \langle \text{mml:mn} \rangle \langle \text{mml:msup} \langle \text{mml:math} \rangle \text{ model}$ without static intersoliton forces. Physical Review D, 2020, 101, .	4.7	25
8	BPS Skyrme neutron stars in generalized gravity. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 041-041.	5.4	1
9	A new consistent neutron star equation of state from a generalized Skyrme model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 811, 135928.	4.1	15
10	Incompressible topological solitons. Physical Review D, 2020, 102, .	4.7	2
11	Adding crust to BPS Skyrme neutron stars. Physical Review D, 2020, 102, .	4.7	1
12	Inflationary twin models. Physical Review D, 2020, 101, .	4.7	6
13	Kink-antikink collisions in a weakly interacting $\tilde{\chi}^4$ model. Physical Review E, 2020, 102, 062214.	2.1	18
14	BPS soliton-impurity models and supersymmetry. Journal of High Energy Physics, 2019, 2019, 1.	4.7	22
15	Solvable self-dual impurity models. Journal of High Energy Physics, 2019, 2019, 1.	4.7	35
16	Spectral Walls in Soliton Collisions. Physical Review Letters, 2019, 122, 241601.	7.8	49
17	The $\tilde{\chi}^4$ model with the BPS preserving defect. Journal of High Energy Physics, 2019, 2019, 1.	4.7	39
18	BPS sectors of the Skyrme model and their non-BPS extensions. Physical Review D, 2018, 97, .	4.7	5

#	ARTICLE		IF	CITATIONS
19	Roper resonances and quasi-normal modes of Skyrmions. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.		4.7	6
20	BPS property and its breaking in $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="block">\langle mml:mrow\rangle\langle mml:mn\rangle 1 \langle mml:mo\rangle + \langle mml:mo\rangle \langle mml:mn\rangle 1 \langle mml:mn\rangle \langle mml:mrow\rangle \times \langle mml:math\rangle$ dimensions. <i>Physical Review D</i> , 2018, 98, .			
21	Radial vibrational excitations in the BPS Skyrme model. <i>AIP Conference Proceedings</i> , 2018, , .		0.4	0
22	Exactly solvable gravitating perfect fluid solitons in (2 + 1) dimensions. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.		4.7	3
23	BPS submodels of the Skyrme model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2017, 769, 362-367.		4.1	13
24	Gauged BPS baby Skyrmions with quantized magnetic flux. <i>Physical Review D</i> , 2017, 95, .		4.7	7
25	Volume of a vortex and the Bradlow bound. <i>Physical Review D</i> , 2017, 95, .		4.7	4
26	Radial vibrations of BPS skyrmions. <i>Physical Review D</i> , 2016, 94, .		4.7	10
27	On the spin excitation energy of the nucleon in the Skyrme model. <i>International Journal of Modern Physics E</i> , 2016, 25, 1650097.		1.0	6
28	The volume of a soliton. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2016, 754, 18-25.		4.1	19
29	A unified approach to nuclei: The BPS Skyrme Model. <i>Nuclear and Particle Physics Proceedings</i> , 2016, 273-275, 1480-1486.		0.5	0
30	Hairy black holes in the general Skyrme model. <i>Physical Review D</i> , 2016, 94, .		4.7	23
31	The first-order Euler-Lagrange equations and some of their uses. <i>Journal of High Energy Physics</i> , 2016, 2016, 1.		4.7	41
32	Skyrme models and nuclear matter equation of state. <i>Physical Review C</i> , 2015, 92, .		2.9	29
33	Baryon chemical potential and in-medium properties of BPS skyrmions. <i>Physical Review D</i> , 2015, 91, .		4.7	17
34	Topological phase transitions in the gauged BPS baby Skyrme model. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.		4.7	12
35	BPS Skyrmions as neutron stars. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2015, 742, 136-142.		4.1	49
36	Neutron stars in the Bogomol'nyi-Prasad-Sommerfield Skyrme model: Mean-field limit versus full field theory. <i>Physical Review C</i> , 2015, 92, .		2.9	30

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37	Thermodynamics of the BPS Skyrme model. <i>Physical Review D</i> , 2014, 90, .	4.7	27
38	Topological energy bounds in generalized Skyrme models. <i>Physical Review D</i> , 2014, 89, .	4.7	26
39	Magneto thermodynamics of BPS baby skyrmions. <i>Journal of High Energy Physics</i> , 2014, 2014, 1.	4.7	16
40	Extended supersymmetry and BPS solutions in baby Skyrme models. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	44
41	Lifshitz field theories with SDiff symmetries. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	7
42	Some aspects of self-duality and generalised BPS theories. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	40
43	Topological duality between vortices and planar Skyrmions in BPS theories with area-preserving diffeomorphism symmetries. <i>Physical Review D</i> , 2013, 87, .	4.7	6
44	Rotational-vibrational coupling in the BPS Skyrme model of baryons. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2013, 726, 892-895.	4.1	10
45	Nuclear binding energies from a Bogomol'nyi-Prasad-Sommerfield Skyrme model. <i>Physical Review C</i> , 2013, 88, .	2.9	28
46	Bogomol'nyi-Prasad-Sommerfield Skyrme Model and Nuclear Binding Energies. <i>Physical Review Letters</i> , 2013, 111, 232501.	7.8	67
47	Symmetries and exact solutions of the BPS Skyrme model. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013, 46, 135401.	2.1	16
48	A gauged baby Skyrme model and a novel BPS bound. <i>Journal of Physics: Conference Series</i> , 2013, 410, 012055.	0.4	3
49	Twinlike models with identical linear fluctuation spectra. <i>Physical Review D</i> , 2012, 85, .	4.7	23
50	Supersymmetric extensions of K field theories. <i>Journal of Physics: Conference Series</i> , 2012, 343, 012008.	0.4	2
51	BPS bounds in supersymmetric extensions of K field theories. <i>Physical Review D</i> , 2012, 86, .	4.7	11
52	Vector BPS baby Skyrme model. <i>Physical Review D</i> , 2012, 86, .	4.7	6
53	Gauged BPS baby Skyrme model. <i>Physical Review D</i> , 2012, 86, .	4.7	25
54	Vector BPS Skyrme model. <i>Physical Review D</i> , 2012, 86, .	4.7	10

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55	Supersymmetric field theories and defect structures. Physical Review D, 2011, 84, .	4.7	26
56	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>N</mml:mi><mml:mo>=</mml:mo><mml:mn>1</mml:mn></mml:math> supersymmetric extension of the baby Skyrme model. Physical Review D, 2011, 84, .	4.7	41
57	Algebraic construction of twinlike models. Physical Review D, 2011, 84, .	4.7	27
58	A BPS Skyrme model. Journal of Physics: Conference Series, 2011, 284, 012006.	0.4	3
59	A BPS Skyrme model and phenomenology of nuclei. , 2011, , .		0
60	Compact boson stars in K field theories. General Relativity and Gravitation, 2010, 42, 2663-2701.	2.0	14
61	A Skyrme-type proposal for baryonic matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 691, 105-110.	4.1	160
62	Strongly coupled Skyrmeâ€“Faddeevâ€“Niemi hopfions. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 345402.	2.1	6
63	BPS Skyrme model and baryons at large<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>N</mml:mi><mml:mi>c</mml:mi></mml:msub></mml:math>. Physical Review D, 2010, 82, .	4.7	93
64	Investigation of restricted baby Skyrme models. Physical Review D, 2010, 81, .	4.7	60
65	Compact shell solitons in K field theories. Journal of Mathematical Physics, 2009, 50, 102303.	1.1	6
66	Pullback of the volume form, integrable models in higher dimensions and exotic textures. Journal of Mathematical Physics, 2009, 50, 022301.	1.1	8
67	Compact gauge <i>K</i> vortices. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 135401.	2.1	47
68	k-defects as compactons. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 089801.	2.1	25
69	Compact baby Skyrmions. Physical Review D, 2009, 80, .	4.7	39
70	Kfields, compactons and thick branes. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 159801.	2.1	15
71	k-defects as compactons. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 089801.	2.1	0
72	A first integration of some knot soliton models. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 659, 761-767.	4.1	3

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73	Comment on: "Reduction of static field equation of Faddeev model to first order PDE". [Phys. Lett. B 652 (2007) 384]. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 661, 378-380.	4.1	2
74	Compact self-gravitating solutions of quartic ( $K$ ) fields in brane cosmology. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 375401.	2.1	51
75	Infinitely many conservation laws in self-dual Yang-Mills theory. Journal of High Energy Physics, 2008, 2008, 014-014.	4.7	2
76	$K$ fields, compactons and thick branes. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 212004.	2.1	68
77	An integrable subsystem of Yang-Mills dilaton theory. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 095401.	2.1	2
78	Generalized integrability and volume-preserving diffeomorphisms. Journal of Physics: Conference Series, 2008, 128, 012025.	0.4	0
79	$k$ -defects as compactons. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 13625-13643.	2.1	81
80	New integrable sectors in the Skyrme and four-dimensional CP <sub>n</sub> models. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 1907-1923.	2.1	7
81	Integrability in theories with local U(1) gauge symmetry. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 9079-9088.	2.1	3
82	Soliton stability in some knot soliton models. Journal of Mathematical Physics, 2007, 48, 022305.	1.1	4
83	Conservation laws in Skyrme-type models. Journal of Mathematical Physics, 2007, 48, 032302.	1.1	11
84	Integrability and Diffeomorphisms on Target Space. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 2007, , .	0.5	0
85	Investigation of the Nicole model. Journal of Mathematical Physics, 2006, 47, 052302.	1.1	26
86	Integrability from an Abelian subgroup of the diffeomorphisms group. Journal of Mathematical Physics, 2006, 47, 022303.	1.1	16
87	Hopf solitons and Hopf Q-balls on S <sub>3</sub> . European Physical Journal C, 2006, 47, 513-524.	3.9	11
88	Generalized integrability conditions and target space geometry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 626, 235-242.	4.1	10
89	Symmetries of generalized soliton models and submodels on target space S <sub>2</sub> . Journal of High Energy Physics, 2005, 2005, 004-004.	4.7	9
90	The symmetries of the Dirac-Pauli equation in two and three dimensions. Journal of Mathematical Physics, 2005, 46, 052304.	1.1	1

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91	Hopf maps as static solutions of the complex eikonal equation. <i>Journal of Mathematical Physics</i> , 2004, 45, 4017-4024.	1.1	13
92	Improved vector and scalar masses in the massive Schwinger model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2003, 555, 132-137.	4.1	12
93	Photon decay in a CPT-violating extension of quantum electrodynamics. <i>Nuclear Physics B</i> , 2003, 657, 214-228.	2.5	100
94	Chern-Simons action for zero-mode supporting gauge fields in three dimensions. <i>Physical Review D</i> , 2003, 67, .	4.7	1
95	Ring-shaped exact Hopf solitons. <i>Journal of Mathematical Physics</i> , 2003, 44, 5243-5249.	1.1	12
96	Causality and CPT violation from an Abelian Chernâ€“Simons-like term. <i>Nuclear Physics B</i> , 2001, 607, 247-267.	2.5	180
97	Causality and radiatively induced CPT violation. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2001, 513, 245-250.	4.1	48
98	Hopf instantons and the Liouville equation in target space. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2000, 479, 329-335.	4.1	7
99	Degeneracy of zero modes of the Dirac operator in three dimensions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2000, 485, 314-318.	4.1	22
100	ZERO MODES IN FINITE RANGE MAGNETIC FIELDS. <i>Modern Physics Letters A</i> , 2000, 15, 1577-1581.	1.2	7
101	Particle creation via relaxing hypermagnetic knots. <i>Physical Review D</i> , 2000, 62, .	4.7	10
102	Hopf instantons in Chern-Simons theory. <i>Physical Review D</i> , 2000, 61, .	4.7	10
103	Covariant Schwinger terms. <i>Physical Review D</i> , 2000, 62, .	4.7	3
104	Multiple zero modes of the Dirac operator in three dimensions. <i>Physical Review D</i> , 2000, 62, .	4.7	22
105	Non-L2 solutions to the Seibergâ€“Witten equations. <i>Journal of Mathematical Physics</i> , 2000, 41, 5875-5882.	1.1	8
106	Zero modes of the Dirac operator in three dimensions. <i>Physical Review D</i> , 1999, 60, .	4.7	29
107	THETA VACUUM IN DIFFERENT GAUGES. <i>Modern Physics Letters A</i> , 1999, 14, 185-197.	1.2	3
108	SCHWINGER MASS IN RENORMAL-ORDERED CHIRAL PERTURBATION THEORY. <i>International Journal of Modern Physics A</i> , 1999, 14, 4943-4952.	1.5	2

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109	Covariant Stora-Zumino chain terms. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 455, 197-199.	4.1	1
110	Perturbative solution of the schwinger model. European Physical Journal D, 1998, 48, 9-19.	0.4	6
111	The three-boson bound state in massive QED2. European Physical Journal D, 1998, 48, 1013-1023.	0.4	0
112	Decay widths and scattering processes in massive QED2. Nuclear Physics, Section B, Proceedings Supplements, 1998, 64, 301-305.	0.4	0
113	Consistent and Covariant Commutator Anomalies in the Chiral Schwinger Model. Annals of Physics, 1998, 265, 198-218.	2.8	6
114	Normalization of the chiral condensate in the massive Schwinger model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 440, 117-122.	4.1	10
115	Schwinger terms in Weyl-invariant and diffeomorphism-invariant 2D scalar field theory. Physical Review D, 1998, 57, 4833-4838.	4.7	0
116	Scattering processes in the massive Schwinger model. Physical Review D, 1997, 55, 6299-6312.	4.7	4
117	Investigation of anomalous axial QED. Physical Review D, 1997, 56, 5135-5139.	4.7	7
118	The bound-state masses of the massive Schwinger model. Nuclear Physics, Section B, Proceedings Supplements, 1997, 54, 198-202.	0.4	0
119	The boson-boson bound state in the massive Schwinger model. Zeitschrift fÃ¼r Physik C-Particles and Fields, 1997, 74, 727-730.	1.5	3
120	Decay widths in the massive Schwinger model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 391, 395-401.	4.1	5
121	Charge screening and confinement in the massive Schwinger model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 394, 161-164.	4.1	10
122	Massive Schwinger Model within Mass Perturbation Theory. Annals of Physics, 1997, 259, 1-63.	2.8	46
123	General bound-state structure of the massive Schwinger model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 382, 111-116.	4.1	11
124	The Dyson-Schwinger equations in the instanton vacuum of the Schwinger model. European Physical Journal D, 1996, 46, 893-904.	0.4	4
125	The Schwinger mass in the massive Schwinger model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 382, 383-388.	4.1	51
126	Vacuum functional and fermion condensate in the massive Schwinger model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 363, 79-84.	4.1	16

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127	Instantons and vacuum expectation values in the Schwinger model. Zeitschrift fÃ¼r Physik C-Particles and Fields, 1994, 63, 169-180.	1.5	22
128	Overview on the anomaly and Schwinger term in two-dimensionalQED. Rivista Del Nuovo Cimento, 1993, 16, 1-52.	5.7	40
129	Dispersion relation approach to the anomaly in 2 dimensions. Zeitschrift fÃ¼r Physik C-Particles and Fields, 1992, 56, 123-127.	1.5	26