

# Andrzej Wereszczynski

## List of Publications by Year in descending order

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107  
papers

2,069  
citations

218662

26  
h-index

276858

41  
g-index

107  
all docs

107  
docs citations

107  
times ranked

368  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	BPS Skyrme model and baryons at large $N$ . Physical Review D, 2010, 82, .	4.7	93
3	On correlation functions of operators dual to classical spinning string states. Journal of High Energy Physics, 2010, 2010, 1.	4.7	83
4	$k$ -defects as compactons. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 13625-13643.	2.1	81
5	$K$ -fields, compactons and thick branes. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 212004.	2.1	68
6	Bogomolny-Prasad-Sommerfield Skyrme Model and Nuclear Binding Energies. Physical Review Letters, 2013, 111, 232501.	7.8	67
7	Investigation of restricted baby Skyrme models. Physical Review D, 2010, 81, .	4.7	60
8	Correlation functions of three heavy operators – the AdS contribution. Journal of High Energy Physics, 2011, 2011, 1.	4.7	55
9	Compact self-gravitating solutions of quartic ( $K$ ) fields in brane cosmology. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 375401.	2.1	51
10	BPS Skyrmions as neutron stars. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 742, 136-142.	4.1	49
11	Spectral Walls in Soliton Collisions. Physical Review Letters, 2019, 122, 241601.	7.8	49
12	Compact gauge $K$ -vortices. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 135401.	2.1	47
13	Extended supersymmetry and BPS solutions in baby Skyrme models. Journal of High Energy Physics, 2013, 2013, 1.	4.7	44
14	$N$ supersymmetry extension of the baby Skyrme model. Physical Review D, 2011, 84, .	4.7	41
15	Some aspects of self-duality and generalised BPS theories. Journal of High Energy Physics, 2013, 2013, 1.	4.7	40
16	Compact baby Skyrmions. Physical Review D, 2009, 80, .	4.7	39
17	The $\tilde{I}_4$ model with the BPS preserving defect. Journal of High Energy Physics, 2019, 2019, 1.	4.7	39
18	Collective Coordinate Model of Kink-Antikink Collisions in $\tilde{I}_4$ Theory. Physical Review Letters, 2021, 127, 071601.	7.8	38

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19	HHL correlators, orbit averaging and form factors. Journal of High Energy Physics, 2014, 2014, 1.	4.7	35
20	Solvable self-dual impurity models. Journal of High Energy Physics, 2019, 2019, 1.	4.7	35
21	Neutron stars in the Bogomol'nyi-Prasad-Sommerfield Skyrme model: Mean-field limit versus full field theory. Physical Review C, 2015, 92, .	2.9	30
22	Skyrme models and nuclear matter equation of state. Physical Review C, 2015, 92, .	2.9	29
23	Nuclear binding energies from a Bogomol'nyi-Prasad-Sommerfield Skyrme model. Physical Review C, 2013, 88, .	2.9	28
24	Kink moduli spaces: Collective coordinates reconsidered. Physical Review D, 2021, 103, .	4.7	28
25	Thermodynamics of the BPS Skyrme model. Physical Review D, 2014, 90, .	4.7	27
26	Investigation of the Nicole model. Journal of Mathematical Physics, 2006, 47, 052302.	1.1	26
27	Supersymmetric field theories and defect structures. Physical Review D, 2011, 84, .	4.7	26
28	Topological energy bounds in generalized Skyrme models. Physical Review D, 2014, 89, .	4.7	26
29	k-defects as compactons. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 089801.	2.1	25
30	Gauged BPS baby Skyrme model. Physical Review D, 2012, 86, .	4.7	25
31	Kink-antikink scattering in the $\tilde{T}^4$ model without static intersoliton forces. Physical Review D, 2020, 101, .	4.7	25
32	BPS property and its breaking in $1+1$ dimensions. Physical Review D, 2018, 98, .	4.7	24
33	Hairy black holes in the general Skyrme model. Physical Review D, 2016, 94, .	4.7	23
34	BPS soliton-impurity models and supersymmetry. Journal of High Energy Physics, 2019, 2019, 1.	4.7	22
35	The volume of a soliton. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 754, 18-25.	4.1	19
36	Spectral walls in multifield kink dynamics. Journal of High Energy Physics, 2021, 2021, 1.	4.7	18

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37	Kink-antikink collisions in a weakly interacting $\tilde{F}_4$ model. Physical Review E, 2020, 102, 062214.	2.1	18
38	Relativistic moduli space for kink collisions. Physical Review D, 2022, 105, .	4.7	18
39	Baryon chemical potential and in-medium properties of BPS skyrmions. Physical Review D, 2015, 91, .	4.7	17
40	Integrability from an Abelian subgroup of the diffeomorphisms group. Journal of Mathematical Physics, 2006, 47, 022303.	1.1	16
41	Symmetries and exact solutions of the BPS Skyrme model. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 135401.	2.1	16
42	Magnetothermodynamics of BPS baby skyrmions. Journal of High Energy Physics, 2014, 2014, 1.	4.7	16
43	Iterated $\tilde{F}_4$ kinks. Journal of High Energy Physics, 2019, 2019, 1.	4.7	16
44	Kfields, compactons and thick branes. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 159801.	2.1	15
45	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
46	Toroidal solitons in Nicole-type models. European Physical Journal C, 2005, 41, 265-268.	3.9	14
47	Compact boson stars in K field theories. General Relativity and Gravitation, 2010, 42, 2663-2701.	2.0	14
48	BPS submodels of the Skyrme model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 769, 362-367.	4.1	13
49	Integrability and Hopf solitons in models with explicitly broken $O(3)$ symmetry. European Physical Journal C, 2004, 38, 261-265.	3.9	12
50	Topological phase transitions in the gauged BPS baby Skyrme model. Journal of High Energy Physics, 2015, 2015, 1.	4.7	12
51	Universality of the linear potential in effective models for the low energy QCD coupled with the dilaton field. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 570, 260-264.	4.1	11
52	Generalized eikonal knots and new integrable dynamical systems. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 621, 201-207.	4.1	11
53	Hopf solitons and Hopf Q-balls on $S^3$ . European Physical Journal C, 2006, 47, 513-524.	3.9	11
54	Conservation laws in Skyrme-type models. Journal of Mathematical Physics, 2007, 48, 032302.	1.1	11

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55	BPS bounds in supersymmetric extensions of K field theories. <i>Physical Review D</i> , 2012, 86, .	4.7	11
56	The dielectric Skyrme model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020, 807, 135560.	4.1	11
57	Vector BPS Skyrme model. <i>Physical Review D</i> , 2012, 86, .	4.7	10
58	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
59	Radial vibrations of BPS skyrmions. <i>Physical Review D</i> , 2016, 94, .	4.7	10
60	Sphalerons and resonance phenomenon in kink-antikink collisions. <i>Physical Review D</i> , 2021, 104, .	4.7	10
61	Spectral walls at one loop. <i>Physical Review D</i> , 2022, 105, .	4.7	10
62	Pullback of the volume form, integrable models in higher dimensions and exotic textures. <i>Journal of Mathematical Physics</i> , 2009, 50, 022301.	1.1	8
63	New integrable sectors in the Skyrme and four-dimensional CPn models. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, 1907-1923.	2.1	7
64	Lifshitz field theories with SDiff symmetries. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	7
65	Gauged BPS baby Skyrmions with quantized magnetic flux. <i>Physical Review D</i> , 2017, 95, .	4.7	7
66	Some comments on BPS systems. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 315201.	2.1	7
67	Dense matter equation of state and phase transitions from a generalized Skyrme model. <i>Physical Review D</i> , 2022, 105, .	4.7	7
68	Compact shell solitons in K field theories. <i>Journal of Mathematical Physics</i> , 2009, 50, 102303.	1.1	6
69	Strongly coupled Skyrme–Faddeev–Niemi hopfions. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2010, 43, 345402.	2.1	6
70	On solutions to the Faddeev-Niemi equations. <i>Journal of Mathematical Physics</i> , 2011, 52, 072302.	1.1	6
71	Vector BPS baby Skyrme model. <i>Physical Review D</i> , 2012, 86, .	4.7	6
72	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

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73	On the spin excitation energy of the nucleon in the Skyrme model. International Journal of Modern Physics E, 2016, 25, 1650097.	1.0	6
74	Roper resonances and quasi-normal modes of Skyrmions. Journal of High Energy Physics, 2018, 2018, 1.	4.7	6
75	Oscillons in a perturbed signum-Gordon model. Journal of High Energy Physics, 2018, 2018, 1.	4.7	6
76	Quasiuniversal relations for generalized Skyrme stars. Physical Review D, 2021, 103, .	4.7	6
77	Knotted configurations with arbitrary Hopf index from the eikonal equation. European Physical Journal C, 2005, 42, 461-473.	3.9	5
78	BPS sectors of the Skyrme model and their non-BPS extensions. Physical Review D, 2018, 97, .	4.7	5
79	Quark-antiquark potentials from a scalar field in SU(2) YM. European Physical Journal C, 2002, 23, 145-147.	3.9	4
80	Soliton stability in some knot soliton models. Journal of Mathematical Physics, 2007, 48, 022305.	1.1	4
81	Volume of a vortex and the Bradlow bound. Physical Review D, 2017, 95, .	4.7	4
82	Non-uniqueness of the supersymmetric extension of the O(3) Ĩf-model. Journal of High Energy Physics, 2017, 2017, 1.	4.7	4
83	Color dielectric model with two scalar fields. European Physical Journal C, 2003, 30, 537-545.	3.9	3
84	TOROIDAL SOLITON SOLUTIONS IN O(3)N NONLINEAR SIGMA MODEL. Modern Physics Letters A, 2004, 19, 2569-2578.	1.2	3
85	KNOTS, BRAIDS AND HEDGEHOGS FROM THE EIKONAL EQUATION. Modern Physics Letters A, 2005, 20, 1135-1146.	1.2	3
86	Integrability in theories with local U(1) gauge symmetry. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 9079-9088.	2.1	3
87	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
88	A BPS Skyrme model. Journal of Physics: Conference Series, 2011, 284, 012006.	0.4	3
89	A gauged baby Skyrme model and a novel BPS bound. Journal of Physics: Conference Series, 2013, 410, 012055.	0.4	3
90	Exactly solvable gravitating perfect fluid solitons in (2 + 1) dimensions. Journal of High Energy Physics, 2018, 2018, 1.	4.7	3

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91	Massive or massless scalar field and confinement. European Physical Journal C, 2003, 28, 151-154.	3.9	2
92	Non-Abelian color dielectric - towards the effective model of the low energy QCD. European Physical Journal C, 2005, 39, 185-193.	3.9	2
93	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
94	Infinitely many conservation laws in self-dual Yang-Mills theory. Journal of High Energy Physics, 2008, 2008, 014-014.	4.7	2
95	An integrable subsystem of Yang-Mills dilaton theory. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 095401.	2.1	2
96	Supersymmetric extensions of K field theories. Journal of Physics: Conference Series, 2012, 343, 012008.	0.4	2
97	The Skyrme Model in the BPS Limit. , 2016, , 193-232.		2
98	Incompressible topological solitons. Physical Review D, 2020, 102, .	4.7	2
99	Approximated Analytical Solution of the Faddeev-Niemi Model. AIP Conference Proceedings, 2005, , .	0.4	1
100	BPS Skyrme neutron stars in generalized gravity. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 041-041.	5.4	1
101	Adding crust to BPS Skyrme neutron stars. Physical Review D, 2020, 102, .	4.7	1
102	Approximated Faddeev-Niemi Knotted Solitons. AIP Conference Proceedings, 2006, , .	0.4	0
103	Generalized integrability and volume-preserving diffeomorphisms. Journal of Physics: Conference Series, 2008, 128, 012025.	0.4	0
104	A BPS Skyrme model and phenomenology of nuclei. , 2011, , .		0
105	A unified approach to nuclei: The BPS Skyrme Model. Nuclear and Particle Physics Proceedings, 2016, 273-275, 1480-1486.	0.5	0
106	Radial vibrational excitations in the BPS Skyrme model. AIP Conference Proceedings, 2018, , .	0.4	0
107	Integrability and Diffeomorphisms on Target Space. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 2007, , .	0.5	0