Rafael I Nepomechie

List of Publications by Year
in descending order

137 papers	**4,487** citations	136950 **32** h-index	114465 **63** g-index
142 all docs	**142** docs citations	**142** times ranked	**1182** citing authors

#	Article	IF	Citations
1	Review of AdS/CFT Integrability: An Overview. Letters in Mathematical Physics, 2012, 99, 3-32.	1.1	908
2	Gauge invariance versus masslessness in de Sitter spaces. Annals of Physics, 1984, 154, 396-420.	2.8	247
3	Bethe ansatz solution of the open XXZ chain with nondiagonal boundary terms. Journal of Physics A, 2004, 37, 433-440.	1.6	135
4	Anomalous propagation of gauge fields in conformally flat spaces. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1983, 132, 321-324.	4.1	122
5	INTEGRABILITY OF OPEN SPIN CHAINS WITH QUANTUM ALGEBRA SYMMETRY. International Journal of Modern Physics A, 1991, 06, 5231-5248.	1.5	118
6	Functional Relations and Bethe Ansatz for the XXZ Chain. Journal of Statistical Physics, 2003, 111, 1363-1376.	1.2	115
7	Magnetic monopoles from antisymmetric tensor gauge fields. Physical Review D, 1985, 31, 1921-1924.	4.7	114
8	Bethe ansatz solution of the Fateev-Zamolodchikov quantum spin chain with boundary terms. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 147, 70-78.	2.1	111
9	? = 6 super Chern-Simons theory *S*-matrix and all-loop Bethe ansatz equations. Journal of High Energy Physics, 2008, 2008, 010-010.	4.7	104
10	Analytical Bethe Ansatz for quantum-algebra-invariant spin chains. Nuclear Physics B, 1992, 372, 597-621.	2.5	99
11	Solving the open XXZ spin chain with nondiagonal boundary terms at roots of unity. Nuclear Physics B, 2002, 622, 615-632.	2.5	91
12	Low-energy limit of strings. Physical Review D, 1985, 32, 3201-3207.	4.7	88
13	Completeness of the Bethe Ansatz solution of the open XXZ chain with nondiagonal boundary terms. Journal of Physics A, 2003, 36, 11391-11401.	1.6	82
14	Q-operator and <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	4.1	72
15	QUANTUM ALGEBRA STRUCTURE OF EXACTLY SOLUBLE QUANTUM SPIN CHAINS. Modern Physics Letters A, 1991, 06, 2497-2508.	1.2	59
16	Thermodynamics of integrable chains with alternating spins. Physical Review B, 1994, 49, 13223-13226.	3.2	57
17	ADDENDUM: INTEGRABILITY OF OPEN SPIN CHAINS WITH QUANTUM ALGEBRA SYMMETRY. International Journal of Modern Physics A, 1992, 07, 5657-5659.	1.5	56
18	Evaluating fermion determinants through the chiral anomaly. Annals of Physics, 1984, 158, 67-77.	2.8	55

#	Article	IF	Citations
19	Calculating heat kernels. Physical Review D, 1985, 31, 3291-3292.	4.7	54
20	TBA, NLO Lüscher correction, and double wrapping in twisted AdS/CFT. Journal of High Energy Physics, 2011, 2011, 1.	4.7	54
21	Completeness of solutions of Bethe's equations. Physical Review E, 2013, 88, 052113.	2.1	53
22	Bulk and boundary S-matrices for the SU(N) chain. Nuclear Physics B, 1998, 521, 547-572.	2.5	47
23	FRACTIONAL-SPIN INTEGRALS OF MOTION FOR THE BOUNDARY SINE–GORDON MODEL AT THE FREE FERMION POINT. International Journal of Modern Physics A, 1998, 13, 2747-2764.	1.5	47
24	Unified geometry of antisymmetric tensor gauge fields and gravity. Nuclear Physics B, 1982, 199, 482-494.	2.5	42
25	Supersymmetric skyrmions in four dimensions. Nuclear Physics B, 1985, 249, 93-130.	2.5	42
26	Critical dimensions for chiral bosons. Physical Review D, 1988, 37, 3067-3069.	4.7	42
27	Exact solution of the open XXZ chain with general integrable boundary terms at roots of unity. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P08006-P08006.	2.3	41
28	Duality and quantum-algebra symmetry of the ANâˆ'1(1) open spin chain with diagonal boundary fields. Nuclear Physics B, 1998, 530, 641-664.	2.5	39
29	The boundary supersymmetric sine-Gordon model revisited. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 509, 183-188.	4.1	38
30	Twisted Bethe equations from a twisted S-matrix. Journal of High Energy Physics, 2011, 2011, 1.	4.7	37
31	A SPIN CHAIN PRIMER. International Journal of Modern Physics B, 1999, 13, 2973-2985.	2.0	34
32	Boundary Quantum Group Generators of Type A. Letters in Mathematical Physics, 2002, 62, 83-89.	1.1	32
33	Finite size effects in the XXZ and sine-Gordon models with two boundaries. Nuclear Physics B, 2004, 676, 637-658.	2.5	31
34	Chern-Simons terms and Bosonic strings. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 171, 195-198.	4.1	30
35	Addendum to Â Completeness of the Bethe Ansatz solution of the open XXZ chain with nondiagonal boundary termsÂ. Journal of Physics A, 2004, 37, 1945-1946.	1.6	30
36	A complete Bethe ansatz solution for the open spin-s XXZchain with general integrable boundary terms. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P09009-P09009.	2.3	29

#	Article	IF	Citations
37	Finite-size effect for four-loop Konishi of the Î²-deformed SYM. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 693, 380-385.	4.1	28
38	Free-Fermion entanglement and orthogonal polynomials. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 093101.	2.3	28
39	Bethe ansatz solution of the open XX spin chain with non-diagonal boundary terms. Journal of Physics A, 2001, 34, 9993-10003.	1.6	27
40	An inhomogeneous T-Q equation for the open XXX chain with general boundary terms: completeness and arbitrary spin. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 442002.	2.1	27
41	Do supermembranes contain massless particles?. Nuclear Physics B, 1988, 309, 317-329.	2.5	24
42	Low-temperature thermodynamics of A2(2) and su(3)-invariant integrable spin chains. Nuclear Physics B, 1993, 406, 681-707.	2.5	24
43	The Zamolodchikov-Faddeev algebra for open strings attached to giant gravitons. Journal of High Energy Physics, 2008, 2008, 059-059.	4.7	24
44	Einstein gravity as the low energy effective theory of Weyl gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1984, 136, 33-37.	4.1	22
45	SCALAR KINKS. International Journal of Modern Physics B, 1994, 08, 3473-3485.	2.0	22
46	Yangian symmetry and bound states in AdS/CFT boundary scattering. Journal of High Energy Physics, 2010, 2010, 1.	4.7	22
47	Algebraic Bethe ansatz for singular solutions. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 325002.	2.1	22
48	New compactifications on Calabi-Yau manifolds. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 158, 311-315.	4.1	21
49	Consistent superconformal boundary states. Journal of Physics A, 2001, 34, 6509-6524.	1.6	21
50	The spectrum of tachyons in AdS/CFT. Journal of High Energy Physics, 2014, 2014, 1.	4.7	20
51	Approaches to a non-abelian antisymmetric tensor gauge field theory. Nuclear Physics B, 1983, 212, 301-320.	2.5	19
52	Non-Abelian bosonization: Current correlation functions. Physical Review D, 1987, 35, 3239-3248.	4.7	19
53	SPECTRUM OF THE TRANSFER MATRIX FOR THE Uq(Bn)-INVARIANT $A_{2n}^{(2)}$ OPEN SPIN CHAIN. International Journal of Modern Physics A, 1995, 10, 1937-1952.	1.5	19
54	Solutions of the boundary YangÂBaxter equation for arbitrary spin. Journal of Physics A, 2002, 35, L341-L348.	1.6	19

#	Article	IF	Citations
55	Two-loop test of the ? = 6 Chern-Simons theory<i>S</i>-matrix. Journal of High Energy Physics, 2009, 2009, 144-144.	4.7	19
56	Non-Abelian symmetries from higher dimensions in string theories. Physical Review D, 1986, 33, 3670-3677.	4.7	18
57	Exact solution of the supersymmetric sinh-Gordon model with boundary. Nuclear Physics B, 2000, 586, 611-640.	2.5	18
58	NLIE for hole excited states in the sine-Gordon model with two boundaries. Nuclear Physics B, 2005, 714, 307-335.	2.5	18
59	Y-system for Yâ‰=â‰0 brane in planar AdS/CFT. Journal of High Energy Physics, 2012, 2012, 1.	4.7	18
60	SUPERSYMMETRY IN THE BOUNDARY TRICRITICAL ISING FIELD THEORY. International Journal of Modern Physics A, 2002, 17, 3809-3826.	1.5	17
61	Algebraic Bethe ansatz for the quantum group invariant open XXZ chain at roots of unity. Nuclear Physics B, 2016, 909, 796-839.	2.5	17
62	Simplified calculation of boundarySmatrices. Journal of Physics A, 1997, 30, L507-L512.	1.6	16
63	Bethe ansatz derived from the functional relations of the openXXZchain for new special cases. Journal of Statistical Mechanics: Theory and Experiment, 2005, 2005, P05007.	2.3	16
64	Finite size effects in the spin-1 XXZ and supersymmetric sine-Gordon models with Dirichlet boundary conditions. Nuclear Physics B, 2007, 767, 250-294.	2.5	16
65	Twisting singular solutions of BetheÊ¼s equations. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 505004.	2.1	16
66	The scaling supersymmetric Yangâ€"Lee model with boundary. Nuclear Physics B, 2001, 594, 660-684.	2.5	15
67	Open-chain transfer matrices for AdS/CFT. Journal of High Energy Physics, 2008, 2008, 085-085.	4.7	15
68	On generalized Q-systems. Journal of High Energy Physics, 2020, 2020, 1.	4.7	15
69	Direct calculation of breatherSmatrices. Journal of Physics A, 1999, 32, 3663-3680.	1.6	14
70	Bethe ansatz equations for open spin chains from giant gravitons. Journal of High Energy Physics, 2009, 2009, 100-100.	4.7	14
71	Soliton S matrices for the critical chain. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 462, 121-131.	4.1	13
72	TBA boundary flows in the tricritical Ising field theory. Nuclear Physics B, 2002, 647, 433-470.	2.5	13

#	Article	IF	Citations
73	Singular solutions, repeated roots and completeness for higher-spin chains. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P03024.	2.3	13
74	Counting solutions of the Bethe equations of the quantum group invariant open XXZ chain at roots of unity. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 494003.	2.1	13
75	the integrable quantum group invariant<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msubsup><mml:mrow><mml:mi>A</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn><mml:mi>n</mml:mi> stretchy="false">(</mml:mo><mml:mn>2</mml:mn><mml:mo>) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 657.1 (stretchy="false" xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si17.gif" overflow="scroll"> <mml:mn> nbsp	2.1	12
76	Electric-magnetic duality of conformal gravitation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 97, 329-332.	2.1	12
77	Nonstandard coproducts and the Izergin-Korepin open spin chain. Journal of Physics A, 2000, 33, L21-L26.	1.6	12
78	Nonabelian bosonization, triality, and superstring theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 178, 207-210.	4.1	11
79	q-deformedsu(2|2) boundaryS-matrices via the ZF algebra. Journal of High Energy Physics, 2008, 2008, 096-096.	4.7	11
80	Bethe ansatz for an AdS/CFT open spin chain with non-diagonal boundaries. Journal of High Energy Physics, 2015, 2015, 1.	4.7	11
81	The spin-<i>s</i> homogeneous central spin model: exact spectrum and dynamics. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 103104.	2.3	11
82	Discrete symmetries andS-matrix of theXXZchain. Journal of Physics A, 1998, 31, L621-L627.	1.6	10
83	Boundary Energy of the Open XXZ Chain from New Exact Solutions. Annales Henri Poincare, 2006, 7, 1429-1448.	1.7	10
84	An alternativeS-matrix for ? = 6 Chern-Simons theory?. Journal of High Energy Physics, 2009, 2009, 068-068.	4.7	10
85	Review of AdS/CFT Integrability, Chapter III.2: Exact World-Sheet S-Matrix. Letters in Mathematical Physics, 2012, 99, 209-229.	1.1	10
86	Boundary energy of the open XXX chain with a non-diagonal boundary term. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 032001.	2.1	9
87	Universal Bethe ansatz solution for the Temperley–Lieb spin chain. Nuclear Physics B, 2016, 910, 910-928.	2.5	9
88	Equivalent T-Q relations and exact results for the open TASEP. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 103105.	2.3	9
89	Surveying the quantum group symmetries of integrable open spin chains. Nuclear Physics B, 2018, 930, 91-134.	2.5	9
90	Preparing exact eigenstates of the open XXZ chain on a quantum computer. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 055301.	2.1	9

#	Article	IF	Citations
91	Remarks on quantized Yang-Mills theory in 26 dimensions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1983, 128, 177-178.	4.1	8
92	Non-Abelian bosonization: Stress-energy correlation functions. Physical Review D, 1987, 36, 551-561.	4.7	8
93	The boundary N=2 supersymmetric sine-Gordon model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 516, 376-382.	4.1	8
94	New $D_{n+1}^{(2)}$ K-matrices with quantum group symmetry. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 39LT02.	2.1	8
95	Factorization identities and algebraic Bethe ansatz for $$ {D}_2^{(2)} $$ models. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
96	Entanglement in fermionic chains and bispectrality. Reviews in Mathematical Physics, 2021, 33, 2140001.	1.7	8
97	Cylinder partition function of the 6-vertex model from algebraic geometry. Journal of High Energy Physics, 2020, 2020, 1.	4.7	8
98	Duality and the PolyakovN-point Green's function. Physical Review D, 1982, 25, 2706-2708.	4.7	7
99	Unitarity and irrationality for the quantum algebra Uq[SU(2)]. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1990, 246, 412-416.	4.1	7
100	Boundary S matrices with N=2 supersymmetry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 516, 161-164.	4.1	7
101	Revisiting the Yâ€‰=â€‰0 open spin chain at one loop. Journal of High Energy Physics, 2011, 2011, 1.	4.7	7
102	Towards the solution of an integrable $D_{2}^{(2)}$ spin chain. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 434004.	2.1	7
103	A new formulation of the string action. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1981, 105, 457-461.	4.1	6
104	Factorization of Multiparticle Scattering in the Heisenberg Spin Chain. Modern Physics Letters A, 1997, 12, 2591-2598.	1.2	6
105	BoundaryS-matrix for theXXZchain. Journal of Physics A, 1998, 31, 53-59.	1.6	6
106	GeneralizedTâ€"Qrelations and the open XXZ chain. Journal of Statistical Mechanics: Theory and Experiment, 2005, 2005, P08002-P08002.	2.3	6
107	The spectrum of quantum-group-invariant transfer matrices. Nuclear Physics B, 2019, 938, 266-297.	2.5	6
108	Q-systems with boundary parameters. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 294001.	2.1	6

#	Article	IF	Citations
109	String models with twisted currents. Physical Review D, 1986, 34, 1129-1135.	4.7	5
110	Addendum to 'Bethe ansatz derived from the functional relations of the openXXZchain for new special cases'. Journal of Statistical Mechanics: Theory and Experiment, 2005, 2005, P11004-P11004.	2.3	5
111	Boundary energy of the general open XXZ chain at roots of unity. Journal of High Energy Physics, 2007, 2007, 038-038.	4.7	5
112	OPE in planar QCD from integrability. Journal of High Energy Physics, 2012, 2012, 1.	4.7	5
113	Quantum group symmetries and completeness for $oldsymbol {A}_{oldsymbol {2n}}^{oldsymbol{(2)}}$ open spin chains. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 284002.	2.1	5
114	Analytical Bethe ansatz for the open AdS/CFT SU(1|1) spin chain. Journal of High Energy Physics, 2008, 2008, 025-025.	4.7	4
115	Nested algebraic Bethe ansatz for open <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mi mathvariant="italic">GL</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi>N</mml:mi><mml:mo stretchy="false">)</mml:mo></mml:math> spin chains with projected K-matrices. Nuclear Physics B, 2010, 831, 429-451.	2.5	4
116	Algebraic Bethe ansatz for the Temperley–Lieb spin-1 chain. Nuclear Physics B, 2016, 910, 885-909.	2.5	4
117	An inhomogeneous Lax representation for the Hirota equation. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 054001.	2.1	4
118	On the absence of reflection in AdS 4/CFT 3. Journal of High Energy Physics, 2010, 2010, 1.	4.7	3
119	Wrapping corrections for non-diagonal boundaries in AdS/CFT. Journal of High Energy Physics, 2016, 2016, 1.	4.7	3
120	Bethe ansatz on a quantum computer?. Quantum Information and Computation, 2021, 21, 255-265.	0.3	3
121	Entanglement in Fermionic Chains and Bispectrality. , 2020, , 77-96.		3
122	The Am(1) Q-system. Modern Physics Letters A, 2020, 35, 2050260.	1.2	3
123	Wronskian-type formula for inhomogeneous $$TQ$$ equations. Theoretical and Mathematical Physics(Russian Federation), 2020, 204, 1195-1200.	0.9	2
124	Spin chains with boundary inhomogeneities. Journal of High Energy Physics, 2021, 2021, 1.	4.7	2
125	Completing the solution for the OSp(1|2) spin chain. Nuclear Physics B, 2020, 951, 114887.	2.5	2
126	Riemann-double construction for spinning string propagators. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 224, 265-272.	4.1	1

#	Article	IF	Citations
127	NEW AND OLD SYMMETRIES OF INTEGRABLE SPIN CHAINS. International Journal of Modern Physics B, 1999, 13, 3943-3952.	2.0	1
128	The QCD spin chain S matrix. Nuclear Physics B, 2008, 798, 402-422.	2.5	1
129	Fusion for AdS/CFT boundary S-matrices. Journal of High Energy Physics, 2015, 2015, 1.	4.7	1
130	A tale of two Bethe ansätze. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 043107.	2.3	1
131	INTEGRABILITY + SUPERSYMMETRY + BOUNDARY: LIFE ON THE EDGE IS NOT SO DULL AFTER ALL!. , 2006, , .		1
132	Comment on "Quantum Effects on Four-Dimensional Space-Time Symmetries". Physical Review Letters, 1985, 54, 1458-1458.	7.8	0
133	Boundary integrability. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 421004.	2.1	0
134	Quantum integrability and quantum groups: a special issue in memory of Petr P Kulish. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 110201.	2.1	0
135	Bethe Ansatz for the Open XXZ Chain from Functional Relations at Roots of Unity. , 2006, , .		0
136	SCALAR KINKS. , 1995, , 25-37.		0
137	A passion for theoretical physics: a special issue in memory of Peter G O Freund. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 010301.	2.1	0