

# Akaki Rusetsky

## List of Publications by Year in descending order

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Version: 2024-02-01

64

papers

2,657

citations

186265

28

h-index

175258

52

g-index

67

all docs

67

docs citations

67

times ranked

652

citing authors

#	ARTICLE	IF	CITATIONS
1	Three particles in a finite volume. European Physical Journal A, 2012, 48, 1.	2.5	172
2	Unitarized Chiral Perturbation Theory in a finite volume: Scalar meson sector. European Physical Journal A, 2011, 47, 1.	2.5	157
3	A method to measure the antikaon-nucleon scattering length in lattice QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 681, 439-443.	4.1	139
4	Scalar mesons in a finite volume. Journal of High Energy Physics, 2011, 2011, 1.	4.7	129
5	Scattering phases for meson and baryon resonances on general moving-frame lattices. Physical Review D, 2012, 86, .	4.7	128
6	Three-particle quantization condition in a finite volume: 2. General formalism and the analysis of data. Journal of High Energy Physics, 2017, 2017, 1.	4.7	119
7	Resonance properties from the finite-volume energy spectrum. Journal of High Energy Physics, 2008, 2008, 024-024. Cusps in $\langle \text{mml:math altimg="si1.gif" overflow="scroll"}$ $\text{xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema"}$ $\text{xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd"}$ $\text{xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML"}$ $\text{xmlns:tb="http://www.elsevier.com/xml/common/table/dtd"}$ $\text{xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd"}$ $\text{xmlns:ce="http://www.elsevier.com/x}$	4.7	112
8	Three-particle quantization condition in a finite volume: 1. The role of the three-particle force. Journal of High Energy Physics, 2017, 2017, 1.	4.1	108
9	Scalar mesons moving in a finite volume and the role of partial wave mixing. European Physical Journal A, 2012, 48, 1.	2.5	97
10	Hadronic atoms in QCD+QED. Physics Reports, 2008, 456, 167-251.	25.6	87
11	Three-body spectrum in a finite volume: The role of cubic symmetry. Physical Review D, 2018, 97, .	4.7	86
12	Spectrum of Three-Body Bound States in a Finite Volume. Physical Review Letters, 2015, 114, 091602.	7.8	77
13	Matrix elements of unstable states. Journal of High Energy Physics, 2012, 2012, 1.	4.7	61
14	Dynamical coupled-channel approaches on a momentum lattice. European Physical Journal A, 2011, 47, 1.	2.5	60
15	A framework for the calculation of the $\langle \text{mml:math altimg="si1.gif" overflow="scroll"}$ $\text{xmlns:mml="http://www.w3.org/1998/Math/MathML"}$ $\text{mathvariant="normal"}$ $\hat{l}$ $\langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle N \langle \text{mml:mi} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \hat{l}^3 \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle$ transition form factors on the lattice. Nuclear Physics B, 2014, 886, 1199-1222.	2.5	60
16	Radiative corrections in $\langle \text{mml:math altimg="si1.gif" overflow="scroll"}$ $\text{xmlns:mml="http://www.w3.org/1998/Math/MathML"}$ $\text{altimg="si1.gif"}$ $\text{overflow="scroll"}$ $\langle \text{mml:mi} \rangle K \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle \hat{l}^3 \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ decays. Nuclear Physics B, 2009, 806, 178-223.	2.5	57
17	Isospin breaking in $K \bar{K}$ decays. European Physical Journal C, 2009, 59, 777-793.	3.9	53

#	ARTICLE	IF	CITATIONS
19	Cusps in $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \text{ altimg="si1.gif" overflow="scroll" } \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle K \langle / \text{mml:mi} \rangle \langle \text{mml:mi} \rangle L \langle / \text{mml:mi} \rangle \langle / \text{mml:msub} \rangle \langle \text{mml:mo} \rangle \hat{\alpha} \langle / \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 3 \langle / \text{mml:mn} \rangle \langle / \text{mml:math} \rangle$ decays. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 659, 576-584.	4.1	49
20	Two- and three-body interactions in $\varphi^4$ theory from lattice simulations. European Physical Journal C, 2018, 78, 1.	3.9	48
21	Cusps in decays: A theoretical framework. Nuclear Physics B, 2011, 850, 96-147.	2.5	47
22	Cottingham formula and nucleon polarisabilities. European Physical Journal C, 2015, 75, 1.	3.9	46
23	The $\rho'$ -resonance in a finite volume. Nuclear Physics B, 2008, 788, 1-20. Chiral study of the $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \text{ display="block" } \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle a \langle / \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 0 \langle / \text{mml:mn} \rangle \langle / \text{mml:msub} \rangle \langle \text{mml:mo} \text{ mathvariant="bold" stretchy="false" } \rangle \langle / \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 980 \langle / \text{mml:mn} \rangle \langle \text{mml:mo} \text{ mathvariant="bold" } \rangle T_j ETQq 0 0 rgBT /Overlock$	2.5	43
24	$\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \text{ display="block" } \rangle \langle \text{mml:mi} \rangle i \epsilon \langle / \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \hat{\alpha} \langle / \text{mml:mi} \rangle \langle / \text{mml:math} \rangle$ scattering phase shifts in light O	4.7	43
25	Energy shift of the three-particle system in a finite volume. Physical Review D, 2019, 99, .	4.7	42
26	Towards a precise determination of the scattering amplitudes of the charmed and light-flavor pseudoscalar mesons. European Physical Journal C, 2019, 79, 1.	3.9	42
27	The role of nucleon recoil in low-energy antikaon-deuteron scattering. European Physical Journal A, 2009, 42, 111.	2.5	32
28	The optical potential on the lattice. Journal of High Energy Physics, 2016, 2016, 1.	4.7	28
29	Multi-particle systems on the lattice and chiral extrapolations: a brief review. European Physical Journal: Special Topics, 2021, 230, 1623-1643.	2.6	28
30	Predictions for the cusp in $\rho'$ decay. Physical Review C, 2009, 79, .	2.9	27
31	The $B \rightarrow K \bar{Z}$ form factors on the lattice. Nuclear Physics B, 2016, 910, 387-409.	2.5	26
32	Three-particle bound states in a finite volume: Unequal masses and higher partial waves. Physical Review D, 2018, 98, .	4.7	25
33	Relativistic N-particle energy shift in finite volume. Journal of High Energy Physics, 2021, 2021, 1.	4.7	24
34	The mass of the $\rho'$ resonance in a finite volume: fourth-order calculation. Journal of High Energy Physics, 2009, 2009, 061-061.	4.7	18
35	Partial twisting for scalar mesons. Journal of High Energy Physics, 2014, 2014, 1.	4.7	17
36	Recoil corrections in antikaon-deuteron scattering. Physical Review D, 2015, 91, .	4.7	17

#	ARTICLE		IF	CITATIONS
37	Finite-volume energy shift of the three-pion ground state. Physical Review D, 2021, 103, .		4.7	17
38	Relativistic-invariant formulation of the NREFT three-particle quantization condition. Journal of High Energy Physics, 2022, 2022, 1.		4.7	17
39	On the mass difference between proton and neutron. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 814, 136087.		4.1	16
40	Solving integral equations in $\eta \rightarrow 3\pi^-$ . European Physical Journal C, 2018, 78, 1.		3.9	15
41	Vector particle scattering on the lattice. Physical Review D, 2018, 98, .		4.7	15
42	Effective Lagrangians in Bound State Calculations. Annals of Physics, 2000, 286, 108-156.		2.8	14
43	Bound states on the lattice with partially twisted boundary conditions. Journal of High Energy Physics, 2015, 2015, 1.		4.7	14
44	Feynman-Hellmann theorem for resonances and the quest for QCD exotica. European Physical Journal C, 2017, 77, 1.		3.9	13
45	On the three-particle analog of the Lellouch-Lüscher formula. Journal of High Energy Physics, 2021, 2021, 1.		4.7	12
46	Hadronic Atoms. Annual Review of Nuclear and Particle Science, 2009, 59, 169-190.		10.2	11
47	Sum rule for the Compton amplitude and implications for the proton-neutron mass difference. European Physical Journal C, 2020, 80, 1.		3.9	11
48	Nucleon in a periodic magnetic field. Physical Review D, 2017, 95, .		4.7	9
49	Resonances in an external field: the 1+1 dimensional case. Journal of High Energy Physics, 2010, 2010, 1.		4.7	8
50	Extraction of the resonance parameters at finite times. Nuclear Physics B, 2011, 846, 1-20.		2.5	8
51	An alternative scheme for effective range corrections in pionless EFT. European Physical Journal A, 2021, 57, 1.		2.5	7
52	Nucleon in a periodic magnetic field: Finite-volume aspects. Physical Review D, 2019, 99, .		4.7	6
53	Finite volume corrections to forward Compton scattering off the nucleon. Physical Review D, 2021, 103, .		4.7	3
54	Spurious poles in a finite volume. Journal of High Energy Physics, 2022, 2022, .		4.7	2

#	ARTICLE		IF	CITATIONS
55	Generating functional for mesonic ChPT with virtual photons in a general covariant gauge. European Physical Journal A, 2013, 49, 1.		2.5	1
56	Towards a field theoretical understanding of kaonic deuterium: leading order retardation effects. Hyperfine Interactions, 2015, 233, 141-149.		0.5	1
57	Resonance matrix elements on the lattice. EPJ Web of Conferences, 2016, 112, 01001.		0.3	1
58	Vector-Vector Scattering on the Lattice. EPJ Web of Conferences, 2018, 175, 14013.		0.3	1
59	Testing a new method for scattering in finite volume in the $\phi^4$ theory. European Physical Journal C, 2021, 81, 1.		3.9	1
60	Antikaon-nucleon scattering lengths. Hyperfine Interactions, 2009, 193, 69-74.		0.5	0
61	Resonances in a finite volume., 2011, ,.		0	
62	Radiative decays of resonances on the lattice. AIP Conference Proceedings, 2016, ,.		0.4	0
63	Baryon resonances in a finite volume. EPJ Web of Conferences, 2017, 134, 02006.		0.3	0
64	Extracting observables from lattice data in the three-particle sector. EPJ Web of Conferences, 2018, 175, 11006.		0.3	0