

Vadim Baru

List of Publications by Year in descending order

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96
papers

2,549
citations

172457

29
h-index

189892

50
g-index

97
all docs

97
docs citations

97
times ranked

915
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence that the $a_0(980)$ and $f_0(980)$ are not elementary particles. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 586, 53-61.	4.1	347
2	Abashian-Booth-Crowe Effect in Basic Double-Pionic Fusion: A New Resonance?. Physical Review Letters, 2011, 106, 242302.	7.8	210
3	Precision calculation of threshold scattering, $\pi\pi$ scattering lengths, and the GMO sum rule. Nuclear Physics A, 2011, 872, 69-116.	1.5	117
4	Precision calculation of the $\pi\pi$ scattering length and its impact on threshold $\pi\pi$ scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 717, 1-7.	4.1	117
5	States as Hadronic Molecules and Hints of a Narrow $\pi\pi$ resonance. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 717, 1-7.	7.8	97
6	Flat Λ^0 -like distributions and the $a_0(980)/f_0(980)$ mesons. European Physical Journal A, 2005, 23, 523-533.	2.5	76
7	Towards a field theoretic understanding of NN \hat{a}^+ NN \hat{a}^- . European Physical Journal A, 2006, 27, 37-45.	2.5	73
8	Three-body $\pi\pi$ dynamics for the $\pi\pi$ resonance. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 647, 1-7.	4.7	73
9	Energy dependence of the near-threshold total cross-section for the $pp \rightarrow pp\pi^0$ reaction. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 474, 416-422.	4.1	62
10	Interplay of quark and meson degrees of freedom in a near-threshold resonance. European Physical Journal A, 2010, 44, 93-103.	2.5	60
11	Precision calculation of $\pi\pi$ scattering lengths within chiral perturbation theory. European Physical Journal A, 2005, 26, 107-123.	2.5	55
12	Heavy-quark spin symmetry partners of the $X(3872)$ revisited. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 763, 20-28.	4.1	54
13	Coupled-channel approach to $\pi\pi$ scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 763, 20-28.	4.1	54
14	Coupled-Channel Interpretation of the LHCb Double $\pi\pi$ Spectrum and Hints of a New State Near the $\pi\pi$ Resonance. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 763, 20-28.	7.8	49
15	Extraction of the Neutron Charge Radius from a Precision Calculation of the Deuteron Structure Radius. Physical Review Letters, 2020, 124, 082501.	7.8	48
16	On the nature of near-threshold bound and virtual states. European Physical Journal A, 2021, 57, 1.	2.5	45
17	Revisiting the nature of the P_c pentaquarks. Journal of High Energy Physics, 2021, 2021, 1.	4.7	45
18	Line shapes of the $\pi\pi$ resonance. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 647, 1-7.	4.7	42

#	ARTICLE	IF	CITATIONS
19	The role of the nucleon recoil in low-energy meson-nucleus reactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 589, 118-124.	4.1	41
20	Quark mass dependence of the χ production. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 537-543.	4.1	41
21	Deciphering the mechanism of near-threshold η photoproduction. European Physical Journal C, 2020, 80, 1.	3.9	39
22	Extraction of the strong neutron-proton mass difference from the charge symmetry breaking in π production. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 681, 423-427.	4.1	38
23	Comment on "Possibility of Deeply Bound Hadronic Molecules from Single Pion Exchange". Physical Review Letters, 2010, 105, 019101.	7.8	37
24	Production of η mesons in nucleon-nucleon collisions. Physical Review C, 2003, 67, .	2.9	35
25	Remarks on study of η production. Physical Review D, 2015, 91, .	4.7	35
26	p-wave pion production from nucleon-nucleon collisions. Physical Review C, 2009, 80, .	2.9	33
27	Spin partners of the Z b (10610) and Z b (10650) revisited. Journal of High Energy Physics, 2017, 2017, 1.	4.7	33
28	The role of nucleon recoil in low-energy antikaon-deuteron scattering. European Physical Journal A, 2009, 42, 111.	2.5	32
29	New parameterization of the trinucleon wave function and its application to the ^3He scattering length. European Physical Journal A, 2003, 16, 437-446.	2.5	30
30	High-accuracy calculation of the deuteron charge and quadrupole form factors in chiral effective field theory. Physical Review C, 2021, 103, .	2.9	30
31	Dispersive and absorptive corrections to the pion-deuteron scattering length. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 648, 46-53.	4.1	29
32	Low-energy theorems for nucleon-nucleon scattering at unphysical pion masses. Physical Review C, 2015, 92, .	2.9	26
33	The multiple-scattering series in pion-deuteron scattering and the nucleon-nucleon potential: perspectives from effective field theory. European Physical Journal A, 2012, 48, 1.	2.5	25
34	Binding energy of the χ production. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 537-543.	4.7	25
35	Is the existence of a χ state plausible?. Science Bulletin, 2021, 66, 2462-2470.	4.1	23
36	Effective range expansion for narrow near-threshold resonances. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 833, 137290.	4.1	23

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37	Effective field theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 659, 184-191.	4.1	20
38	Towards a high-precision calculation for the pion-nucleus scattering lengths. European Physical Journal A, 2011, 47, 1.	2.5	20
39	from the line shapes of the Z baryon. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 659, 184-191.	4.7	20
40	On the migdal-watson approach to FSI effects in meson production in NN collisions. Physics of Atomic Nuclei, 2001, 64, 579-584.	0.4	19
41	Effective field theory calculations of NN $\hat{\pi}^+ \pi^-$. International Journal of Modern Physics E, 2014, 23, 1430004.	1.0	19
42	Low-energy theorems for nucleon-nucleon scattering at $\hat{\pi}^+ \pi^-$. Physical Review C, 2016, 94, .	4.7	19
43	Neutron-neutron scattering length from the reaction $\hat{\pi}^+ \pi^-$ employing chiral perturbation theory. European Physical Journal A, 2007, 33, 339-348.	2.5	18
44	Recoil corrections in antikaon-deuteron scattering. Physical Review D, 2015, 91, .	4.7	17
45	Towards baryon-baryon scattering in manifestly Lorentz-invariant formulation of SU(3) baryon chiral perturbation theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 349, 134-137.	4.1	16
46	Next-to-next-to-leading order contributions. Physical Review C, 2012, 85, 034001.	4.7	15
47	Pion production in nucleon-nucleon collisions in chiral effective field theory: Differential cross section and analysing power of the quasi-free $\hat{\pi}^+ \pi^-$ reaction. Physical Review C, 2012, 85, 034001.	2.9	14
48	Remarks on the heavy-quark flavour symmetry for doubly heavy hadronic molecules. European Physical Journal C, 2019, 79, 1.	4.1	13
49	Remarks on the heavy-quark flavour symmetry for doubly heavy hadronic molecules. European Physical Journal C, 2019, 79, 1.	4.1	13
50	Remarks on the heavy-quark flavour symmetry for doubly heavy hadronic molecules. European Physical Journal C, 2019, 79, 1.	3.9	13
51	Near-threshold amplitude of pion-deuteron scattering: One-loop contributions. Physics of Atomic Nuclei, 2000, 63, 801-811.	0.4	11
52	Pion production in nucleon-nucleon collisions in chiral effective field theory with $\hat{\pi}^+ \pi^-$ degrees of freedom. Physical Review C, 2013, 88, .	2.9	11
53	On production of $\hat{\pi}^+ \pi^-$ mesons in pp collisions close to threshold. European Physical Journal A, 1999, 6, 445-450.	2.5	9
54	Charge symmetry breaking as a probe for the real part of $\hat{\pi}^+ \pi^-$ -nucleus scattering lengths. Physical Review C, 2003, 68, .	2.9	7

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55	Measurement of spin observables in the quasifreenpâ{pp}šĭĕâ~ reaction at 353 MeV. Physical Review C, 2013, 88, .	2.9	7
56	Can X(3915) be the tensor partner of the X(3872)?. Journal of High Energy Physics, 2017, 2017, 1.	4.7	7
57	insights into $\langle Z_{b} \rangle$ (10610) $T_{jETQq11}$ 0.784314 $rgBT$ /Overlock 10 Tf 50 667 Td (stretchy=	4.7	7
58	On rescattering effects in the reaction $\bar{K} \hat{a} \rightarrow d \hat{a} \bar{K} \hat{a} \rightarrow d$. Physics of Atomic Nuclei, 2004, 67, 743-747.	0.4	6
59	Molecular partners of the X(3872) from heavy-quark spin symmetry: a fresh look. EPJ Web of Conferences, 2017, 137, 06002.	0.3	6
60	ADVANCES IN A FIELD-THEORETIC UNDERSTANDING OF PION PRODUCTION IN NUCLEONâ€“NUCLEON COLLISIONS. International Journal of Modern Physics A, 2007, 22, 591-595.	1.5	5
61	Threshold pion production in proton-proton collisions at NNLO in chiral EFT. European Physical Journal A, 2016, 52, 1.	2.5	5
62	Chiral perturbation theory calculation for $pn \rightarrow d \pi \pi$ at threshold. European Physical Journal A, 2011, 47, 1.	2.5	4
63	Charge symmetry violation effects in pion scattering off the deuteron. Physical Review C, 2000, 62, .	2.9	3
64	Charge symmetry breaking in pion-deuteron scattering. , 2013, , .		3
65	$\bar{K}NN$ SYSTEM AT LOW ENERGY. International Journal of Modern Physics A, 2011, 26, 586-588.	1.5	1
66	Complete next-to-next-to-leading order calculation of $\bar{K}NN$ in chiral effective field theory. EPJ Web of Conferences, 2014, 81, 03003.	0.3	1
67	Towards a field theoretical understanding of kaonic deuterium: leading order retardation effects. Hyperfine Interactions, 2015, 233, 141-149.	0.5	1
68	Heavy-Quark Spin Symmetry Partners of the X(3872) Molecule. , 2017, , .		1
69	Properties of Z_b (10610) and Z_b (10650) from an analysis of experimental line shapes. EPJ Web of Conferences, 2019, 202, 06012.	0.3	1
70	Production of \hat{K}^* mesons in nucleon-nucleon collisions. Nuclear Physics A, 2003, 721, C727-C730.	1.5	0
71	Nucleon recoil for low-energy antikaon-deuteron scattering. Hyperfine Interactions, 2009, 193, 53-59.	0.5	0
72	Low-energy $\bar{K}NN$ system. EPJ Web of Conferences, 2010, 3, 03003.	0.3	0

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73	A high-accuracy extraction of the isoscalar $\bar{N}N$ scattering length from pionic deuterium data. , 2010, , .		0
74	The role of spin in $NN \rightarrow NN$. Journal of Physics: Conference Series, 2011, 295, 012026.	0.4	0
75	PRECISION CALCULATION OF THE $\bar{N}N$ SCATTERING LENGTH. International Journal of Modern Physics A, 2011, 26, 589-591.	1.5	0
76	Status and recent developments in $NN \rightarrow NN$. Physics of Particles and Nuclei, 2014, 45, 179-180.	0.7	0
77	The multiple-scattering series in few-nucleon systems. EPJ Web of Conferences, 2014, 73, 06005.	0.3	0
78	Non-perturbative pion dynamics for the $X(3872)$. EPJ Web of Conferences, 2014, 81, 05005.	0.3	0
79	Light-quark mass behaviour of the $X(3872)$ as a molecular state. EPJ Web of Conferences, 2016, 113, 05015.	0.3	0
80	Recoil corrections in antikaon-deuteron scattering. EPJ Web of Conferences, 2016, 113, 05017.	0.3	0
81	Role of Spin in $NN \rightarrow NN$. International Journal of Modern Physics Conference Series, 2016, 40, 1660061.	0.7	0
82	Chiral extrapolation of the $X(3872)$ binding energy. Journal of Physics: Conference Series, 2016, 675, 022017.	0.4	0
83	Exotic molecular states in the decays of vector bottomonia. EPJ Web of Conferences, 2019, 212, 02002.	0.3	0
84	$X(3915)$ as a tensor $D\bar{D}^*$ molecule. EPJ Web of Conferences, 2019, 218, 08004.	0.3	0
85	Exotic hadrons in the decays of vector bottomonia. Journal of Physics: Conference Series, 2019, 1390, 012036.	0.4	0
86	Heavy-quark spin-symmetry partners of $Z_b(10610)$ and $Z_b(10650)$ molecules. EPJ Web of Conferences, 2019, 218, 08005.	0.3	0
87	Nucleon recoil for low-energy antikaon-deuteron scattering. , 2009, , 53-59.		0
88	The nucleon recoil effect in antikaon-deuteron scattering at threshold. , 2009, , .		0
89	Hadronic atoms. , 2010, , .		0
90	Pion reactions with few-nucleon systems. , 2010, , .		0

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91	Extraction of S-wave pN scattering lengths from data on pionic atoms. , 2012, , .		0
92	Pion production in nucleon-nucleon collisions near threshold: complete NNLO calculation in chiral EFT. , 2016, , .		0
93	Application of low-energy theorems to NN scattering at unphysical pion masses. , 2016, , .		0
94	Recoil corrections in antikaon-deuteron scattering. , 2016, , .		0
95	Heavy-quark spin-symmetry partners of hadronic molecules. , 2018, , .		0
96	Double- J/ψ system in the spotlight of recent LHCb data. SciPost Physics Proceedings, 2022, , .	0.4	0