

Rafal Sikora

List of Publications by Year in descending order

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88
all docs

88
docs citations

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times ranked

4590
citing authors

#	ARTICLE	IF	CITATIONS
1	Global Λ hyperon polarization in nuclear collisions. Nature, 2017, 548, 62-65.	27.8	585
2	Bulk properties of the medium produced in relativistic heavy-ion collisions from the beam energy scan program. Physical Review C, 2017, 96, .	2.9	357
3	Global polarization of Λ hyperons in Au + Au collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review C, 2018, 98, 014907.	2.9	205
4	Measurement of the Λ hyperon polarization in Au+Au collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2018, 120, 022301.	7.8	131
5	Nonmonotonic Energy Dependence of Net-Proton Number Fluctuations. Physical Review Letters, 2021, 126, 092301.	7.8	111
6	Collision energy dependence of moments of net-kaon multiplicity distributions at RHIC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 785, 551-560.	4.1	107
7	Azimuthal Anisotropy at Midrapidity in Au+Au Collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2015, 114, 252302.	7.8	93
8	Observation of Charge Asymmetry Dependence of Pion Elliptic Flow and the Possible Chiral Magnetic Wave in Heavy-Ion Collisions. Physical Review Letters, 2015, 114, 252302.	7.8	85
9	Azimuthal Anisotropy in Au+Au Collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2015, 114, 252302.	7.8	85
10	Measurement of the mass difference and the binding energy of the hypertriton and antihypertriton. Nature Physics, 2020, 16, 409-412.	16.7	76
11	Measurement of the Transverse Single-Spin Asymmetry in Au+Au Collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2015, 114, 252302.	7.8	73
12	Measurement of interaction between antiprotons. Nature, 2015, 527, 345-348.	27.8	71
13	Long-range pseudorapidity dihadron correlations in d+Au collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2015, 114, 252302.	7.8	68
14	Beam-Energy Dependence of Directed Flow of Λ Hyperons in Au+Au Collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2015, 114, 252302.	7.8	66
15	Pair Production in Au+Au Collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2015, 114, 252302.	7.8	64
16	First Observation of the Directed Flow of Multistrange Hadrons in Au+Au Collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2015, 114, 252302.	7.8	61
17	Measurement of the Directed Flow of Λ Hyperons in Au+Au Collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2015, 114, 252302.	7.8	58
18	The proton Λ correlation function in Au+Au collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 785, 551-560.	4.1	56

#	ARTICLE	IF	CITATIONS
19	Measurements of dielectron production in Au + Au collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV from the STAR experiment. Physical Review C, 2015, 92, .	2.9	55
20	Centrality dependence of identified particle elliptic flow in relativistic heavy ion collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV. Physical Review C, 2016, 93, .	2.9	55
21	Strange hadron production in Au + Au collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 19.6, 27, 39$ GeV. Physical Review C, 2020, 102, .	2.9	54
22	Beam energy dependence of (anti-)deuteron production in Au + Au collisions at the BNL Relativistic Heavy Ion Collider. Physical Review C, 2019, 99, .	2.9	53
23	Measurement of elliptic flow of light nuclei at $\sqrt{s_{NN}} = 62.4, 39, 27, 19.6, 11.5, 7.7$ GeV at the BNL Relativistic Heavy Ion Collider. Physical Review C, 2016, 94, .	2.9	52
24	Measurement of the $\langle H \rangle$ lifetime in Au + Au collisions at the BNL Relativistic Heavy Ion Collider. Physical Review C, 2018, 97, .	2.9	52
25	Beam Energy Dependence of the Third Harmonic of Azimuthal Correlations in Au + Au Collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV. Physical Review C, 2019, 99, .	7.8	47
26	Centrality and transverse momentum dependence of D^0 -meson production at mid-rapidity in Au + Au collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV. Physical Review C, 2019, 99, .	2.9	47
27	Baryon Production in Au + Au Collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV. Physical Review C, 2019, 99, .	7.8	45
28	Measurements of jet quenching with semi-inclusive hadron+jet distributions in Au + Au collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV. Physical Review C, 2016, 93, .	2.9	44
29	Probing parabolic $Q_{1,2}$ matter with $\langle \hat{I} \rangle$ and $\langle \hat{I}^2 \rangle$ production. Physical Review C, 2016, 93, .	2.9	43
30	Direct virtual photon production in Au+Au collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 770, 451-458.	4.1	37
31	Jet-like correlations with direct-photon and neutral-pion triggers at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 760, 689-696.	4.1	36
32	Azimuthal Harmonics in Small and Large Collision Systems at RHIC Top Energies. Physical Review Letters, 2019, 122, 172301.	7.8	36
33	Harmonic decomposition of three-particle azimuthal correlations at energies available at the BNL Relativistic Heavy Ion Collider. Physical Review C, 2018, 98, .	2.9	33
34	Beam Energy Dependence of Jet-Quenching Effects in Au+Au Collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV. Physical Review Letters, 2018, 121, 032301.	7.8	33
35	Energy dependence of the $Q_{1,2}$ mass spectrum at mid-rapidity in Au + Au collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 62.4$ GeV. Physical Review C, 2019, 99, .	4.1	32
36	Coherent diffractive photoproduction of η mesons on gold nuclei at 200 GeV/nucleon-pair at the Relativistic Heavy Ion Collider. Physical Review C, 2017, 96, .	2.9	32

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37	Collision-energy dependence of second-order off-diagonal and diagonal cumulants of net-charge, net-proton, and net-kaon multiplicity distributions in Au + Au collisions. Physical Review C, 2019, 100.	2.9	31
38	Energy dependence of J/ψ production in Au + Au collisions at $\sqrt{s_{NN}} = 2.76$ and 2.41 TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 771, 13-20.	4.1	40
39	Charge-dependent azimuthal correlations of charged pion pairs in Au + Au collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review D, 2018, 97, 054004.	4.7	30
40	Azimuthal transverse single-spin asymmetries of inclusive jets and charged pions within jets from polarized-proton collisions at $\sqrt{s} = 500$ GeV. Physical Review D, 2018, 97, 054004.	4.7	27
41	Charge-Dependent Azimuthal Correlations of Charged Pion Pairs in Au + Au collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review D, 2018, 97, 054004.	7.8	25
42	J/ψ production cross section and its dependence on charged-particle multiplicity in $p\bar{p}$ collisions at $\sqrt{s} = 200$ GeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 786, 87-93.	4.1	25
43	Charge-dependent pair correlations relative to a third particle in $p\bar{p}$ and $d\bar{d}$ Au + Au collisions at RHIC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 798, 134975.	4.1	24
44	Azimuthal anisotropy in Cu+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Physical Review C, 2018, 98, .	2.9	13
45	Measurement of the longitudinal spin asymmetries for weak boson production in proton-proton collisions at $\sqrt{s} = 510$ GeV. Physical Review D, 2019, 99, .	4.7	23
46	Measurement of the cross section and longitudinal double-spin asymmetry for dijet production in polarized pp collisions at $\sqrt{s} = 200$ GeV. Physical Review D, 2017, 95, .	4.7	22
47	Correlation measurements between flow harmonics in Au+Au collisions at RHIC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 783, 459-465.	4.1	22
48	Measurement of inclusive J/ψ suppression in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Physical Review C, 2018, 98, .	4.1	22
49	Charge-Dependent Directed Flow in Au + Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 783, 459-465.	7.8	22
50	Charge-Dependent Directed Flow in Au + Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Physical Review C, 2016, 94, .	2.9	21
51	Charge-Dependent Directed Flow in Au + Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Physical Review C, 2016, 94, .	7.8	20
52	Charge-Dependent Directed Flow in Au + Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Physical Review C, 2016, 94, .	7.8	19
53	Transverse spin-dependent azimuthal correlations of charged pion pairs measured in $p\bar{p}$ collisions at $\sqrt{s} = 500$ GeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 780, 332-339.	4.1	19
54	Collision-energy dependence of J/ψ production in Au + Au collisions at energies available at the BNL Relativistic Heavy Ion Collider. Physical Review C, 2019, 99, .	2.9	19

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55	Elliptic flow of electrons from heavy-flavor hadron decays in Au+Au collisions at sNN=200, 62.4, and 39 GeV. Physical Review C, 2017, 95, .	2.9	18
56	Measurement of groomed jet substructure observables in p+p collisions at s=200 GeV with STAR. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 811, 135846.	4.1	18
57	Bulk properties of the system formed in Au+Au collisions at sNN=200 GeV at the BNL STAR detector. Physical Review C, 2020, 101, .	2.9	18
58	Energy dependence of K ⁰ , p, and K ⁺ fluctuations in Au+Au collisions from sNN=7.7 to 200 GeV. Physical Review C, 2015, 92, .	2.9	17
59	J/ψ production at low transverse momentum in p+Au collisions at sNN=200 GeV. Physical Review C, 2016, 93, .	2.9	13
60	Longitudinal double-spin asymmetries for dijet production at intermediate pseudorapidity in polarized p+p collisions at sNN=200 GeV. Physical Review D, 2018, 98, .	4.7	13
61	Measurement of inclusive charged-particle jet production in Au+Au collisions at sNN=200 GeV. Physical Review C, 2018, 98, .	2.9	13
62	Transverse spin transfer to Λ hyperons in polarized proton-proton collisions at sNN=200 GeV. Physical Review C, 2018, 98, .	4.7	12
63	Measurement of the central exclusive production of charged particle pairs in proton-proton collisions at sNN=200 GeV with the STAR detector at RHIC. Journal of High Energy Physics, 2020, 2020, 1.	4.7	12
64	Di-hadron correlations with identified leading hadrons in 200 GeV Au + Au and d + Au collisions at STAR. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 751, 233-240.	4.1	11
65	Beam energy dependence of net-Λ fluctuations measured by the STAR experiment at the BNL Relativistic Heavy Ion Collider. Physical Review C, 2020, 102, .	2.9	11
66	Underlying event measurements in p+p collisions at s=200 GeV at RHIC. Physical Review D, 2020, 101, .	4.7	11
67	Measurements of the transverse-momentum-dependent cross sections of J/ψ production at mid-rapidity in p+p collisions at sNN=200 GeV. Physical Review C, 2018, 98, .	4.7	10
68	Measurement of the central exclusive production of charged particle pairs in proton-proton collisions at sNN=200 GeV with the STAR detector at RHIC. Journal of High Energy Physics, 2020, 2020, 1.	4.7	10
69	Measurement of the linear and mode-coupled flow harmonics in Au+Au collisions at sNN=200 GeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 809, 35728.	4.1	10
70	Beam-energy dependence of the directed flow of deuterons in Au+Au collisions. Physical Review C, 2020, 102, .	2.9	10
71	Longitudinal double-spin asymmetries for J/ψs in the forward direction for 510 GeV polarized pp collisions. Physical Review D, 2018, 98, .	4.7	9
72	Measurement of inclusive p+p collisions at sNN=200 GeV. Physical Review C, 2020, 101, .	4.7	9

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73	Improved measurement of the longitudinal spin transfer to Λ -meson $\langle \mathbf{m} \cdot \mathbf{p} \rangle$ in p - p collisions at $\sqrt{s} = 200$ GeV. <i>Physical Review Letters</i> , 2018, 120, 152301.	2.9	8
74	Improved measurement of the longitudinal spin transfer to Λ hyperons in polarized proton-proton collisions. <i>Physical Review Letters</i> , 2018, 120, 152301.	4.7	7
75	Beam energy dependence of rapidity-even dipolar flow in Au+Au collisions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018, 784, 26-32.	4.1	7
76	Results on total and elastic cross sections in proton-proton collisions at $\sqrt{s} = 200$ GeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020, 808, 135663.	4.1	6
77	Central exclusive production in the STAR experiment at RHIC. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	5
78	Beam-energy dependence of identified two-particle angular correlations in p - p collisions. <i>Physical Review C</i> , 2020, 101, .	2.9	5
79	Feasibility Studies of Exclusive Diffractive Bremsstrahlung Measurement at RHIC Energies. <i>Acta Physica Polonica B</i> , 2015, 46, 1979.	0.8	5
80	Near-side azimuthal and pseudorapidity correlations using neutral strange baryons and mesons in p - p collisions. <i>Physical Review C</i> , 2016, 94, .	2.9	3
81	Constraining the initial conditions and temperature dependent viscosity with three-particle correlations in Au+Au collisions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019, 790, 81-88.	4.1	3
82	Central exclusive production of charged particle pairs in proton-proton collisions at $\sqrt{s} = 200$ GeV with the STAR detector at RHIC. , 2021, , .		2
83	Recent Results on Central Exclusive Production with the STAR Detector at RHIC. <i>Acta Physica Polonica B, Proceedings Supplement</i> , 2019, 12, 811.	0.1	2
84	STAR Collaboration. <i>Nuclear Physics A</i> , 2016, 956, 971-974.	1.5	1
85	STAR Collaboration. <i>Nuclear Physics A</i> , 2017, 967, 1007-1010.	1.5	1
86	Feasibility studies of the exclusive diffractive bremsstrahlung measurement at RHIC energies. , 2015, , .		0
87	Study of elastic proton-proton scattering with the STAR detector at RHIC. , 2015, , .		0
88	Recent results on Central Exclusive Production with the STAR detector. <i>SciPost Physics Proceedings</i> , 2022, , .	0.4	0