

# Krzysztof Kutak

## List of Publications by Year in descending order

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115  
papers

4,032  
citations

117571

34  
h-index

123376

61  
g-index

119  
all docs

119  
docs citations

119  
times ranked

6062  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence for the maximally entangled low $x$ proton in Deep Inelastic Scattering from H1 data. European Physical Journal C, 2022, 82, 1.	1.4	19
2	System of evolution equations for quark and gluon jet quenching with broadening. European Physical Journal C, 2022, 82, 1.	1.4	4
3	A parton branching with transverse momentum dependent splitting functions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 833, 137276.	1.5	5
4	Forward Higgs production within high energy factorization in the heavy quark limit at next-to-leading order accuracy. European Physical Journal C, 2021, 81, 1.	1.4	20
5	Sudakov effects in central-forward dijet production in high energy factorization. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 814, 136078.	1.5	17
6	Medium induced QCD cascades: broadening and rescattering during branching. Journal of High Energy Physics, 2021, 2021, 1.	1.6	9
7	On systematic effects in the numerical solutions of the JIMWLK equation. European Physical Journal C, 2021, 81, 1.	1.4	4
8	TMDlib2 and TMDplotter: a platform for 3D hadron structure studies. European Physical Journal C, 2021, 81, 1.	1.4	32
9	Probing gluon number density with electron-dijet correlations at EIC. European Physical Journal C, 2021, 81, 1.	1.4	10
10	Parton distributions and lattice-QCD calculations: Toward 3D structure. Progress in Particle and Nuclear Physics, 2021, 121, 103908.	5.6	86
11	Trijets in $k_{\text{T}}$ -factorisation: matrix elements vs parton shower. European Physical Journal C, 2020, 80, 1.	1.4	11
12	Jet quenching and effects of non-Gaussian transverse-momentum broadening on dijet observables. Physical Review C, 2020, 102, .	1.1	2
13	Forward trijet production in p-p and p-Pb collisions at LHC. Journal of High Energy Physics, 2020, 2020, 1.	1.6	7
14	All-plus helicity off-shell gauge invariant multigluon amplitudes at one loop. Journal of High Energy Physics, 2020, 2020, 1.	1.6	7
15	Novel tools and observables for jet physics in heavy-ion collisions. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 065102.	1.4	42
16	Solutions of evolution equations for medium-induced QCD cascades. European Physical Journal C, 2019, 79, 1.	1.4	17
17	Calculation of the $\langle \text{jet cross section including transverse momenta of initial partons. Physical Review D, 2019, 99, .} \rangle$	1.6	18
18	QCD evolution based evidence for the onset of gluon saturation in exclusive photo-production of vector mesons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 795, 569-575.	1.5	32

#	ARTICLE	IF	CITATIONS
19	<p>Accounting and saturation effects in dijet azimuthal correlations in p-p and p-Pb collisions at <math>\sqrt{s}=5.02</math> TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 79, 1.</p>	1.5	28
20	<p>Accounting and saturation effects in dijet azimuthal correlations in p-p and p-Pb collisions at <math>\sqrt{s}=5.02</math> TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 79, 1.</p>	1.6	13
21	<p>On the different forms of the kinematical constraint in BFKL. European Physical Journal C, 2019, 79, 1.</p>	1.4	9
22	<p>TMD gluon distributions for multiparton processes. European Physical Journal C, 2019, 79, 1.</p>	1.4	13
23	<p>Predictions for cold nuclear matter effects in p+Pb collisions at <math>\sqrt{s}=5.02</math> TeV. Nuclear Physics A. 2018, 972, 18-85.</p>	0.6	43
24	<p>Single inclusive jet production and the nuclear modification ratio at very forward rapidity in proton-lead collisions with <math>\sqrt{s}=5.02</math> TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 780, 185-190.</p>	1.5	8
25	<p>TMD splitting functions in <math>k_T</math> factorization: the real contribution to the gluon-to-gluon splitting. European Physical Journal C, 2018, 78, 174.</p>	1.4	19
26	<p>Calculations with off-shell matrix elements, TMD parton densities and TMD parton showers. European Physical Journal C, 2018, 78, 137.</p>	1.4	22
27	<p>QCD amplitudes with 2 initial spacelike legs via generalised BCFW recursion. Journal of High Energy Physics, 2017, 2017, 1.</p>	1.6	4
28	<p>Single inclusive jet transverse momentum and energy spectra at very forward rapidity in proton-proton collisions with <math>\sqrt{s}=7</math> and <math>13</math> TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 770, 412-417.</p>	1.5	3
29	<p>Estimating nonlinear effects in forward dijet production in ultra-peripheral heavy ion collisions at the LHC. European Physical Journal C, 2017, 77, 1.</p>	1.4	33
30	<p>Towards tomography of quark-gluon plasma using double inclusive forward-central jets in Pb-Pb collision. European Physical Journal C, 2017, 77, 1.</p>	1.4	3
31	<p>Rapidity dependence of the average transverse momentum in p+p and p+Pb collisions revisited. Physical Review D, 2017, 95, .</p>	1.6	2
32	<p>Four-jet production in single- and double-parton scattering within high-energy factorization. , 2017, , .</p>		1
33	<p>Search for optimal conditions for exploring double-parton scattering in four-jet production: <math>k_T</math>-factorization approach. Physical Review D, 2016, 94, .</p>	1.6	11
34	<p>Forward di-jet production in dilute-dense collisions. EPJ Web of Conferences, 2016, 112, 04006.</p>	0.1	1
35	<p>Forward di-jet production in p+Pb collisions in the small-x improved TMD factorization framework. Journal of High Energy Physics, 2016, 2016, 1.</p>	1.6	47
36	<p>LHC forward physics. Journal of Physics G: Nuclear and Particle Physics, 2016, 43, 110201.</p>	1.4	99

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37	Single and double inclusive forward jet production at the LHC at $\sqrt{s}=7$ and $13\text{ TeV}$ . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 760, 594-601.	1.5	15
38	Predictions for p+Pb Collisions at $\sqrt{s_{NN}} = 5\text{ TeV}$ : Comparison with Data. International Journal of Modern Physics E, 2016, 25, 1630005.	0.4	29
39	Transverse momentum dependent splitting functions at work: Quark-to-gluon splitting. Physical Review D, 2016, 94, .	1.6	15
40	Transverse-momentum-dependent quark splitting functions in $k_T$ -factorization: real contributions. Journal of High Energy Physics, 2016, 2016, 1.	1.6	16
41	Four-jet production in single- and double-parton scattering within high-energy factorization. Journal of High Energy Physics, 2016, 2016, 1-19.	1.6	19
42	Resummation effects in the forward production of $Z$ bosons and jets at the LHC. Physical Review D, 2015, 92, .	1.6	23
43	Improved TMD factorization for forward dijet production in dilute-dense hadronic collisions. Journal of High Energy Physics, 2015, 2015, 1.	1.6	88
44	Hard scale dependent gluon density, saturation, and forward-forward dijet production at the LHC. Physical Review D, 2015, 91, .	1.6	23
45	Kinematical constraint effects in the evolution equations based on angular ordering. Journal of High Energy Physics, 2015, 2015, 1.	1.6	1
46	Transverse Momentum Dependent (TMD) Parton Distribution Functions: Status and Prospects. Acta Physica Polonica B, 2015, 46, 2501.	0.3	192
47	Small- $x$ dynamics in forward-central dijet correlations at the LHC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 737, 335-340.	1.5	37
48	Saturation effects in forward-forward dijet production in p+Pb collisions. Physical Review D, 2014, 89, .	1.6	22
49	Nonlinear evolution of unintegrated gluon density at large values of coupling constant. Physical Review D, 2014, 89, .	1.6	2
50	Markov chain Monte Carlo solution of BK equation through Newton-Kantorovich method. Journal of High Energy Physics, 2013, 2013, 1.	1.6	0
51	Gluon saturation scale from the KGBJS equation. Journal of High Energy Physics, 2013, 2013, 1.	1.6	4
52	Helicity amplitudes for high-energy scattering. Journal of High Energy Physics, 2013, 2013, 1.	1.6	66
53	Scattering amplitudes with off-shell quarks. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 727, 226-233.	1.5	37
54	A new Monte Carlo study of evolution equation with coherence. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 722, 151-156.	1.5	2

#	ARTICLE	IF	CITATIONS
55	Title is missing!. Acta Physica Polonica B, 2013, 44, 1527.	0.3	3
56	Three-jet production and gluon saturation effects in $p\bar{p}$ and $p$ -Pb collisions within high-energy factorization. Physical Review D, 2013, 88, .	1.6	9
57	PREDICTIONS FOR $p$ +Pb COLLISIONS AT $\sqrt{s_{NN}} = 5$ . International Journal of Modern Physics E, 2013, 22, 1330007.	0.4	165
58	Title is missing!. Acta Physica Polonica B, Proceedings Supplement, 2013, 6, 207.	0.0	0
59	Gluon saturation and final states. , 2013, , .		0
60	Gluon saturation in dijet production in $p$ -Pb collisions at the Large Hadron Collider. Physical Review D, 2012, 86, .	1.6	74
61	Forward Physics Hard Processes and Saturation: Theory and Phenomenology Review. Progress of Theoretical Physics Supplement, 2012, 193, 197-203.	0.2	1
62	Multi-gluon helicity amplitudes with one off-shell leg within high energy factorization. Journal of High Energy Physics, 2012, 2012, 1.	1.6	39
63	Resummation in nonlinear equation for high energy factorizable gluon density and its extension to include coherence. Journal of High Energy Physics, 2012, 2012, 1.	1.6	13
64	Forward jets and energy flow in hadronic collisions. European Physical Journal C, 2012, 72, 1.	1.4	48
65	Nonlinear equation for coherent gluon emission. Journal of High Energy Physics, 2012, 2012, 1.	1.6	27
66	Gluon saturation and entropy production in proton-proton collisions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 705, 217-221.	1.5	34
67	Measurement of charm and beauty jets in deep inelastic scattering at HERA. European Physical Journal C, 2011, 71, 1.	1.4	16
68	Search for squarks in R-parity violating supersymmetry in $p\bar{p}$ collisions at HERA. European Physical Journal C, 2011, 71, 1.	1.4	8
69	Measurement of the cross section for diffractive deep-inelastic scattering with a leading proton at HERA. European Physical Journal C, 2011, 71, 1.	1.4	38
70	Measurement of the inclusive $e$ $\hat{A}$ $p$ scattering cross section at high inelasticity $y$ and of the structure function $F_L$ . European Physical Journal C, 2011, 71, 1.	1.4	110
71	Physics of forward jets at the Large Hadron Collider. , 2011, , .		0
72	Title is missing!. Acta Physica Polonica B, 2011, 42, 1487.	0.3	0



#	ARTICLE	IF	CITATIONS
91	A general search for new phenomena at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 674, 257-268.	1.5	27
92	Saturation and linear transport equation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 675, 332-335.	1.5	4
93	Search for excited quarks in ep collisions at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 678, 335-343.	1.5	9
94	Search for single top quark production at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 678, 450-458.	1.5	29
95	Observation of the hadronic final state charge asymmetry in high Q <sup>2</sup> deep-inelastic scattering at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 681, 125-133.	1.5	7
96	Deeply virtual Compton scattering and its beam charge asymmetry in ep collisions at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 681, 391-399.	1.5	11
97	Study of charm fragmentation into D <sup>*</sup> mesons in deep-inelastic scattering at HERA. European Physical Journal C, 2009, 59, 589-606.	1.4	26
98	Strangeness production at low Q <sup>2</sup> in deep-inelastic ep scattering at HERA. European Physical Journal C, 2009, 61, 185-205.	1.4	4
99	Measurement of the inclusive ep scattering cross section at low Q <sup>2</sup> and x at HERA. European Physical Journal C, 2009, 63, 625.	1.4	99
100	Events with isolated leptons and missing transverse momentum and measurement of W production at HERA. European Physical Journal C, 2009, 64, 251-271.	1.4	16
101	A precision measurement of the inclusive ep scattering cross section at HERA. European Physical Journal C, 2009, 64, 561-587.	1.4	71
102	Parton shower effects in central scalar production at the LHC. , 2009, , .		0
103	Measurement of deeply virtual Compton scattering and its t-dependence at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 659, 796-806.	1.5	100
104	A search for excited neutrinos in ep collisions at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 663, 382-389.	1.5	12
105	Search for excited electrons in ep collisions at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 665, 139-146.	1.5	89
106	Search for excited electrons in ep collisions at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 666, 131-139.	1.5	15
107	Multi-lepton production at high transverse momenta in ep collisions at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 668, 268-276.	1.5	13
108	A momentum space analysis of the triple pomeron vertex in pQCD. European Physical Journal C, 2008, 53, 533-548.	1.4	23

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109	An approach to fast fits of the unintegrated gluon density. , 2008, , .		0
110	IMPACT PARAMETER DEPENDENT GLUON DENSITY FROM THE BK EQUATION.. , 2007, , .		0
111	Small-x phenomenology â€™ Summary of the 3rd Lund small-x workshop in 2004. European Physical Journal C, 2006, 48, 53-105.	1.4	78
112	Exclusive Higgs boson production at the CERN LHC: Hard rescattering corrections. Physical Review D, 2006, 73, .	1.6	31
113	The unintegrated gluon distribution from the modified BK equation. European Physical Journal C, 2005, 41, 343-351.	1.4	88
114	Screening effects in the ultra-high energy neutrino interactions. European Physical Journal C, 2003, 29, 521-530.	1.4	93
115	Small-x phenomenology â€™ Summary of the 3rd Lund small-x workshop in 2004. , 0, .		1