

# Zhikai Zhang

## List of Publications by Year in descending order

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Version: 2024-02-01

175  
papers

10,719  
citations

41258

49  
h-index

33814

99  
g-index

177  
all docs

177  
docs citations

177  
times ranked

8547  
citing authors

#	ARTICLE	IF	CITATIONS
1	The CMS experiment at the CERN LHC. <i>Journal of Instrumentation</i> , 2008, 3, S08004-S08004.	0.5	2,192
2	Combined results of searches for the standard model Higgs boson in pp collisions at $\sqrt{s} = 7$ and 8 TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 710, 26-48.	2.9	400
3	Collisions at $\sqrt{s} = 7$ and 8 TeV. <i>Physical Review Letters</i> , 2010, 105, 022002.	2.9	400
4	Combined measurements of Higgs boson couplings in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>European Physical Journal C</i> , 2019, 79, 421.	1.4	355
5	FCC Physics Opportunities. <i>European Physical Journal C</i> , 2019, 79, 1.	1.4	346
6	Luminosity determination in pp collisions at $\sqrt{s} = 8$ TeV using the ATLAS detector at the LHC. <i>European Physical Journal C</i> , 2016, 76, 653.	1.4	279
7	Measurements of the Higgs boson production and decay rates and coupling strengths using pp collision data at $\sqrt{s} = 7$ and 8 TeV in the ATLAS experiment. <i>European Physical Journal C</i> , 2016, 76, 6.	1.4	274
8	Study of the Mass and Spin-Parity of the Higgs Boson Candidate via Its Decays to $Z\gamma$ and $Z\nu\bar{\nu}$ Boson Pairs. <i>Physical Review Letters</i> , 2013, 110, 081803.	2.9	270
9	Extraction and validation of a new set of CMS pythia8 tunes from underlying-event measurements. <i>European Physical Journal C</i> , 2020, 80, 4.	1.4	198
10	Measurement of the inclusive W and Z production cross sections in pp collisions at $\sqrt{s} = 7$ TeV with the CMS experiment. <i>Journal of High Energy Physics</i> , 2011, 2011, 1.	1.6	158
11	ATLAS Run 1 searches for direct pair production of third-generation squarks at the Large Hadron Collider. <i>European Physical Journal C</i> , 2015, 75, 510.	1.4	138
12	Search for dark matter and other new phenomena in events with an energetic jet and large missing transverse momentum using the ATLAS detector. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	136
13	Search for electroweak production of supersymmetric particles in final states with two or three leptons at $\sqrt{s} = 13$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2018, 78, 995.	1.4	125
14	Search for the Standard Model Higgs boson produced in association with top quarks and decaying into $b\bar{b}$ in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2015, 75, 349.	1.4	123
15	Precision luminosity measurement in proton-proton collisions at $\sqrt{s} = 13$ TeV in 2015 and 2016 at CMS. <i>European Physical Journal C</i> , 2021, 81, 800.	1.4	123
16	Measurements of inclusive W and Z cross sections in pp collisions at $\sqrt{s} = 7$ TeV. <i>Journal of High Energy Physics</i> , 2011, 2011, 1.	1.6	122
17	Constraints on new phenomena via Higgs boson couplings and invisible decays with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	1.6	108
18	Measurements of properties of the Higgs boson decaying into the four-lepton final state in pp collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	1.6	101

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19	Rapidity gap cross sections measured with the ATLAS detector in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2012, 72, 1.	1.4	100
20	Measurement of the underlying event activity at the LHC with $\sqrt{s} = 7$ TeV and comparison with $\sqrt{s} = 0.9$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	1.6	97
21	Constraints on the off-shell Higgs boson signal strength in the high-mass ZZ and WW final states with the ATLAS detector. European Physical Journal C, 2015, 75, 335.	1.4	95
22	Search for new phenomena in events with at least three photons collected in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. European Physical Journal C, 2016, 76, 210.	1.4	95
23	Search for the $b\bar{b}$ decay of the Standard Model Higgs boson in associated (W/Z)H production with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	1.6	89
24	Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 7$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 722, 5-27.	1.6	88
25	Search for high-mass resonances in dilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	86
26	Performance of the CMS Level-1 trigger in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2020, 15, P10017-P10017.	0.5	84
27	Search for dark matter at $\sqrt{s} = 13$ TeV in final states containing an energetic photon and large missing transverse momentum with the ATLAS detector. European Physical Journal C, 2017, 77, 393.	1.4	80
28	Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 75.	1.4	78
29	Search for production of vector-like quark pairs and of four top quarks in the lepton-plus-jets final state in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	1.6	71
30	Measurement of the Splitting Function in pp and Pb-Pb Collisions at $\sqrt{s} = 2.76$ TeV. European Physical Journal C, 2015, 75, 1801.	2.9	70
31	Meson Azimuthal Anisotropy in Pb-Pb Collisions at $\sqrt{s} = 2.76$ TeV. European Physical Journal C, 2015, 75, 1801.	2.9	70
32	Searches for physics beyond the standard model with the $M_{T2}$ variable in hadronic final states with and without disappearing tracks in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 3.	1.4	70
33	Measurement of the $t\bar{t}$ production cross section, the top quark mass, and the strong coupling constant using dilepton events in pp collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 368.	1.4	68
34	Search for long-lived charginos based on a disappearing-track signature in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	67
35	Search for top squark pair production in final states with one isolated lepton, jets, and missing transverse momentum in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	1.6	66
36	Search for electroweak production of charginos and neutralinos in multilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	63

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37	Search for the standard model Higgs boson decaying to bottom quarks in pp collisions at $\sqrt{s}=13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 710, 284-306.	1.6	62
38	Measurement of the inelastic proton-proton cross section at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	61
39	Measurement of ZZ production in pp collisions at $\sqrt{s}=7$ TeV and limits on anomalous ZZZ and ZZ <sup>3</sup> couplings with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.4	60
40	Search for dark matter produced in association with bottom or top quarks in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 18.	1.6	59
41	Search for direct top-squark pair production in final states with two leptons in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	1.6	58
42	Interpretation of searches for supersymmetry with simplified models. Physical Review D, 2013, 88, .	1.4	57
43	Search for physics beyond the standard model in events with two leptons of same sign, missing transverse momentum, and jets in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2017, 77, 578.	1.6	56
44	Measurements of Higgs boson properties in the diphoton decay channel in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.4	52
45	Search for supersymmetry in events containing a same-flavour opposite-sign dilepton pair, jets, and large missing transverse momentum in $\sqrt{s}=8$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2015, 75, 318.	1.6	50
46	Measurements of the $\sigma(\text{pp} \rightarrow \text{ZZ})$ production cross section and the $\text{BR}(\text{H} \rightarrow \text{ZZ})$ branching fraction, and constraints on anomalous triple gauge couplings at $\sqrt{s}=13$ TeV. European Physical Journal C, 2018, 78, 165.	1.4	50
47	Study of the underlying event at forward rapidity in pp collisions at $\sqrt{s}=0.9, 2.76, 7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	1.6	50
48	Search for direct top squark pair production in final states with two leptons in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2017, 77, 898.	1.6	49
49	Search for heavy neutral leptons in decays of W bosons produced in 13 TeV pp collisions using prompt and displaced signatures with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.6	48
50	Constraints on mediator-based dark matter and scalar dark energy models using $\sqrt{s}=13$ TeV pp collision data collected by the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.4	48
51	Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using 36 fb <sup>-1</sup> of $\sqrt{s}=13$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	47
52	Search for vector-like quarks in events with two oppositely charged leptons and jets in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, 364.	1.6	46
53	Measurement of the Higgs boson coupling properties in the $\text{H} \rightarrow \text{ZZ} \rightarrow 4\ell$ decay channel at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	46

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55	Search for a scalar partner of the top quark in the jets plus missing transverse momentum final state at $s = 13 \sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	1.6	45
56	Search for standard model production of four top quarks with same-sign and multilepton final states in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ . <i>European Physical Journal C</i> , 2018, 78, 140.	1.4	44
57	Search for natural and split supersymmetry in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ in final states with jets and missing transverse momentum. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	43
58	Search for low mass vector resonances decaying into quark-antiquark pairs in proton-proton collisions at $s = 13 \sqrt{s} = 13 \text{ TeV}$ . <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	42
59	Higgs boson production cross-section measurements and their EFT interpretation in the $4\ell$ decay channel at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. <i>European Physical Journal C</i> , 2020, 80, 1.	1.4	41
60	Search for heavy resonances decaying into a W or Z boson and a Higgs boson in final states with leptons and b-jets in $36 \text{ fb}^{-1}$ of $\sqrt{s} = 13 \text{ TeV}$ pp collisions with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	40
61	Measurement of the top quark mass in the all-jets final state at $\sqrt{s} = 13 \text{ TeV}$ and combination with the lepton+jets channel. <i>European Physical Journal C</i> , 2019, 79, 313.	1.4	40
62	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at $\sqrt{s} = 13 \text{ TeV}$ . <i>European Physical Journal C</i> , 2021, 81, 378.	1.4	40
63	Measurement of the $Z/\gamma^* \rightarrow b\bar{b}$ cross section in pp collisions at $\sqrt{s} = 7 \text{ TeV}$ . <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	1.6	39
64	Measurement of the ZZ production cross section and search for anomalous couplings in $2\ell, 2\ell, \ell\ell$ final states in pp collisions at $\sqrt{s} = 7 \text{ TeV}$ . <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	1.6	39
65	Measurement of differential cross sections for $Z$ boson production in association with jets in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ . <i>European Physical Journal C</i> , 2018, 78, 965.	1.4	39
66	Search for heavy resonances that decay into a vector boson and a Higgs boson in hadronic final states at $\sqrt{s} = 13 \text{ TeV}$ . <i>European Physical Journal C</i> , 2017, 77, 636.	1.4	38
67	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying $l, \bar{l}$ , leptons at $\sqrt{s} = 13 \text{ TeV}$ . <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	38
68	Searches for third-generation squark production in fully hadronic final states in proton-proton collisions at $s = 8 \sqrt{s} = 8 \text{ TeV}$ . <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	1.6	37
69	Search for resonant and nonresonant Higgs boson pair production in the $b\bar{b} \gamma \gamma$ final state in proton-proton collisions at $s = 13 \sqrt{s} = 13 \text{ TeV}$ . <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	36
70	Search for Narrow Resonances in the $b\bar{b} \gamma \gamma$ -Tagged Dijet Mass Spectrum in Proton-Proton Collisions at $\sqrt{s} = 13 \text{ TeV}$ . <i>Physical Review Letters</i> , 2018, 120, 201801.	2.9	36
71	Search for a scalar partner of the top quark in the all-hadronic $t\bar{t}$ plus missing transverse momentum final state at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. <i>European Physical Journal C</i> , 2020, 80, 1.	1.4	36
72	Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ . <i>European Physical Journal C</i> , 2021, 81, 488.	1.4	35

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73	Observation of Z decays to four leptons with the CMS detector at the LHC. Journal of High Energy Physics, 2012, 2012, 1.	1.6	34
74	Measurement of the top quark mass with lepton+jets final states using $\mathcal{P} \rightarrow \mathcal{P} + \text{jets}$ collisions at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ . European Physical Journal C, 2018, 78, 891.	1.4	34
75	Analysis of events with b-jets and a pair of leptons of the same charge in pp collisions at $s = 8 \sqrt{s}=8 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	1.6	33
76	Search for dark matter produced in association with a leptonically decaying $\mathcal{Z}$ boson in proton-proton collisions at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 13.	1.4	33
77	Search for top squark pair production using dilepton final states in $\mathcal{P} \rightarrow \mathcal{P} + \text{jets}$ collision data collected at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 3.	1.4	33
78	Measurement of $\sigma(\mathcal{P} \rightarrow \mathcal{P} + \text{jets})$ normalised multi-differential cross sections in $\mathcal{P} \rightarrow \mathcal{P} + \text{jets}$ collisions at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ , and simultaneous determination of the strong coupling strength, top quark pole mass, and parton distribution functions. European Physical Journal C, 2020, 80, 1.	1.4	33
79	Measurement of $\overline{\mathcal{B}}(\mathcal{P} \rightarrow \mathcal{P} + \text{jets})$ angular correlations based on secondary vertex reconstruction at $\sqrt{s} = 7, \text{ext}\{\text{TeV}\}$ . Journal of High Energy Physics, 2011, 2011, 1.	1.6	32
80	Search for a non-standard-model Higgs boson decaying to a pair of new light bosons in four-muon final states. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 564-586.	1.5	32
81	Measurements of the Higgs boson inclusive and differential fiducial cross sections in the $H \rightarrow \mathcal{Z} \mathcal{Z}^* \rightarrow 4\ell$ decay channel at $\sqrt{s} = 13 \text{ TeV}$ . European Physical Journal C, 2020, 80, 1.	1.4	32
82	Shape, transverse size, and charged-hadron multiplicity of jets in pp collisions at $\sqrt{s}=7, \text{TeV}$ . Journal of High Energy Physics, 2012, 2012, 1.	1.6	31
83	Measurement of inclusive and differential cross sections in the $H \rightarrow \mathcal{Z} \mathcal{Z}^* \rightarrow 4\ell$ decay channel in pp collisions at $s = 13 \sqrt{s}=13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	31
84	Search for top squark pair production in pp collisions at $s = 13 \sqrt{s}=13 \text{ TeV}$ using single lepton events. Journal of High Energy Physics, 2017, 2017, 1.	1.6	31
85	Search for Higgs boson decays to beyond-the-Standard-Model light bosons in four-lepton events with the ATLAS detector at $\sqrt{s}=13 \text{ TeV}$ . Journal of High Energy Physics, 2018, 2018, 1.	1.6	31
86	A multi-dimensional search for new heavy resonances decaying to boosted $W \rightarrow W + \text{jets}$ , $W \rightarrow W + \text{jets} + \mathcal{Z}$ , or $W \rightarrow W + \text{jets} + \mathcal{Z}$ boson pairs in the dijet final state at $13 \sqrt{s}=13 \text{ TeV}$ . European Physical Journal C, 2020, 80, 237.	1.4	31
87	Search for dark matter in events with a hadronically decaying vector boson and missing transverse momentum in pp collisions at $\sqrt{s}=13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	29
88	Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ . European Physical Journal C, 2019, 79, 280.	1.4	29
89	Search for long-lived neutral particles in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ that decay into displaced hadronic jets in the ATLAS calorimeter. European Physical Journal C, 2019, 79, 1.	1.4	28
90	Search for $\mathcal{P} \rightarrow \mathcal{P} + \text{jets}$ production in the $\mathcal{H} \rightarrow \mathcal{H} + \text{jets}$ decay channel with leptonic $\mathcal{P} \rightarrow \mathcal{P} + \text{jets}$ decays in proton-proton collisions at $\sqrt{s}=13 \text{ TeV}$ . Journal of High Energy Physics, 2019, 2019, 1.	1.6	28

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91	Measurements of differential Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	28
92	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
93	Search for new physics in events with a leptonically decaying Z boson and a large transverse momentum imbalance in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 291.	1.4	27
94	Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2020, 15, P02027-P02027.	0.5	27
95	Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	27
96	Search for high-mass resonances in final states with a lepton and missing transverse momentum at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	25
97	A strategy for a general search for new phenomena using data-derived signal regions and its application within the ATLAS experiment. European Physical Journal C, 2019, 79, 1.	1.4	25
98	Measurements of $\sigma(\text{pp} \rightarrow \text{ZZ})$ production cross sections and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 200.	1.4	24
99	Observation of Top Quark Production in Proton-Nucleus Collisions. Physical Review Letters, 2017, 119, 242001.	2.9	23
100	Search for physics beyond the standard model in events with jets and two same-sign or at least three charged leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 752.	1.4	23
101	Search for new physics in events with opposite-sign leptons, jets, and missing transverse energy in pp collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 718, 815-840.	1.4	23
102	Search for direct production of supersymmetric partners of the top quark in the all-jets final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	22
103	Measurements of top-quark pair spin correlations in the $\mu\mu$ channel at $\sqrt{s} = 13$ TeV using pp collisions in the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	22
104	Search for direct pair production of supersymmetric partners to the $\tau$ lepton in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 189.	1.4	22
105	Search for new phenomena in events with two opposite-charge leptons, jets and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	22
106	Search for the Standard Model Higgs boson decaying into $b\bar{b}$ produced in association with top quarks decaying hadronically in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2016, 2016, 1.	1.6	21
107	Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment. Journal of High Energy Physics, 2020, 2020, 1.	1.6	21
108	Search for light long-lived neutral particles produced in pp collisions at $\sqrt{s} = 13$ TeV and decaying into collimated leptons or light hadrons with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	21

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109	Search for $\overline{\text{t}}\text{t}\text{H}$ production in the all-jet final state in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	20
110	Search for dark matter in events with energetic, hadronically decaying top quarks and missing transverse momentum at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	20
111	Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	20
112	Measurement of detector-corrected observables sensitive to the anomalous production of events with jets and large missing transverse momentum in $\text{pp}$ collisions at $\sqrt{s}=13$ TeV using the ATLAS detector. European Physical Journal C, 2017, 77, 765.	1.4	19
113	Search for charged Higgs bosons produced in vector boson fusion processes and decaying into vector boson pairs in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 723.	1.4	19
114	Measurement of normalized differential $\overline{\text{t}}\text{t}$ cross sections in the dilepton channel from pp collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	18
115	Measurement of the differential Drell-Yan cross section in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	18
116	MUSIC: a model-unspecific search for new physics in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 629.	1.4	18
117	Combined searches for the production of supersymmetric top quark partners in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 970.	1.4	18
118	Search for low-mass dilepton resonances in Higgs boson decays to four-lepton final states in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2022, 82, 290.	1.4	18
119	Constraints on the double-parton scattering cross section from same-sign W boson pair production in proton-proton collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	17
120	Search for $Z\tilde{\chi}^0_3$ resonances using leptonic and hadronic final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	17
121	Search for dark matter produced in association with a single top quark or a top quark pair in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	17
122	Measurement of associated Z + charm production in proton-proton collisions at $\sqrt{s}=8$ TeV. European Physical Journal C, 2018, 78, 287.	1.4	16
123	Search for black holes and sphalerons in high-multiplicity final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	14
124	Measurements of the $\text{pp} \rightarrow \text{WZ}$ inclusive and differential production cross sections and constraints on charged anomalous triple gauge couplings at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	14
125	Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	14
126	Search for new phenomena with top quark pairs in final states with one lepton, jets, and missing transverse momentum in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	14



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127	Search for long-lived particles decaying to leptons with large impact parameter in proton-proton collisions at $\sqrt{s} = 13, \sqrt{s} = 13, \sqrt{s} = 13$ TeV. European Physical Journal C, 2022, 82, 153.	1.4	14
128	Measurement of the underlying event activity in inclusive Z boson production in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	13
129	Measurements of differential cross sections of top quark pair production as a function of kinematic event variables in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	13
130	Jet properties in PbPb and pp collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	13
131	Search for supersymmetry in final states with two or three soft leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	13
132	Search for new phenomena in events containing a same-flavour opposite-sign dilepton pair, jets, and large missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2017, 77, 144.	1.4	12
133	Comparing transverse momentum balance of b jet pairs in pp and PbPb collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	12
134	Search for decays of stopped exotic long-lived particles produced in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	12
135	Search for dark matter produced in association with a Higgs boson decaying to $\tau\tau$ or $\tau, \mu, e$ at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	12
136	Search for heavy resonances decaying into two Higgs bosons or into a Higgs boson and a W or Z boson in proton-proton collisions at 13 TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	12
137	Development and validation of HERWIG tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	1.4	12
138	Search for a right-handed W boson and a heavy neutrino in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	12
139	Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos and b quarks at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	11
140	Search for a heavy resonance decaying to a pair of vector bosons in the lepton plus merged jet final state at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	11
141	Study of the underlying event in top quark pair production in pp collisions at 13 TeV. European Physical Journal C, 2019, 79, 123.	1.4	11
142	Search for a light pseudoscalar Higgs boson produced in association with bottom quarks in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	10
143	Search for a heavy resonance decaying into a Z boson and a vector boson in the $u\bar{u}q\bar{q}$ final state. Journal of High Energy Physics, 2018, 2018, 1.	1.6	10
144	Evidence for $W$ production from double-parton interactions in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 1.	1.4	10

#	ARTICLE	IF	CITATIONS
145	Measurement of the ZZ production cross section in proton-proton collisions at $\sqrt{s} = 8$ TeV using the ZZ $\rightarrow \tau^+ \tau^-$ , $\tau^+ \tau^- \nu \bar{\nu}$ , $\tau^+ \tau^- \mu^+ \mu^-$ and ZZ $\rightarrow \tau^+ \tau^- \nu \bar{\nu}$ , $\tau^+ \tau^- \mu^+ \mu^- \nu \bar{\nu}$ decay channels with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.		
146	Search for lepton-flavor violating decays of heavy resonances and quantum black holes to $e\tau$ final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	9
147	Search for a heavy resonance decaying to a top quark and a vector-like top quark in the lepton + jets final state in pp collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 1.	1.4	9
148	Search for a heavy vector resonance decaying to a $Z$ boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 688.	1.4	9
149	Search for dark matter produced in association with a single top quark in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	9
150	Pseudorapidity distributions of charged hadrons in proton-lead collisions at $\sqrt{s_{NN}} = 5.02$ and 8.16 TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	8
151	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $2\tau$ final states at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	8
152	Search for supersymmetry in events with at least three electrons or muons, jets, and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	6
153	Measurement of ZZ production in the $e\tau$ final state with the ATLAS detector in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	6
154	Inclusive and differential cross section measurements of single top quark production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	6
155	Search for heavy resonances decaying to ZZ or ZW and axion-like particles mediating nonresonant ZZ or ZH production at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	6
156	Measurement of the inclusive $\sigma(\tau^+ \tau^-)$ cross section in pp collisions at $\sqrt{s} = 5.02$ TeV using final states with at least one charged lepton. Journal of High Energy Physics, 2018, 2018, 1.	1.6	5
157	Search for new phenomena in final states with two opposite-charge, same-flavor leptons, jets, and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	5
158	Search for the pair production of light top squarks in the $e\tau$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	5
159	A search for the decays of stopped long-lived particles at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	5
160	Search for flavor-changing neutral current interactions of the top quark and the Higgs boson decaying to a bottom quark-antiquark pair at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	5
161	Search for long-lived particles decaying into muon pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV collected with a dedicated high-rate data stream. Journal of High Energy Physics, 2022, 2022, .	1.6	5
162	Measurement and QCD analysis of double-differential inclusive jet cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	5

#	ARTICLE	IF	CITATIONS
163	Search for electroweak production of charginos and neutralinos in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	5
164	Measurement of differential cross sections in the kinematic angular variable $\tilde{\chi}^*$ for inclusive Z boson production in pp collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	4
165	Search for ZZ resonances in the $2\hat{\alpha}, "2\hat{1}/2$ final state in proton-proton collisions at 13 TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	4
166	Search for higgsinos decaying to two Higgs bosons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, .	1.6	4
167	ATLAS Run 1 searches for direct pair production of third-generation squarks at the Large Hadron Collider. , 2015, 75, 1.		3
168	Measurements of the $(\mathrm{p})\mathrm{p}\rightarrow\mathrm{Z}\mathrm{p}$ production cross section and the $(\mathrm{Z}\rightarrow 4\ell)$ branching fraction, and constraints on anomalous triple gauge couplings at $(\sqrt{s} = 13, \text{ext } \{\text{TeV}\})$ . , 2018, 78, 1.		3
169	Measurements of angular distance and momentum ratio distributions in three-jet and $\{\text{ext } \{\text{Z}\}\}$ + two-jet final states in $\{\text{ext } \{\text{p}\}\}\{\text{ext } \{\text{p}\}\}$ collisions. European Physical Journal C, 2021, 81, 852.	1.4	2
170	Search for a heavy resonance decaying into a top quark and a W boson in the lepton+jets final state at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	2
171	Measurement of the inclusive $\overline{\mathrm{t}}\mathrm{t}$ production cross section in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	2
172	Search for heavy resonances decaying to a pair of Lorentz-boosted Higgs bosons in final states with leptons and a bottom quark pair at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, .	1.6	2
173	Search for heavy resonances decaying into a W or Z boson and a Higgs boson in final states with leptons and b-jets in $36 \text{ fb}^{-1}$ of $(\sqrt{s}=13)$ TeV pp collisions with the ATLAS detector. , 2018, 2018, 1.		1
174	Study of dijet events with large rapidity separation in proton-proton collisions at $\sqrt{s} = 2.76$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	1
175	Observation of $B^0 \rightarrow \psi(2S)K^0_{\text{up}} + \text{uppi}^+$ and $B^0_{\text{up}} \rightarrow \psi(2S)K^0_{\text{up}} + \text{uppi}^+$ decays. European Physical Journal C, 2022, 82, .	1.4	1