

# Zhen Hu

## List of Publications by Year in descending order

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Version: 2024-02-01

225  
papers

8,852  
citations

57719

44  
h-index

49868

87  
g-index

230  
all docs

230  
docs citations

230  
times ranked

7990  
citing authors

#	ARTICLE	IF	CITATIONS
1	Precise determination of the mass of the Higgs boson and tests of compatibility of its couplings with the standard model predictions using proton collisions at 7 and 8 TeV. European Physical Journal C, 2015, 75, 212.	1.4	541
2	Event generator tunes obtained from underlying event and multiparton scattering measurements. European Physical Journal C, 2016, 76, 155.	1.4	499
3	Performance of CMS muon reconstruction in pp collision events at $\sqrt{s} = 7$ TeV. Journal of Instrumentation, 2012, 7, P10002-P10002.	0.5	467
4	Transverse-Momentum and Pseudorapidity Distributions of Charged Hadrons in Collisions at $\sqrt{s} = 7$ TeV. Physical Review Letters, 2010, 105, 022002.	2.9	400
5	Observation of the rare $B_s^0 \rightarrow \mu^+ \mu^-$ decay from the combined analysis of CMS and LHCb data. Nature, 2015, 522, 68-72.	13.7	390
6	Observation of a new boson with mass near 125 GeV in pp collisions at $\sqrt{s} = 7$ and 8 TeV. Journal of High Energy Physics, 2013, 2013, 1.	1.6	320
7	Measurement of the $B \rightarrow s \gamma$ branching fraction and search for $B \rightarrow s \gamma^*$ decays. Physical Review Letters, 2012, 109, 222301.	2.9	282
8	Observation of Sequential $J/\psi$ Suppression in PbPb Collisions. Physical Review Letters, 2012, 109, 222301.	2.9	220
9	Suppression of non-prompt $J/\psi$ , prompt $J/\psi$ , and $\Upsilon(1S)$ in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	1.6	200
10	Extraction and validation of a new set of CMS pythia8 tunes from underlying-event measurements. European Physical Journal C, 2020, 80, 4.	1.4	198
11			

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	Measurement of prompt and nonprompt charmonium suppression in $\sqrt{s}=5.02$ TeV PbPb collisions at $\sqrt{s_{NN}}=2.76$ TeV. European Physical Journal C, 2018, 78, 509.	1.4	83
22	Suppression and azimuthal anisotropy of prompt and nonprompt $J/\psi$ production in PbPb collisions at $\sqrt{s_{NN}}=2.76$ TeV. European Physical Journal C, 2017, 77, 252.	1.4	82
23	Detecting and studying high-energy collider neutrinos with FASER at the LHC. European Physical Journal C, 2020, 80, 1.	1.4	79
24	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
25	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
26	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
27	Search for high mass dijet resonances with a new background prediction method in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	66
28	Search for new physics in same-sign dilepton events in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2016, 76, 439.	1.4	64
29	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
30	A measurement of the Higgs boson mass in the diphoton decay channel. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 805, 135425.	1.5	63
31	Measurement of differential cross sections for Higgs boson production in the diphoton decay channel in pp collisions at $\sqrt{s}=8$ TeV. European Physical Journal C, 2016, 76, 13.	1.4	62
32	Measurement of the inelastic proton-proton cross section at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	62
33	Electron and photon reconstruction and identification with the CMS experiment at the CERN LHC. Journal of Instrumentation, 2021, 16, P05014.	0.5	62
34	Search for resonant and nonresonant new phenomena in high-mass dilepton final states at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	62
35	Search for a Narrow Resonance Lighter than 200 GeV Decaying to a Pair of Muons in Proton-Proton Collisions at $\sqrt{s}=13$ TeV. Physical Review Letters, 2020, 124, 131802.	2.9	61
36			

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37	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.	1.6	57
38	Identification of heavy, energetic, hadronically decaying particles using machine-learning techniques. Journal of Instrumentation, 2020, 15, P06005-P06005.	0.5	56
39	Measurement of the double-differential inclusive jet cross section in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2016, 76, 451.	1.4	55
40	Measurement and QCD analysis of double-differential inclusive jet cross sections in pp collisions at $\sqrt{s} = 8$ TeV and cross section ratios to 2.76 and 7 TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	54
41	Evidence for Higgs boson decay to a pair of muons. Journal of High Energy Physics, 2021, 2021, 1.	1.6	54
42	Measurements of the $\sigma(\text{pp} \rightarrow \text{ZZ})$ production cross section and the $\text{BR}(\text{Z} \rightarrow 4\ell)$ branching fraction, and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 165.	1.4	52
43	Search for the associated production of the Higgs boson with a top-quark pair. Journal of High Energy Physics, 2014, 2014, 1.	1.6	51
44	Pileup mitigation at CMS in 13 TeV data. Journal of Instrumentation, 2020, 15, P09018-P09018.	0.5	47
45	Identification techniques for highly boosted W bosons that decay into hadrons. Journal of High Energy Physics, 2014, 2014, 1.	1.6	43
46	Measurement of the $\sigma(\text{pp} \rightarrow \text{t}\bar{\text{t}})$ production cross section in the $\text{e}\bar{\text{e}}\mu\mu$ channel in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	41
47	Measurement of properties of $\text{B}_s^0$ decays and search for $\text{B}_s^0 \rightarrow \mu^+\mu^-$ with the CMS experiment. Journal of High Energy Physics, 2020, 2020, 1.	1.6	41
48	Search for charged Higgs bosons decaying into a top and a bottom quark in the all-jet final state of pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	41
49	Search for disappearing tracks in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters. Section B: Nuclear, 2020, 895, 297-302.	1.5	40
50	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 378.	1.4	40
51	Measurement of the ZZ production cross section and search for anomalous couplings in $\text{pp} \rightarrow \text{ZZ}$ final states in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	1.6	39
52	Measurement of differential cross sections for $\text{pp} \rightarrow \text{ZZ}$ Z boson production in association with jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 965.	1.4	39
53	Search for heavy resonances that decay into a vector boson and a Higgs boson in hadronic final states at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2017, 77, 636.	1.4	38
54	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying $\tau$ leptons at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	38

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55	Measurements of production cross sections of $WZ$ and same-sign $WW$ boson pairs in association with two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	2.9	38
56	Search for heavy Higgs bosons decaying to a top quark pair in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.5	37
57	Search for new particles in events with energetic jets and large missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	37
58	Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 488.	1.6	36
59	Search for dark matter produced in association with a leptonically decaying $Z$ boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 13.	1.4	35
60	Search for top squark pair production using dilepton final states in $pp$ collision data collected at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 3.	1.4	33
61	Search for singly and pair-produced leptoquarks coupling to third-generation fermions in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 819, 136446.	1.5	33
62	Search in leptonic channels for heavy resonances decaying to long-lived neutral particles. Journal of High Energy Physics, 2013, 2013, 1.	1.5	33
63	Measurements of the $Z Z$ production cross sections in the $2\ell 2\ell$ channel in proton-proton collisions at $\sqrt{s} = 7$ and $\sqrt{s} = 13$ TeV. European Physical Journal C, 2015, 75, 511.	1.6	32
64	Searches for pair production of third-generation squarks in $pp$ collisions. European Physical Journal C, 2017, 77, 327.	1.4	32
65	Shape, transverse size, and charged-hadron multiplicity of jets in $pp$ collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	1.4	32
66	Search for top squark pair production in $pp$ collisions at $\sqrt{s} = 13$ TeV using single lepton events. Journal of High Energy Physics, 2017, 2017, 1.	1.6	31
67	A multi-dimensional search for new heavy resonances decaying to boosted $W$ boson pairs in the dijet final state at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 237.	1.6	31
68	Search for invisible decays of the Higgs boson produced via vector boson fusion in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105, 1.	1.4	31
69	Search for light bosons in decays of the 125 GeV Higgs boson in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	30
70	Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 280.	1.6	29
71	Search for $t\bar{t}H$ production in the $H \rightarrow b\bar{b}$ decay channel with leptonic $t\bar{t}$ decays in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.4	29
72	Search for $t\bar{t}H$ production in the $H \rightarrow b\bar{b}$ decay channel with leptonic $t\bar{t}$ decays in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	28

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73	Search for supersymmetry in final states with two oppositely charged same-flavor leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	28
74	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
75	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
76	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
77	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
78	Search for long-lived particles using nonprompt jets and missing transverse momentum with proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 797, 134876.	1.5	26
79	Search for nonresonant Higgs boson pair production in final states with two bottom quarks and two photons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	26
80	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
81	Search for long-lived particles using displaced jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2021, 104, .	1.6	25
82	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
83	Search for a light pseudoscalar Higgs boson in the boosted $\text{t} \rightarrow \text{b} \tau \nu$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	23
84	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
85	Evidence for X(3872) in Pb-Pb Collisions and Studies of its Prompt Production at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2022, 128, 032001.	2.9	23
86	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
87	Observation of a New Excited Beauty Strange Baryon Decaying to $\Lambda_c^+ \tau^+ \nu_\tau$ . Physical Review Letters, 2021, 126, 252003.	2.9	22
88	Measurement of differential cross sections and charge ratios for t-channel single top quark production in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 370.	1.4	22
89	A Deep Neural Network for Simultaneous Estimation of b Jet Energy and Resolution. Computing and Software for Big Science, 2020, 4, 10.	1.3	21
90	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

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91	Search for $\overline{t}t\mathit{H}$ 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
92	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
93	Observation of the Production of Three Massive Gauge Bosons at $\sqrt{s}=13$ TeV. Physical Review Letters, 2020, 125, 151802.	2.9	20
94	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
95	Measurement of the cross section for electroweak production of a Z boson, a photon and two jets in proton-proton collisions at $\sqrt{s}=13$ TeV and constraints on anomalous quartic couplings. Journal of High Energy Physics, 2020, 2020, 1.	1.6	20
96	A search for the standard model Higgs boson decaying to charm quarks. Journal of High Energy Physics, 2020, 2020, 1.	1.6	20
97	Measurements of production cross sections of polarized same-sign W boson pairs in association with two jets in proton-proton collisions at $\sqrt{s}=13$ TeV.	1.5	20
98	Search for top squark production in fully hadronic final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Physical Review D, 2021, 104, .	1.6	20
99	Measurement of differential and integrated fiducial cross sections for Higgs boson production in the four-lepton decay channel in pp collisions at $\sqrt{s}=7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	19
100	Search for a very light NMSSM Higgs boson produced in decays of the 125 GeV scalar boson and decaying into $\tilde{l}, l$ , leptons in pp collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	19
101	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
102	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
103	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
104	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
105	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
106	Probing color coherence effects in pp collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2014, 74, 2901.	1.4	17
107	Search for $Z\tilde{1}^3$ 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
108	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

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109	Combination of CMS searches for heavy resonances decaying to pairs of bosons or leptons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 798, 134952.	1.5	17
110	Search for Long-Lived Particles Decaying in the CMS End Cap Muon Detectors in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV. Physical Review Letters, 2021, 127, 261804.	2.9	17
111	Constraints on anomalous Higgs boson couplings to vector bosons and fermions in its production and decay using the four-lepton final state. Physical Review D, 2021, 104, .	1.6	16
112	Observation of Forward Neutron Multiplicity Dependence of Dimuon Acoplanarity in Ultraperipheral Pb-Pb Collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2021, 127, 122001.	2.9	16
113	Measurement of the $t\bar{t}\tilde{A}^-$ production cross sections in the full kinematic range using $\tilde{A}^- \rightarrow \tau^+ \tau^- \tau^-$ decays. Journal of High Energy Physics, 2017, 2017, 1.	1.6	16
114	Measurement of the $t\bar{t}\tilde{A}^-$ production cross section using events with one lepton and at least one jet in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	15
115	Search for lepton flavour violating decays of a neutral heavy Higgs boson to $\tau^+ \tau^- \tau^+$ , and $e^+ \tau^-$ , in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	15
116	Measurement of the inclusive and differential Higgs boson production cross sections in the leptonic WW decay mode at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	15
117	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
118	Measurements of the pp $\tilde{A}^+ WZ$ 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
119	Search for long-lived particles using delayed photons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review Letters, 2020, 125, 152001.	1.6	14
120	Observation of the $t\bar{t}B$ production cross section using events with one lepton and at least one jet in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	2.9	14
121	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
122	Search for dark photons in Higgs boson production via vector boson fusion in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	14
123	Search for long-lived particles decaying to leptons with large impact parameter in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2022, 82, 153.	1.4	14
124	Inclusive nonresonant multilepton probes of new phenomena at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105, .	1.6	14
125	Search for the associated production of a Higgs boson with a single top quark in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	13
126	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

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127	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
128	Measurement of the Jet Mass Distribution and Top Quark Mass in Hadronic Decays of Boosted Top Quarks in $pp$ Collisions at $\sqrt{s}=13$ TeV. Physical Review Letters, 2020, 124, 202001.	2.9	13
129	Studies of charm and beauty hadron long-range correlations in $pp$ and $pPb$ collisions at LHC energies. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 813, 136036.	1.5	13
130	Measurement of the $W\tilde{\chi}^0_1$ Production Cross Section in Proton-Proton Collisions at $\sqrt{s}=13$ TeV and Constraints on Effective Field Theory Coefficients. Physical Review Letters, 2021, 126, 252002.	2.9	13
131	Measurement of the azimuthal anisotropy of and mesons in $pp$ collisions at $\sqrt{s}=13$ TeV. Physical Review Letters, 2021, 126, 252002.	1.5	13
132	Inclusive search for highly boosted Higgs bosons decaying to bottom quark-antiquark pairs in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	13
133	Measurement of the electroweak production of $Z\tilde{\chi}^0_1$ and two jets in proton-proton collisions at $\sqrt{s}=13$ TeV. Physical Review D, 2021, 104, 054011.	1.6	13
134	The trigger and data acquisition system of the FASER experiment. Journal of Instrumentation, 2021, 16, P12028.	0.5	13
135	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
136	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
137	Search for dark matter produced in association with a Higgs boson decaying to $\tilde{\chi}^0_1\tilde{\chi}^0_1$ or $\tilde{\chi}^0_1\tilde{\chi}^{\pm}_1$ at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	12
138	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
139	Investigation into the event-activity dependence of $\tilde{\tau}$ ( $nS$ ) relative production in proton-proton collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	12
140	Constraints on the $\tilde{\tau}$ ( $nS$ ) relative production in proton-proton collisions at $\sqrt{s}=13$ TeV. Physical Review Letters, 2020, 124, 121801.	1.6	12
141	Polarizations in Proton-Proton Collisions at $\sqrt{s}=13$ TeV. Physical Review Letters, 2020, 124, 121801.	1.6	12
142	Search for new physics in top quark production with additional leptons in proton-proton collisions at $\sqrt{s}=13$ TeV using effective field theory. Journal of High Energy Physics, 2021, 2021, 1.	1.6	12
143	Development and validation of HERWIG <sup>7</sup> tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	1.4	12
144	Measurement of the $W\tilde{\chi}^0_1$ production cross section and constraints on anomalous quartic gauge couplings. Physical Review D, 2021, 104, 054011.	1.5	12
144	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



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163	Probing effective field theory operators in the associated production of top quarks with a Z boson in dilepton final states at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	8
164	Search for direct pair production of scalar top quarks in the single- and dilepton channels in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	7
165	Study of central exclusive "Equation missing" $\langle !- \text{No EquationSource Format="TEX", only image --} \rangle$ production in proton-proton collisions at $\sqrt{s} = 5.02$ and 13 TeV. European Physical Journal C, 2020, 80, 718.	1.4	7
166	Evidence for Top Quark Production in Nucleus-Nucleus Collisions. Physical Review Letters, 2020, 125, 222001.	2.9	7
167	Measurement of the top quark forward-backward production asymmetry and the anomalous chromoelectric and chromomagnetic moments in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	7
168	Measurements of the pp $\hat{\sigma}(\text{top} \bar{\text{top}})$ and pp $\hat{\sigma}(\text{top} \bar{\text{top}})$ cross sections at $\sqrt{s} = 13$ TeV and limits on anomalous quartic gauge couplings. Journal of High Energy Physics, 2021, 2021, 1.	1.6	7
169	First Search for Exclusive Diphoton Production at High Mass with Tagged Protons in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV. Physical Review Letters, 2022, 129, 129101.	2.9	7
170	Bottomonium production measured in PbPb and pp collisions by CMS. Journal of Physics G: Nuclear and Particle Physics, 2011, 38, 124071.	1.4	6
171	Search for decays of the 125 GeV Higgs boson into a Z boson and a $\bar{c}c$ meson. Journal of High Energy Physics, 2020, 2020, 1.	1.6	6
172	Determination of the strong coupling constant $\hat{\alpha}_S(m_Z)$ from measurements of inclusive $W_{\pm}$ and Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	6
173	Performance of the CMS muon trigger system in proton-proton collisions at $\sqrt{s} = 13$ . Journal of Instrumentation, 2021, 16, P07001.	0.5	6
174	Search for the associated production of the Higgs boson with a top-quark pair. , 2014, 2014, 1.		6
175	Observation of the $\bar{b} \rightarrow \bar{c} \ell \nu$ decay in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 802, 135203.	1.5	6
176	Measurements of the Electroweak Diboson Production Cross Sections in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV Using Leptonic Decays. Physical Review Letters, 2021, 127, 191801.	2.9	6
177	Measurement of double-parton scattering in inclusive production of four jets with low transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	6
178	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
179	A new calibration method for charm jet identification validated with proton-proton collision events at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2022, 17, P03014.	0.5	6
180	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

#	ARTICLE	IF	CITATIONS
181	Search for the pair production of light top squarks in the $e^+e^-$ final state in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	5
182	Measurement of the cross section for $t\bar{t}$ production with additional jets and b jets in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	5
183	Measurement of differential cross sections for Z bosons produced in association with charm jets in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	5
184	In-medium modification of dijets in PbPb collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	5
185	Constraints on the Initial State of Pb-Pb Collisions via Measurements of Z-Boson Yields and Azimuthal Anisotropy at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	2.9	5
186	First measurement of the cross section for top quark pair production with additional charm jets using dileptonic final states in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.5	5
187	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
188	Measurement of the top quark mass using events with a single reconstructed top quark in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	5
189	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.	1.6	5
190	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
191	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
192	Precision measurement of the W boson decay branching fractions in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105, 1.	1.6	5
193	Search for single production of a vector-like T quark decaying to a top quark and a Z boson in the final state with jets and missing transverse momentum at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	5
194	The production of isolated photons in PbPb and pp collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	4
195	Search for supersymmetry in proton-proton collisions at $\sqrt{s} = 13$ TeV in events with high-momentum Z bosons and missing transverse momentum. Journal of High Energy Physics, 2020, 2020, 1.	1.6	4
196	Measurement of b jet shapes in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	4
197	Measurement of differential cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105, 1.	1.6	4
198	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.	1.6	4

#	ARTICLE	IF	CITATIONS
199	Calibration of the CMS hadron calorimeters using proton-proton collision data at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2020, 15, P05002-P05002.	0.5	3
200	Search for the lepton flavor violating decay $\tilde{l}_i \rightarrow \tilde{l}_j \gamma$ in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	3
201	Study of Drell-Yan dimuon production in proton-lead collisions at $\sqrt{s_{NN}} = 8.16$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	3
202	Search for the rare decay of the W boson into a pion and a photon in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 819, 136409.	1.5	3
203	Study of the $B^0 \rightarrow \mu^+ \mu^- \gamma$ decay in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	3
204	Measurements of the $pp \rightarrow Z \gamma$ production cross section and the $Z \rightarrow 4\ell$ branching fraction, and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. , 2018, 78, 1.		3
205	Search for long-lived particles produced 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	3
206	Search for strongly interacting massive particles generating trackless jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2022, 82, 213.	1.4	3
207	Measurement of the inclusive and differential $t\bar{t}$ cross sections in the single-lepton channel and EFT interpretation at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	3
208	Search for an excited lepton that decays via a contact interaction to a lepton and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	2
209	Measurements of the differential cross sections of the production of Z + jets and $\tilde{\chi}^0 + jets$ and of Z boson emission collinear with a jet in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	2
210	Measurement of the Z boson differential production cross section using its invisible decay mode $(Z \rightarrow \nu\bar{\nu})$ . Journal of High Energy Physics, 2021, 2021, 1.	1.6	2
211	Measurements of angular distance and momentum ratio distributions in three-jet and $Z + 2$ -jet final states in $pp$ collisions. European Physical Journal C, 2021, 81, 852.	1.4	2
212	Observation of $tW$ production in the single-lepton channel in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	2
213	Measurement of prompt open-charm production cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	2
214	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
215	Measurement of the inclusive $t\bar{t}$ production cross section in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	2
216	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

#	ARTICLE	IF	CITATIONS
217	Measurement of the inclusive and differential $t\bar{t}$ cross sections in the dilepton channel and effective field theory interpretation in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022.	1.6	2
218	Measurement of the production cross section for $Zb\bar{b}$ jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105.	1.6	2
219	Search for $W\gamma$ resonances in proton-proton collisions at $s=13$ TeV using hadronic decays of Lorentz-boosted $W$ bosons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 826, 136888.	1.5	1
220	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
221	Search for a heavy resonance decaying to a top quark and a $W$ boson at $\sqrt{s} = 13$ TeV in the fully hadronic final state. Journal of High Energy Physics, 2021, 2021, 1.	1.6	1
222	Observation of $B^0 \rightarrow \psi(2S)K^0_{\text{short}}$ and $B^0_{\text{short}} \rightarrow \psi(2S)K^0_{\text{short}}$ decays. European Physical Journal C, 2022, 82, .	1.4	1
223	Observation of sequential $\hat{\nu}$ suppression in PbPb collisions. Journal of Physics: Conference Series, 2013, 446, 012043.	0.3	0
224	Search for heavy resonances decaying to $Zb\bar{b}$ jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105.	1.6	2
225	Search for high-mass resonances decaying to a jet and a Lorentz-boosted resonance in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 832, 137263.	1.5	0