

Zhen Hu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

208
papers

5,088
citations

31
h-index

67
g-index

230
ext. papers

6,399
ext. citations

5.1
avg. IF

5.2
L-index

#	Paper	IF	Citations
208	Evidence for X(3872) in Pb-Pb Collisions and Studies of its Prompt Production at $\sqrt{s_{NN}}=5.02$ TeV.. <i>Physical Review Letters</i> , 2022 , 128, 032001	7.4	1
207	Measurement of double-parton scattering in inclusive production of four jets with low transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	0
206	Study of quark and gluon jet substructure in Z+jet and dijet events from pp collisions. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	0
205	Search for W resonances in proton-proton collisions at $s=13$ TeV using hadronic decays of Lorentz-boosted W bosons. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2022 , 826, 136888	4.2	0
204	Measurement of the Inclusive and Differential Higgs Boson Production Cross Sections in the Decay Mode to a Pair of Leptons in pp Collisions at $\sqrt{s}=13$ TeV.. <i>Physical Review Letters</i> , 2022 , 128, 081805	7.4	0
203	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. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	0
202	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. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	1
201	Search for long-lived particles decaying to leptons with large impact parameter in proton-proton collisions at .. <i>European Physical Journal C</i> , 2022 , 82, 153	4.2	0
200	Search for long-lived particles produced in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	0
199	Study of dijet events with large rapidity separation in proton-proton collisions at $\sqrt{s} = 2.76$ TeV. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	
198	Using Z Boson Events to Study Parton-Medium Interactions in Pb-Pb Collisions.. <i>Physical Review Letters</i> , 2022 , 128, 122301	7.4	0
197	A new calibration method for charm jet identification validated with proton-proton collision events at $\sqrt{s} = 13$ TeV. <i>Journal of Instrumentation</i> , 2022 , 17, P03014	1	0
196	Search for strongly interacting massive particles generating trackless jets in proton-proton collisions at .. <i>European Physical Journal C</i> , 2022 , 82, 213	4.2	0
195	Search for low-mass dilepton resonances in Higgs boson decays to four-lepton final states in proton-proton collisions at .. <i>European Physical Journal C</i> , 2022 , 82, 290	4.2	0
194	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. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	0
193	Search for a right-handed W boson and a heavy neutrino in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	0
192	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. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	0

191	Search for heavy resonances decaying to ZZ or ZW and axion-like particles mediating nonresonant ZZ or ZH production at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5-4	0
190	Measurement and QCD analysis of double-differential inclusive jet cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5-4	0
189	Search for electroweak production of charginos and neutralinos in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5-4	0
188	Measurement of the inclusive $\overline{\text{tt}}$ production cross section in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5-4	
187	Measurements of the Electroweak Diboson Production Cross Sections in Proton-Proton Collisions at $\sqrt{s}=5.02$ TeV Using Leptonic Decays. <i>Physical Review Letters</i> , 2021 , 127, 191801	7-4	0
186	Combined searches for the production of supersymmetric top quark partners in proton-proton collisions at. <i>European Physical Journal C</i> , 2021 , 81, 970	4-2	3
185	Search for a heavy Higgs boson decaying into two lighter Higgs bosons in the bb final state at 13 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	2
184	Search for new particles in events with energetic jets and large missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	3
183	Measurement of differential tt production cross sections in the full kinematic range using lepton+jets events from proton-proton collisions at $s=13$ TeV. <i>Physical Review D</i> , 2021 , 104,	4-9	1
182	Observation of tW production in the single-lepton channel in pp collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	0
181	Search for chargino-neutralino production in events with Higgs and W bosons using 137 fb^{-1} of proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	1
180	Measurement of the electroweak production of Z and two jets in proton-proton collisions at $s=13$ TeV and constraints on anomalous quartic gauge couplings. <i>Physical Review D</i> , 2021 , 104,	4-9	1
179	Measurements of the $\text{pp} \rightarrow \text{W}\gamma$ and $\text{pp} \rightarrow \text{Z}\gamma$ cross sections at $(\sqrt{\text{mathrm{s}}}) = 13$ TeV and limits on anomalous quartic gauge couplings. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	1
178	Search for dark photons in Higgs boson production via vector boson fusion in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	2
177	Measurements of production cross sections and constraints on anomalous triple gauge couplings at. <i>European Physical Journal C</i> , 2021 , 81, 200	4-2	5
176	Measurement of the inclusive and differential Higgs boson production cross sections in the leptonic WW decay mode at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	3
175	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	4
174	Search for new physics in top quark production with additional leptons in proton-proton collisions at $(\sqrt{s}) = 13$ TeV using effective field theory. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	4

173	Measurement of differential cross sections for Z bosons produced in association with charm jets in pp collisions at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	1
172	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	6
171	Development and validation of HERWIG++ tunes from CMS underlying-event measurements. <i>European Physical Journal C</i> , 2021 , 81, 312	4.2	1
170	Angular analysis of the decay $B^+ \rightarrow K^{*0} \mu^+ \nu_\mu$ in proton-proton collisions at (\sqrt{s}) = 8 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	2
169	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at. <i>European Physical Journal C</i> , 2021 , 81, 378	4.2	5
168	Electron and photon reconstruction and identification with the CMS experiment at the CERN LHC. <i>Journal of Instrumentation</i> , 2021 , 16, P05014	1	11
167	Measurement of b jet shapes in proton-proton collisions at (\sqrt{s}) = 5.02 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0
166	First measurement of large area jet transverse momentum spectra in heavy-ion collisions. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	2
165	Study of Drell-Yan dimuon production in proton-lead collisions at ($\sqrt{s_{\text{NN}}}$) = 8.16 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0
164	Measurement of the CP-violating phase ϕ_s in the $B_s^0 \rightarrow \mu^+ \mu^- (1020)^- K^+$ channel in proton-proton collisions at $s=13\text{TeV}$. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021 , 816, 136188	4.2	1
163	Measurements of the differential cross sections of the production of Z + jets and τ jets and of Z boson emission collinear with a jet in pp collisions at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	
162	In-medium modification of dijets in PbPb collisions at ($\sqrt{s_{\text{NN}}}$) = 5.02 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0
161	Measurement of the Z boson differential production cross section using its invisible decay mode ($Z \rightarrow \bar{\nu} \nu$) in proton-proton collisions at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	
160	Measurement of the W Production Cross Section in Proton-Proton Collisions at $\sqrt{s}=13$ TeV and Constraints on Effective Field Theory Coefficients. <i>Physical Review Letters</i> , 2021 , 126, 252002	7.4	0
159	Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at. <i>European Physical Journal C</i> , 2021 , 81, 488	4.2	5
158	Observation of a New Excited Beauty Strange Baryon Decaying to $\Lambda_b^+ \mu^+ \mu^-$. <i>Physical Review Letters</i> , 2021 , 126, 252003	7.4	1
157	Performance of the CMS muon trigger system in proton-proton collisions at (\sqrt{s}) = 13. <i>Journal of Instrumentation</i> , 2021 , 16, P07001	1	2
156	Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	3

155	Search for resonant and nonresonant new phenomena in high-mass dilepton final states at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	5
154	Search for the lepton flavor violating decay $\mu \rightarrow e \gamma$ in proton-proton collisions at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	1
153	Measurements of production cross sections of polarized same-sign W boson pairs in association with two jets in proton-proton collisions at $s=13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021 , 812, 136018	4-2	6
152	Search for dark matter produced in association with a leptonically decaying boson in proton-proton collisions at. <i>European Physical Journal C</i> , 2021 , 81, 13	4-2	7
151	Evidence for Higgs boson decay to a pair of muons. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	14
150	Search for top squark pair production using dilepton final states in collision data collected at. <i>European Physical Journal C</i> , 2021 , 81, 3	4-2	5
149	Studies of charm and beauty hadron long-range correlations in pp and pPb collisions at LHC energies. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021 , 813, 136036	4-2	1
148	Search for long-lived particles using displaced jets in proton-proton collisions at $s=13$ TeV. <i>Physical Review D</i> , 2021 , 104,	4-9	4
147	MUSiC: a model-unspecific search for new physics in proton-proton collisions at. <i>European Physical Journal C</i> , 2021 , 81, 629	4-2	4
146	Search for the rare decay of the W boson into a pion and a photon in proton-proton collisions at $s=13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021 , 819, 136409	4-2	0
145	Constraints on the Initial State of Pb-Pb Collisions via Measurements of Z-Boson Yields and Azimuthal Anisotropy at $\sqrt{s_{NN}}=5.02$ TeV. <i>Physical Review Letters</i> , 2021 , 127, 102002	7-4	1
144	Search for a heavy vector resonance decaying to a Υ boson and a Higgs boson in proton-proton collisions at. <i>European Physical Journal C</i> , 2021 , 81, 688	4-2	0
143	Measurement of the azimuthal anisotropy of ρ and mesons in PbPb collisions at $s_{NN}=5.02$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021 , 819, 136385	4-2	1
142	Search for charged Higgs bosons produced in vector boson fusion processes and decaying into vector boson pairs in proton-proton collisions at. <i>European Physical Journal C</i> , 2021 , 81, 723	4-2	3
141	Search for singly and pair-produced leptoquarks coupling to third-generation fermions in proton-proton collisions at $s=13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021 , 819, 136446	4-2	8
140	Search for W^\pm bosons decaying to a top and a bottom quark at $s=13$ TeV in the hadronic final state. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021 , 820, 136535	4-2	2
139	First measurement of the cross section for top quark pair production with additional charm jets using dileptonic final states in pp collisions at $s=13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021 , 820, 136565	4-2	0
138	Constraints on anomalous Higgs boson couplings to vector bosons and fermions in its production and decay using the four-lepton final state. <i>Physical Review D</i> , 2021 , 104,	4-9	3

137	Measurements of angular distance and momentum ratio distributions in three-jet and + two-jet final states in collisions. <i>European Physical Journal C</i> , 2021 , 81, 852	4.2	0
136	Observation of Forward Neutron Multiplicity Dependence of Dimuon Acoplanarity in Ultraperipheral Pb-Pb Collisions at $\sqrt{s_{NN}}=5.02$ TeV. <i>Physical Review Letters</i> , 2021 , 127, 122001	7.4	1
135	Precision luminosity measurement in proton-proton collisions at in 2015 and 2016 at CMS. <i>European Physical Journal C</i> , 2021 , 81, 800	4.2	7
134	Search for top squark production in fully hadronic final states in proton-proton collisions at $\sqrt{s}=13$ TeV. <i>Physical Review D</i> , 2021 , 104,	4.9	4
133	Measurement of prompt open-charm production cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	
132	Measurement of the inclusive and differential $t\bar{t}$ cross sections in the single-lepton channel and EFT interpretation at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0
131	Measurement of the top quark mass using events with a single reconstructed top quark in pp collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0
130	Probing effective field theory operators in the associated production of top quarks with a Z boson in multilepton final states at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0
129	Search for Long-Lived Particles Decaying in the CMS End Cap Muon Detectors in Proton-Proton Collisions at $\sqrt{s}=13$ TeV.. <i>Physical Review Letters</i> , 2021 , 127, 261804	7.4	0
128	The trigger and data acquisition system of the FASER experiment. <i>Journal of Instrumentation</i> , 2021 , 16, P12028	1	2
127	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	1
126	Pileup mitigation at CMS in 13 TeV data. <i>Journal of Instrumentation</i> , 2020 , 15, P09018-P09018	1	14
125	Performance of the CMS Level-1 trigger in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of Instrumentation</i> , 2020 , 15, P10017-P10017	1	23
124	Search for decays of the 125 GeV Higgs boson into a Z boson and a $\chi_{\pm 1}^0$ meson. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	2
123	Evidence for Top Quark Production in Nucleus-Nucleus Collisions. <i>Physical Review Letters</i> , 2020 , 125, 222001	7.4	1
122	Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	12
121	Search for high mass dijet resonances with a new background prediction method in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	20
120	Identification of heavy, energetic, hadronically decaying particles using machine-learning techniques. <i>Journal of Instrumentation</i> , 2020 , 15, P06005-P06005	1	18

119	Search for supersymmetry in proton-proton collisions at $(\sqrt{s}) = 13$ TeV in events with high-momentum Z bosons and missing transverse momentum. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	1
118	Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $(\sqrt{\mathrm{s}}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	8
117	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. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	1
116	Search for disappearing tracks in proton-proton collisions at $s=13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020 , 806, 135502	4.2	14
115	Measurement of the cross section for electroweak production of a Z boson, a photon and two jets in proton-proton collisions at $(\sqrt{\mathrm{s}}) = 13$ TeV and constraints on anomalous quartic couplings. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	7
114	Determination of the strong coupling constant $\alpha_S(m_Z)$ from measurements of inclusive W and Z boson production cross sections in proton-proton collisions at $(\sqrt{\mathrm{s}}) = 7$ and 8 TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	2
113	Measurement of the top quark forward-backward production asymmetry and the anomalous chromoelectric and chromomagnetic moments in pp collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	3
112	Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at. <i>European Physical Journal C</i> , 2020 , 80, 75	4.2	24
111	Searches for physics beyond the standard model with the variable in hadronic final states with and without disappearing tracks in proton-proton collisions at. <i>European Physical Journal C</i> , 2020 , 80, 3	4.2	16
110	Extraction and validation of a new set of CMS pythia8 tunes from underlying-event measurements. <i>European Physical Journal C</i> , 2020 , 80, 4	4.2	61
109	Constraints on the ρ_{c1} versus ρ_{c2} Polarizations in Proton-Proton Collisions at $\sqrt{s}=8$ TeV. <i>Physical Review Letters</i> , 2020 , 124, 162002	7.4	6
108	Search for lepton flavour violating decays of a neutral heavy Higgs boson to τ and $e\tau$ in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	6
107	A search for the standard model Higgs boson decaying to charm quarks. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	9
106	Search for a Narrow Resonance Lighter than 200 GeV Decaying to a Pair of Muons in Proton-Proton Collisions at $\sqrt{s}=13$ TeV. <i>Physical Review Letters</i> , 2020 , 124, 131802	7.4	12
105	Detecting and studying high-energy collider neutrinos with FASER at the LHC. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	26
104	A measurement of the Higgs boson mass in the diphoton decay channel. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020 , 805, 135425	4.2	25
103	Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at $(\sqrt{\mathrm{s}}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	7
102	A multi-dimensional search for new heavy resonances decaying to boosted τ , W , or boson pairs in the dijet final state at 13 TeV. <i>European Physical Journal C</i> , 2020 , 80, 237	4.2	10

101	Measurement of differential cross sections and charge ratios for b -channel single top quark production in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>European Physical Journal C</i> , 2020 , 80, 370	4.2	4
100	Dependence of inclusive jet production on the anti-kT distance parameter in pp collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	3
99	Inclusive search for highly boosted Higgs bosons decaying to bottom quark-antiquark pairs in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	1
98	Observation of the $B_0 \rightarrow \mu^+ \mu^-$ decay in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020 , 802, 135203	4.2	5
97	Observation of the Production of Three Massive Gauge Bosons at $\sqrt{s} = 13$ TeV. <i>Physical Review Letters</i> , 2020 , 125, 151802	7.4	2
96	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. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020 , 809, 135710	4.2	14
95	The production of isolated photons in PbPb and pp collisions at $(\sqrt{s_{NN}}) = 5.02$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	2
94	Investigation into the event-activity dependence of $\langle n_S \rangle$ relative production in proton-proton collisions at $(\sqrt{s}) = 7$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	3
93	A Deep Neural Network for Simultaneous Estimation of b Jet Energy and Resolution. <i>Computing and Software for Big Science</i> , 2020 , 4, 10	6	3
92	Measurement of properties of $(B_{\mu}^0 \rightarrow \mu^+ \mu^-)$ decays and search for $B_0 \rightarrow \mu^+ \mu^-$ with the CMS experiment. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	10
91	Search for a light pseudoscalar Higgs boson in the boosted final state in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	9
90	Measurements of $t\bar{t}$ Production and the CP Structure of the Yukawa Interaction between the Higgs Boson and Top Quark in the Diphoton Decay Channel. <i>Physical Review Letters</i> , 2020 , 125, 061801	7.4	15
89	Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of Instrumentation</i> , 2020 , 15, P02027-P02027	1	11
88	Measurement of quark- and gluon-like jet fractions using jet charge in PbPb and pp collisions at 5.02 TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	4
87	Measurement of the cross section for $(\overline{t}t)$ production with additional jets and b jets in pp collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	1
86	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. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	13
85	Search for heavy Higgs bosons decaying to a top quark pair in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	18
84	Calibration of the CMS hadron calorimeters using proton-proton collision data at $\sqrt{s} = 13$ TeV. <i>Journal of Instrumentation</i> , 2020 , 15, P05002-P05002	1	

83	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. <i>Physical Review Letters</i> , 2020 , 124, 202001	7.4	2
82	Observation of the $B_{\{s\}}^0 \rightarrow \mu^+ \mu^-$ Decay. <i>Physical Review Letters</i> , 2020 , 125, 152001	7.4	4
81	Study of central exclusive production in proton-proton collisions at and 13TeV. <i>European Physical Journal C</i> , 2020 , 80, 718	4.2	2
80	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. <i>European Physical Journal C</i> , 2020 , 80, 752	4.2	2
79	Search for the pair production of light top squarks in the e^+e^- final state in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	4
78	Measurements of the pp $\rightarrow WZ$ inclusive and differential production cross sections and constraints on charged anomalous triple gauge couplings at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	10
77	Measurement of the production cross section, the top quark mass, and the strong coupling constant using dilepton events in pp collisions at. <i>European Physical Journal C</i> , 2019 , 79, 368	4.2	27
76	Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at. <i>European Physical Journal C</i> , 2019 , 79, 280	4.2	12
75	Search for ($\overline{\text{t}}\text{H}$) production in the ($\text{H} \rightarrow \overline{\text{b}}\text{b}$) decay channel with leptonic ($\overline{\text{t}}\text{t}$) decays in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	17
74	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. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	7
73	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. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	8
72	Search for long-lived particles using nonprompt jets and missing transverse momentum with proton-proton collisions at $s=13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019 , 797, 134876	4.2	15
71	Combination of CMS searches for heavy resonances decaying to pairs of bosons or leptons. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019 , 798, 134952	4.2	10
70	Measurements of differential Z boson production cross sections in proton-proton collisions at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	11
69	Study of the ($B^+ \rightarrow J/\psi \overline{\Lambda} p$) decay in proton-proton collisions at (\sqrt{s}) = 8 TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	1
68	Measurement of the differential Drell-Yan cross section in proton-proton collisions at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	6
67	Search for long-lived particles using delayed photons in proton-proton collisions at $s=13$ TeV. <i>Physical Review D</i> , 2019 , 100,	4.9	7
66	Search for new physics in events with a leptonically decaying Z boson and a large transverse momentum imbalance in proton-proton collisions at = 13. <i>European Physical Journal C</i> , 2018 , 78, 291	4.2	17

65	Measurements of the production cross section and the branching fraction, and constraints on anomalous triple gauge couplings at. <i>European Physical Journal C</i> , 2018 , 78, 165	4.2	29
64	Search for electroweak production of charginos and neutralinos in multilepton final states in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	40
63	Measurements of the ($\mathrm{pp} \rightarrow \mathrm{ZZ}$) production cross section and the ($\mathrm{Z} \rightarrow 4\ell$) branching fraction, and constraints on anomalous triple gauge couplings at ($\sqrt{s} = 13, \text{TeV}$) 2018 , 78, 1		3
62	Search for ($\overline{\mathrm{t}}\mathrm{t}\mathrm{H}$) production in the all-jet final state in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	13
61	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. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	7
60	Search for decays of stopped exotic long-lived particles produced in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	6
59	Measurements of Higgs boson properties in the diphoton decay channel in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	37
58	Search for $\mathrm{Z}\gamma$ resonances using leptonic and hadronic final states in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	11
57	Search for black holes and sphalerons in high-multiplicity final states in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	9
56	Measurement of differential cross sections for boson production in association with jets in proton-proton collisions at. <i>European Physical Journal C</i> , 2018 , 78, 965	4.2	19
55	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $\mathrm{Z}\gamma\mathrm{q}$ final states at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	7
54	Search for high-mass resonances in final states with a lepton and missing transverse momentum at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	15
53	Measurement of the underlying event activity in inclusive Z boson production in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	8
52	Search for dark matter produced in association with a Higgs boson decaying to $\mathrm{b}\bar{\mathrm{b}}$ ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	7
51	Search for a heavy resonance decaying into a Z boson and a vector boson in the ($\overline{\nu}\mathrm{q}\overline{\mathrm{q}}$) final state. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	6
50	Measurement of prompt and nonprompt charmonium suppression in collisions at 5.02. <i>European Physical Journal C</i> , 2018 , 78, 509	4.2	37
49	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying $\ell\mathrm{e}\mathrm{p}\mathrm{t}\mathrm{o}\mathrm{n}\mathrm{s}$ at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	23
48	Search for dark matter in events with energetic, hadronically decaying top quarks and missing transverse momentum at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	16

47	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. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	10
46	Measurement of the inelastic proton-proton cross section at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	41
45	Search for high-mass resonances in dilepton final states in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	63
44	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. <i>Journal of High Energy Physics</i> , 2017 , 2017, 1	5.4	34
43	Review of bottomonium measurements from CMS. <i>International Journal of Modern Physics A</i> , 2017 , 32, 1730015	1.2	9
42	Suppression and azimuthal anisotropy of prompt and nonprompt [Formula: see text] production in PbPb collisions at [Formula: see text][Formula: see text]. <i>European Physical Journal C</i> , 2017 , 77, 252	4.2	58
41	Searches for pair production of third-generation squarks in [Formula: see text][Formula: see text] pp collisions. <i>European Physical Journal C</i> , 2017 , 77, 327	4.2	17
40	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. <i>Journal of High Energy Physics</i> , 2017 , 2017, 1	5.4	18
39	Search for top squark pair production in pp collisions at ($\sqrt{s}=13$) TeV using single lepton events. <i>Journal of High Energy Physics</i> , 2017 , 2017, 1	5.4	25
38	Measurement of the ($\overline{\text{t}}\text{t}$) production cross section using events with one lepton and at least one jet in pp collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2017 , 2017, 1	5.4	14
37	Search for light bosons in decays of the 125 GeV Higgs boson in proton-proton collisions at ($\sqrt{s}=8$) TeV. <i>Journal of High Energy Physics</i> , 2017 , 2017, 1	5.4	21
36	Search for heavy resonances that decay into a vector boson and a Higgs boson in hadronic final states at. <i>European Physical Journal C</i> , 2017 , 77, 636	4.2	20
35	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	5.4	77
34	Search for new physics in same-sign dilepton events in proton-proton collisions at [Formula: see text]. <i>European Physical Journal C</i> , 2016 , 76, 439	4.2	34
33	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. <i>Journal of High Energy Physics</i> , 2016 , 2016, 1	5.4	15
32	Measurement of the ($\overline{\text{t}}\text{t}$) production cross section in the $e\bar{e}$ channel in proton-proton collisions at ($\sqrt{s}=7$) and 8 TeV. <i>Journal of High Energy Physics</i> , 2016 , 2016, 1	5.4	30
31	Event generator tunes obtained from underlying event and multiparton scattering measurements. <i>European Physical Journal C</i> , 2016 , 76, 155	4.2	250
30	Search for a very light NMSSM Higgs boson produced in decays of the 125 GeV scalar boson and decaying into $\tau\tau$ leptons in pp collisions at ($\sqrt{s}=8$) TeV. <i>Journal of High Energy Physics</i> , 2016 , 2016, 1	5.4	16

29	Measurement of differential cross sections for Higgs boson production in the diphoton decay channel in pp collisions at [Formula: see text]. <i>European Physical Journal C</i> , 2016 , 76, 13	4.2	35
28	Measurement of the double-differential inclusive jet cross section in proton-proton collisions at [Formula: see text]. <i>European Physical Journal C</i> , 2016 , 76, 451	4.2	36
27	Search for direct pair production of scalar top quarks in the single- and dilepton channels in proton-proton collisions at ($\sqrt{s}=8$) TeV. <i>Journal of High Energy Physics</i> , 2016 , 2016, 1	5.4	6
26	Search for the associated production of a Higgs boson with a single top quark in proton-proton collisions at ($\sqrt{s}=8$) TeV. <i>Journal of High Energy Physics</i> , 2016 , 2016, 1	5.4	10
25	Observation of the rare $B(s)(0) \rightarrow \mu^+ \mu^-$ decay from the combined analysis of CMS and LHCb data. <i>Nature</i> , 2015 , 522, 68-72	5.4	326
24	Search for a Higgs boson in the mass range from 145 to 1000 GeV decaying to a pair of W or Z bosons. <i>Journal of High Energy Physics</i> , 2015 , 2015, 1	5.4	73
23	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 [Formula: see text]. <i>European Physical Journal C</i> , 2015 , 75, 212	4.2	399
22	Measurements of the [Formula: see text][Formula: see text] production cross sections in the [Formula: see text] channel in proton-proton collisions at [Formula: see text] and [Formula: see text] and combined constraints on triple gauge couplings. <i>European Physical Journal C</i> , 2015 , 75, 511	4.2	25
21	Probing color coherence effects in pp collisions at [Formula: see text]. <i>European Physical Journal C</i> , 2014 , 74, 2901	4.2	13
20	Search for the associated production of the Higgs boson with a top-quark pair. <i>Journal of High Energy Physics</i> , 2014 , 2014, 1	5.4	45
19	Identification techniques for highly boosted W bosons that decay into hadrons. <i>Journal of High Energy Physics</i> , 2014 , 2014, 1	5.4	32
18	Search for the associated production of the Higgs boson with a top-quark pair 2014 , 2014, 1		6
17	Observation of a new boson with mass near 125 GeV in pp collisions at ($\sqrt{s}=7$) and 8 TeV. <i>Journal of High Energy Physics</i> , 2013 , 2013, 1	5.4	261
16	Search in leptonic channels for heavy resonances decaying to long-lived neutral particles. <i>Journal of High Energy Physics</i> , 2013 , 2013, 1	5.4	30
15	Search for top-squark pair production in the single-lepton final state in pp collisions at ($\sqrt{s}=8$ mathrm{TeV}). <i>European Physical Journal C</i> , 2013 , 73, 1	4.2	162
14	Measurement of the ZZ production cross section and search for anomalous couplings in $2\mu\mu$ final states in pp collisions at ($\sqrt{s}=7$) TeV. <i>Journal of High Energy Physics</i> , 2013 , 2013, 1	5.4	39
13	Measurement of the $B_s(0) \rightarrow \mu^+ \mu^-$ branching fraction and search for $B(0) \rightarrow \mu^+ \mu^-$ with the CMS experiment. <i>Physical Review Letters</i> , 2013 , 111, 101804	7.4	220
12	Observation of sequential Ξ suppression in PbPb collisions. <i>Journal of Physics: Conference Series</i> , 2013 , 446, 012043	0.3	

11	Suppression of non-prompt J/ψ and $\Upsilon(1S)$ in PbPb collisions at ($\sqrt{s_{NN}} = 2.76$) TeV. <i>Journal of High Energy Physics</i> , 2012 , 2012, 1	5.4	184
10	Shape, transverse size, and charged-hadron multiplicity of jets in pp collisions at ($\sqrt{s}=7$;TeV). <i>Journal of High Energy Physics</i> , 2012 , 2012, 1	5.4	27
9	Measurement of the relative prompt production rate of and in pp collisions at [Formula: see text]. <i>European Physical Journal C</i> , 2012 , 72, 2251	4.2	46
8	Performance of CMS muon reconstruction in pp collision events at $\sqrt{s} = 7$ TeV. <i>Journal of Instrumentation</i> , 2012 , 7, P10002-P10002	1	398
7	Observation of sequential ψ suppression in PbPb collisions. <i>Physical Review Letters</i> , 2012 , 109, 222301	7.4	172
6	Dependence on pseudorapidity and on centrality of charged hadron production in PbPb collisions at ($\sqrt{s_{NN}} = 2.76$) TeV. <i>Journal of High Energy Physics</i> , 2011 , 2011, 1	5.4	87
5	Measurement of the underlying event activity at the LHC with ($\sqrt{s} = 7$) TeV and comparison with ($\sqrt{s} = 0.9$) TeV. <i>Journal of High Energy Physics</i> , 2011 , 2011, 1	5.4	70
4	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	5.4	121
3	Bottomonium production measured in PbPb and pp collisions by CMS. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2011 , 38, 124071	2.9	6
2	Transverse-momentum and pseudorapidity distributions of charged hadrons in pp collisions at square root of $s = 7$ TeV. <i>Physical Review Letters</i> , 2010 , 105, 022002	7.4	353
1	CMS tracking performance results from early LHC operation. <i>European Physical Journal C</i> , 2010 , 70, 116541-1192	99	