

Prasant Kumar Rout

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.

202
papers

1,891
citations

20
h-index

31
g-index

215
ext. papers

2,949
ext. citations

5.1
avg, IF

-0.22
L-index

#	Paper	IF	Citations
202	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
201	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
200	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
199	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
198	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
197	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
196	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	
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 $\overline{t}t$ 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	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
186	Search for a heavy Higgs boson decaying into two lighter Higgs bosons in the $B\bar{b}$ final state at 13 TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	2

185	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
184	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
183	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
182	Measurements of the pp $\rightarrow W\gamma$ and pp $\rightarrow Z\gamma$ cross sections at $(\sqrt{s}) = 13$ TeV and limits on anomalous quartic gauge couplings. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	1
181	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
180	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
179	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
178	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
177	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
176	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
175	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
174	Development and validation of HERWIG tunes from CMS underlying-event measurements. <i>European Physical Journal C</i> , 2021 , 81, 312	4.2	1
173	Angular analysis of the decay $B^+ \rightarrow K^{*0} \mu^+ \mu^-$ in proton-proton collisions at $(\sqrt{s}) = 8$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	2
172	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
171	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
170	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
169	Study of Drell-Yan dimuon production in proton-lead collisions at $(\sqrt{s_{NN}}) = 8.16$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0
168	Measurements of the differential cross sections of the production of Z + jets and γ 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	

167	In-medium modification of dijets in PbPb collisions at $(\sqrt{s_{\mathrm{NN}}}) = 5.02$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	0
166	Measurement of the Z boson differential production cross section using its invisible decay mode ($Z \rightarrow \nu \bar{\nu}$) in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	
165	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
164	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
163	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
162	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
161	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
160	Evidence for Higgs boson decay to a pair of muons. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5-4	14
159	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
158	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
157	Search for a heavy vector resonance decaying to a W boson and a Higgs boson in proton-proton collisions at. <i>European Physical Journal C</i> , 2021 , 81, 688	4-2	0
156	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
155	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
154	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
153	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	
152	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
151	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
150	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

149	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
148	Search for decays of the 125 GeV Higgs boson into a Z boson and a $\bar{b}c$ meson. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	2
147	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
146	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
145	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
144	Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	8
143	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
142	Search for new neutral Higgs bosons through the $(\text{H}) \rightarrow \text{ZA} \rightarrow \{\ell\}^+ \{\ell\}^- \text{b} \bar{\text{b}}$ process in pp collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	10
141	Search for direct pair production of supersymmetric partners to the lepton in proton-proton collisions at. <i>European Physical Journal C</i> , 2020 , 80, 189	4.2	3
140	Mixed higher-order anisotropic flow and nonlinear response coefficients of charged particles in collisions at and 5.02. <i>European Physical Journal C</i> , 2020 , 80, 534	4.2	6
139	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. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	7
138	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 $(\sqrt{s}) = 7$ and 8 TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	2
137	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
136	Measurement of electroweak production of a boson in association with two jets in proton-proton collisions at. <i>European Physical Journal C</i> , 2020 , 80, 43	4.2	6
135	Search for top squark pair production in a final state with two tau leptons in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	1
134	Evidence for $(W)W$ production from double-parton interactions in proton-proton collisions at $(\sqrt{s} = 13, \text{TeV})$. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	4
133	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
132	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

131	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
130	Search for lepton flavour violating decays of a neutral heavy Higgs boson to $\bar{b}d$ and $e\bar{\nu}_\tau$ in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	6
129	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
128	Search for a heavy Higgs boson decaying to a pair of W bosons in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	11
127	Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	7
126	A multi-dimensional search for new heavy resonances decaying to boosted $\tau\tau$ or boson pairs in the dijet final state at 13 TeV. <i>European Physical Journal C</i> , 2020 , 80, 237	4.2	10
125	Measurement of single-diffractive dijet production in proton-proton collisions at $\sqrt{s} = 13$ TeV with the CMS and TOTEM experiments. <i>European Physical Journal C</i> , 2020 , 80, 1164	4.2	0
124	Measurement of differential cross sections and charge ratios for $t\bar{t}$ -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
123	Measurement of $(\bar{t}t)$ normalised multi-differential cross sections in (pp) collisions at $(\sqrt{s}) = 13$ TeV, and simultaneous determination of the strong coupling strength, top quark pole mass, and parton distribution functions. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	13
122	Search for a charged Higgs boson decaying into top and bottom quarks in events with electrons or muons in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	16
121	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
120	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
119	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
118	Investigation into the event-activity dependence of $\langle n \rangle$ relative production in proton-proton collisions at $(\sqrt{s}) = 7$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	3
117	Bose-Einstein correlations of charged hadrons in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	2
116	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
115	Search for electroweak production of a vector-like T quark using fully hadronic final states. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	8
114	Search for a heavy pseudoscalar Higgs boson decaying into a 125 GeV Higgs boson and a Z boson in final states with two tau and two light leptons at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	5

113	Measurement of properties of $(\mathbf{B})_{\mathbf{s}}^0$ decays and search for \mathbf{B}_0 with the CMS experiment. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5-4	10
112	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
111	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
110	Measurement of the cross section for $(\overline{\mathbf{t}}\mathbf{t})$ 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
109	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
108	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
107	Study of central exclusive production in proton-proton collisions at and 13TeV. <i>European Physical Journal C</i> , 2020 , 80, 718	4-2	2
106	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
105	Search for physics beyond the standard model in multilepton final states in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5-4	8
104	Measurement of the top quark pair production cross section in dilepton final states containing one lepton in pp collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5-4	0
103	Azimuthal separation in nearly back-to-back jet topologies in inclusive 2- and 3-jet events in collisions at. <i>European Physical Journal C</i> , 2019 , 79, 773	4-2	0
102	Search for charged Higgs bosons in the $\mathbf{H} \rightarrow \mathbf{b}\mathbf{b}$ decay channel in proton-proton collisions at $(\sqrt{s}=13)$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	24
101	Search for resonant production of second-generation sleptons with same-sign dimuon events in proton-proton collisions at. <i>European Physical Journal C</i> , 2019 , 79, 305	4-2	2
100	Search for supersymmetry with a compressed mass spectrum in the vector boson fusion topology with 1-lepton and 0-lepton final states in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	8
99	Search for a low-mass \mathbf{A} resonance in association with a bottom quark in proton-proton collisions at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	4
98	Search for the associated production of the Higgs boson and a vector boson in proton-proton collisions at $(\sqrt{s}) = 13$ TeV via Higgs boson decays to leptons. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	3
97	Search for the pair production of light top squarks in the $\mathbf{e}\mathbf{e}$ final state in proton-proton collisions at $(\sqrt{s}=13)$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	4
96	Combined measurements of Higgs boson couplings in proton-proton collisions at. <i>European Physical Journal C</i> , 2019 , 79, 421	4-2	153

95	Search for supersymmetry in events with a photon, jets, $\bar{\nu}$ -jets, and missing transverse momentum in proton-proton collisions at 13. <i>European Physical Journal C</i> , 2019 , 79, 444	4.2	1
94	Measurements of the $pp \rightarrow \nu W Z$ 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
93	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
92	Measurement of the energy density as a function of pseudorapidity in proton-proton collisions at $(\sqrt{s} = 13, \text{TeV})$. <i>European Physical Journal C</i> , 2019 , 79, 1	4.2	7
91	Search for nonresonant Higgs boson pair production in the $(\bar{b}b)$ final state at $(\sqrt{s}) = 13$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	4
90	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
89	Search for contact interactions and large extra dimensions in the dilepton mass spectra from proton-proton collisions at $(\sqrt{s}=13)$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	8
88	Search for vector-like quarks in events with two oppositely charged leptons and jets in proton-proton collisions at. <i>European Physical Journal C</i> , 2019 , 79, 364	4.2	18
87	Search for single production of vector-like quarks decaying to a top quark and a boson in proton-proton collisions at. <i>European Physical Journal C</i> , 2019 , 79, 90	4.2	6
86	Study of the underlying event in top quark pair production in collisions at 13. <i>European Physical Journal C</i> , 2019 , 79, 123	4.2	4
85	Search for rare decays of H and Higgs bosons to $W\gamma$ and a photon in proton-proton collisions at $\sqrt{s} = 13$. <i>European Physical Journal C</i> , 2019 , 79, 94	4.2	7
84	Search for new physics in final states with a single photon and missing transverse momentum in proton-proton collisions at $(\sqrt{s}=13)$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	9
83	Measurements of $(\bar{t}t)$ differential cross sections in proton-proton collisions at $(\sqrt{s}=13)$ TeV using events containing two leptons. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	15
82	Search for $(\bar{t}t)H$ production in the $(H) \rightarrow \bar{b}b$ decay channel with leptonic $(\bar{t}t)$ decays in proton-proton collisions at $(\sqrt{s}=13)$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	17
81	Search for supersymmetry in events with a photon, a lepton, and missing transverse momentum in proton-proton collisions at $(\sqrt{s} = 13)$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	2
80	Measurement of inclusive and differential Higgs boson production cross sections in the diphoton decay channel in proton-proton collisions at $(\sqrt{s}=13)$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	8
79	Search for resonant $(\bar{t}t)$ production in proton-proton collisions at $(\sqrt{s}=13)$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	13
78	Search for production of Higgs boson pairs in the four b quark final state using large-area jets in proton-proton collisions at $(\sqrt{s}=13)$ TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	7

77	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
76	Search for heavy Majorana neutrinos in same-sign dilepton channels in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	14
75	Measurement of differential cross sections for inclusive isolated-photon and photon+jet production in proton-proton collisions at. <i>European Physical Journal C</i> , 2019 , 79, 20	4-2	4
74	Search for heavy neutrinos and third-generation leptoquarks in hadronic states of two τ leptons and two jets in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	18
73	Search for a W' boson decaying to a vector-like quark and a top or bottom quark in the all-jets final state. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	4
72	Search for top quark partners with charge $5/3$ in the same-sign dilepton and single-lepton final states in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	9
71	Inclusive search for supersymmetry in pp collisions at ($\sqrt{s}=13$) TeV using razor variables and boosted object identification in zero and one lepton final states. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	2
70	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
69	Search for excited leptons in $\tau\tau$ final states in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	2
68	Search for new particles decaying to a jet and an emerging jet. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	15
67	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 ($\sqrt{s} = 13, \text{TeV}$). <i>European Physical Journal C</i> , 2019 , 79, 1	4-2	6
66	Measurement of exclusive $\tau\tau$ photoproduction in ultraperipheral pPb collisions at. <i>European Physical Journal C</i> , 2019 , 79, 702	4-2	13
65	Measurement of exclusive photoproduction from protons in Pb collisions at. <i>European Physical Journal C</i> , 2019 , 79, 277	4-2	19
64	Search for a heavy pseudoscalar boson decaying to a Z and a Higgs boson at. <i>European Physical Journal C</i> , 2019 , 79, 564	4-2	20
63	Search for supersymmetry in final states with photons and missing transverse momentum in proton-proton collisions at 13 TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	5
62	Measurement of the top quark mass in the all-jets final state at and combination with the lepton+jets channel. <i>European Physical Journal C</i> , 2019 , 79, 313	4-2	13
61	Search for dark photons in decays of Higgs bosons produced in association with Z bosons in proton-proton collisions at ($\sqrt{s} = 13$) TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	7
60	Search for supersymmetry using Higgs boson to diphoton decays at ($\sqrt{s} = 13$) TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	2

59	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
58	Search for anomalous triple gauge couplings in WW and WZ production in lepton + jet events in proton-proton collisions at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	9
57	Study of the ($\mathrm{B}^+ \rightarrow \mathrm{J}/\psi \overline{\Lambda} \mathrm{p}$) decay in proton-proton collisions at (\sqrt{s}) = 8 TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	1
56	Search for resonances decaying to a pair of Higgs bosons in the $\mathrm{b}(\overline{\mathrm{b}})\mathrm{q}(\overline{\mathrm{q}})$ final state in proton-proton collisions at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	5
55	Measurements of triple-differential cross sections for inclusive isolated-photon+jet events in collisions at. <i>European Physical Journal C</i> , 2019 , 79, 969	4-2	1
54	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
53	Search for the production of four top quarks in the single-lepton and opposite-sign dilepton final states in proton-proton collisions at (\sqrt{s}) = 13 TeV. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	2
52	Measurement of the average very forward energy as a function of the track multiplicity at central pseudorapidities in proton-proton collisions at. <i>European Physical Journal C</i> , 2019 , 79, 893	4-2	6
51	Search for supersymmetry in proton-proton collisions at 13 TeV in final states with jets and missing transverse momentum. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5-4	21
50	Search for new physics in top quark production in dilepton final states in proton-proton collisions at. <i>European Physical Journal C</i> , 2019 , 79, 886	4-2	6
49	Comparing transverse momentum balance of b jet pairs in pp and PbPb collisions at ($\sqrt{s_{\mathrm{NN}}}=5.02$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	8
48	Jet properties in PbPb and pp collisions at ($\sqrt{s_{\mathrm{NN}}}=5.02$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	7
47	Search for a new scalar resonance decaying to a pair of Z bosons in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	22
46	Search for ($\mathrm{t}\overline{\mathrm{t}}\mathrm{H}$) 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
45	Search for resonances in the mass spectrum of muon pairs produced in association with b quark jets in proton-proton collisions at ($\sqrt{s}=8$) and 13 TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	7
44	Measurement of the groomed jet mass in PbPb and pp collisions at ($\sqrt{s_{\mathrm{NN}}}=5.02$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	5
43	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
42	Search for natural and split supersymmetry in proton-proton collisions at ($\sqrt{s}=13$) TeV in final states with jets and missing transverse momentum. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	39

41	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
40	Search for an exotic decay of the Higgs boson to a pair of light pseudoscalars in the final state of two muons and two τ leptons in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	14
39	Search for a charged Higgs boson decaying to charm and bottom quarks in proton-proton collisions at ($\sqrt{s}=8$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	16
38	Search for top squarks decaying via four-body or chargino-mediated modes in single-lepton final states in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	6
37	Charged-particle nuclear modification factors in XeXe collisions at ($\sqrt{s_{\mathrm{NN}}}=5.44$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	11
36	Measurement of the top quark mass with lepton+jets final states using collisions at. <i>European Physical Journal C</i> , 2018 , 78, 891	4-2	13
35	Measurements of the differential jet cross section as a function of the jet mass in dijet events from proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	14
34	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
33	Event shape variables measured using multijet final states in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	3
32	Searches for pair production of charginos and top squarks in final states with two oppositely charged leptons in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	12
31	Search for narrow and broad dijet resonances in proton-proton collisions at ($\sqrt{s}=13$) TeV and constraints on dark matter mediators and other new particles. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	50
30	Measurement of the production cross section for single top quarks in association with W bosons in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	5
29	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
28	Search for supersymmetry in events with a τ lepton pair and missing transverse momentum in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	14
27	Search for the decay of a Higgs boson in the $\tau\tau$ channel in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	11
26	Search for third-generation scalar leptoquarks decaying to a top quark and a lepton at. <i>European Physical Journal C</i> , 2018 , 78, 707	4-2	23
25	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
24	Studies of η and mesons including the observation of the decay in proton-proton collisions at. <i>European Physical Journal C</i> , 2018 , 78, 939	4-2	12

23	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $2\ell q$ final states at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	7
22	Measurement of charged particle spectra in minimum-bias events from proton-proton collisions at. <i>European Physical Journal C</i> , 2018 , 78, 697	4-2	9
21	Search for lepton-flavor violating decays of heavy resonances and quantum black holes to $e\ell$ final states in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	3
20	Search for new physics in dijet angular distributions using proton-proton collisions at and constraints on dark matter and other models. <i>European Physical Journal C</i> , 2018 , 78, 789	4-2	19
19	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
18	Search for resonant pair production of Higgs bosons decaying to bottom quark-antiquark pairs in proton-proton collisions at 13 TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	10
17	Search for vector-like T and B quark pairs in final states with leptons at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	29
16	Search for dark matter produced in association with a Higgs boson decaying to $\ell\bar{\nu}\ell$ ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	7
15	Search for additional neutral MSSM Higgs bosons in the $\tau\tau$ final state in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	42
14	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. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	7
13	Search for a heavy right-handed W boson and a heavy neutrino in events with two same-flavor leptons and two jets at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	20
12	Search for beyond the standard model Higgs bosons decaying into a ($\overline{b}b$) pair in pp collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	11
11	Measurement of the weak mixing angle using the forward-backward asymmetry of Drell-Yan events in collisions at 8. <i>European Physical Journal C</i> , 2018 , 78, 701	4-2	25
10	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying τ leptons at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	23
9	Electroweak production of two jets in association with a Z boson in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>European Physical Journal C</i> , 2018 , 78, 1	4-2	12
8	Observation of proton-tagged, central (semi)exclusive production of high-mass lepton pairs in pp collisions at 13 TeV with the CMS-TOTEM precision proton spectrometer. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	14
7	Search for single production of vector-like quarks decaying to a b quark and a Higgs boson. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	12
6	Search for the flavor-changing neutral current interactions of the top quark and the Higgs boson which decays into a pair of b quarks at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	20

5	Search for a singly produced third-generation scalar leptoquark decaying to a τ lepton and a bottom quark in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	9
4	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
3	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
2	Search for disappearing tracks as a signature of new long-lived particles in proton-proton collisions at ($\sqrt{s}=13$) TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	24
1	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