

Prasant Kumar Rout

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1508994/publications.pdf>

Version: 2024-02-01

208
papers

4,700
citations

117625

34
h-index

161849

54
g-index

215
all docs

215
docs citations

215
times ranked

6586
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	4.7	6
2	Study of quark and gluon jet substructure in Z+jet and dijet events from pp collisions. Journal of High Energy Physics, 2022, 2022, 1.	4.7	8
3	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.	4.7	6
4	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.	4.7	5
5	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.	3.9	14
6	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.	4.7	3
7	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.	4.7	1
8	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.	3.9	18
9	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.	4.7	13
10	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.	4.7	5
11	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.	4.7	12
12	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.	4.7	2
13	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.	4.7	6
14	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.	4.7	5
15	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.	4.7	5
16	Measurement of the inclusive $\overline{t}t$ production cross section in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
17	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.	4.7	2
18	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.	4.7	4

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19	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, .	4.7	5
20	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, .	4.7	2
21	Observation of $B^0 \rightarrow \psi(2S)K^0_{\text{charm}}$ and $B^0_{\text{charm}} \rightarrow \psi(2S)K^0_{\text{charm}}$ decays. European Physical Journal C, 2022, 82, .	3.9	1
22	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.	4.7	3
23	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.	3.9	33
24	Evidence for Higgs boson decay to a pair of muons. Journal of High Energy Physics, 2021, 2021, 1.	4.7	54
25	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.	3.9	33
26	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.	4.7	14
27	Measurements of $pp \rightarrow Z\gamma$ production cross sections and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 200.	3.9	24
28	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.	4.7	15
29	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.	4.7	26
30	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.	4.7	12
31	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.	4.7	5
32	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.	4.7	28
33	Development and validation of HERWIG tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	3.9	12
34	Angular analysis of the decay $B^+ \rightarrow K^+(892)\pi^+\pi^+$ in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	9
35	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.	3.9	40
36	Measurement of b jet shapes in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	4

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37	First measurement of large area jet transverse momentum spectra in heavy-ion collisions. Journal of High Energy Physics, 2021, 2021, 1.	4.7	11
38	Study of Drell-Yan dimuon production in proton-lead collisions at $\sqrt{s_{\mathrm{NN}}} = 8.16$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	3
39	Measurements of the differential cross sections of the production of $Z + \text{jets}$ and $\hat{\nu} + \text{jets}$ 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.	4.7	2
40	In-medium modification of dijets in PbPb collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	5
41	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.	4.7	2
42	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.	3.9	35
43	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.	4.7	27
44	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.	4.7	62
45	MUSIC: a model-unspecific search for new physics in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 629.	3.9	18
46	Search for a heavy vector resonance decaying to a Z boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 688.	3.9	9
47	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.	3.9	19
48	Measurements of angular distance and momentum ratio distributions in three-jet and Z + two-jet final states in pp collisions. European Physical Journal C, 2021, 81, 852.	3.9	2
49	Precision luminosity measurement in proton-proton collisions at $\sqrt{s} = 13$ TeV in 2015 and 2016 at CMS. European Physical Journal C, 2021, 81, 800.	3.9	123
50	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. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
51	Measurements of the $pp \rightarrow W \nu \nu$ and $pp \rightarrow Z \nu \nu$ cross sections at $\sqrt{s} = 13$ TeV and limits on anomalous quartic gauge couplings. Journal of High Energy Physics, 2021, 2021, 1.	4.7	7
52	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.	3.9	18
53	Search for a heavy Higgs boson decaying into two lighter Higgs bosons in the $\tau\tau$ final state at 13 TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	11
54	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.	4.7	36

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55	Observation of $t\bar{W}$ production in the single-lepton channel in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	2
56	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.	4.7	2
57	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.	4.7	3
58	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.	4.7	5
59	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. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
60	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.	4.7	1
61	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.	4.7	4
62	Investigation into the event-activity dependence of $\bar{p}(nS)$ relative production in proton-proton collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	12
63	Bose-Einstein correlations of charged hadrons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	11
64	A Deep Neural Network for Simultaneous Estimation of b Jet Energy and Resolution. Computing and Software for Big Science, 2020, 4, 10.	2.9	21
65	Search for electroweak production of a vector-like T quark using fully hadronic final states. Journal of High Energy Physics, 2020, 2020, 1.	4.7	14
66	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. Journal of High Energy Physics, 2020, 2020, 1.	4.7	14
67	Measurement of properties of $\mathrm{B}_{\mathrm{s}}^0 \rightarrow \tau^+ \nu_{\tau} \ell^+ \ell^-$ decays and search for $\mathrm{B}_{\mathrm{s}}^0 \rightarrow \tau^+ \nu_{\tau} \ell^+ \ell^-$ with the CMS experiment. Journal of High Energy Physics, 2020, 2020, 1.	4.7	41
68	Search for a light pseudoscalar Higgs boson in the boosted $\ell^+ \ell^- \ell^+ \ell^-$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	23
69	Measurement of quark- and gluon-like jet fractions using jet charge in PbPb and pp collisions at 5.02 TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	10
70	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.	4.7	5
71	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.	4.7	41
72	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.	4.7	37

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73	Study of central exclusive "Equation missing" <!-- No EquationSource Format="TEX", only image --> production in proton-proton collisions at $\sqrt{s} = 5.02$ and 13 TeV. European Physical Journal C, 2020, 80, 718.	3.9	7
74	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 $\sqrt{s}=13, \text{ext \{TeV\}}$. European Physical Journal C, 2020, 80, 752.	3.9	23
75	Search for physics beyond the standard model in multilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	25
76	Search for decays of the 125 GeV Higgs boson into a Z boson and a ρ meson. Journal of High Energy Physics, 2020, 2020, 1.	4.7	6
77	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.	4.7	21
78	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.	4.7	66
79	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.	4.7	4
80	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.	4.7	20
81	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.	4.7	2
82	Search for new neutral Higgs bosons through the $\text{H} \rightarrow \text{ZA} \text{ or } \text{H} \rightarrow \text{Z} \text{ or } \text{H} \rightarrow \text{AA}$ process in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	27
83	Search for direct pair production of supersymmetric partners to the τ lepton in proton-proton collisions at $\sqrt{s}=13, \text{ext \{TeV\}}$. European Physical Journal C, 2020, 80, 189.	3.9	22
84	Mixed higher-order anisotropic flow and nonlinear response coefficients of charged particles in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ and 5.02 TeV. European Physical Journal C, 2020, 80, 534.	3.9	14
85	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.	4.7	20
86	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.	4.7	6
87	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.	4.7	7
88	Measurement of electroweak production of a W boson in association with two jets in proton-proton collisions at $\sqrt{s}=13, \text{ext \{TeV\}}$. European Physical Journal C, 2020, 80, 43.	3.9	11
89	Search for top squark pair production in a final state with two tau leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	1
90	Evidence for $\text{ext \{W\} ext \{W\}}$ production from double-parton interactions in proton-proton collisions at $\sqrt{s} = 13, \text{ext \{TeV\}}$. European Physical Journal C, 2020, 80, 1.	3.9	10

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91	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.	3.9	78
92	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.	3.9	70
93	Extraction and validation of a new set of CMS pythia8 tunes from underlying-event measurements. European Physical Journal C, 2020, 80, 4.	3.9	198
94	Search for lepton flavour violating decays of a neutral heavy Higgs boson to $\tau\tau$, and $e\tau$, in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	15
95	A search for the standard model Higgs boson decaying to charm quarks. Journal of High Energy Physics, 2020, 2020, 1.	4.7	20
96	Search for a heavy Higgs boson decaying to a pair of W bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	25
97	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.	4.7	14
98	A multi-dimensional search for new heavy resonances decaying to boosted W , WZ , or ZZ boson pairs in the dijet final state at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 237.	3.9	31
99	Measurement of the top quark pair production cross section in dilepton final states containing one τ , lepton in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	2
100	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. Journal of High Energy Physics, 2020, 2020, 1.	4.7	26
101	Dependence of inclusive jet production on the anti-kT distance parameter in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	8
102	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.	4.7	13
103	Measurement of single-diffractive dijet production in proton-proton collisions at $\sqrt{s} = 8$ TeV with the CMS and TOTEM experiments. European Physical Journal C, 2020, 80, 1164.	3.9	5
104	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.	3.9	22
105	Measurement of 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. European Physical Journal C, 2020, 80, 1.	3.9	33
106	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. Journal of High Energy Physics, 2019, 2019, 1.	4.7	33
107	Search for a $W^{\prime 2}$ boson decaying to a vector-like quark and a top or bottom quark in the all-jets final state. Journal of High Energy Physics, 2019, 2019, 1.	4.7	5
108	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. Journal of High Energy Physics, 2019, 2019, 1.	4.7	13

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109	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. Journal of High Energy Physics, 2019, 2019, 1.	4.7	3
110	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.	4.7	17
111	Search for excited leptons in $\hat{e}, \hat{\mu}, \hat{\tau}$ final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	3
112	Search for new particles decaying to a jet and an emerging jet. Journal of High Energy Physics, 2019, 2019, 1.	4.7	24
113	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 $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ $s = 13$ TeV. European Physical Journal C, 2019, 79, 1.	3.9	9
114	Measurement of exclusive ρ^0 photoproduction in ultraperipheral pPb collisions at $\sqrt{s_{NN}} = 5.02, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2019, 79, 702.	3.9	33
115	Measurement of exclusive Υ photoproduction from protons in pPb collisions at $\sqrt{s_{NN}} = 5.02, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2019, 79, 277.	3.9	35
116	Search for a heavy pseudoscalar boson decaying to a Z and a Higgs boson at $\sqrt{s}=13, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2019, 79, 564.	3.9	50
117	Search for supersymmetry in final states with photons and missing transverse momentum in proton-proton collisions at 13 TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	8
118	Measurement of the top quark mass in the all-jets final state at $\sqrt{s}=13, \text{ext } \{\text{TeV}\}$ $s = 13$ TeV and combination with the lepton+jets channel. European Physical Journal C, 2019, 79, 313.	3.9	40
119	Azimuthal separation in nearly back-to-back jet topologies in inclusive 2- and 3-jet events in $\{pp\}$ collisions at $\sqrt{s}=13, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2019, 79, 773.	3.9	8
120	Search for charged Higgs bosons in the $H^{\pm} \rightarrow \tau^{\pm} \nu_{\tau}$ decay channel in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	54
121	Search for resonant production of second-generation sleptons with same-sign dimuon events in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ $s = 13$ TeV. European Physical Journal C, 2019, 79, 305.	3.9	4
122	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. Journal of High Energy Physics, 2019, 2019, 1.	4.7	13
123	Search for a low-mass $\tilde{e}, \tilde{\mu}, \tilde{\tau}$ resonance in association with a bottom quark in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	9
124	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 $\tilde{e}, \tilde{\mu}, \tilde{\tau}$ leptons. Journal of High Energy Physics, 2019, 2019, 1.	4.7	7
125	Search for the pair production of light top squarks in the $e\tilde{t}\tilde{t}^*$ final state in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	5
126	Combined measurements of Higgs boson couplings in proton-proton collisions at $\sqrt{s}=13, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2019, 79, 421.	3.9	355

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127	Search for supersymmetry in events with a photon, jets, \mathbf{b} -jets, and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 444.	3.9	11
128	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. Journal of High Energy Physics, 2019, 2019, 1.	4.7	14
129	Measurement of the $\overline{\mathbf{t}}\mathbf{t}\mathbf{A}^-$ production cross section, the top quark mass, and the strong coupling constant using dilepton events in pp collisions at. European Physical Journal C, 2019, 79, 368.	3.9	68
130	Measurement of the energy density as a function of pseudorapidity in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 1.	3.9	12
131	Search for nonresonant Higgs boson pair production in the $\mathbf{b}\overline{\mathbf{b}}\mathbf{b}\overline{\mathbf{b}}$ final state at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	11
132	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.	3.9	29
133	Search for contact interactions and large extra dimensions in the dilepton mass spectra from proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	13
134	Search for vector-like quarks in events with two oppositely charged leptons and jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 364.	3.9	48
135	Search for single production of vector-like quarks decaying to a top quark and a \mathbf{W} boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 90.	3.9	34
136	Study of the underlying event in top quark pair production in $\mathbf{p}\mathbf{p}$ collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 123.	3.9	11
137	Search for rare decays of \mathbf{Z} and Higgs bosons to \mathbf{J}/ψ and a photon in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 94.	3.9	20
138	Search for new physics in final states with a single photon and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	15
139	Measurements of $\overline{\mathbf{t}}\mathbf{t}$ differential cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV using events containing two leptons. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
140	Search for $\overline{\mathbf{t}}\mathbf{t}\mathbf{H}$ production in the $\mathbf{H} \rightarrow \mathbf{b}\overline{\mathbf{b}}$ decay channel with leptonic $\overline{\mathbf{t}}\mathbf{t}$ decays in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
141	Search for supersymmetry in events with a photon, a lepton, and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	6
142	Measurement of inclusive and differential Higgs boson production cross sections in the diphoton decay channel in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	14
143	Search for resonant $\overline{\mathbf{t}}\mathbf{t}$ production in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	23
144	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. Journal of High Energy Physics, 2019, 2019, 1.	4.7	14

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145	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.	4.7	12
146	Search for heavy Majorana neutrinos in same-sign dilepton channels in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	40
147	Measurement of differential cross sections for inclusive isolated-photon and photon+jet production in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 20.	3.9	18
148	Search for resonances decaying to a pair of Higgs bosons in the $b\bar{b}q\bar{q}$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	10
149	Measurements of triple-differential cross sections for inclusive isolated-photon+jet events in pp collisions at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2019, 79, 969.	3.9	6
150	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.	4.7	18
151	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. Journal of High Energy Physics, 2019, 2019, 1.	4.7	11
152	Measurement of the average very forward energy as a function of the track multiplicity at central pseudorapidities in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, 893.	3.9	12
153	Search for supersymmetry in proton-proton collisions at 13 TeV in final states with jets and missing transverse momentum. Journal of High Energy Physics, 2019, 2019, 1.	4.7	54
154	Search for new physics in top quark production in dilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 886.	3.9	16
155	Search for dark photons in decays of Higgs bosons produced in association with Z bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	13
156	Search for supersymmetry using Higgs boson to diphoton decays at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	4
157	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.	4.7	28
158	Search for anomalous triple gauge couplings in WW and WZ production in lepton + jet events in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	15
159	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.	4.7	3
160	Comparing transverse momentum balance of b jet pairs in pp and PbPb collisions at $\sqrt{s_{NN}}=5.02$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
161	Search for $t\bar{t}H$ production in the all-jet final state in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	20
162	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. Journal of High Energy Physics, 2018, 2018, 1.	4.7	9

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163	Measurement of the groomed jet mass in PbPb and pp collisions at $\sqrt{s_{\mathrm{NN}}}=5.02$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
164	Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos and b quarks at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	11
165	Search for natural and split supersymmetry in proton-proton collisions at $\sqrt{s}=13$ TeV in final states with jets and missing transverse momentum. Journal of High Energy Physics, 2018, 2018, 1.	4.7	43
166	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.	4.7	12
167	Search for an exotic decay of the Higgs boson to a pair of light pseudoscalars in the final state of two muons and two $\bar{\nu}_\tau$ leptons in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	34
168	Search for a charged Higgs boson decaying to charm and bottom quarks in proton-proton collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	26
169	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. Journal of High Energy Physics, 2018, 2018, 1.	4.7	13
170	Charged-particle nuclear modification factors in XeXe collisions at $\sqrt{s_{\mathrm{NN}}} = 5.44$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17
171	Measurement of the top quark mass with lepton+jets final states using $\mathcal{M}_{\mathrm{p}}^{\mathrm{reco}}$ collisions at $\sqrt{s}=13, \text{ext } \{ \text{TeV} \}$. European Physical Journal C, 2018, 78, 891.	3.9	34
172	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. Journal of High Energy Physics, 2018, 2018, 1.	4.7	18
173	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.	4.7	57
174	Event shape variables measured using multijet final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	4
175	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. Journal of High Energy Physics, 2018, 2018, 1.	4.7	23
176	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. Journal of High Energy Physics, 2018, 2018, 1.	4.7	82
177	Measurement of the production cross section for single top quarks in association with W bosons in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17
178	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.	4.7	14
179	Search for supersymmetry in events with a $\bar{\nu}_\tau$ lepton pair and missing transverse momentum in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	21
180	Search for the decay of a Higgs boson in the $\tilde{a}, \tilde{a}, \tilde{\nu}_\tau^3$ channel in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17

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181	Search for third-generation scalar leptoquarks decaying to a top quark and a τ lepton at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 707.	3.9	46
182	Measurement of differential cross sections for Z boson production in association with jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 965.	3.9	39
183	Studies of $B \rightarrow K^* \mu^+ \mu^-$ and $B \rightarrow K^* \tau^+ \tau^-$ at $\sqrt{s} = 13$ TeV.		

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199	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. Journal of High Energy Physics, 2018, 2018, 1.	4.7	29
200	Search for single production of vector-like quarks decaying to a b quark and a Higgs boson. Journal of High Energy Physics, 2018, 2018, 1.	4.7	16
201	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. Journal of High Energy Physics, 2018, 2018, 1.	4.7	23
202	Search for a singly produced third-generation scalar leptoquark decaying to a \bar{l} , lepton and a bottom quark in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	15
203	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.	4.7	13
204	Measurement of the inelastic proton-proton cross section at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	62
205	Search for disappearing tracks as a signature of new long-lived particles in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	31
206	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.	4.7	86
207	Jet properties in PbPb and pp collisions at $\sqrt{s_{\mathrm{N};\mathrm{N}}}=5.02$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	13
208	Search for a new scalar resonance decaying to a pair of Z bosons in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	37