

Gouranga Kole

List of Publications by Year in descending order

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Version: 2024-02-01

172
papers

5,736
citations

94269

37
h-index

91712

69
g-index

175
all docs

175
docs citations

175
times ranked

6825
citing authors

#	ARTICLE	IF	CITATIONS
1	Precise determination of the mass of the Higgs boson and tests of compatibility of its couplings with the standard model predictions using proton collisions at 7 and 8 \sqrt{s} TeV. European Physical Journal C, 2015, 75, 212.	1.4	541
2	Event generator tunes obtained from underlying event and multiparton scattering measurements. European Physical Journal C, 2016, 76, 155.	1.4	499
3	Observation of the diphoton decay of the Higgs boson and measurement of its properties. European Physical Journal C, 2014, 74, 3076.	1.4	342
4	Extraction and validation of a new set of CMS pythia8 tunes from underlying-event measurements. European Physical Journal C, 2020, 80, 4.	1.4	198

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#	ARTICLE	IF	CITATIONS
19	Measurement of differential cross sections for Higgs boson production in the diphoton decay channel in pp collisions at $\sqrt{s}=8$ TeV. European Physical Journal C, 2016, 76, 13.	1.4	62
20	Measurement of the inelastic proton-proton cross section at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	62
21	Electron and photon reconstruction and identification with the CMS experiment at the CERN LHC. Journal of Instrumentation, 2021, 16, P05014.	0.5	62
22	Measurements of Higgs boson properties in the diphoton decay channel in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	57
23	Measurement of the double-differential inclusive jet cross section in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2016, 76, 451.	1.4	55
24	Measurement and QCD analysis of double-differential inclusive jet cross sections in pp collisions at $\sqrt{s}=8$ TeV and cross section ratios to 2.76 and 7 TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	54
25	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.	1.6	54
26	Measurements of the $\sigma(\text{pp} \rightarrow \text{ZZ})$ production cross section and the $\sigma(\text{pp} \rightarrow \text{ZZ})/\sigma(\text{pp} \rightarrow \text{ZZ})$ branching fraction, and constraints on anomalous triple gauge couplings at. European Physical Journal C, 2018, 78, 165.	1.4	52
27	Search for the associated production of the Higgs boson with a top-quark pair. Journal of High Energy Physics, 2014, 2014, 1.	1.6	51
28	Measurement of pseudorapidity distributions of charged particles in proton-proton collisions at $\sqrt{s}=8$ TeV by the CMS and TOTEM experiments. European Physical Journal C, 2014, 74, 1.	1.4	49
29	Identification techniques for highly boosted W bosons that decay into hadrons. Journal of High Energy Physics, 2014, 2014, 1.	1.6	43
30	Measurement of the $\sigma(\text{pp} \rightarrow \text{t}\bar{\text{t}})$ production cross section in the $\text{e}^{\pm}\mu^{\pm}$ channel in proton-proton collisions at $\sqrt{s}=7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	41
31	Measurement of properties of $\text{B}_s^0 \rightarrow \text{B}_s^0 \mu^+ \mu^-$ decays and search for $\text{B}_s^0 \rightarrow \text{B}_s^0 \mu^+ \mu^-$ with the CMS experiment. Journal of High Energy Physics, 2020, 2020, 1.	1.6	41
32	Search for charged Higgs bosons decaying into a top and a bottom quark in the all-jet final state of pp collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	41
33	Search for disappearing tracks in proton-proton collisions at $\sqrt{s}=13$ TeV. http://www.w3.org/1998/Math/MathML altimg="si1.svg" \sqrt{s} 13 TeV. Physics Letters. Section B: Nuclear, Elementary Particles and High Energy Physics, 2020, 806, 13502.	1.5	40
34	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 378.	1.4	40
35	Measurement of differential cross sections for $\text{pp} \rightarrow \text{ZZ}$ Z boson production in association with jets in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2018, 78, 965.	1.4	39
36	Search for heavy resonances that decay into a vector boson and a Higgs boson in hadronic final states at $\sqrt{s}=13$ TeV. European Physical Journal C, 2017, 77, 636.	1.4	38

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37	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying l , leptons at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	38
38	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. Physics Letters, Section B: Nuclear, Elementary Particle Physics, 2021, 81, 13.	1.5	37
39	Search for heavy Higgs bosons decaying to a top quark pair in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	37
40	Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 488.	1.4	35
41	Search for dark matter produced in association with a leptonically decaying Z boson in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 13.	1.4	33
42	Search for top squark pair production using dilepton final states in collision data collected at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 3.	1.4	33
43	Search for singly and pair produced leptoquarks coupling to third-generation fermions in proton-proton collisions at $\sqrt{s}=13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle Physics, 2021, 81, 136446.	1.5	33
44	Measurements of the Z production cross sections in the $2l2l\frac{1}{2}$ channel in proton-proton collisions at $\sqrt{s}=7$ and 8 TeV. European Physical Journal C, 2015, 75, 511.	1.4	32
45	Searches for pair production of third-generation squarks in $\sqrt{s}=13$ TeV pp collisions. European Physical Journal C, 2017, 77, 327.	1.4	32
46	Search for top squark pair production in pp collisions at $\sqrt{s}=13$ TeV using single lepton events. Journal of High Energy Physics, 2017, 2017, 1.	1.6	31
47	A multi-dimensional search for new heavy resonances decaying to boosted W , Z , or WZ boson pairs in the dijet final state at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 237.	1.4	31
48	Search for invisible decays of the Higgs boson produced via vector boson fusion in proton-proton collisions at $\sqrt{s}=13$ TeV. Physical Review D, 2022, 105, 1.	1.6	30
49	Search for light bosons in decays of the 125 GeV Higgs boson in proton-proton collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	29
50	Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, 280.	1.4	29
51	Search for $t\bar{t}H$ production in the $H\rightarrow b\bar{b}$ decay channel with leptonic $t\bar{t}$ decays in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	28
52	Measurements of differential Z boson production cross sections in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	28
53	Search for new physics in events with a leptonically decaying Z boson and a large transverse momentum imbalance in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2018, 78, 291.	1.4	27
54	Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of Instrumentation, 2020, 15, P02027-P02027.	0.5	27

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55	Search for new neutral Higgs bosons through the $\mathcal{H} \rightarrow \mathcal{Z} \mathcal{A} \mathcal{B}$ process in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	27
56	Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	27
57	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.	1.6	26
58	Search for high-mass resonances in final states with a lepton and missing transverse momentum at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	25
59	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.	1.6	25
60	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.	1.6	25
61	Search for long-lived particles using displaced jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2021, 104, 1.	1.6	25
62	Measurements of $\mathcal{P} \rightarrow \mathcal{Z} \mathcal{Z}$ production cross sections and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 200.	1.4	24
63	Search for physics beyond the standard model in events with jets and two same-sign or at least three charged leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 752.	1.4	23
64	Search for direct production of supersymmetric partners of the top quark in the all-jets final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	22
65	Search for direct pair production of supersymmetric partners to the τ lepton in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 189.	1.4	22
66	Measurement of differential cross sections and charge ratios for t-channel single top quark production in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 370.	1.4	22
67	A Deep Neural Network for Simultaneous Estimation of b Jet Energy and Resolution. Computing and Software for Big Science, 2020, 4, 10.	1.3	21
68	Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment. Journal of High Energy Physics, 2020, 2020, 1.	1.6	21
69	Search for $\mathcal{T} \rightarrow \mathcal{H}$ production in the all-jet final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	20
70	Search for dark matter in events with energetic, hadronically decaying top quarks and missing transverse momentum at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	20
71	Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	20
72	Measurement of the cross section for electroweak production of a Z boson, a photon and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV and constraints on anomalous quartic couplings. Journal of High Energy Physics, 2020, 2020, 1.	1.6	20

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73	A search for the standard model Higgs boson decaying to charm quarks. Journal of High Energy Physics, 2020, 2020, 1.	1.6	20
74	Measurements of production cross sections of polarized same-sign W boson pairs in association with two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Search for top squark production in fully hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2021, 104, .	1.5	20
75	Measurement of differential and integrated fiducial cross sections for Higgs boson production in the four-lepton decay channel in pp collisions at $\sqrt{s} = 7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	20
76	Search for a very light NMSSM Higgs boson produced in decays of the 125 GeV scalar boson and decaying into $\tilde{l}, \tilde{\nu}_\tau$ leptons in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	19
77	Search for charged Higgs bosons produced in vector boson fusion processes and decaying into vector boson pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 723.	1.4	19
78	Measurement of the differential Drell-Yan cross section in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	18
79	MUSiC: a model-unspecific search for new physics in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 629.	1.4	18
80	Combined searches for the production of supersymmetric top quark partners in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 970.	1.4	18
81	Search for low-mass dilepton resonances in Higgs boson decays to four-lepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2022, 82, 290.	1.4	18
82	Probing color coherence effects in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2014, 74, 2901.	1.4	17
83	Search for $Z\tilde{l}^3$ resonances using leptonic and hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	17
84	Measurement of charged particle spectra in minimum-bias events from proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 697.	1.4	17
85	Search for dark matter produced in association with a single top quark or a top quark pair in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	17
86	Constraints on anomalous Higgs boson couplings to vector bosons and fermions in its production and decay using the four-lepton final state. Physical Review D, 2021, 104, .	1.6	16
87	Measurement of differential production cross sections in the full kinematic range using $\tilde{t}\tilde{t}^*$ production cross sections of the top quark. Journal of High Energy Physics, 2017, 2017, 1.	1.6	16
88	Measurement of the top quark production cross section using events with one lepton and at least one jet in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	15
89	Search for lepton flavour violating decays of a neutral heavy Higgs boson to $\tilde{l}\tilde{l}^*$, and $e\tilde{l}$, in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	15

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91	Measurement of the inclusive and differential Higgs boson production cross sections in the leptonic WW decay mode at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	15
92	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.	1.6	15
93	Search for black holes and sphalerons in high-multiplicity final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	14
94	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.	1.6	14
95	Search for electroweak production of a vector-like T quark using fully hadronic final states. Journal of High Energy Physics, 2020, 2020, 1.	1.6	14
96	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.	1.6	14
97	Mixed higher-order anisotropic flow and nonlinear response coefficients of charged particles in $\sqrt{s_{NN}} = 2.76$ and 5.02 TeV collisions. European Physical Journal C, 2020, 80, 534.	1.4	14
98	Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	14
99	Search for long-lived particles decaying to leptons with large impact parameter in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2022, 82, 153.	1.4	14
100	Inclusive nonresonant multilepton probes of new phenomena at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105, ..	1.6	14
101	Search for the associated production of a Higgs boson with a single top quark in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	13
102	Measurement of the underlying event activity in inclusive Z boson production in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	13
103	Measurements of differential cross sections of top quark pair production as a function of kinematic event variables in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	13
104	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.	1.6	13
105	Measurement of the electroweak production of $Z\gamma$ and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 104, ..	1.6	13
106	Search for supersymmetry in final states with two or three soft leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	13
107	Search for decays of stopped exotic long-lived particles produced in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	12
108	Search for dark matter produced in association with a Higgs boson decaying to $\tilde{\chi}_1^0\tilde{\chi}_1^0$ or $\tilde{\chi}_1^0, \tilde{\chi}_1^\pm$ at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	12

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109	Search for heavy resonances decaying into two Higgs bosons or into a Higgs boson and a W or Z boson in proton-proton collisions at 13 TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	12
110	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.	1.4	12
111	Investigation into the event-activity dependence of $\tilde{\Gamma}(nS)$ relative production in proton-proton collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	12
112	Development and validation of HERWIG ⁷ tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	1.4	12
113	Measurement of the CP-violating phase $\tilde{\Gamma}_s$ in the $B \rightarrow B^0 s$ transition. Journal of High Energy Physics, 2021, 2021, 1.	1.5	12
114	Search for a right-handed W boson and a heavy neutrino in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	12
115	Identification of hadronic tau lepton decays using a deep neural network. Journal of Instrumentation, 2022, 17, P07023.	0.5	12
116	Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos and b quarks at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	11
117	First measurement of large area jet transverse momentum spectra in heavy-ion collisions. Journal of High Energy Physics, 2021, 2021, 1.	1.6	11
118	Search for a heavy resonance decaying into a Z boson and a vector boson in the $u\bar{u}q\bar{q}$ final state. Journal of High Energy Physics, 2018, 2018, 1.	1.6	10
119	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.	1.6	10
120	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.	1.6	10
121	Evidence for W production from double-parton interactions in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 1.	1.4	10
122	Search for heavy resonances decaying to WZ in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	10
123	Search for flavor-changing neutral current interactions in the $b \rightarrow s\gamma$ decay. Journal of High Energy Physics, 2022, 2022, 1.	2.9	10
124	Search for a heavy vector resonance decaying to a Z boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 688.	1.4	9
125	Search for a heavy resonance decaying to a top quark and a bottom quark at $\sqrt{s} = 13$ TeV. Physics Letters B, 2021, 811, 136055.	1.5	9
126	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. Physics Letters B, 2021, 811, 136055.	2.9	9

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127	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $2\ell, 2q$ final states at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	8
128	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.	1.6	8
129	Search for direct pair production of scalar top quarks in the single- and dilepton channels in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	1.6	7
130	Study of central exclusive "Equation missing" \leftarrow No EquationSource Format="TEX", only image \rightarrow production in proton-proton collisions at $\sqrt{s} = 5.02$ and 13 TeV. European Physical Journal C, 2020, 80, 718.	1.4	7
131	Measurement of the top quark forward-backward production asymmetry and the anomalous chromoelectric and chromomagnetic moments in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	7
132	First Search for Exclusive Diphoton Production at High Mass with Tagged Protons in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV. Physical Review Letters, 2022, 129, .	2.9	7
133	Determination of the strong coupling constant $\hat{\alpha}_S(m_Z)$ from measurements of inclusive $W\Delta^\pm$ and Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	6
134	Performance of the CMS muon trigger system in proton-proton collisions at $\sqrt{s} = 13$. Journal of Instrumentation, 2021, 16, P07001.	0.5	6
135	Search for the associated production of the Higgs boson with a top-quark pair. , 2014, 2014, 1.		6
136	Measurements of the Electroweak Diboson Production Cross Sections in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV Using Leptonic Decays. Physical Review Letters, 2021, 127, 191801.	2.9	6
137	Inclusive and differential cross section measurements of single top quark production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	6
138	A new calibration method for charm jet identification validated with proton-proton collision events at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2022, 17, P03014.	0.5	6
139	Search for heavy resonances decaying to ZZ or ZW and axion-like particles mediating nonresonant ZZ or ZH production at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	6
140	Search for the pair production of light top squarks in the $e\bar{e} \rightarrow t\bar{t}$ final state in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	5
141	Measurement of the cross section for $t\bar{t}$ production with additional jets and b jets in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	5
142	Measurement of the cross section for top quark pair production with additional charm jets using dileptonic final states in pp collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Particle and Elementary Particle Physics, 2022, 978, 2581164.	1.5	5
143	Measurement of single-diffractive dijet production in proton-proton collisions at $\sqrt{s} = 13$ TeV with the CMS and TOTEM experiments. European Physical Journal C, 2020, 80, 1164.	1.4	5
144	Search for flavor-changing neutral current interactions of the top quark and the Higgs boson decaying to a bottom quark-antiquark pair at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	5

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145	Search for long-lived particles decaying into muon pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV collected with a dedicated high-rate data stream. Journal of High Energy Physics, 2022, 2022, .	1.6	5
146	Measurement and QCD analysis of double-differential inclusive jet cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	5
147	Search for electroweak production of charginos and neutralinos in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	5
148	Precision measurement of the W boson decay branching fractions in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105, .	1.6	5
149	The production of isolated photons in PbPb and pp collisions at $\sqrt{s_{NN}} = 5.02$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	4
150	Measurement of b jet shapes in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	1.6	4
151	Search for supersymmetry using Higgs boson to diphoton decays at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	4
152	Measurement of W differential cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV and effective field. Physical Review D, 2022, 105, .	1.6	4
153	Search for higgsinos decaying to two Higgs bosons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, .	1.6	4
154	Calibration of the CMS hadron calorimeters using proton-proton collision data at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2020, 15, P05002-P05002.	0.5	3
155	Search for the rare decay of the W boson into a pion and a photon in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, 2021, 811, 135115.	1.5	3
156	Hard color-singlet exchange in dijet events in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2021, 104, .	1.6	3
157	Study of the $B^0 \rightarrow \mu^+ \mu^- \gamma$ decay in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	3
158	Measurements of the $p\bar{p} \rightarrow Z\gamma$ production cross section and the $Z \rightarrow 4\ell$ branching fraction, and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. , 2018, 78, 1.		3
159	Search for strongly interacting massive particles generating trackless jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2022, 82, 213.	1.4	3
160	Search for an excited lepton that decays via a contact interaction to a lepton and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	2
161	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.	1.6	2
162	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.	1.4	2

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163	Search for a heavy resonance decaying into a top quark and a W boson in the lepton+jets final state at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	1.6	2
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165	Search for heavy resonances decaying to a pair of Lorentz-boosted Higgs bosons in final states with leptons and a bottom quark pair at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, .	1.6	2
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171	Search for high-mass resonances decaying to a jet and a Lorentz-boosted resonance in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 832, 137263.	1.5	0