

# 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
19	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
20	Search for third-generation scalar leptoquarks decaying to a top quark and a $\tau$ , lepton at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 707.	3.9	46
21	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
22	Search for vector-like T and B quark pairs in final states with leptons at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	42
23	Measurement of properties of $B_s^0 \rightarrow \tau^+ \tau^-$ decays and search for $B_s^0 \rightarrow \tau^+ \tau^-$ with the CMS experiment. Journal of High Energy Physics, 2020, 2020, 1.	4.7	41
24	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
25	Search for new physics in dijet angular distributions using proton-proton collisions at $\sqrt{s} = 13$ TeV and constraints on dark matter and other models. European Physical Journal C, 2018, 78, 789.	3.9	40
26	Measurement of the top quark mass in the all-jets final state at $\sqrt{s} = 13$ TeV and combination with the lepton+jets channel. European Physical Journal C, 2019, 79, 313.	3.9	40
27	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
28	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
29	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
30	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying $\tau$ , leptons at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	38
31	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
32	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
33	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
34	Measurement of exclusive $\Upsilon$ photoproduction from protons in $p$ -Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV. European Physical Journal C, 2019, 79, 277.	3.9	35
35	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
36	Search for an exotic decay of the Higgs boson to a pair of light pseudoscalars in the final state of two muons and two $\tau$ , leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	34

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37	Measurement of the top quark mass with lepton+jets final states using $\mathcal{P} \rightarrow \mathcal{P} + \text{lepton} + \text{jets}$ collisions at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ . European Physical Journal C, 2018, 78, 891.	3.9	34
38	Search for a heavy right-handed W boson and a heavy neutrino in events with two same-flavor leptons and two jets at $\sqrt{s}=13 \text{ TeV}$ . Journal of High Energy Physics, 2018, 2018, 1.	4.7	34
39	Search for single production of vector-like quarks decaying to a top quark and a $\mathcal{W}$ boson in proton-proton collisions at $\sqrt{s} = 13, \text{ext}\{\text{TeV}\}$ $s = 13 \text{ TeV}$ . European Physical Journal C, 2019, 79, 90.	3.9	34
40	Search for heavy neutrinos and third-generation leptoquarks in hadronic states of two $\ell$ , leptons and two jets in proton-proton collisions at $\sqrt{s}=13 \text{ TeV}$ . Journal of High Energy Physics, 2019, 2019, 1.	4.7	33
41	Measurement of exclusive $\rho^+ \rho^- \rightarrow \ell^+ \ell^- \ell^+ \ell^-$ photoproduction in ultraperipheral pPb collisions at $\sqrt{s_{\text{NN}}} = 5.02, \text{ext}\{\text{TeV}\}$ . European Physical Journal C, 2019, 79, 702.	3.9	33
42	Search for dark matter produced in association with a leptonically decaying $\mathcal{Z}$ boson in proton-proton collisions at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 13.	3.9	33
43	Search for top squark pair production using dilepton final states in $p\bar{p}$ collision data collected at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 3.	3.9	33
44	Measurement of $\sigma(\text{pp} \rightarrow \text{tt})$ normalised multi-differential cross sections in $p\bar{p}$ collisions at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ , 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
45	Search for disappearing tracks as a signature of new long-lived particles in proton-proton collisions at $\sqrt{s}=13 \text{ TeV}$ . Journal of High Energy Physics, 2018, 2018, 1.	4.7	31
46	A multi-dimensional search for new heavy resonances decaying to boosted $WZ$ , $W\gamma$ , or $Z\gamma$ boson pairs in the dijet final state at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ . European Physical Journal C, 2020, 80, 237.	3.9	31
47	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
48	Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at $\sqrt{s}=13, \text{ext}\{\text{TeV}\}$ $s = 13 \text{ Te}$ . European Physical Journal C, 2019, 79, 280.	3.9	29
49	Measurements of $\sigma(\text{pp} \rightarrow \text{tt})$ differential cross sections in proton-proton collisions at $\sqrt{s}=13 \text{ TeV}$ using events containing two leptons. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
50	Search for $\text{H} \rightarrow \text{bb}$ production in the $\text{H} \rightarrow \text{ZZ} \rightarrow \text{bb}$ decay channel with leptonic $\text{H} \rightarrow \text{ZZ} \rightarrow \text{bb}$ decays in proton-proton collisions at $\sqrt{s}=13 \text{ TeV}$ . Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
51	Search for supersymmetry in final states with two oppositely charged same-flavor leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ . Journal of High Energy Physics, 2021, 2021, 1.	4.7	28
52	Measurements of differential Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ . Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
53	Search for new neutral Higgs bosons through the $\text{H} \rightarrow \text{ZA} \rightarrow \ell\ell \gamma \text{bb}$ process in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ . Journal of High Energy Physics, 2020, 2020, 1.	4.7	27
54	Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at $\sqrt{s} = 13 \text{ TeV}$ . Journal of High Energy Physics, 2021, 2021, 1.	4.7	27

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55	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
56	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
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.	4.7	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.	4.7	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.	4.7	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.	4.7	25
61	Search for new particles decaying to a jet and an emerging jet. Journal of High Energy Physics, 2019, 2019, 1.	4.7	24
62	Measurements of $\sigma(\text{pp} \rightarrow \text{ZZ})$ production cross sections and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 200.	3.9	24
63	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
64	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
65	Search for resonant $\text{t}\overline{\text{t}}$ production in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	23
66	Search for a light pseudoscalar Higgs boson in the boosted $\text{t}\overline{\text{t}}\text{Z}\ell\ell$ , final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	23
67	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 $\sqrt{s}=13, \{\text{ext } \{\text{TeV}\}\}$ . European Physical Journal C, 2020, 80, 752.	3.9	23
68	Search for direct pair production of supersymmetric partners to the $\tau_{\pm}$ lepton in proton-proton collisions at $\sqrt{s}=13, \{\text{ext } \{\text{TeV}\}\}$ . European Physical Journal C, 2020, 80, 189.	3.9	22
69	Measurement of differential cross sections and charge ratios for t-channel single top quark production in proton-proton collisions at $\sqrt{s}=13, \{\text{ext } \{\text{TeV}\}\}$ . European Physical Journal C, 2020, 80, 370.	3.9	22
70	Search for supersymmetry in events with a $\tilde{\ell}$ , 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
71	Search for beyond the standard model Higgs bosons decaying into a $\text{b}\overline{\text{b}}$ pair in pp collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	21
72	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

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73	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
74	Search for $\overline{\text{t}}\text{t}\text{H}$ 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
75	Search for rare decays of $Z$ and Higgs bosons to $J/\psi$ and a photon in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, 94.	3.9	20
76	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
77	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
78	A search for the standard model Higgs boson decaying to charm quarks. Journal of High Energy Physics, 2020, 2020, 1.	4.7	20
79	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
80	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
81	Search for resonant pair production of Higgs bosons decaying to bottom quark-antiquark pairs in proton-proton collisions at 13 TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	18
82	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
83	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
84	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
85	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
86	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
87	Charged-particle nuclear modification factors in XeXe collisions at $\sqrt{s_{NN}}=5.44$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17
88	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
89	Search for the decay of a Higgs boson in the $\gamma\gamma$ channel in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17
90	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.	3.9	17

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91	Electroweak production of two jets in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 1.	3.9	17
92	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
93	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
94	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
95	Search for a singly produced third-generation scalar leptoquark decaying to a $\tilde{l}_i$ , 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
96	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
97	Search for lepton flavour violating decays of a neutral heavy Higgs boson to $\tilde{l}_i \tilde{l}_j$ , and $e \tilde{l}_i$ , in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	15
98	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
99	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
100	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
101	Studies of $\mathcal{B}(\tilde{B} \rightarrow \tilde{B} + \gamma)$ and $\mathcal{B}(\tilde{B} \rightarrow \tilde{B} + Z)$ at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	14



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109	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
110	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
111	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
112	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
113	Jet properties in PbPb and pp collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	13
114	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
115	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
116	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
117	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
118	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
119	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
120	Comparing transverse momentum balance of b jet pairs in pp and PbPb collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
121	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
122	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
123	Search for dark matter produced in association with a Higgs boson decaying to $\hat{3}^3$ or $\bar{3}, +\bar{1}, \hat{2}$ at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
124	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
125	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
126	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



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127	Investigation into the event-activity dependence of $\tilde{\tau}(nS)$ relative production in proton-proton collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	12
128	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
129	Development and validation of HERWIG <sup>2</sup> tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	3.9	12
130	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
131	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
132	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. Journal of High Energy Physics, 2018, 2018, 1.	4.7	11
133	Search for supersymmetry in events with a photon, jets, $\mathcal{B}$ -jets, and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 444.	3.9	11
134	Search for nonresonant Higgs boson pair production in the $\mathcal{B}\overline{\mathcal{B}}\overline{\mathcal{B}}\overline{\mathcal{B}}$ final state at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	11
135	Study of the underlying event in top quark pair production in $p\overline{p}$ collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 123.	3.9	11
136	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
137	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
138	Measurement of electroweak production of a $W$ boson in association with two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 43.	3.9	11
139	First measurement of large area jet transverse momentum spectra in heavy-ion collisions. Journal of High Energy Physics, 2021, 2021, 1.	4.7	11
140	Search for a heavy Higgs boson decaying into two lighter Higgs bosons in the $\tilde{\tau}, \tilde{\tau}, b\overline{b}$ final state at 13 TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	11
141	Search for resonances decaying to a pair of Higgs bosons in the $b\overline{q}q$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	10
142	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
143	Evidence for $W$ production from double-parton interactions in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 1.	3.9	10
144	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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145	Search for lepton-flavor violating decays of heavy resonances and quantum black holes to $e\gamma$ final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	9
146	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 $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 1.	3.9	9
147	Search for a low-mass $\tilde{\chi}_0^0$ 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
148	Angular analysis of the decay $B \rightarrow \tau^+ K^{*0} \rightarrow \tau^+ \rho^0 \pi^0$ in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	9
149	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
150	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $2\gamma$ final states at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	8
151	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
152	Azimuthal separation in nearly back-to-back jet topologies in inclusive 2- and 3-jet events in $pp$ collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, 773.	3.9	8
153	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
154	Search for chargino-neutralino production in events with Higgs and W bosons using 137 fb <sup>-1</sup> of proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
155	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
156	Probing effective field theory operators in the associated production of top quarks with a Z boson in dilepton final states at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
157	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 $\tau\tau$ , leptons. Journal of High Energy Physics, 2019, 2019, 1.	4.7	7
158	Study of central exclusive "Equation missing" production in proton-proton collisions at $\sqrt{s} = 5.02$ TeV and 13 TeV. European Physical Journal C, 2020, 80, 718.	3.9	7
159	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
160	Measurements of the $pp \rightarrow W^{\pm} Z \nu$ 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
161	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
162	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

#	ARTICLE	IF	CITATIONS
163	Search for decays of the 125 GeV Higgs boson into a Z boson and a $\tilde{c}$ - $\tilde{c}^*$ meson. Journal of High Energy Physics, 2020, 2020, 1.	4.7	6
164	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
165	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
166	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
167	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
168	Search for a $W^{\pm 2}$ 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
169	Search for the pair production of light top squarks in the $e^{\pm} \mu^{\pm} \nu^{\pm} \nu^{\pm}$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	5
170	Measurement of the cross section for $\overline{t}t$ 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
171	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
172	In-medium modification of dijets in PbPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	5
173	Measurement of single-diffractive dijet production in proton-proton collisions at $\sqrt{s} = 8$ , $\sqrt{s} = 13$ TeV with the CMS and TOTEM experiments. European Physical Journal C, 2020, 80, 1164.	3.9	5
174	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
175	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
176	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, .	4.7	5
177	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
178	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
179	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
180	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

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181	Search for resonant production of second-generation sleptons with same-sign dimuon events in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 305.	3.9	4
182	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
183	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
184	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
185	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
186	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, .	4.7	4
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188	Search for excited leptons in $\tilde{\nu}_\tau, \tilde{\nu}_\tau^*$ final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	3
189	Search for the lepton flavor violating decay $\tilde{\nu}_\tau \rightarrow \tau \nu_\tau$ in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	3
190	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
191	Study of the $\tilde{B}^+ \rightarrow \mu^+ \nu_\mu / \tilde{\psi}^{\pm} \rightarrow \mu^{\pm} \nu_\mu$ decay in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	3
192	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
193	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
194	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
195	Measurement of the top quark pair production cross section in dilepton final states containing one $\tilde{\nu}_\tau$ , lepton in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	2
196	Measurements of the differential cross sections of the production of Z + jets and $\tilde{\chi}^0 + jets$ and of Z boson emission collinear with a jet in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	2
197	Measurement of the Z boson differential production cross section using its invisible decay mode ( $Z \rightarrow \nu\bar{\nu}$ ) in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	2
198	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

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199	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
200	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
201	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
202	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
203	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, .	4.7	2
204	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
205	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
206	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
207	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
208	Observation of $B^0 \rightarrow \psi(2S)K^0_{\text{had}}$ and $B^0_{\text{had}} \rightarrow \psi(2S)K^0_{\text{had}}$ decays. European Physical Journal C, 2022, 82, .	3.9	1