

# Laurent Thomas

## List of Publications by Year in descending order

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Version: 2024-02-01

166  
papers

14,251  
citations

50276

46  
h-index

19190

118  
g-index

170  
all docs

170  
docs citations

170  
times ranked

9375  
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 716, 30-61.	4.1	6,177
2	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 TeV. European Physical Journal C, 2015, 75, 212.	3.9	541
3	Event generator tunes obtained from underlying event and multiparton scattering measurements. European Physical Journal C, 2016, 76, 155.	3.9	499
4	Combined results of searches for the standard model Higgs boson in pp collisions at $\sqrt{s} = 7$ and 8 TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 710, 26-48.	4.1	477
5	Observation of a new boson with mass near 125 GeV in pp collisions at $\sqrt{s} = 7$ and 8 TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	320
6	Measurement of the properties of a Higgs boson in the four-lepton final state. Physical Review D, 2014, 89, .	4.7	299
7	Study of the Mass and Spin-Parity of the Higgs Boson Candidate via Its Decays to Z Boson Pairs. Physical Review Letters, 2013, 110, 081803.	7.8	270
8	Observation of $t\bar{t}H$ Production. Physical Review Letters, 2018, 120, 231801.	7.8	209
9	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
10	Constraints on the spin-parity and anomalous $HVV$ couplings of the Higgs boson in proton collisions at 7 and 8 TeV. Physical Review D, 2015, 92, .	4.7	185
11			

#	ARTICLE	IF	CITATIONS
19	Measurement of the underlying event activity at the LHC with $\sqrt{s} = 7$ TeV and comparison with $\sqrt{s} = 0.9$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	97
20	Search for a Higgs boson in the mass range from 145 to 1000 GeV decaying to a pair of W or Z bosons. Journal of High Energy Physics, 2015, 2015, 1.	4.7	92
21	Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 7$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 722, 5-27.	4.7	92
22	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
23	Performance of the CMS Level-1 trigger in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2020, 15, P10017-P10017.	1.2	84
24	Performance of missing transverse momentum reconstruction in proton-proton collisions at $\sqrt{s} = 13$ TeV using the CMS detector. Journal of Instrumentation, 2019, 14, P07004-P07004.	1.2	83
25	Study of Vector Boson Scattering and Search for New Physics in Events with Two Same-Sign Leptons and Two Jets. Physical Review Letters, 2015, 114, 051801.	7.8	80
26	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
27	Search for long-lived particles that decay into final states containing two electrons or two muons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2015, 91, 074011.	4.7	70
28	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
29	Performance of reconstruction and identification of $\tilde{l}, \tilde{l}^*$ leptons decaying to hadrons and neutrinos in pp collisions at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2018, 13, P10005-P10005.	1.2	69
30	Measurements of the Higgs boson width and anomalous $H\gamma\gamma$ couplings from on-shell and off-shell production in the four-lepton final state. Physical Review D, 2019, 99, 074011.	4.7	69
31	Measurement of the $t\bar{t}$ production cross section, the top quark mass, and the strong coupling constant using dilepton events in pp collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 368.	3.9	68
32	Search for new physics in same-sign dilepton events in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2016, 76, 439.	3.9	64
33	Search for electroweak production of charginos and neutralinos in multilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	63
34	A measurement of the Higgs boson mass in the diphoton decay channel. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 805, 135425.	4.1	63
35	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.	3.9	62
36	Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	62

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37	Electron and photon reconstruction and identification with the CMS experiment at the CERN LHC. Journal of Instrumentation, 2021, 16, P05014.	1.2	62
38	Search for a Narrow Resonance Lighter than $200\hat{\text{A}}\text{GeV}$ Decaying to a Pair of Muons in Proton-Proton Collisions at $\sqrt{s}=13\text{ TeV}$ . Physical Review Letters, 2020, 124, 131802.	7.8	61
39	Interpretation of searches for supersymmetry with simplified models. Physical Review D, 2013, 88, .	4.7	58
40	Measurements of Higgs boson properties in the diphoton decay channel in proton-proton collisions at $\sqrt{s}=13\text{ TeV}$ . Journal of High Energy Physics, 2018, 2018, 1.	4.7	57
41	Identification of heavy, energetic, hadronically decaying particles using machine-learning techniques. Journal of Instrumentation, 2020, 15, P06005-P06005.	1.2	56
42	Measurement of the double-differential inclusive jet cross section in proton-proton collisions at $\sqrt{s}=13\text{ TeV}$ . European Physical Journal C, 2016, 76, 451.	3.9	55
43	Measurement and QCD analysis of double-differential inclusive jet cross sections in pp collisions at $\sqrt{s}=8\text{ TeV}$ and cross section ratios to $2.76\text{ TeV}$ . Journal of High Energy Physics, 2017, 2017, 1.	4.7	54
44	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 $\sqrt{s}=13\text{ TeV}$ . European Physical Journal C, 2018, 78, 165.	3.9	52
45	Search for the associated production of the Higgs boson with a top-quark pair. Journal of High Energy Physics, 2014, 2014, 1.	4.7	51
46	Pileup mitigation at CMS in 13 TeV data. Journal of Instrumentation, 2020, 15, P09018-P09018.	1.2	47
47	Measurement of diffractive dissociation cross sections in pp collisions at $\sqrt{s}=13\text{ TeV}$ . Physical Review D, 2015, 92, .	4.7	46
48	Search for Displaced Supersymmetry in Events with an Electron and a Muon with Large Impact Parameters. Physical Review Letters, 2015, 114, 061801.	7.8	44
49	Measurements of properties of the Higgs boson decaying to a W boson pair in pp collisions at $\sqrt{s}=13\text{ TeV}$ . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 791, 96-129.	4.1	44
50	Identification techniques for highly boosted W bosons that decay into hadrons. Journal of High Energy Physics, 2014, 2014, 1.	4.7	43
51	Measurement of the $\sigma(\text{pp} \rightarrow \text{t}\bar{\text{t}})$ production cross section in the $\text{e}^{\pm}\mu$ channel in proton-proton collisions at $\sqrt{s}=7\text{ TeV}$ and $8\text{ TeV}$ . Journal of High Energy Physics, 2016, 2016, 1.	4.7	41
52	Search for disappearing tracks in proton-proton collisions at $\sqrt{s}=13\text{ TeV}$ . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 806, 135502.	4.1	40
53	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at $\sqrt{s}=13\text{ TeV}$ . European Physical Journal C, 2021, 81, 378.	3.9	40
54	Measurement of the ZZ production cross section and search for anomalous couplings in $\text{Z}\gamma\text{Z}$ final states in pp collisions at $\sqrt{s}=7\text{ TeV}$ . Journal of High Energy Physics, 2013, 2013, 1.	4.7	39

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55	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
56	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.	3.9	38
57	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, 2018, 2018, 134.	4.7	38
58	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 and High-Energy Physics, 2019, 798, 134985.	4.1	37
59	Search for anomalous electroweak production of vector boson pairs in association with two jets in proton-proton collisions at 13 TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 798, 134985.	4.1	36
60	Measurement of electroweak $WZ$ boson production and search for new physics in $WZ +$ two jets events in pp collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 795, 281-307.	4.1	36
61	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
62	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
63	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.	3.9	33
64	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 and High-Energy Physics, 2021, 819, 136446.	4.1	33
65	Search for a non-standard-model Higgs boson decaying to a pair of new light bosons in four-muon final states. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 564-586.	4.1	32
66	Measurements of the $Z$ production cross sections in the $2l2l$ channel in proton-proton collisions at $\sqrt{s} = 7$ and $\sqrt{s} = 8$ TeV. European Physical Journal C, 2015, 75, 511.	3.9	32
67	Searches for pair production of third-generation squarks in $\sqrt{s} = 13$ TeV pp collisions. European Physical Journal C, 2017, 77, 327.	3.9	32
68	Shape, transverse size, and charged-hadron multiplicity of jets in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	31
69	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.	4.7	31
70	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, 014004.	4.7	30
71	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.	4.7	29
72	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

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73	Search for $\overline{\text{t}}\text{t}\text{H}$ production in the $\text{H} \rightarrow \text{b}\overline{\text{b}}$ decay channel with leptonic $\overline{\text{t}}\text{t}$ decays in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
74	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
75	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.	3.9	27
76	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.	1.2	27
77	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
78	Search for long-lived particles using nonprompt jets and missing transverse momentum with proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 797, 134876.	4.1	26
79	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
80	The CMS Phase-1 pixel detector upgrade. Journal of Instrumentation, 2021, 16, P02027-P02027.	1.2	25
81	Search for long-lived particles using displaced jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Measurement of jet substructure observables in $\text{t}\overline{\text{t}}$ events from proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	25
82	Measurement of $\text{t}\overline{\text{t}}$ production cross sections and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 200.	4.7	24
83	Measurements of $\text{t}\overline{\text{t}}$ 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
84	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.	4.7	22
85	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
86	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
87	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.	4.7	20
88	Search for associated production of a Higgs boson and a single top quark in proton-proton collisions at $\sqrt{s}=13$ TeV. Physical Review D, 2019, 99, .	4.7	20
89	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
90	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. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 812, 136018.	4.1	20

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91	Search for top squark production in fully hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2021, 104, .	4.7	20
92	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.	4.7	19
93	Search for a very light NMSSM Higgs boson produced in decays of the 125 GeV scalar boson and decaying into $\tau^+\tau^-$ leptons in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	19
94	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
95	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
96	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
97	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
98	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
99	Probing color coherence effects in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2014, 74, 2901.	3.9	17
100	Search for $Z^0$ resonances using leptonic and hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17
101	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
102	Combination of CMS searches for heavy resonances decaying to pairs of bosons or leptons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 798, 134952.	4.1	17
103	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, .	4.7	16
104	Measurement of differential $t\bar{t}$ production cross sections in the full kinematic range using $t\bar{t}$ 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.	4.7	16
105	Measurement of the ultraviolet 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.	4.7	15
106	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
107	Measurements of the pp $\tau^+\tau^-$ 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
108	Search for long-lived particles using delayed photons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2019, 100, .	4.7	14

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109	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
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	Inclusive nonresonant multilepton probes of new phenomena at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105, .	4.7	14
112	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.	4.7	13
113	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.	4.7	13
114	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
115	Studies of charm and beauty hadron long-range correlations in pp and pPb collisions at LHC energies. Physics Letters, Section B: Nuclear, Elementary Particle and High Energy Physics, 2021, 813, 136036. Measurement of the azimuthal anisotropy of and mesons in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Nuclear Physics A, 2019, 975, 101751.	4.1	13
116	Measurement of the azimuthal anisotropy of and mesons in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Nuclear Physics A, 2019, 975, 101751.	4.1	13
117	Measurement of the azimuthal anisotropy of and mesons in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Nuclear Physics A, 2019, 975, 101751.	4.7	13
118	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
119	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
120	Search for dark matter produced in association with a Higgs boson decaying to $\tilde{\chi}_1^0 \tilde{\chi}_1^0$ or $\tilde{\chi}_1^0, \tilde{\chi}_1^\pm, \tilde{\chi}_2^0$ at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
121	Search for Dark Matter Particles Produced in Association with a Top Quark Pair at $\sqrt{s} = 13$ TeV. Physical Review Letters, 2019, 122, 011803.	7.8	12
122	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
123	Development and validation of HERWIG7 tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312. Measurement of the CP-violating phase $\tilde{\theta}_s$ in the $B_s$ system. Physical Review D, 2021, 104, 014011.	3.9	12
124	Measurement of the CP-violating phase $\tilde{\theta}_s$ in the $B_s$ system. Physical Review D, 2021, 104, 014011.	4.1	12
125	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
126	Identification of hadronic tau lepton decays using a deep neural network. Journal of Instrumentation, 2022, 17, P07023.	1.2	12



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127	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
128	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.	4.7	10
129	Search for heavy resonances decaying to $W^+W^-$ or $Z\gamma$ in the $q\bar{q}$ final state. Journal of High Energy Physics, 2018, 2018, 1.	4.7	10
130	Search for Flavor-Changing Neutral Current Interactions of the Top Quark and Higgs Boson in Final States with Two Photons in Proton-Proton Collisions at $\sqrt{s}=13$ TeV. Physical Review Letters, 2022, 129, .	7.8	10
131	Search for a heavy vector resonance decaying to a $Z\gamma$ or $W\gamma$ final state in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 688.	3.9	9
132	Search for $W\gamma$ bosons decaying to a top and a bottom quark at $\sqrt{s}=13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 820, 136535.	4.1	9
133	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $q\bar{q}$ final states at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	7.8	9
134	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $q\bar{q}$ final states at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	8
135	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.	4.7	7
136	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, .	7.8	7
137	Performance of the CMS muon trigger system in proton-proton collisions at $\sqrt{s}=13$ . Journal of Instrumentation, 2021, 16, P07001.	1.2	6
138	Search for the associated production of the Higgs boson with a top-quark pair. , 2014, 2014, 1.		6
139	Observation of the $b\bar{b}$ decay in proton-proton collisions at $\sqrt{s}=13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 802, 135203.	4.1	6
140	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.	7.8	6
141	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
142	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.	1.2	6
143	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
144	Search for the pair production of light top squarks in the $e^+e^-$ final state in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	5

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145	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. Journal of High Energy Physics, 2022, 2022, 1.	4.1	5
146	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
147	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
148	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
149	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
150	Precision measurement of the $W$ boson decay branching fractions in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105.	4.7	5
151	Differential cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV for the production of $W$ bosons and effective field. Physical Review D, 2022, 105.	4.7	4
152	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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157	Measurements of angular distance and momentum ratio distributions in three-jet and $\text{ext } \{ \text{Z} \}$ + two-jet final states in $\text{ext } \{ \text{p} \} \{ \text{ext } \{ \text{p} \}$ collisions. European Physical Journal C, 2021, 81, 852.	3.9	2
158	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
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160	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, .	4.7	2
161	Measurement of the production cross section for $W$ jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physical Review D, 2022, 105.	4.7	2
162	Search for $W$ resonances in proton-proton collisions at $s=13$ TeV using hadronic decays of Lorentz-boosted W bosons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 826, 136888.	4.1	1

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163	Study of dijet events with large rapidity separation in proton-proton collisions at $\sqrt{s} = 2.76$ TeV. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	1
164	Observation of $B^0 \rightarrow \psi(2S) K^0_{\text{S}} \text{uppi}^+ \text{uppi}^-$ and $B^0_{\text{S}} \rightarrow \psi(2S) K^0_{\text{S}} \text{uppi}^+ \text{uppi}^-$ decays. <i>European Physical Journal C</i> , 2022, 82, <a href="#">decaying to <math>Z \rightarrow \nu\bar{\nu}</math></a>	3.9	1
165	Search for high-mass resonances decaying to a jet and a Lorentz-boosted resonance in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2022, 832, 137263.	4.1	0