

Freya Blekman

List of Publications by Year in descending order

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Version: 2024-02-01

211
papers

17,846
citations

28274

55
h-index

13379

130
g-index

217
all docs

217
docs citations

217
times ranked

9851
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	470
5	Particle-flow reconstruction and global event description with the CMS detector. Journal of Instrumentation, 2017, 12, P10003-P10003.	1.2	348
6	Observation of the diphoton decay of the Higgs boson and measurement of its properties. European Physical Journal C, 2014, 74, 3076.	3.9	342
7	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
8	The CMS trigger system. Journal of Instrumentation, 2017, 12, P01020-P01020.	1.2	307
9	Measurement of the properties of a Higgs boson in the four-lepton final state. Physical Review D, 2014, 89, .	4.7	299
10	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
11	Identification of heavy-flavour jets with the CMS detector in pp collisions at 13 TeV. Journal of Instrumentation, 2018, 13, P05011-P05011.	1.2	241
12	Observation of Higgs Boson Decay to Bottom Quarks. Physical Review Letters, 2018, 121, 121801.	7.8	219
13	Jet energy scale and resolution in the CMS experiment in pp collisions at 8 TeV. Journal of Instrumentation, 2017, 12, P02014-P02014.	1.2	216
14	Observation of $t\bar{t}$ Production. Physical Review Letters, 2018, 120, 231801.	7.8	209
15	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
16	Measurement of the elliptic anisotropy of charged particles produced in PbPb collisions at $\sqrt{s_{NN}}=2.76$ TeV. Physical Review C, 2013, 87, .	2.9	185
17	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
18	Performance of the CMS muon detector and muon reconstruction with proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of Instrumentation, 2018, 13, P06015-P06015.	1.2	180

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19			
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#	ARTICLE	IF	CITATIONS
37	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
38	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
39	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
40	Search for new physics in final states with an energetic jet or a hadronically decaying W boson and transverse momentum imbalance at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 75.	4.7	78
41	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
42	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, .	4.7	70
43	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
44	Performance of reconstruction and identification of \tilde{l} , leptons decaying to hadrons and $\tilde{\nu}$ in pp collisions at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2018, 13, P10005-P10005.	1.2	69
45	Measurements of the Higgs boson width and anomalous HVV couplings from on-shell and off-shell production in the four-lepton final state. Physical Review D, 2019, 99, .	4.7	69
46	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
47	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
48	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
49	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
50	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
51	Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	62
52	Electron and photon reconstruction and identification with the CMS experiment at the CERN LHC. Journal of Instrumentation, 2021, 16, P05014.	1.2	62
53	Search for a Narrow Resonance Lighter than 200 GeV Decaying to a Pair of Muons in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV. Physical Review Letters, 2020, 124, 131802.	7.8	61
54	Interpretation of searches for supersymmetry with simplified models. Physical Review D, 2013, 88, .	4.7	58

#	ARTICLE	IF	CITATIONS
55	Measurements of Higgs boson properties in the diphoton decay channel in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	57
56	Identification of heavy, energetic, hadronically decaying particles using machine-learning techniques. Journal of Instrumentation, 2020, 15, P06005-P06005.	1.2	56
57	Limits on the Higgs boson lifetime and width from its decay to four charged leptons. Physical Review D, 2015, 92, .	4.7	55
58	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.	3.9	55
59	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.	4.7	54
60	Search for Charged Higgs Bosons Produced via Vector Boson Fusion and Decaying into a Pair of W and Z Bosons Using pp Collisions at $\sqrt{s}=13$ TeV. Physical Review Letters, 2017, 119, 141802.	7.8	54
61	Measurements of the $\sigma(\text{pp} \rightarrow \text{Z}\gamma\text{Z})$ production cross section and the $\text{BR}(\text{Z} \rightarrow \text{e}\mu)$ branching fraction, and constraints on anomalous triple gauge couplings at $\sqrt{s}=13$ TeV. European Physical Journal C, 2018, 78, 165.	3.9	52
62	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
63	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.	3.9	49
64	Pileup mitigation at CMS in 13 TeV data. Journal of Instrumentation, 2020, 15, P09018-P09018.	1.2	47
65	Measurement of diffractive dissociation cross sections in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2015, 75, 143-163.	4.7	46
66	Pseudorapidity distribution of charged hadrons in proton-proton collisions at $\sqrt{s}=13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 751, 143-163.	4.1	45
67	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
68	Measurements of properties of the Higgs boson decaying to a W boson pair in pp collisions at $\sqrt{s}=13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 791, 96-129.	4.1	44
69	Identification techniques for highly boosted W bosons that decay into hadrons. Journal of High Energy Physics, 2014, 2014, 1.	4.7	43
70	Search for the standard model Higgs boson produced through vector boson fusion and decaying to $\text{b}\bar{\text{b}}$. Physical Review D, 2015, 92, .	4.7	43
71	Measurement of the $\sigma(\text{pp} \rightarrow \text{t}\bar{\text{t}})$ production cross section in the $\text{e}\bar{\text{e}}\gamma$ channel in proton-proton collisions at $\sqrt{s}=7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	41
72	Constraints on anomalous Higgs boson couplings using production and decay information in the four-lepton final state. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 775, 1-24.	4.1	40

#	ARTICLE	IF	CITATIONS
73	Search for disappearing tracks in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 81, 378.	4.1	40
74	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
75	Measurement of the ZZ production cross section and search for anomalous couplings in $2\gamma, 2\gamma\gamma, \gamma\gamma$ final states in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	39
76	Observation of Correlated Azimuthal Anisotropy Fourier Harmonics in pp collisions at $\sqrt{s} = 13$ TeV. Physical Review Letters, 2018, 120, 092301.	7.8	39
77	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
78	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
79	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying l, \bar{l} leptons at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 136446.	4.7	38
80	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
81	Search for top squarks and dark matter particles in opposite-charge dilepton final states at $\sqrt{s} = 13$ TeV. Physical Review D, 2018, 97, 014011.	4.7	36
82	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
83	Measurement of production cross sections of WZ and WW boson pairs in association with two jets 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
84	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
85	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
86	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
87	Search for singly and pair produced third-generation squarks 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
88	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
89	Measurements of the Z production cross sections in the 2μ channel in proton-proton collisions at $\sqrt{s} = 7$ and $\sqrt{s} = 13$ TeV. European Physical Journal C, 2015, 75, 511.	3.9	32
90	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

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91	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
92	Search for top squark pair production in pp collisions at $s = 13 \sqrt{s}=13 \sqrt{s}$ TeV using single lepton events. Journal of High Energy Physics, 2017, 2017, 1.	4.7	31
93	Jets in $\sqrt{s}=13 \sqrt{s}$ TeV collisions: Measurement of the ratio of top quark pairs and of additional events from $\sqrt{s}=13 \sqrt{s}$ TeV collisions at $\sqrt{s}=13 \sqrt{s}$ TeV. Physical Review D, 2018, 2018, 1.	4.7	30
94	Measurement of the WW Production Cross Section in pp Collisions at $\sqrt{s}=1.96$ TeV. Physical Review Letters, 2005, 94, 151801.	7.8	29
95	Search for light bosons in decays of the 125 GeV Higgs boson in proton-proton collisions at $s = 8 \sqrt{s}=8 \sqrt{s}$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	29
96	Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at $\sqrt{s}=13 \sqrt{s}$ TeV. European Physical Journal C, 2019, 79, 280.	3.9	29
97	Search for $\overline{t}t\overline{b}b$ production in the $\overline{t}t\overline{b}b$ decay channel with leptonic $\overline{t}t$ decays in proton-proton collisions at $\sqrt{s}=13 \sqrt{s}$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
98	Measurements of differential Z boson production cross sections in proton-proton collisions at $\sqrt{s}=13 \sqrt{s}$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
99	Measurement of the ratio of the $\overline{t}t\overline{b}b$ cross section to the inclusive $\overline{t}t$ cross section in proton-proton collisions at $\sqrt{s}=13 \sqrt{s}$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.1	27
100	Search for new physics in events with a leptonically decaying Z boson and a large transverse momentum imbalance in proton-proton collisions at $\sqrt{s}=13 \sqrt{s}$ TeV. European Physical Journal C, 2018, 78, 291.	3.9	27
101	Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at $\sqrt{s}=13 \sqrt{s}$ TeV. Journal of Instrumentation, 2020, 15, P02027-P02027.	1.2	27
102	Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at $\sqrt{s}=13 \sqrt{s}$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	27
103	Search for long-lived particles using nonprompt jets and missing transverse momentum with proton-proton collisions at $\sqrt{s}=13 \sqrt{s}$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 797, 134876.	4.1	26
104	Measurement of energy flow at large pseudorapidities in pp collisions at $\sqrt{s}=0.9 \sqrt{s}$ and 7 TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	25
105	Search for high-mass resonances in final states with a lepton and missing transverse momentum at $\sqrt{s}=13 \sqrt{s}$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	25
106	The CMS Phase-1 pixel detector upgrade. Journal of Instrumentation, 2021, 16, P02027-P02027.	1.2	25
107	Search for long-lived particles using displaced jets in proton-proton collisions at $\sqrt{s}=13 \sqrt{s}$ TeV. Physical Review D, 2021, 104, 114011.	4.7	25
108	Observation of a diffractive contribution to dijet production in proton-proton collisions at $\sqrt{s}=7 \sqrt{s}$ TeV. Physical Review D, 2013, 87, 114011.	4.7	24

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109	Measurement of jet substructure observables in $t\bar{t}$ production in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	24
110	Measurements of $\sigma(\text{pp} \rightarrow \text{Z}\gamma\text{Z})$ production cross sections and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. <i>European Physical Journal C</i> , 2021, 81, 200.	3.9	24
111	Search for supersymmetry in proton-proton collisions at 13 TeV using identified top quarks. <i>Physical Review D</i> , 2018, 97, .	4.7	23
112	Measurement of the ZZ production cross section and Z \rightarrow $\gamma\gamma$ branching fraction in pp collisions at $\sqrt{s} = 13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2016, 763, 280-303.	4.1	22
113	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. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	22
114	A Deep Neural Network for Simultaneous Estimation of b Jet Energy and Resolution. <i>Computing and Software for Big Science</i> , 2020, 4, 10.	2.9	21
115	Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	21
116	Hard single diffraction in $p\bar{p}$ collisions at $\sqrt{s} = 630$ and 1800 GeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2002, 531, 52-60.	4.1	20
117	Search for $t\bar{t}H$ production in the all-jet final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	20
118	Search for dark matter in events with energetic, hadronically decaying top quarks and missing transverse momentum at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	20
119	Search for associated production of a Higgs boson and a single top quark in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Physical Review D</i> , 2019, 99, .	4.7	20
120	Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	20
121	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. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.1	20
122	Search for top squark production in fully hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Physical Review D</i> , 2021, 104, .	4.7	20
123	Search for the Higgs Boson in $WW(*)$ Decays in pp Collisions at $\sqrt{s} = 1.96$ TeV. <i>Physical Review Letters</i> , 2006, 96, 011801.	7.8	19
124	Measurement of the $\text{pp} \rightarrow \text{WZ} + X$ cross section at $\sqrt{s} = 1.96$ TeV and limits on WWZ trilinear gauge couplings. <i>Physical Review D</i> , 2007, 76, .	4.7	19
125	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. <i>Journal of High Energy Physics</i> , 2016, 2016, 1.	4.7	19
126	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. <i>Journal of High Energy Physics</i> , 2016, 2016, 1.	4.7	19

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127	Measurement of the differential cross sections for the associated production of a W boson and jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 723.	4.7	19
128	Search for the pair production of third-generation squarks with two-body decays to a bottom or charm quark and a neutralino in proton-proton collisions at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 778, 263-291.	4.1	19
129	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
130	Search for top squark pair production in compressed-mass-spectrum scenarios in proton-proton collisions at $\sqrt{s} = 13$ TeV using the \hat{t} variable. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 767, 403-430.	4.1	19
131	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
132	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
133	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
134	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
135	Probing color coherence effects in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2014, 74, 2901.	3.9	17
136	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.	4.7	17
137	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
138	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
139	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
140	A combined search for the standard model Higgs boson at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 663, 26-36.	4.1	16
141	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
142	Measurement of differential W production cross sections in the full kinematic range using $W \rightarrow \ell\bar{\nu}_\ell$ decays. Physical Review Letters, 2011, 106, 111801.	4.7	16
143	Evidence of W and WZ production with lepton-jets final states in pp collisions at $\sqrt{s} = 1.96$ TeV. Physical Review Letters, 2009, 102, 161801.	7.8	15
144	Measurement of the $t\bar{t} + \ell$ 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

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145	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
146	Measurements of the pp $\hat{\tau}^+$ 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
147	Search for long-lived particles using delayed photons in proton-proton collisions at $\sqrt{s}=13$ TeV. Physical Review D, 2019, 100, 1.	4.7	14
148	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.	3.9	14
149	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
150	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
151	Inclusive nonresonant multilepton probes of new phenomena at $\sqrt{s}=13$ TeV. Physical Review D, 2022, 105, 1.	4.7	14
152	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
153	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
154	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
155	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.	4.1	13
156	Measurement of the azimuthal anisotropy of and mesons in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ and 5.02 TeV. Nuclear Physics A, 2019, 975, 115507.	4.1	13
157	Search for a Higgs boson decaying to a Z boson and two jets in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	13
158	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
159	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
160	Search for dark matter produced in association with a Higgs boson decaying to $\tilde{\chi}_1^0$ or $\tilde{\chi}_1^\pm$ at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
161	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
162	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

#	ARTICLE	IF	CITATIONS
163	Development and validation of HERWIG tunes from CMS underlying-event measurements. <i>European Physical Journal C</i> , 2021, 81, 312.	3.9	12
164	Search for a right-handed W boson and a heavy neutrino in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	12
165	Identification of hadronic tau lepton decays using a deep neural network. <i>Journal of Instrumentation</i> , 2022, 17, P07023.	1.2	12
166	Production of WZ Events in pp Collisions at $\sqrt{s} = 1.96$ TeV and Limits on Anomalous WWZ Couplings. <i>Physical Review Letters</i> , 2005, 95, 141802.	7.8	11
167	Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos and b quarks at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	11
168	Precision measurement of the structure of the CMS inner tracking system using nuclear interactions. <i>Journal of Instrumentation</i> , 2018, 13, P10034-P10034.	1.2	11
169	Search for a heavy resonance decaying into a Z boson and a vector boson in the $u\bar{u}$ final state. <i>Journal of High Energy Physics</i> , 2018,	4.7	10
170	Search for heavy resonances decaying to WZ final states. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	10
171	Search for flavor-changing neutral current interactions for the top quark and Higgs boson in final states with two photons in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Physical Review Letters</i> , 2022, 129, 121801.	7.8	10
172	Search for a heavy vector resonance decaying to a Z boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>European Physical Journal C</i> , 2021, 81, 688.	3.9	9
173	Search for a heavy resonance decaying to a Z boson and a top and a bottom quark at $\sqrt{s} = 13$ TeV. <i>Physical Review Letters</i> , 2022, 129, 121801.	4.1	9
174	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. <i>Physical Review Letters</i> , 2022, 129, 121801.	7.8	9
175	Limits on anomalous trilinear gauge couplings from $WW\hat{\tau}^+e^+e^+$, $WW\hat{\tau}^+e^+\hat{1}/4^+$, and $WW\hat{\tau}^+\hat{1}/4^+\hat{1}/4^+$ events from pp collisions at $\sqrt{s} = 1.96$ TeV. <i>Physical Review D</i> , 2006, 74, .	4.7	8
176	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $2q$ final states at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	8
177	Search for direct pair production of scalar top quarks in the single- and dilepton channels in proton-proton collisions at $\sqrt{s} = 8$ TeV. <i>Journal of High Energy Physics</i> , 2016, 2016, 1.	4.7	7
178	First Search for Exclusive Diphoton Production at High Mass with Tagged Protons in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV. <i>Physical Review Letters</i> , 2022, 129, .	7.8	7
179	Soft displaced leptons at the LHC. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	6
180	Performance of the CMS muon trigger system in proton-proton collisions at $\sqrt{s} = 13$. <i>Journal of Instrumentation</i> , 2021, 16, P07001.	1.2	6

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181	Search for the associated production of the Higgs boson with a top-quark pair. , 2014, 2014, 1.		6
182	Measurements of the Electroweak Diboson Production Cross Sections in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV. <i>Physical Review Letters</i> , 2021, 127, 191801.	7.8	6
183	Inclusive and differential cross section measurements of single top quark production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	6
184	A new calibration method for charm jet identification validated with proton-proton collision events at $\sqrt{s} = 13$ TeV. <i>Journal of Instrumentation</i> , 2022, 17, P03014.	1.2	6
185	Search for heavy resonances decaying to ZZ or ZW and axion-like particles mediating nonresonant ZZ or ZH production at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	6
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187	First 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. <i>Physical Review Letters</i> , Section B: Nuclear, Particle Physics, 2022, 127, 191801.	4.1	5
188	Measurement of energy flow at large pseudorapidities in pp collisions at ($\sqrt{s} = 0.9$) and 7 TeV. , 2011, 2011, 1.		5
189	Measurement of single-diffractive dijet production in proton-proton collisions at $\sqrt{s} = 8, 13$ TeV with the CMS and TOTEM experiments. <i>European Physical Journal C</i> , 2020, 80, 1164.	3.9	5
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192	Measurement and QCD analysis of double-differential inclusive jet cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	5
193	Search for electroweak production of charginos and neutralinos in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	5
194	Precision measurement of the W boson decay branching fractions in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Physical Review D</i> , 2022, 105, 032001.	4.7	5
195	Differential cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV for the production of a Higgs boson and effective field. <i>Physical Review D</i> , 2022, 105, 032001.	4.7	4
196	Search for higgsinos decaying to two Higgs bosons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022, .	4.7	4
197	Search for the rare decay of the W boson into a pion and a photon in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Physics Letters</i> , Section B: Nuclear, Particle Physics, 2022, 127, 191801.	4.1	3
198	Hard color-singlet exchange in dijet events in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Physical Review D</i> , 2021, 104, .	4.7	3

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199	Measurements of the $(p) \rightarrow Z$ production cross section and the $Z \rightarrow 4\ell$ branching fraction, and constraints on anomalous triple gauge couplings at $(\sqrt{s} = 13, \text{TeV})$. , 2018, 78, 1.		3
200	Search for strongly interacting massive particles generating trackless jets in proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$. European Physical Journal C, 2022, 82, 213.	3.9	3
201	Measurements of angular distance and momentum ratio distributions in three-jet and Z + two-jet final states in $(p)(p)$ collisions. European Physical Journal C, 2021, 81, 852.	3.9	2
202	Search for a heavy resonance decaying into a top quark and a W boson in the lepton+jets final state at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
203	Measurement of the inclusive t production cross section in proton-proton collisions at $\sqrt{s} = 5.02 \text{ TeV}$. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
204	Search for heavy resonances decaying to a pair of Lorentz-boosted Higgs bosons in final states with leptons and a bottom quark pair at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2022, 2022, .	4.7	2
205	Measurement of the production cross section for Z jets in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2022, 2022, .	4.7	2
206	Search for W resonances in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ 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
207	Study of dijet events with large rapidity separation in proton-proton collisions at $\sqrt{s} = 2.76 \text{ TeV}$. Journal of High Energy Physics, 2022, 2022, 1.	4.7	1
208	Observation of $B \rightarrow \psi(2S)K^0_{\text{S}}$ and $B \rightarrow \psi(2S)K^0_{\text{L}}$ decays. European Physical Journal C, 2022, 82, .	3.9	1
209	Studies fo Semileptonic B Decays from D0. , 2007, , .		0
210	Search for heavy resonances decaying to Z jets in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2022, 2022, .		0
211	Search for high-mass resonances decaying to a jet and a Lorentz-boosted resonance in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 832, 137263.	4.1	0