

Alessio Ghezzi

List of Publications by Year in descending order

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Version: 2024-02-01

385
papers

22,851
citations

8755

75
h-index

13379

130
g-index

396
all docs

396
docs citations

396
times ranked

10005
citing authors

#	ARTICLE	IF	CITATIONS
1	CMS Physics Technical Design Report, Volume II: Physics Performance. Journal of Physics G: Nuclear and Particle Physics, 2007, 34, 995-1579.	3.6	683
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	Determination of jet energy calibration and transverse momentum resolution in CMS. Journal of Instrumentation, 2011, 6, P11002-P11002.	1.2	508
4	Event generator tunes obtained from underlying event and multiparton scattering measurements. European Physical Journal C, 2016, 76, 155.	3.9	499
5	Observation of long-range, near-side angular correlations in proton-proton collisions at the LHC. Journal of High Energy Physics, 2010, 2010, 1.	4.7	497
6	Performance of CMS muon reconstruction in pp collision events at $\sqrt{s} = 7$ TeV. Journal of Instrumentation, 2012, 7, P10002-P10002.	1.2	467
7	Identification of b-quark jets with the CMS experiment. Journal of Instrumentation, 2013, 8, P04013-P04013.	1.2	418
8	Observation of the rare $B_s^0 \rightarrow \mu^+ \mu^-$ decay from the combined analysis of CMS and LHCb data. Nature, 2015, 522, 68-72.	27.8	390
9	Study of high-p T charged particle suppression in PbPb compared to pp collisions at $\sqrt{s_{NN}} = 2.76$ TeV. European Physical Journal C, 2012, 72, 1.	3.9	369
10	Combined measurements of Higgs boson couplings in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 421.	3.9	355
11	Observation of the diphoton decay of the Higgs boson and measurement of its properties. European Physical Journal C, 2014, 74, 3076.	3.9	342
12	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
13	Search for dark matter, extra dimensions, and unparticles in monojet events in proton-proton collisions at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2015, 75, 235.	3.9	320
14	Measurement of the $B \rightarrow s \gamma$ branching fraction and search for $B \rightarrow s \mu^+ \mu^-$. Physical Review Letters, 2012, 109, 222301.	7.8	282
15	Searches for electroweak production of charginos, neutralinos, and sleptons decaying to leptons and W, Z, and Higgs bosons in pp collisions at 8 TeV. European Physical Journal C, 2014, 74, 3036.	3.9	241
16	Transverse-momentum and pseudorapidity distributions of charged hadrons in pp collisions at $\sqrt{s} = 0.9$ and 2.36 TeV. Journal of High Energy Physics, 2010, 2010, 1.	4.7	230
17	Observation of Sequential Suppression in PbPb Collisions. Physical Review Letters, 2012, 109, 222301.	7.8	220
18	Search for Supersymmetry at the LHC in Events with Jets and Missing Transverse Energy. Physical Review Letters, 2011, 107, 221804.	7.8	208

#	ARTICLE	IF	CITATIONS
19	Suppression of non-prompt J/ψ , prompt J/ψ , and $\Upsilon(1S)$ in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	200
20	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
21	Measurement of the differential cross section for top quark pair production in pp collisions at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2015, 75, 542.	3.9	191
22	Centrality dependence of dihadron correlations and azimuthal anisotropy harmonics in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV. European Physical Journal C, 2012, 72, 1.	3.9	181
23	Search for heavy neutrinos and W bosons with right-handed couplings in proton-proton collisions at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2014, 74, 3149.	3.9	179

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#	ARTICLE	IF	CITATIONS
37	Search for Dark Matter and Large Extra Dimensions in pp Collisions Yielding a Photon and Missing Transverse Energy. Physical Review Letters, 2012, 108, 261803.	7.8	126
38	Measurement of differential top-quark-pair production cross sections in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. European Physical Journal C, 2013, 73, 1.	3.9	125
39	Evidence for the 125 GeV Higgs boson decaying to a pair of τ , leptons. Journal of High Energy Physics, 2014, 2014, 1.	4.7	123
40	Precision luminosity measurement in proton-proton collisions at $\sqrt{s} = 13, 14 \text{ TeV}$ in 2015 and 2016 at CMS. European Physical Journal C, 2021, 81, 800.	3.9	123
41	Measurements of inclusive W and Z cross sections in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2011, 2011, 1.	4.7	122
42	CMS tracking performance results from early LHC operation. European Physical Journal C, 2010, 70, 1165-1192.	3.9	120
43	Searches for long-lived charged particles in pp collisions at $\sqrt{s} = 7$ and 8 TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	118
44	Search for a light charged Higgs boson in top quark decays in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	117
45	Search for a light charged Higgs boson in top quark decays in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	7.8	108
46	Charged particle multiplicities in pp interactions at $\sqrt{s} = 0.9, 2.36, \text{ and } 7 \text{ TeV}$. Journal of High Energy Physics, 2011, 2011, 1.	4.7	106
47	Charged-particle nuclear modification factors in PbPb and pPb collisions at $\sqrt{s_{NN}} = 5.02 \text{ TeV}$. Journal of High Energy Physics, 2017, 2017, 1.	4.7	103
48	Missing transverse energy performance of the CMS detector. Journal of Instrumentation, 2011, 6, P09001-P09001.	1.2	102
49	Measurements of properties of the Higgs boson decaying into the four-lepton final state in pp collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2017, 2017, 1.	4.7	101
50	Search for new physics in the multijet and missing transverse momentum final state in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$. Journal of High Energy Physics, 2014, 2014, 1.	4.7	100
51	Dependence on pseudorapidity and on centrality of charged hadron production in PbPb collisions at $\sqrt{s_{NN}} = 2.76 \text{ TeV}$. Journal of High Energy Physics, 2011, 2011, 1.	4.7	99
52	Measurement of the underlying event activity at the LHC with $\sqrt{s} = 7 \text{ TeV}$ and comparison with $\sqrt{s} = 0.9 \text{ TeV}$. Journal of High Energy Physics, 2011, 2011, 1.	4.7	97
53	Search for supersymmetry in hadronic final states using M_{T2} in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	95
54	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

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55	Performance of τ, q -lepton reconstruction and identification in CMS. Journal of Instrumentation, 2012, 7, P01001-P01001.	1.2	91
56	Searches for new physics using θ_{eff} -invariant mass distribution in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. Physical Review Letters, 2013, 111, 211804.	7.8	90
57	Measurements of differential and double-differential Drell-Yan cross sections in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$. European Physical Journal C, 2015, 75, 147.	3.9	88
58	Search for high-mass resonances in dilepton final states in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2018, 2018, 1.	4.7	86
59	Measurement of jet fragmentation into charged particles in pp and PbPb collisions at $\sqrt{s_{\text{NN}}} = 2.76 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	85
60	A New Boson with a Mass of 125 GeV Observed with the CMS Experiment at the Large Hadron Collider. Science, 2012, 338, 1569-1575.	12.6	85
61	Study of double parton scattering using $W + 2$ -jet events in proton-proton collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2014, 2014, 1.	4.7	85
62	Search for massive resonances in dijet systems containing jets tagged as W or Z boson decays in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. Journal of High Energy Physics, 2014, 2014, 1.	4.7	85
63	Study of the production of charged pions, kaons, and protons in pPb collisions at $\sqrt{s_{\text{NN}}} = 5.02 \text{ TeV}$. European Physical Journal C, 2014, 74, 2847.	3.9	85
64	Performance of the CMS Level-1 trigger in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of Instrumentation, 2020, 15, P10017-P10017.	1.2	84
65	Measurement of the single-top-quark t -channel cross section in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	83
66	Measurement of the differential cross section and charge asymmetry for inclusive $p \rightarrow W^{\pm} + X$ production at $\sqrt{s} = 8 \text{ TeV}$. European Physical Journal C, 2016, 76, 469.	3.9	83
67	Measurement of prompt and nonprompt charmonium suppression in PbPb collisions at 5.02 TeV . European Physical Journal C, 2018, 78, 509.	3.9	83
68	Suppression and azimuthal anisotropy of prompt and nonprompt J/ψ production in PbPb collisions at $\sqrt{s_{\text{NN}}} = 2.76 \text{ TeV}$. European Physical Journal C, 2017, 77, 252.	3.9	82
69	J/ψ and $\psi(2S)$ production in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	81
70	Search for neutral MSSM Higgs bosons decaying to a pair of tau leptons in pp collisions. Journal of High Energy Physics, 2014, 2014, 1.	4.7	81
71	Study of Z Boson Production in PbPb Collisions at $\sqrt{s_{\text{NN}}} = 2.76 \text{ TeV}$. Physical Review Letters, 2011, 106, 212301.	7.8	80
72	Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. European Physical Journal C, 2020, 80, 75.	3.9	78

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73	Studies of azimuthal dihadron correlations in ultra-central PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	4.7	77
74	Search for Top-Quark Partners with Charge $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \langle \text{mml:mn} \rangle 5 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \langle \text{mml:math} \rangle$ in the Same-Sign Dilepton Final State. Physical Review Letters, 2014, 112, 171801.	7.8	76
75	Study of exclusive two-photon production of $W+W\hat{a}$ in pp collisions at $\sqrt{s}=7$ TeV and constraints on anomalous quartic gauge couplings. Journal of High Energy Physics, 2013, 2013, 1.	4.7	75
76	Studies of dijet transverse momentum balance and pseudorapidity distributions in pPb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ s NN = 5.02 TeV. European Physical Journal C, 2014, 74, 1.	3.9	75
77	Measurement of the W^+W^- cross section in pp collisions at $\sqrt{s} = 8$ TeV and limits on anomalous gauge couplings. European Physical Journal C, 2016, 76, 401.	3.9	74
78	Measurement of the $X(3872)$ production cross section via decays to $J/\psi + \hat{a}$ in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	73
79	Search for a standard model Higgs boson produced in association with a top-quark pair and decaying to bottom quarks using a matrix element method. European Physical Journal C, 2015, 75, 251.	3.9	73
80	Measurement of the t-channel single-top-quark production cross section and of the $ V_{tb} $ CKM matrix element in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	4.7	70
81	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
82	Measurement of the $\overline{t}t$ production cross section in the dilepton channel in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	69
83	Search for massive resonances decaying into pairs of boosted bosons in semi-leptonic final states at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	4.7	69
84	Search for anomalous production of multilepton events in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	68
85	Search for a standard-model-like Higgs boson with a mass in the range 145 to 1000 GeV at the LHC. European Physical Journal C, 2013, 73, 2469.	3.9	68
86	Measurement of the differential and double-differential Drell-Yan cross sections in proton-proton collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	68
87	Measurement of the inclusive 3-jet production differential cross section in proton-proton collisions at 7 TeV and determination of the strong coupling constant in the TeV range. European Physical Journal C, 2015, 75, 186.	3.9	68
88	Measurement of the $t\bar{t}\hat{a}$ production cross section, the top quark mass, and the strong coupling constant using dilepton events in pp collisions at. European Physical Journal C, 2019, 79, 368.	3.9	68
89	Long-range and short-range dihadron angular correlations in central PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	65
90	Search for a Light Pseudoscalar Higgs Boson in the Dimuon Decay Channel in pp Collisions at $\sqrt{s} = 7$ TeV. Physical Review Letters, 2014, 112, 171801.	7.8	65

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91	Observation of a New Λ_b^0 Baryon. Physical Review Letters, 2012, 108, 252002.	7.8	65
92	Measurement of differential cross sections for the production of a pair of isolated photons in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2014, 74, 3129.	3.9	65
93	Measurement of the sum of WW and WZ production with W+dijet events in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2013, 73, 2283.	3.9	64
94	Search for Flavor-Changing Neutral Currents in Top-Quark Decays $t \rightarrow Zq$. Physical Review Letters, 2012, 109, 152303.	7.8	62
95	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
96	Search for Signatures of Extra Dimensions in the Diphoton Mass Spectrum at the Large Hadron Collider. Physical Review Letters, 2012, 108, 111801.	7.8	63
97	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
98	Measurement of the Pseudorapidity and Centrality Dependence of the Transverse Energy Density in Pb-Pb Collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review Letters, 2012, 109, 152303.	7.8	62
99	Measurement of the $W+W\tilde{W}^*$ cross section in pp collisions at $\sqrt{s} = 7$ TeV and limits on anomalous $WW\tilde{W}^*$ and WWZ couplings. European Physical Journal C, 2013, 73, 1.	3.9	62
100	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
101	Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	62
102	Measurement of the $B \rightarrow 0$ Production Cross Section in pp Collisions at $\sqrt{s} = 7$ TeV. Physical Review Letters, 2012, 109, 152303.	7.8	61
103	Measurement of prompt J/ψ pair production in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	4.7	61
104	Measurement of the ratio of the inclusive 3-jet cross section to the inclusive 2-jet cross section in pp collisions at $\sqrt{s} = 7$ TeV and first determination of the strong coupling constant in the TeV range. European Physical Journal C, 2013, 73, 1.	3.9	60
105	Performance and operation of the CMS electromagnetic calorimeter. Journal of Instrumentation, 2010, 5, T03010-T03010.	1.2	59
106	Alignment of the CMS silicon tracker during commissioning with cosmic rays. Journal of Instrumentation, 2010, 5, T03009-T03009.	1.2	59
107	Measurement of the lepton charge asymmetry in inclusive W production in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	59
108	Search for anomalous t production in the highly-boosted all-hadronic final state. Journal of High Energy Physics, 2012, 2012, 1.	4.7	58

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109	Jet production rates in association with W and Z bosons in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	58
110	Studies of jet mass in dijet and W/Z + jet events. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	58
111	Nuclear effects on the transverse momentum spectra of charged particles in pPb collisions at $\sqrt{s_{\text{NN}}} = 5.02 \text{ TeV}$. <i>European Physical Journal C</i> , 2015, 75, 237.	3.9	58
112	Measurement of the weak mixing angle using the forward-backward asymmetry of Drell-Yan events in $p\bar{p}$ collisions at 8 TeV . <i>European Physical Journal C</i> , 2018, 78, 701.	3.9	58
113	Identification and filtering of uncharacteristic noise in the CMS hadron calorimeter. <i>Journal of Instrumentation</i> , 2010, 5, T03014-T03014.	1.2	57

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127	Performance of CMS muon reconstruction in cosmic-ray events. Journal of Instrumentation, 2010, 5, T03022-T03022.	1.2	52
128	Measurement of double-differential cross sections for top quark pair production in pp collisions at $\sqrt{s} = 8$ TeV and impact on parton distribution functions. European Physical Journal C, 2017, 77, 459.	3.9	52
129	Measurements of the $\sigma(\text{pp} \rightarrow \text{Z}\gamma\text{Z})$ production cross section and the $\text{BR}(\text{Z} \rightarrow 4\ell)$ branching fraction, and constraints on anomalous triple gauge couplings at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2018, 78, 165.	3.9	52
130	Search for exclusive or semi-exclusive $\text{t}\bar{\text{t}}\gamma$ production and observation of exclusive and semi-exclusive e^+e^- production in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	51
131	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
132	First measurement of the underlying event activity at the LHC with $\sqrt{s} = 0.9$ TeV. European Physical Journal C, 2010, 70, 555-572.	3.9	50
133	Search for $\text{B}_s^0 \rightarrow \mu^+\mu^-$ and $\text{B}^0 \rightarrow \mu^+\mu^-$ Decays in pp Collisions at $\sqrt{s} = 7$ TeV. Physical Review Letters, 2011, 107, 151802.	4.7	50
134	Study of the underlying event at forward rapidity in pp collisions at $\sqrt{s} = 0.9, 2.76, 7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	50
135	Search for new physics with jets and missing transverse momentum in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	49
136	Search for leptonic decays of W bosons in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	49
137	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
138	Search for new physics in events with same-sign dileptons and jets in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	4.7	48
139	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
140	Search for Supersymmetry in pp Collisions at $\sqrt{s} = 7$ TeV in Events with Two Photons and Missing Transverse Energy. Physical Review Letters, 2011, 106, 211802.	7.8	47
141	Measurement of the cross section and angular correlations for associated production of a Z boson with b hadrons in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	47
142	Search for new physics with same-sign isolated dilepton events with jets and missing transverse energy at the LHC. Journal of High Energy Physics, 2011, 2011, 1.	4.7	46
143	Search for narrow resonances and quantum black holes in inclusive and b-tagged dijet mass spectra from pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	46
144	Search for disappearing tracks in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2015, 2015, 1.	4.7	46

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145	Search for third-generation scalar leptoquarks decaying to a top quark and a τ , lepton at $\sqrt{s}=13$, TeV . European Physical Journal C, 2018, 78, 707.	3.9	46
146	Search for heavy bottom-like quarks in 4.9 fb^{-1} of pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	45
147	Search for Top Squark and Higgsino Production Using Diphoton Higgs Boson Decays. Physical Review Letters, 2014, 112, 161802.	7.8	45
148	Search for microscopic black holes in pp collisions at $\sqrt{s}=8 \text{ TeV}$. Journal of High Energy Physics, 2013, 2013, 1.	4.7	44
149	Search for decays of stopped long-lived particles produced in proton-proton collisions at $\sqrt{s}=8$, TeV . European Physical Journal C, 2015, 75, 151.	3.9	44
150	Search for standard model production of four top quarks with same-sign and multilepton final states in proton-proton collisions at $\sqrt{s} = 13$, TeV . European Physical Journal C, 2018, 78, 140.	3.9	44
151	Measurement of top quark-antiquark pair production in association with a W or Z boson in pp collisions at $\sqrt{s} = 8$, TeV . European Physical Journal C, 2014, 74, 3060.	3.9	43
152	Identification techniques for highly boosted W bosons that decay into hadrons. Journal of High Energy Physics, 2014, 2014, 1.	4.7	43
153	Constraints on the pMSSM, AMSB model and on other models from the search for long-lived charged particles in proton-proton collisions at $\sqrt{s} = 8$, TeV . European Physical Journal C, 2015, 75, 325.	3.9	43
154	Measurement of the top-quark mass in $t\bar{t}$ events with dilepton final states in pp collisions at $\sqrt{s}=7 \text{ TeV}$. European Physical Journal C, 2012, 72, 1.	3.9	42
155	Search for electroweak production of charginos and neutralinos using leptonic final states in pp collisions at $\sqrt{s}=7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	41
156	Measurement of the $t\bar{t}\hat{A}^-$ production cross section in the $e\hat{1}/4$ channel in proton-proton collisions at $s = 7 \text{ TeV}$ and 8 TeV . Journal of High Energy Physics, 2016, 2016, 1.	4.7	41
157	Measurement of the $t\bar{t}\hat{A}^-$ production cross section in the all-jets final state in pp collisions at $\sqrt{s}=8$, TeV . European Physical Journal C, 2016, 76, 128.	3.9	41
158	Search for same-sign top-quark pair production at $\sqrt{s} = 7 \text{ TeV}$ and limits on flavour changing neutral currents in the top sector. Journal of High Energy Physics, 2011, 2011, 1.	4.7	40
159	Measurement of the $t\bar{t}\hat{A}^-$ production cross section using events in the $e\hat{1}/4$ final state in pp collisions at $\sqrt{s}=13$, TeV . European Physical Journal C, 2017, 77, 172.	3.9	40
160	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
161	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
162	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

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163	Search for resonances in the dilepton mass distribution in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	39
164	Inclusive b-jet production in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	39
165	Measurement of the $Z\ell^+\ell^-b$ -jet cross section in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	39
166	Search for the standard model Higgs boson produced in association with a top-quark pair in pp collisions at the LHC. Journal of High Energy Physics, 2013, 2013, 1.	4.7	39
167	Measurement of the ZZ production cross section and search for anomalous couplings in $2\ell^+\ell^-$, $2\ell^+\ell^-$, $2\ell^+\ell^-$ final states in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	39
168	Measurement of the production cross sections for a Z boson and one or more b jets in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	4.7	39
169	Measurement of differential cross sections for $Z + Z$ 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
170	Performance of a liquid argon time projection chamber exposed to the CERN West Area Neutrino Facility neutrino beam. Physical Review D, 2006, 74, .	4.7	38
171	Results of the first performance tests * of the CMS electromagnetic calorimeter. European Physical Journal C, 2006, 44, 1-10.	3.9	38
172	Search for heavy stable charged particles in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	38
173	Measurement of the top-quark mass in $t\bar{t}$ events with lepton+jets final states in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	38
174	A Comprehensive & Systematic Study of Coincidence Time Resolution and Light Yield Using Scintillators of Different Size and Wrapping. IEEE Transactions on Nuclear Science, 2013, 60, 3163-3171.	2.0	38
175	Search for dark matter produced in association with heavy-flavor quark pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2017, 77, 845.	3.9	38
176	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
177	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying t , leptons at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	38
178	Reconstruction of the signal amplitude of the CMS electromagnetic calorimeter. European Physical Journal C, 2006, 46, 23-35.	3.9	37
179	Commissioning of the CMS experiment and the cosmic run at four tesla. Journal of Instrumentation, 2010, 5, T03001-T03001.	1.2	37
180	Measurement of the $t\bar{t}$ production cross section in pp collisions at $\sqrt{s} = 7$ TeV using the kinematic properties of events with leptons and jets. European Physical Journal C, 2011, 71, 1.	3.9	37

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182	Measurement of the WZ production cross section in pp collisions at $\sqrt{s} = 7$ and 8 TeV and search for anomalous triple gauge couplings at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2017, 77, 236.	3.9	37
183	Precise mapping of the magnetic field in the CMS barrel yoke using cosmic rays. Journal of Instrumentation, 2010, 5, T03021-T03021.	1.2	36
184	Measurement of the Drell-Yan cross section in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	36
185	Measurement of the top-quark mass in all-jets $t\bar{t}$ events in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2014, 74, 2758.	3.9	35
186	Measurement of exclusive Υ photoproduction from protons in pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV. European Physical Journal C, 2019, 79, 277.	3.9	35
187	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
188	Observation of Z decays to four leptons with the CMS detector at the LHC. Journal of High Energy Physics, 2012, 2012, 1.	4.7	34
189	Search for microscopic black holes in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	34
190	Search for supersymmetry in final states with missing transverse energy and 0, 1, 2, or 3 b-quark jets in 7 TeV pp collisions using the variable \hat{T} . Journal of High Energy Physics, 2013, 2013, 1.	4.7	34
191	Searches for supersymmetry using the M_{T2} variable in hadronic events produced in pp collisions at 8 TeV. Journal of High Energy Physics, 2015, 2015, 1.	4.7	34
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193	Measurements of the $t\bar{t}$ production cross section in lepton+jets final states in pp collisions at 8 TeV and ratio of 8 to 7 TeV cross sections. European Physical Journal C, 2017, 77, 15.	3.9	34
194	Measurement of the top quark mass with lepton+jets final states using pPb collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 891.	3.9	34
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196	Measurement of the underlying event in the Drell-Yan process in proton-proton collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2012, 72, 1.	3.9	33
197	Search for new physics in events with same-sign dileptons and b jets in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	33
198	Measurement of exclusive ρ^0 photoproduction in ultraperipheral pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV. European Physical Journal C, 2019, 79, 702.	3.9	33

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202	Measurement of $\overline{B}B$ angular correlations based on secondary vertex reconstruction at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	32
203	Search for supersymmetry in pp collisions at $\sqrt{s}=7$ TeV in events with a single lepton, jets, and missing transverse momentum. Journal of High Energy Physics, 2011, 2011, 1.	4.7	32
204	Search in leptonic channels for heavy resonances decaying to long-lived neutral particles. Journal of High Energy Physics, 2013, 2013, 1.	4.7	32
205	Jet and underlying event properties as a function of charged-particle multiplicity in proton-proton collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2013, 73, 2674.	3.9	32
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207	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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209	Measurement of the triple-differential cross section for photon + jets production in proton-proton collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	4.7	31
210	Measurement of electroweak production of two jets in association with a Z boson in proton-proton collisions at $\sqrt{s}=8$ TeV. European Physical Journal C, 2015, 75, 66.	3.9	31
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213	Measurement of Bose-Einstein correlations in pp collisions at $\sqrt{s}=0.9$ and 7 TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	30
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215	Search for a Higgs boson in the decay channel $H \rightarrow ZZ^* \rightarrow q\overline{q}$ in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	30
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221	Measurement of inclusive jet production and nuclear modifications in pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV. European Physical Journal C, 2016, 76, 372.	3.9	29
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226	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
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228	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
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233	Search for resonant $t\bar{t}$ production in lepton+jets events in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	26
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237	Search for $W\hat{A}^0\hat{A}^0$ decays in the lepton + jets final state in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. Journal of High Energy Physics, 2014, 2014, 1.	4.7	26
238	Measurement of the W boson helicity in events with a single reconstructed top quark in pp collisions at $s = 8 \sqrt{s} = 8 \text{ TeV}$. Journal of High Energy Physics, 2015, 2015, 1.	4.7	26
239	Measurement of the inclusive jet cross section in pp collisions at $\sqrt{s} = 2.76, 8 \text{ TeV}$. European Physical Journal C, 2016, 76, 1.	3.9	26
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241	Measurement of energy flow at large pseudorapidities in pp collisions at $\sqrt{s} = 0.9, 7 \text{ TeV}$. Journal of High Energy Physics, 2011, 2011, 1.	4.7	25
242	Forward-backward asymmetry of Drell-Yan lepton pairs in pp collisions at $\sqrt{s} = 8, s = 8 \text{ TeV}$. European Physical Journal C, 2016, 76, 325.	3.9	25
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246	Search for physics beyond the standard model in events with two leptons, jets, and missing transverse momentum in pp collisions at $s = 8 \sqrt{s} = 8 \text{ TeV}$. Journal of High Energy Physics, 2015, 2015, 1.	4.7	24
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259	Search for direct pair production of supersymmetric partners to the τ lepton in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 189.	3.9	22
260	Measurement of differential cross sections and charge ratios for t-channel single top quark production in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 370.	3.9	22
261	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
262	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
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266	Search for exotic resonances decaying into WZ/ZZ in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	20
267	Search for supersymmetry in pp collisions at $\sqrt{s}=7$ TeV in events with a single lepton, jets, and missing transverse momentum. European Physical Journal C, 2013, 73, 2404.	3.9	20
268	Measurements of the $\overline{\text{t}}$ charge asymmetry using the dilepton decay channel in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	4.7	20
269	Search for the production of dark matter in association with top-quark pairs in the single-lepton final state in proton-proton collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2015, 2015, 1.	4.7	20
270	Search for $\overline{\text{t}}\text{H}$ 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

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278	Measurement of differential and integrated fiducial cross sections for Higgs boson production in the four-lepton decay channel in pp collisions at $s=7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	19
279	Search for a very light NMSSM Higgs boson produced in decays of the 125 GeV scalar boson and decaying into l, \bar{l} leptons in pp collisions at $s=8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	19
280	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
281	Fine synchronization of the CMS muon drift-tube local trigger using cosmic rays. Journal of Instrumentation, 2010, 5, T03004-T03004.	1.2	18
282	Search for quark compositeness in dijet angular distributions from pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	18
283	Search for direct pair production of supersymmetric top quarks decaying to all-hadronic final states in pp collisions at $\sqrt{s}=8$ TeV. European Physical Journal C, 2016, 76, 460.	3.9	18
284	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
285	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
286	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
287	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
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291	Measurement of the Λ_{b}^0 lifetime in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2013, 2013, 1.	4.7	17
292	Search for standard model production of four top quarks in the lepton + jets channel in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. Journal of High Energy Physics, 2014, 2014, 1.	4.7	17
293	Probing color coherence effects in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. European Physical Journal C, 2014, 74, 2901.	3.9	17
294	Search for $Z^{\prime 3}$ resonances using leptonic and hadronic final states in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17
295	Measurement of charged particle spectra in minimum-bias events from proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. European Physical Journal C, 2018, 78, 697.	3.9	17
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297	Search for dark matter produced in association with a single top quark or a top quark pair in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2019, 2019, 1.	4.7	17
298	Measurement of the inclusive production cross sections for forward jets and for dijet events with one forward and one central jet in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	16
299	Measurement of the $\overline{\text{t}}\text{t}$ production cross section in the all-jet final state in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2013, 2013, 1.	4.7	16
300	Measurement of the hadronic activity in events with a Z and two jets and extraction of the cross section for the electroweak production of a Z with two jets in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2013, 2013, 1.	4.7	16
301	Measurement of jet multiplicity distributions in $\overline{\text{t}}\text{t}$ production in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. European Physical Journal C, 2014, 74, 3014.	3.9	16
302	Search for lepton flavour violating decays of heavy resonances and quantum black holes to an $e\mu$ pair in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$. European Physical Journal C, 2016, 76, 317.	3.9	16
303	Measurement of dijet azimuthal decorrelation in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. European Physical Journal C, 2016, 76, 536.	3.9	16
304	Measurement of the production cross section of a W boson in association with two b jets in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. European Physical Journal C, 2017, 77, 92.	3.9	16
305	Measurement of associated Z + charm production in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$. European Physical Journal C, 2018, 78, 287.	3.9	16
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309	Search for new physics in events with photons, jets, and missing transverse energy in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	15
310	Measurement of the $t\bar{t}$ production cross section using events with one lepton and at least one jet in pp collisions at $s = 13$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	15
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312	Search for third-generation leptoquarks and scalar bottom quarks in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	14
313	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
314	Studies of $\mathcal{B}(\mathcal{B}_s^* \rightarrow \mathcal{B}_s \gamma)$ and $\mathcal{B}(\mathcal{B}_s^* \rightarrow \mathcal{B}_s \gamma)$		

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326	Search for decays of stopped exotic long-lived particles produced in proton-proton collisions at $\sqrt{s}=13$ TeV. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	12
327	Search for dark matter produced in association with a Higgs boson decaying to $\tilde{\chi}^0_3$ or $\tilde{\chi}_\pm, \tilde{\chi}_\pm, \tilde{\chi}^\pm$ at $\sqrt{s}=13$ TeV. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	12
328	Measurement of the energy density as a function of pseudorapidity in proton-proton collisions at $\sqrt{s}=13$ TeV. <i>European Physical Journal C</i> , 2019, 79, 1.	3.9	12
329	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. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	4.7	12
330	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. <i>European Physical Journal C</i> , 2019, 79, 893.	3.9	12
331	Development and validation of HERWIG++ tunes from CMS underlying-event measurements. <i>European Physical Journal C</i> , 2021, 81, 312.	3.9	12
332	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
333	Search for new physics with long-lived particles decaying to photons and missing energy in pp collisions at $\sqrt{s}=7$ TeV. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	11
334	Forward energy flow, central charged-particle multiplicities, and pseudorapidity gaps in W and Z boson events from pp collisions at $\sqrt{s}=7$ TeV. <i>European Physical Journal C</i> , 2012, 72, 1.	3.9	11
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