

Joao Varela

List of Publications by Year in descending order

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498
papers

23,420
citations

9786
73
h-index

13771
129
g-index

502
all docs

502
docs citations

502
times ranked

11055
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement of the Higgs Boson Mass in $\text{pp} \rightarrow \text{H} \rightarrow \text{bb}$ Collisions at 7 TeV with the ATLAS and CMS Experiments. <i>Physical Review Letters</i> , 2015, 114, 191803.	7.8	1,062
2	CMS Physics Technical Design Report, Volume II: Physics Performance. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2007, 34, 995-1579.	3.6	683
3	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. <i>European Physical Journal C</i> , 2015, 75, 212.	3.9	541
4	Determination of jet energy calibration and transverse momentum resolution in CMS. <i>Journal of Instrumentation</i> , 2011, 6, P11002-P11002.	1.2	508
5	Event generator tunes obtained from underlying event and multiparton scattering measurements. <i>European Physical Journal C</i> , 2016, 76, 155.	3.9	499
6	Observation of long-range, near-side angular correlations in proton-proton collisions at the LHC. <i>Journal of High Energy Physics</i> , 2010, 2010, 1.	4.7	497
7	Performance of CMS muon reconstruction in pp collision events at $\sqrt{s} = 7$ TeV. <i>Journal of Instrumentation</i> , 2012, 7, P10002-P10002.	1.2	467
8	Study of high-p T charged particle suppression in PbPb compared to pp collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV. <i>European Physical Journal C</i> , 2012, 72, 1.	3.9	369
9	Observation of the diphoton decay of the Higgs boson and measurement of its properties. <i>European Physical Journal C</i> , 2014, 74, 3076.	3.9	342
10	Observation of a new boson with mass near 125 GeV in pp collisions at $\sqrt{s}=7$ and 8 TeV. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	320
11	Search for dark matter, extra dimensions, and unparticles in monojet events in proton-proton collisions at $\sqrt{s} = 8$ TeV. <i>European Physical Journal C</i> , 2015, 75, 235.	3.9	320
12	Study of the isospin symmetry breaking in the light quark sea of the nucleon from the Drell-Yan process. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1994, 332, 244-250.	4.1	284
13	Searches for electroweak production of charginos, neutralinos, and sleptons decaying to leptons and W, Z, and Higgs bosons in pp collisions at 8 TeV. <i>European Physical Journal C</i> , 2014, 74, 3036.	3.9	241
14	Transverse-momentum and pseudorapidity distributions of charged hadrons in pp collisions at $\sqrt{s} = 0.9$ and 2.36 TeV. <i>Journal of High Energy Physics</i> , 2010, 2010, 1.	4.7	230
15	Observation of Sequential Suppression in PbPb Collisions. <i>Physical Review Letters</i> , 2012, 109, 222301.	7.8	220
16	Search for Supersymmetry at the LHC in Events with Jets and Missing Transverse Energy. <i>Physical Review Letters</i> , 2011, 107, 221804.	7.8	208
17	Suppression of non-prompt J/ψ, prompt J/ψ, and Υ(1S) in PbPb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	200
18	Extraction and validation of a new set of CMS pythia8 tunes from underlying-event measurements. <i>European Physical Journal C</i> , 2020, 80, 4.	3.9	198

#	ARTICLE	IF	CITATIONS
19	The production of in 200 GeV/nucleon oxygen-uranium interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 220, 471-478.	4.1	191
20	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
21	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
22			

#	ARTICLE	IF	CITATIONS
37	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
38	Precision luminosity measurement in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ in 2015 and 2016 at CMS. European Physical Journal C, 2021, 81, 800.	3.9	123
39	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
40	CMS tracking performance results from early LHC operation. European Physical Journal C, 2010, 70, 1165-1192.	3.9	120
41	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
42	Design and evaluation of the clear-PEM scanner for positron emission mammography. IEEE Transactions on Nuclear Science, 2006, 53, 71-77.	2.0	111
43	Charged particle multiplicities in pp interactions at $\sqrt{s} = 0.9, 2.36$, and 7 TeV . Journal of High Energy Physics, 2011, 2011, 1.	4.7	106
44	Charged-particle nuclear modification factors in PbPb and pPb collisions at $\sqrt{s} = 5.02 \text{ TeV}$. Journal of High Energy Physics, 2017, 2017, 1.	4.7	103
45	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
46	Dependence on pseudorapidity and on centrality of charged hadron production in PbPb collisions at $\sqrt{s} = 2.76 \text{ TeV}$. Journal of High Energy Physics, 2011, 2011, 1.	4.7	99
47	TOFPET ASIC for PET applications. Journal of Instrumentation, 2013, 8, C02050-C02050.	1.2	98
48	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
49	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
50	Measurement of the top quark mass using proton-proton data at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2017, 2017, 1.	4.7	95
51	Physical Review D, 2016, 93, 1.		
51	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
52	Performance of ℓ -q-lepton reconstruction and identification in CMS. Journal of Instrumentation, 2012, 7, P01001-P01001.	1.2	91
53	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
54	TOFPET2: a high-performance ASIC for time and amplitude measurements of SiPM signals in time-of-flight applications. Journal of Instrumentation, 2016, 11, C03042-C03042.	1.2	87

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55	Search for high-mass resonances in dilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	86
56	Measurement of jet fragmentation into charged particles in pp and PbPb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	85
57	A New Boson with a Mass of 125 GeV Observed with the CMS Experiment at the Large Hadron Collider. <i>Science</i> , 2012, 338, 1569-1575.	12.6	85
58	Study of double parton scattering using W + 2-jet events in proton-proton collisions at $\sqrt{s} = 7$ TeV. <i>Journal of High Energy Physics</i> , 2014, 2014, 1.	4.7	85
59	Search for massive resonances in dijet systems containing jets tagged as W or Z boson decays in pp collisions at $s = 8$ TeV. <i>Journal of High Energy Physics</i> , 2014, 2014, 1.	4.7	85
60	Study of the production of charged pions, kaons, and protons in pPb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV. <i>European Physical Journal C</i> , 2014, 74, 2847.	3.9	85
61	Study of J/ ψ production in p-U, O-U and S-U interactions at 200 GeV per nucleon. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1991, 255, 459-465.	4.1	84
62	Clear-PEM, a dedicated PET camera for mammography. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 486, 1-6.	1.6	84
63	Performance of the CMS Level-1 trigger in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of Instrumentation</i> , 2020, 15, P10017-P10017.	1.2	84
64	Measurement of the differential cross section and charge asymmetry for inclusive $p \rightarrow W^{\pm} + X$ production at $\sqrt{s} = 8$ TeV. <i>European Physical Journal C</i> , 2016, 76, 469.	3.9	83
65	Measurement of prompt and nonprompt charmonium suppression in PbPb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV. <i>European Physical Journal C</i> , 2018, 78, 509.	3.9	83
66	Suppression and azimuthal anisotropy of prompt and nonprompt J/ ψ production in PbPb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV. <i>European Physical Journal C</i> , 2017, 77, 252.	3.9	82
67	J/ ψ and $\psi(2S)$ production in pp collisions at $\sqrt{s} = 7$ TeV. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	81
68	Study of $\psi(2S) \rightarrow J/\psi + \pi^+ + \pi^-$. <i>Boson Production in PbPb Collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV</i> . <i>Physical Review Letters</i> , 2011, 106, 212301.	7.8	80
69	Search for physics beyond the standard model in dilepton mass spectra in proton-proton collisions at $\sqrt{s} = 8$ TeV. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	4.7	78
70	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. <i>European Physical Journal C</i> , 2020, 80, 75.	3.9	78
71	Differential cross-section of high-mass muon pairs produced by a 194 GeV/c beam on a tungsten target. <i>Zeitschrift für Physik C-Particles and Fields</i> , 1985, 28, 9-14.	1.5	77
72	Study of exclusive two-photon production of $W+W^-$ in pp collisions at $\sqrt{s} = 7$ TeV and constraints on anomalous quartic gauge couplings. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	75

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73	Studies of dijet transverse momentum balance and pseudorapidity distributions in pPb collisions at $\sqrt{s_{\text{NN}}} = 5.02 \text{ TeV}$. European Physical Journal C, 2014, 74, 1.	3.9	75
74	Measurement of the $W + W$ cross section in pp collisions at $\sqrt{s} = 8 \text{ TeV}$ and limits on anomalous gauge couplings. European Physical Journal C, 2016, 76, 401.	3.9	74
75	Measurement of the $X(3872)$ production cross section via decays to $J/\psi + \pi^+$ in pp collisions at $\sqrt{s}=7 \text{ TeV}$. Journal of High Energy Physics, 2013, 2013, 1.	4.7	73
76	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
77	$J/\psi + \pi^+$ and Drell-Yan production in S-U interactions at 200 GeV per nucleon. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 449, 128-136.	4.1	70
78	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 $\sqrt{s}=13 \text{ TeV}$. European Physical Journal C, 2020, 80, 3.	3.9	70
79	Measurement of the $t\bar{t}$ production cross section in the dilepton channel in pp collisions at $\sqrt{s}=7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	69
80	Search for massive resonances decaying into pairs of boosted bosons in semi-leptonic final states at $\sqrt{s} = 8 \text{ TeV}$. Journal of High Energy Physics, 2014, 2014, 1.	4.7	69
81	Search for anomalous production of multilepton events in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	68
82	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
83	Measurement of the differential and double-differential Drell-Yan cross sections in proton-proton collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2013, 2013, 1.	4.7	68
84	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. European Physical Journal C, 2019, 79, 368.	3.9	68
85	Long-range and short-range dihadron angular correlations in central PbPb collisions at $\sqrt{s_{\text{NN}}} = 2.76 \text{ TeV}$. Journal of High Energy Physics, 2011, 2011, 1. Search for a Light Pseudoscalar Higgs Boson in the Dimuon Decay Channel inmml:math <code>xmlns:mml="http://www.w3.org/1998/Math/MathML"</code> <code>display="inline"><mml:mi>p</mml:mi><mml:mi>p</mml:mi></mml:math></code> Collisions atmml:math <code>xmlns:mml="http://www.w3.org/1998/Math/MathML"</code> <code>display="inline"><mml:msqrt><mml:mi>s</mml:mi></mml:msqrt><mml:mo</code>	4.7	65
86	<code>mathvariant="bold">=</mml:mo><mml:mn>7</mml:mn><mml:mtext> TeV</mml:mtext></mml:math></code> $\times$$\text{mml:math}$ Observation of a Newmml:math <code>xmlns:mml="http://www.w3.org/1998/Math/MathML"</code> <code>display="inline"><mml:msub><mml:mi>b</mml:mi></mml:msub></mml:math></code> Baryon. Physical Review Letters, 2012, 108, 252002.	7.8	65
88	Measurement of differential cross sections for the production of a pair of isolated photons in pp collisions at $\sqrt{s}=7 \text{ TeV}$. European Physical Journal C, 2014, 74, 3129.	3.9	65
89	Measurement of the sum of WW and WZ production with W+dijet events in pp collisions at $\sqrt{s}=7 \text{ TeV}$. European Physical Journal C, 2013, 73, 2283.	3.9	64
90	Search for new physics in same-sign dilepton events in proton-proton collisions at $\sqrt{s}=13 \text{ TeV}$. European Physical Journal C, 2016, 76, 439.	3.9	64

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91	Search for Signatures of Extra Dimensions in the Diphoton Mass Spectrum at the Large Hadron Collider. <i>Physical Review Letters</i> , 2012, 108, 111801.	7.8	63
92	Search for electroweak production of charginos and neutralinos in multilepton final states in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	63
93	Measurement of the Pseudorapidity and Centrality Dependence of the Transverse Energy Density in Pb-Pb Collisions at $\sqrt{s} = 2.76 \text{ TeV}$. <i>Physical Review Letters</i> , 2012, 109, 152303.	7.8	62
94	Measurement of the $W + W\gamma$ cross section in pp collisions at $\sqrt{s} = 7 \text{ TeV}$ and limits on anomalous $WW\gamma^3$ and WWZ couplings. <i>European Physical Journal C</i> , 2013, 73, 1.	3.9	62
95	Measurement of differential cross sections for Higgs boson production in the diphoton decay channel in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. <i>European Physical Journal C</i> , 2016, 76, 13.	3.9	62
96	Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 13 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	62
97	Measurement of the $\gamma\gamma$ production cross section in $p\gamma$ collisions at $\sqrt{s} = 13 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	7.8	61
98	Observation of anomalous scaling violation in muon pair production by $194 \text{ GeV}/c$ $\bar{t}\bar{t}$ -tungsten interactions. <i>Zeitschrift fÃ¼r Physik C-Particles and Fields</i> , 1985, 28, 15-22.	1.5	60
99	The production of J/ψ in $200 \text{ GeV}/A$ oxygen-uranium interactions. <i>Zeitschrift fÃ¼r Physik C-Particles and Fields</i> , 1988, 38, 117-124.	1.5	60
100	A new method for depth of interaction determination in PET detectors. <i>Physics in Medicine and Biology</i> , 2016, 61, 4679-4698.	3.0	60
101	J/ψ and ψ' production in p, O and S induced reactions at SPS energies. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1999, 466, 408-414.	4.1	59
102	Performance and operation of the CMS electromagnetic calorimeter. <i>Journal of Instrumentation</i> , 2010, 5, T03010-T03010.	1.2	59
103	Alignment of the CMS silicon tracker during commissioning with cosmic rays. <i>Journal of Instrumentation</i> , 2010, 5, T03009-T03009.	1.2	59
104	Measurement of the lepton charge asymmetry in inclusive W production in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2011, 2011, 1.	4.7	59
105	Search for anomalous $t\bar{t}$ production in the highly-boosted all-hadronic final state. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	58
106	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
107	Studies of jet mass in dijet and $W/Z + \text{jet}$ events. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	58
108	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

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109	Measurement of the weak mixing angle using the forwardâ€“backward asymmetry of Drellâ€“Yan events in pp collisions at 8 TeV. European Physical Journal C, 2018, 78, 701.	3.9	58
110	Identification and filtering of uncharacteristic noise in the CMS hadron calorimeter. Journal of Instrumentation, 2010, 5, T03014-T03014.	1.2	57
111			

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127	Measurement of the $t\bar{t}$ production cross section in the dilepton channel in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2014, 2014, 1.	4.7	52
128	Measurement of double-differential cross sections for top quark pair production in pp collisions at $\sqrt{s} = 8 \text{ TeV}$ and impact on parton distribution functions. <i>European Physical Journal C</i> , 2017, 77, 459.	3.9	52
129	Measurements of the $p\gamma \rightarrow Z\gamma$ production cross section and the $Z \rightarrow l^+l^-$ branching fraction, and constraints on anomalous triple gauge couplings at. <i>European Physical Journal C</i> , 2018, 78, 165.	3.9	52
130	J/ψ and muon-pair cross-sections in proton-nucleus and nucleus-nucleus collisions at 200 GeV per nucleon. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1991, 270, 105-110.	4.1	51
131	Search for exclusive or semi-exclusive $t\bar{t}$ production and observation of exclusive and semi-exclusive e^+e^- production in pp collisions at $\sqrt{s}=7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	51
132	Search for the associated production of the Higgs boson with a top-quark pair. <i>Journal of High Energy Physics</i> , 2014, 2014, 1.	4.7	51
133	First measurement of the underlying event activity at the LHC with $\sqrt{s} = 0.9 \text{ TeV}$. <i>European Physical Journal C</i> , 2010, 70, 555-572.	3.9	50
134	Search for $B_s \rightarrow l^+l^-$ and $B_d \rightarrow l^+l^-$ Decays in pp Collisions at $\sqrt{s}=7 \text{ TeV}$. <i>Physical Review Letters</i> , 2011, 107, 181802.		
135	Study of the underlying event at forward rapidity in pp collisions at $\sqrt{s}=0.9, 2.76, 7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	50
136	Search for a heavy pseudoscalar boson decaying to a Z and a Higgs boson at $\sqrt{s}=13 \text{ TeV}$. <i>European Physical Journal C</i> , 2019, 79, 564.	3.9	50
137	Charmonia production in 450 GeV/c proton induced reactions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1998, 444, 516-522.	4.1	49
138	Search for new physics with jets and missing transverse momentum in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2011, 2011, 1.	4.7	49
139	Search for leptonic decays of W^{\pm} bosons in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	49
140	Measurement of pseudorapidity distributions of charged particles in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$ by the CMS and TOTEM experiments. <i>European Physical Journal C</i> , 2014, 74, 1.	3.9	49
141	Search for vector-like quarks in events with two oppositely charged leptons and jets in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. <i>European Physical Journal C</i> , 2019, 79, 364.	3.9	48
142	Transverse energy distributions in nucleus-nucleus collisions at 200 GeV/nucleon. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1990, 251, 472-476.	4.1	47
143	Search for Supersymmetry in pp Collisions at $\sqrt{s}=7 \text{ TeV}$ in Events with Two Photons and Missing Transverse Energy. <i>Physical Review Letters</i> , 2011, 106, 211802.	7.8	47
144	Measurement of the cross section and angular correlations for associated production of a Z boson with b hadrons in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	47

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145	Search for new physics with same-sign isolated dilepton events with jets and missing transverse energy at the LHC. <i>Journal of High Energy Physics</i> , 2011, 2011, 1.	4.7	46
146	Search for narrow resonances and quantum black holes in inclusive and b-tagged dijet mass spectra from pp collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	46
147	Search for third-generation scalar leptoquarks decaying to a top quark and a τ lepton at $\sqrt{s} = 13 \text{ TeV}$. <i>European Physical Journal C</i> , 2018, 78, 707.	3.9	46
148	Geant4 applications and developments for medical physics experiments. <i>IEEE Transactions on Nuclear Science</i> , 2004, 51, 1412-1419.	2.0	45
149	Search for heavy bottom-like quarks in 4.9 fb^{-1} of pp collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	45
150	Search for microscopic black holes in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	44
151	Search for decays of stopped long-lived particles produced in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$. <i>European Physical Journal C</i> , 2015, 75, 151.	3.9	44
152	Measurement of top quark-antiquark pair production in association with a W or Z boson in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. <i>European Physical Journal C</i> , 2014, 74, 3060.	3.9	43
153	Identification techniques for highly boosted W bosons that decay into hadrons. <i>Journal of High Energy Physics</i> , 2014, 2014, 1.	4.7	43
154	Measurement of the top-quark mass in $t\bar{t}$ events with dilepton final states in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>European Physical Journal C</i> , 2012, 72, 1.	3.9	42
155	Search for electroweak production of charginos and neutralinos using leptonic final states in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	41
156	Search for pair-produced vectorlike quarks in proton-proton collisions at $\sqrt{s} = 7 \text{ TeV}$. <i>Physical Review D</i> , 2016, 93, 1.	4.7	41
157	Measurement of the $t\bar{t}\bar{\chi}^0$ production cross section in the $e\bar{e}$ channel in proton-proton collisions at $\sqrt{s} = 7 \text{ TeV}$ and 8 TeV . <i>Journal of High Energy Physics</i> , 2016, 2016, 1.	4.7	41
158	Measurement of the $t\bar{t}\bar{\chi}^0$ production cross section in the all-jets final state in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. <i>European Physical Journal C</i> , 2016, 76, 128.	3.9	41
159	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. <i>Journal of High Energy Physics</i> , 2011, 2011, 1.	4.7	40
160	Measurement of the $t\bar{t}\bar{\chi}^0$ production cross section using events in the $e\bar{e}$ final state in pp collisions at $\sqrt{s} = 13 \text{ TeV}$. <i>European Physical Journal C</i> , 2017, 77, 172.	3.9	40
161	Search for new physics in dijet angular distributions using proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ and constraints on dark matter and other models. <i>European Physical Journal C</i> , 2018, 78, 789.	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 $\sqrt{s} = 13 \text{ TeV}$. <i>European Physical Journal C</i> , 2021, 81, 378.	3.9	40

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163	Search for resonances in the dilepton mass distribution in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2011, 2011, 1.	4.7	39
164	Inclusive b-jet production in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	39
165	Measurement of the $Z\bar{b}^3$ cross section in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2012, 2012, 1.	4.7	39
166	Measurement of the ZZ production cross section and search for anomalous couplings in 2, "2, " final states in pp collisions at $\sqrt{s}=7 \text{ TeV}$. Journal of High Energy Physics, 2013, 2013, 1.	4.7	39
167	Measurement of differential cross sections for Z boson production in association with jets in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. European Physical Journal C, 2018, 78, 965.	3.9	39
168	Results of the first performance tests * of the CMS electromagnetic calorimeter. European Physical Journal C, 2006, 44, 1-10.	3.9	38
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276	Search for dark matter in events with energetic, hadronically decaying top quarks and missing transverse momentum at $\sqrt{s}=13 \text{ TeV}$. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	20
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