

Rebeca Gonzalez Suarez - Publication List

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Metrics

As of February 27, 2017:

	Citeable papers	Published only
Number of papers	620	559
Number of citations	57103	56778
Average citations per paper	92.1	101.6
h index	115	115

Breakdown of papers by citations:

	Citeable papers	Published only
Renowned papers (500+)	10	10
Famous papers (250-499)	22	22
Very well-known papers (100-249)	103	103
Well-known papers (50-99)	167	166
Known papers (10-49)	212	205
Less known papers (1-9)	84	49
Unknown papers (0)	22	4

The contributions listed here are labeled when it corresponds using the following convention:

[PA = Primary Author; ED = Editor; C = Contributor; R = Review]

Additionally to this, the ten most relevant peer-reviewed publications have a longer explanation of why they are chosen as such.

In addition to what is presented in the following, I am an author of all the public results from the CMS collaboration since 2006. They full list can be consulted at

<https://cds.cern.ch/collection/CMS>

■ Main publications in peer-reviewed journals

Publications in which I have had a personal contribution, in reverse chronological order. The ten most relevant publications are marked with a ★ sign.

Measurement of the transverse momentum spectrum of the Higgs boson produced in pp collisions at $\sqrt{s} = 8$ TeV using H to WW decays, *CMS Collaboration*, arXiv:1606.01522, Accepted by J. High Energy Phys [R - Higgs to WW]

Measurement of the W boson helicity fractions in the decays of top quark pairs to lepton+jets final states produced in pp collisions at $\sqrt{s} = 8$ TeV, *CMS Collaboration*, arXiv:1605.09047, Phys. Lett. B 762 (2016) 512 [R - ARC]

Measurements of the Higgs boson production and decay rates and constraints on its couplings from a combined ATLAS and CMS analysis of the LHC pp collision data at $\sqrt{s} = 7$ and 8 TeV, *ATLAS and CMS Collaborations*, arXiv:1606.02266, JHEP 1608 (2016) 045. [C]

Search for Higgs boson off-shell production in proton-proton collisions at 7 and 8 TeV and derivation of constraints on its total decay width, *CMS Collaboration*, arXiv:1605.02329, JHEP 09 (2016) 051 [R - Higgs to WW]
500th paper of CMS

Search for s channel single top quark production in pp collisions at $\sqrt{s} = 7$ and 8 TeV, *CMS Collaboration*, arXiv:1603.02555, JHEP 09 (2016) 027 [R - Single Top]

Search for anomalous single top quark production in association with a photon in pp collisions at $\sqrt{s} = 8$ TeV, *CMS Collaboration*, arXiv:1511.03951, JHEP 04 (2016) 035 [R - Single Top]

Measurement of top quark polarisation in t-channel single top quark production, *CMS Collaboration*, arXiv:1511.02138, JHEP 04 (2016) 073 [R - Single Top]

★ **Search for the associated production of a Higgs boson with a single top quark in proton-proton collisions at $\sqrt{s} = 8$ TeV**, *CMS Collaboration*, arXiv:1509.08159, JHEP06(2016)177 [C, R-ARC]
Cited by 13.

Measurement of the Charge Asymmetry in Top Quark Pair Production in pp Collisions at $\sqrt{s} = 8$ TeV using a Template Method, *CMS Collaboration*, arXiv:1508.03862, Phys. Rev. D 93, 034014 (2016) [R-ARC]

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, *CMS Collaboration*, arXiv:1502.02485, Eur. Phys. J. C 75 (2015) 251 [R-ARC]

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, *CMS*

Collaboration, arXiv:1412.8662, Eur. Phys. J. C 75 (2015) 212 [C]

★ **Constraints on the spin-parity and anomalous HVV couplings of the Higgs boson in proton collisions at 7 and 8 TeV**, *CMS Collaboration*, arXiv:1411.3441, Phys. Rev. D 92, 012004 (2015) [PA, ED]

Cited by [182](#) (100+).

Measurement of the W boson helicity in events with a single reconstructed top quark in pp collisions at $\sqrt{s}=8$ TeV, *CMS Collaboration*, arXiv:1410.1154, JHEP01(2015)053 [R - Single Top]

★ **Search for monotop signatures in proton-proton collisions at $\sqrt{s}=8$ TeV**, *CMS Collaboration*, arXiv:1410.1149, Phys. Rev. Lett. 114, 101801 (2015) [R - Chair of the Review]

Cited by 44.

★ **Observation of the associated production of a single top quark and a W boson in pp collisions at $\sqrt{s}=8$ TeV**, *CMS Collaboration*, arXiv:1401.2942, Phys. Rev. Lett. 112, 231802. [PA]

Cited by [112](#) (100+).

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, *CMS Collaboration*, arXiv:1403.7366, JHEP 06 (2014) 090 [R - Single top]

Searches for electroweak production of charginos, neutralinos, and sleptons decaying to leptons and W, Z, and Higgs bosons in pp collisions at 8 TeV, *CMS Collaboration*, arXiv:1405.7570, Eur. Phys. J. C 74 (2014) [R-ARC]

★ **Measurement of Higgs boson production and properties in the WW decay channel with leptonic final states**, *CMS Collaboration*, arXiv:1312.1129, JHEP 01(2014)096 [PA]

Cited by [303](#) (250+).

Snowmass 2013 Top quark working group report, *Top Quark Working Group Collaboration*, arXiv:1311.2028 [C]

Observation of a new boson with mass near 125 GeV in pp collisions at $\sqrt{s}=7$ and 8 TeV, *CMS Collaboration*, arXiv:1303.4571, JHEP 1306 (2013) 081 [C]

★ **Evidence for associated production of a single top quark and W boson in pp collisions at 7 TeV**, *CMS Collaboration*, arXiv:1209.3489, Phys. Rev. Lett. 110, 022003 (2013) [PA, ED]

Cited by [124](#) (100+).

Search for electroweak production of charginos and neutralinos using leptonic final states in pp collisions at $\sqrt{s}=7$ TeV, *CMS Collaboration*, arXiv:1209.6620, JHEP 1211 (2012) 147 [R-ARC]

★ **Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC**, *CMS Collaboration*, arXiv:1207.7235, Phys.Lett. B716 (2012) 30-61 [C]
Cited by [6771](#) (1000+).

Search for physics beyond the standard model in events with a Z boson, jets, and missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV, *CMS Collaboration*, arXiv:1204.3774, Physics Letters B 716 (2012) 260-284 [R-ARC]

★ **Search for the standard model Higgs boson decaying to a W pair in the fully leptonic final state in pp collisions at $\sqrt{s} = 7$ TeV**, *CMS Collaboration*, arXiv:1202.1489, Phys.Lett. B 710 (2012) 91-113 [C]
Cited by [162](#) (100+).

★ **Measurement of the $t\bar{t}$ Production Cross Section in pp Collisions at 7 TeV in Lepton + Jets Events Using b-quark Jet Identification**, *CMS Collaboration*, arXiv:1108.3773, Phys.Rev. D84 (2011) 092004 [C]
Cited by [128](#) (100+).

★ **Measurement of W^+W^- Production and Search for the Higgs Boson in pp Collisions at $\sqrt{s} = 7$ TeV**, *CMS Collaboration*, arXiv:1102.5429, Phys.Lett. B 699 (2011) 25-47 [C]
Cited by [167](#) (100+).

Publications from top

Publications submitted to journals during my period as convener of the top quark physics analysis group in CMS, in reverse chronological order:

Search for standard model production of four top quarks in proton-proton collisions at $\sqrt{s}=13$ TeV, *CMS Collaboration*, Submitted to Phys. Lett. B, arXiv:1702.06164

Search for associated production of a Z boson with a single top quark and for tZ flavour-changing interactions in pp collisions at $\sqrt{s}=8$ TeV, *CMS Collaboration*, Submitted to JHEP, arXiv:1702.01404

Measurement of the $t\bar{t}$ production cross section using events with one lepton and at least one jet in pp collisions at $\sqrt{s}=13$ TeV, *CMS Collaboration*, Submitted to JHEP, arXiv:1701.06228

Search for CP violation in $t\bar{t}$ production and decay in proton-proton collisions at $\sqrt{s}=8$ TeV, *CMS Collaboration*, Accepted by JHEP, arXiv:1611.08931

Measurement of the $t\bar{t}$ production cross section using events in the $e\mu$ final state in pp collisions at $\sqrt{s}=13$ TeV, *CMS Collaboration*, Accepted by Eur. Phys. J. C., arXiv:1611.04040

Measurement of the mass difference between top quark and antiquark in pp collisions at $\sqrt{s}=8$ TeV, *CMS Collaboration*, Submitted to Phys. Lett. B., arXiv:1610.09551

Search for top quark decays via Higgs-boson-mediated flavor-changing neutral currents in pp collisions at $\sqrt{s}=8$ TeV, *CMS Collaboration*, Accepted by JHEP, arXiv:1610.04857

Measurement of differential cross sections for top quark pair production using the lepton+jets final state in proton-proton collisions at 13 TeV, *CMS Collaboration*, Accepted by Phys. Rev. D, arXiv:1610.04191

Cross section measurement of t-channel single top quark production in pp collisions at $\sqrt{s}=13$ TeV, *CMS Collaboration*, Accepted by Phys. Lett. B., arXiv:1610.00678

Other

Additional peer-reviewed publications of which I am also an author, in reverse chronological order:

Measurement of the cross section for electroweak production of Z gamma in association with two jets and constraints on anomalous quartic gauge couplings in proton-proton collisions at $\sqrt{s} = 8$ TeV CMS Collaboration
arXiv:1702.03025 [hep-ex].

Measurement of prompt and nonprompt J/psi production in pp and pPb collisions at $\sqrt{s[NN]} = 5.02$ TeV CMS Collaboration
arXiv:1702.01462 [nucl-ex].

Study of jet quenching with Z+jet correlations in PbPb and pp collisions at $\sqrt{s[NN]} = 5.02$ TeV CMS Collaboration
arXiv:1702.01060 [nucl-ex].

Azimuthal anisotropy of charged particles with transverse momentum up to 100 GeV in PbPb collisions at $\sqrt{s[NN]} = 5.02$ TeV CMS Collaboration
arXiv:1702.00630 [hep-ex].

Measurement of the inclusive energy spectrum in the very forward direction in proton-proton collisions at $\sqrt{s}=13$ TeV CMS Collaboration
arXiv:1701.08695 [hep-ex].

Search for single production of vector-like quarks decaying into a b quark and a W boson in proton-proton collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1701.08328 [hep-ex].

Search for single production of vector-like quarks decaying to a Z boson and a top or a bottom quark in proton-proton collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1701.07409 [hep-ex].

Search for supersymmetry with multiple charged leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1701.06940 [hep-ex].

Search for dark matter and unparticles in events with a Z boson and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1701.02042 [hep-ex].

Search for light bosons in decays of the 125 GeV Higgs boson in proton-proton collisions at $\sqrt{s} = 8$ TeV CMS Collaboration
arXiv:1701.02032 [hep-ex].

Mechanical stability of the CMS strip tracker measured with a laser alignment system CMS Collaboration

arXiv:1701.02022 [physics.ins-det].

Search for supersymmetry in the all-hadronic final state using top quark tagging in pp collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1701.01954 [hep-ex].

Search for leptophobic Z' bosons decaying into four-lepton final states in proton-proton collisions at $\sqrt{s} = 8$ TeV CMS Collaboration
arXiv:1701.01345 [hep-ex].

Search for high-mass Z gamma resonances at $\sqrt{s} = 8$ and 13 TeV using jet substructure techniques CMS Collaboration
arXiv:1612.09516 [hep-ex].

Search for heavy gauge W' boson in events with an energetic lepton and large missing transverse momentum at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1612.09274 [hep-ex].

Measurement of electroweak-induced production of W gamma with two jets in pp collisions at $\sqrt{s} = 8$ TeV and constraints on anomalous quartic gauge couplings CMS Collaboration
arXiv:1612.09256 [hep-ex].

Search for massive resonances decaying into WW , WZ or ZZ bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1612.09159 [hep-ex].

Measurements of the charm jet cross section and nuclear modification factor in pPb collisions at $\sqrt{s[NN]} = 5.02$ TeV CMS Collaboration
arXiv:1612.08972 [nucl-ex].

Search for electroweak production of a vector-like quark decaying to a top quark and a Higgs boson using boosted topologies in fully hadronic final states CMS Collaboration
arXiv:1612.05336 [hep-ex].

Searches for pair production for third-generation squarks in $\sqrt{s} = 13$ TeV pp collisions CMS Collaboration
arXiv:1612.03877 [hep-ex].

Search for heavy neutrinos or third-generation leptoquarks in final states with two hadronically decaying tau leptons and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1612.01190 [hep-ex].

Search for single production of a heavy vector-like T quark decaying to a Higgs boson and a top quark with a lepton and jets in the final state CMS Collaboration
arXiv:1612.00999 [hep-ex].

Search for supersymmetry in events with photons and missing transverse energy in pp collisions at 13 TeV CMS Collaboration
arXiv:1611.06604 [hep-ex].

Search for heavy resonances decaying to tau lepton pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1611.06594 [hep-ex].

Measurements of differential production cross sections for a Z boson in association with jets in pp collisions at $\sqrt{s} = 8$ TeV CMS Collaboration
arXiv:1611.03844 [hep-ex].

Search for dijet resonances in proton-proton collisions at $\sqrt{s} = 13$ TeV and constraints on dark matter and other models CMS Collaboration
arXiv:1611.03568 [hep-ex].

Charged-particle nuclear modification factors in PbPb and pPb collisions at $\sqrt{s[NN]} = 5.02$ TeV CMS Collaboration
arXiv:1611.01664 [hep-ex].

Suppression of Upsilon(1S), Upsilon(2S), and Upsilon(3S) quarkonium states in PbPb collisions at $\sqrt{s[NN]} = 2.76$ TeV CMS Collaboration
arXiv:1611.01510 [hep-ex].

Relative modification of prompt Psi(2S) and J/psi yields from pp to PbPb collisions at $\sqrt{s[NN]} = 5.02$ TeV CMS Collaboration
arXiv:1611.01438 [hep-ex].

A search for new phenomena in pp collisions at $\sqrt{s} = 13$ TeV in final states with missing transverse momentum and at least one jet using the α_T variable CMS Collaboration
arXiv:1611.00338 [hep-ex].

Searches for invisible decays of the Higgs boson in pp collisions at $\sqrt{s} = 7, 8,$ and 13 TeV CMS Collaboration
arXiv:1610.09218 [hep-ex].

Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos, and b quarks CMS Collaboration
arXiv:1610.08066 [hep-ex].

Observation of Upsilon(1S) pair production in proton-proton collisions at $\sqrt{s} = 8$ TeV CMS Collaboration
arXiv:1610.07095 [hep-ex].

Search for R-parity violating supersymmetry with displaced vertices in proton-proton collisions

sions at $\sqrt{s}=8$ TeV CMS Collaboration
arXiv:1610.05133 [hep-ex].

Search for electroweak production of charginos in final states with two tau leptons in pp collisions at $\sqrt{s} = 8$ TeV CMS Collaboration
arXiv:1610.04870 [hep-ex].

Measurements of differential cross sections for associated production of a W boson and jets in proton-proton collisions at $\sqrt{s}=8$ TeV CMS Collaboration
arXiv:1610.04222 [hep-ex].

Search for high-mass Z-gamma resonances in $e+e$ -gamma and $\mu+\mu$ -gamma final states in proton-proton collisions at $\sqrt{s}=8$ and 13 TeV CMS Collaboration
arXiv:1610.02960 [hep-ex].

Suppression and azimuthal anisotropy of prompt and nonprompt J/psi production in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV CMS Collaboration
arXiv:1610.00613 [nucl-ex].

Observation of charge-dependent azimuthal correlations in pPb collisions and its implication for the search for the chiral magnetic effect CMS Collaboration
arXiv:1610.00263 [nucl-ex].

Search for supersymmetry in events with one lepton and multiple jets in proton-proton collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1609.09386 [hep-ex].

Search for long-lived charged particles in proton-proton collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1609.08382 [hep-ex].
Phys.Rev. D94 (2016) no.11, 112004.

Inclusive search for supersymmetry using razor variables in pp collisions at $\sqrt{s} = 13$ TeV CMS Collaboration
arXiv:1609.07658 [hep-ex].

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 CMS Collaboration
arXiv:1609.05721 [hep-ex].

Search for narrow resonances in dilepton mass spectra in proton-proton collisions at $\sqrt{s} = 13$ TeV and combination with 8 TeV data CMS Collaboration
arXiv:1609.05391 [hep-ex].

Measurement of inclusive jet cross-sections in pp and PbPb collisions at $\sqrt{s_{NN}}=2.76$ TeV

CMS Collaboration

arXiv:1609.05383 [nucl-ex].

Measurement and QCD analysis of double-differential inclusive jet cross-sections in pp collisions at $\sqrt{s} = 8$ TeV and ratios to 2.76 and 7 TeV

CMS Collaboration

arXiv:1609.05331 [hep-ex].

Studies of inclusive four-jet production with two b-tagged jets in proton-proton collisions at 7 TeV

CMS Collaboration

arXiv:1609.03489 [hep-ex].

Search for high-mass diphoton resonances in proton-proton collisions at 13 TeV and combination with 8 TeV search

CMS Collaboration

arXiv:1609.02507 [hep-ex].

Phys.Rev. D94 (2016) no.11, 112005.

Decomposing transverse momentum balance contributions for quenched jets in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

arXiv:1609.02466 [nucl-ex].

JHEP 1611 (2016) 055.

The CMS trigger system

CMS Collaboration

arXiv:1609.02366 [physics.ins-det].

Measurement of the total and differential inclusive B(+) hadron cross sections in pp collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration

arXiv:1609.00873 [hep-ex].

Measurement of the production cross section of the W boson in association with two b jets in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1608.07561 [hep-ex].

Measurement of the mass of the top quark in decays with a J/ψ meson in pp collisions at 8 TeV

CMS Collaboration

arXiv:1608.03560 [hep-ex].

JHEP 1612 (2016) 123.

Search for new physics in events with high jet multiplicity and low missing transverse momentum in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1608.01224 [hep-ex].

Measurement of the ZZ production cross section and $Z \rightarrow \ell^+ \ell^- \ell'^+ \ell'^-$ branching fraction in pp collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration

arXiv:1607.08834 [hep-ex].

Phys.Lett. B763 (2016) 280-303.

Measurement of electroweak production of a W boson and two forward jets in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1607.06975 [hep-ex].

JHEP 1611 (2016) 147.

Measurement of the WZ production cross section in pp collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration

arXiv:1607.06943 [hep-ex].

Search for dark matter in proton-proton collisions at 8 TeV with missing transverse momentum and vector boson tagged jets

CMS Collaboration

arXiv:1607.05764 [hep-ex].

JHEP 1612 (2016) 083.

Jet energy scale and resolution in the CMS experiment in pp collisions at 8 TeV

CMS Collaboration

arXiv:1607.03663 [hep-ex].

Search for lepton flavour violating decays of the Higgs boson to $e\tau$ and $e\mu$ in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1607.03561 [hep-ex].

Phys.Lett. B763 (2016) 472-500.

Observation of the decay $B^+ \rightarrow \psi(2S)\phi(1020)K^+$ in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1607.02638 [hep-ex].

Phys.Lett. B764 (2017) 66-86.

Search for new physics in final states with two opposite-sign, same-flavor leptons, jets, and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration

arXiv:1607.00915 [hep-ex].

JHEP 1612 (2016) 013.

Measurement of the differential cross sections for top quark pair production as a function of kinematic event variables in pp collisions at $\sqrt{s} = 7$ and 8 TeV

CMS Collaboration

arXiv:1607.00837 [hep-ex].

Phys.Rev. D94 (2016) no.5, 052006.

Searches for R-parity-violating supersymmetry in pp collisions at $\sqrt{s}=8$ TeV in final states with 0-4 leptons

CMS Collaboration

arXiv:1606.08076 [hep-ex].

Phys.Rev.D, Phys.Rev. D94 (2016) 112009.

Evidence for collectivity in pp collisions at the LHC

CMS Collaboration

arXiv:1606.06198 [nucl-ex].

Measurement of the transverse momentum spectra of weak vector bosons produced in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1606.05864 [hep-ex].

Search for Resonant Production of High-Mass Photon Pairs in Proton-Proton Collisions at $\sqrt{s} = 8$ and 13 TeV

CMS Collaboration

arXiv:1606.04093 [hep-ex].

Phys.Rev.Lett. 117 (2016) no.5, 051802.

Phenomenological MSSM interpretation of CMS searches in pp collisions at $\sqrt{s} = 7$ and 8 TeV

CMS Collaboration

arXiv:1606.03577 [hep-ex].

JHEP 1610 (2016) 129.

Search for dark matter and supersymmetry with a compressed mass spectrum in the vector boson fusion topology in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1605.09305 [hep-ex].

Search for top squark pair production in compressed-mass-spectrum scenarios in proton-proton collisions at $\sqrt{s} = 8$ TeV using the α_T variable

CMS Collaboration

arXiv:1605.08993 [hep-ex].

Coherent J/Psi photoproduction in ultra-peripheral PbPb collisions at $\sqrt{s[NN]} = 2.76$

TeV with the CMS experiment

CMS Collaboration

arXiv:1605.06966 [nucl-ex].

Multiplicity and rapidity dependence of strange hadron production in pp, pPb, and PbPb collisions at the LHC

CMS Collaboration

arXiv:1605.06699 [nucl-ex].

Search for supersymmetry in pp collisions at $\sqrt{s}=13$ TeV in the single-lepton final state using the sum of masses of large-radius jets

CMS Collaboration

arXiv:1605.04608 [hep-ex].

JHEP 1608 (2016) 122.

Measurement of the double-differential inclusive jet cross section in proton-proton collisions at $\sqrt{s}=13$ TeV

CMS Collaboration

arXiv:1605.04436 [hep-ex].

Eur.Phys.J. C76 (2016) no.8, 451.

Search for new physics in same-sign dilepton events in proton-proton collisions at $\sqrt{s}=13$ TeV

CMS Collaboration

arXiv:1605.03171 [hep-ex]

Eur.Phys.J. C76 (2016) no.8, 439.

Measurement of the integrated and differential $t\bar{t}$ production cross sections for high- p_t top quarks in pp collisions at $\sqrt{s}=8$ TeV

CMS Collaboration

arXiv:1605.00116 [hep-ex].

Phys.Rev. D94 (2016) no.7, 072002.

Search for narrow resonances in dijet final states at $\sqrt{s}=8$ TeV with the novel CMS technique of data scouting

CMS Collaboration

arXiv:1604.08907 [hep-ex].

Phys.Rev.Lett. 117 (2016) no.3, 031802.

Pseudorapidity dependence of long-range two-particle correlations in pPb collisions at $\sqrt{s_{NN}}=5.02$ TeV

CMS Collaboration

arXiv:1604.05347 [nucl-ex].

Search for lepton flavour violating decays of heavy resonances and quantum black holes to an $e\mu$ pair in proton-proton collisions at $\sqrt{s}=8$ TeV

CMS Collaboration
arXiv:1604.05239 [hep-ex].
Eur.Phys.J. C76 (2016) no.6, 317.

Evidence for exclusive $\gamma\gamma \rightarrow W^+W^-$ production and constraints on anomalous quartic gauge couplings in pp collisions at $\sqrt{s} = 7$ and 8 TeV

CMS Collaboration
arXiv:1604.04464 [hep-ex].
JHEP 1608 (2016) 119.

Search for dark matter particles in proton-proton collisions at $\sqrt{s} = 8$ TeV using the razor variables

CMS Collaboration
arXiv:1603.08914 [hep-ex].
JHEP 1612 (2016) 088.

Search for two Higgs bosons in final states containing two photons and two bottom quarks in proton-proton collisions at 8 TeV

CMS Collaboration
arXiv:1603.06896 [hep-ex].
Phys.Rev. D94 (2016) no.5, 052012.

Measurement of the top quark mass using charged particles in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration
arXiv:1603.06536 [hep-ex].
Phys.Rev. D93 (2016) no.9, 092006.

Measurements of $t\bar{t}$ charge asymmetry using dilepton final states in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration
arXiv:1603.06221 [hep-ex].
Phys.Lett. B760 (2016) 365-386.

Search for new physics with the M_{T2} variable in all-jets final states produced in pp collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration
arXiv:1603.04053 [hep-ex].
JHEP 1610 (2016) 006.

Search for neutral resonances decaying into a Z boson and a pair of b jets or tau leptons

CMS Collaboration
arXiv:1603.02991 [hep-ex].
Phys.Lett. B759 (2016) 369-394.

$\Upsilon(1S)$ polarizations versus particle multiplicity in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1603.02913 [hep-ex].

Phys.Lett. B761 (2016) 31-52.

Measurement of the $t\bar{t}$ production cross section in the $e\mu$ channel in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV

CMS Collaboration

arXiv:1603.02303 [hep-ex].

JHEP 1608 (2016) 029.

Search for heavy Majorana neutrinos in $e^\pm e^\pm + \text{jets}$ and $e^\pm \mu^\pm + \text{jets}$ events in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1603.02248 [hep-ex].

JHEP 1604 (2016) 169.

Measurement of the differential cross section and charge asymmetry for inclusive $pp \rightarrow W^\pm + X$ production at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1603.01803 [hep-ex].

Eur.Phys.J. C76 (2016) no.8, 469.

Search for direct pair production of supersymmetric top quarks decaying to all-hadronic final states in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1603.00765 [hep-ex].

Eur.Phys.J. C76 (2016) no.8, 460.

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

CMS Collaboration

arXiv:1602.09024 [hep-ex].

Search for supersymmetry in electroweak production with photons and large missing transverse energy in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1602.08772 [hep-ex].

Phys.Lett. B759 (2016) 479-500.

Search for heavy resonances decaying to two Higgs bosons in final states containing four b quarks

CMS Collaboration

arXiv:1602.08762 [hep-ex].

Eur.Phys.J. C76 (2016) no.7, 371.

Measurement of the $Z\gamma \rightarrow \nu\bar{\nu}\gamma$ production cross section in pp collisions at $\sqrt{s} = 8$ TeV and limits on anomalous $ZZ\gamma$ and $Z\gamma\gamma$ trilinear gauge boson couplings

CMS Collaboration

arXiv:1602.07152 [hep-ex].

Phys.Lett. B760 (2016) 448-468.

Search for supersymmetry in the multijet and missing transverse momentum final state in pp collisions at 13 TeV

CMS Collaboration

arXiv:1602.06581 [hep-ex].

Phys.Lett. B758 (2016) 152-180.

Measurement of dijet azimuthal decorrelation in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1602.04384 [hep-ex].

Eur.Phys.J. C76 (2016) no.10, 536.

Search for R-parity violating decays of a top squark in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1602.04334 [hep-ex].

Phys.Lett. B760 (2016) 178-201.

Combined search for anomalous pseudoscalar HVV couplings in $VH(H \rightarrow b\bar{b})$ production and $H \rightarrow VV$ decay

CMS Collaboration

arXiv:1602.04305 [hep-ex].

Phys.Lett. B759 (2016) 672-696.

Search for direct pair production of scalar top quarks in the single- and dilepton channels in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1602.03169 [hep-ex].

JHEP 1607 (2016) 027, Erratum: JHEP 1609 (2016) 056.

Search for supersymmetry in pp collisions at $\sqrt{s} = 8$ TeV in final states with boosted W bosons and b jets using razor variables

CMS Collaboration

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Phys.Rev. D93 (2016) no.9, 092009.

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CMS Collaboration

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JHEP 1608 (2016) 139.

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CMS Collaboration

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Eur.Phys.J. C76 (2016) no.5, 237.

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CMS Collaboration

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Eur.Phys.J. C76 (2016) no.6, 325.

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CMS Collaboration

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Eur.Phys.J. C76 (2016) no.7, 372.

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CMS Collaboration

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Phys.Rev. D93 (2016) no.5, 052007.

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CMS Collaboration

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JHEP 1602 (2016) 156.

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CMS Collaboration

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JHEP 1604 (2016) 005.

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CMS Collaboration

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Phys.Lett. B759 (2016) 9-35.

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CMS Collaboration

arXiv:1512.06461 [hep-ex].

Phys.Lett. B759 (2016) 36-57.

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CMS Collaboration

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Eur.Phys.J. C76 (2016) no.5, 265.

Search for narrow resonances decaying to dijets in proton-proton collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration

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Phys.Rev.Lett. 116 (2016) no.7, 071801.

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CMS Collaboration

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Eur.Phys.J. C76 (2016) no.3, 155.

Search for dark matter and unparticles produced in association with a Z boson in proton-proton collisions at $\sqrt{s}= 8$ TeV

CMS Collaboration

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Phys.Rev. D93 (2016) no.5, 052011.

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CMS Collaboration

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Phys.Lett. B758 (2016) 321-346.

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CMS Collaboration

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Phys.Lett. B758 (2016) 296-320.

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CMS Collaboration

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JHEP 1603 (2016) 125.

Reconstruction and identification of τ lepton decays to hadrons and ν_τ at CMS

CMS Collaboration

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JINST 11 (2016) no.01, P01019.

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boson and decaying into τ leptons in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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JHEP 1601 (2016) 079.

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CMS Collaboration

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Phys.Rev.Lett. 116 (2016) no.5, 052002.

Search for a light charged Higgs boson decaying to c s-bar in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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JHEP 1512 (2015) 178.

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CMS Collaboration

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Phys.Lett. B754 (2016) 59.

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CMS Collaboration

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Eur.Phys.J. C76 (2016) no.7, 379.

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CMS Collaboration

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Phys.Rev.Lett. 116 (2016) no.17, 172302.

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CMS Collaboration

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Phys.Lett. B755 (2016) 217-244.

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CMS Collaboration

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JHEP 1601 (2016) 096.

Measurement of transverse momentum relative to dijet systems in PbPb and pp collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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JHEP 1606 (2016) 177.

Search for the Production of an Excited Bottom Quark Decaying to tW in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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JHEP 1601 (2016) 166.

Measurement of the $t\bar{t}$ Production Cross Section in the All-Jets Final State in pp Collisions at $\sqrt{s}=8$ TeV

CMS Collaboration

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Eur.Phys.J. C76 (2016) no.3, 128.

Search for $W' \rightarrow tb$ in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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JHEP 1602 (2016) 122.

Search for Vector-Like Charge 2/3 T Quarks in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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Phys.Rev. D93 (2016) no.1, 012003.

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CMS Collaboration

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Phys.Rev. D93 (2016) no.7, 072004.

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CMS Collaboration

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Search for Single Production of Scalar Leptoquarks in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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Phys.Rev. D93 (2016) no.3, 032005.

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Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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Phys.Rev. D93 (2016) no.3, 032004.

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CMS Collaboration

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Eur.Phys.J. C76 (2016) no.1, 13.

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CMS Collaboration

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JHEP 1511 (2015) 018.

Search for supersymmetry in the vector-boson fusion topology in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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JHEP 1511 (2015) 189.

Study of B Meson Production in pPb Collisions at $\sqrt{s_{NN}} = 5.02$ TeV

CMS Collaboration

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Phys.Rev.Lett. 116 (2016) no.3, 032301.

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CMS Collaboration

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Phys.Lett. B755 (2016) 196-216.

Search for neutral MSSM Higgs bosons decaying to $\mu^+\mu^-$ in pp collisions at $\sqrt{s} = 7$ and 8 TeV

CMS Collaboration

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Phys.Lett. B752 (2016) 221-246.

Search for Supersymmetry with a Photon, a Lepton, and Missing Transverse Momentum in pp Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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Phys.Lett. B757 (2016) 6-31.

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CMS Collaboration
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CMS Collaboration
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Phys.Lett. B757 (2016) 97-120.

Measurement of the underlying event activity using charged-particle jets in proton-proton collisions at $\sqrt{s} = 2.76$ TeV

CMS Collaboration
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JHEP 1509 (2015) 137.

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CMS Collaboration
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Phys.Rev. D93 (2016) no.11, 112009.

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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Eur.Phys.J. C76 (2016) no.7, 401.

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CMS Collaboration
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Phys.Lett. B757 (2016) 154-179.

Search for a Higgs boson decaying into $\gamma^*\gamma \rightarrow \ell\ell\gamma$ with low dilepton mass in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration
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Phys.Lett. B753 (2016) 341-362.

Search for supersymmetry with photons in pp collisions at $\sqrt{s}=8$ TeV CMS Collaboration
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Phys.Rev. D92 (2015) 7, 072006.

Search for exotic decays of a Higgs boson into undetectable particles and one or more photons
CMS Collaboration
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CMS Collaboration
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Phys.Rev. D92 (2015) 11, 112001.

Search for Neutral MSSM Higgs Bosons Decaying into A Pair of Bottom Quarks
CMS Collaboration
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JHEP 1511 (2015) 071.

Search for Resonant $t\bar{t}$ Production in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV
CMS Collaboration
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Phys.Rev. D93 (2016) no.1, 012001.

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CMS Collaboration
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Search for A Massive Resonance Decaying into a Higgs Boson and a W or Z Boson in Hadronic Final States in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV
CMS Collaboration
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JHEP 1602 (2016) 145.

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Phys.Rev. D92 (2015) 3, 032008.

A search for pair production of new light bosons decaying into muons CMS Collaboration

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Phys.Lett. B752 (2016) 146-168.

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CMS Collaboration

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JHEP 1509 (2015) 201.

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CMS Collaboration

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Measurement of the differential cross section for top quark pair production in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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Eur.Phys.J. C75 (2015) 11, 542.

Search for a pseudoscalar boson decaying into a Z boson and the 125 GeV Higgs boson in $l^+l^-b\bar{b}$ final states CMS Collaboration

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Phys.Lett. B748 (2015) 221-243.

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CMS Collaboration

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Phys.Lett. B750 (2015) 154-175.

Measurement of the Z boson differential cross section in transverse momentum and rapidity in proton proton collisions at 8 TeV

CMS Collaboration

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Phys.Lett. B749 (2015) 187-209.

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

CMS Collaboration

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JHEP 1506 (2015) 121.

Search for a Higgs Boson in the Mass Range from 145 to 1000 GeV Decaying to a Pair of W or Z Bosons

CMS Collaboration

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JHEP 1510 (2015) 144.

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CMS Collaboration

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JHEP 1507 (2015) 042.

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CMS Collaboration

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CMS Collaboration

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JHEP 1506 (2015) 116.

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ATLAS and CMS Collaborations

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CMS Collaboration

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Phys.Lett. B750 (2015) 565-586.

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CMS Collaboration

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Eur.Phys.J. C75 (2015) 10, 511.

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CMS Collaboration

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CMS Collaboration

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JHEP 1506 (2015) 080.

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CMS Collaboration

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Phys.Rev. C92 (2015) 3, 034911.124.

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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JHEP 1504 (2015) 124.

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CMS Collaboration

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JHEP 1504 (2015) 164.

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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Eur.Phys.J. C75 (2015) 7, 302.

Searches for Supersymmetry using the M_{T2} Variable in Hadronic Events Produced in pp Collisions at 8 TeV

CMS Collaboration

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JHEP 1505 (2015) 078.

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CMS Collaboration

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CMS Collaboration

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JINST 10 (2015) 08, P08010.

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CMS Collaboration

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JINST 10 (2015) 06, P06005.

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CMS Collaboration

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Eur.Phys.J. C75 (2015) 7, 325.

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CMS Collaboration

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CMS Collaboration
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Measurement of the ratio $\mathcal{B}(B_s^0 \rightarrow J/\psi f_0(980))/\mathcal{B}(B_s^0 \rightarrow J/\psi \phi(1020))$ in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration
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Search for Decays of Stopped Long-Lived Particles Produced in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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Phys.Rev. D91 (2015) 5, 052009.

Search for pair-produced resonances decaying to jet pairs in proton-proton collisions at $\sqrt{s}=8$ TeV

CMS Collaboration
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Phys.Lett. B747 (2015) 98-119.

Search for physics beyond the standard model in dilepton mass spectra in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration
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JHEP 1504 (2015) 025.

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CMS Collaboration
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Phys.Lett. B745 (2015) 5-28.

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CMS Collaboration
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Eur.Phys.J. C75 (2015) 5, 186.

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CMS Collaboration
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Eur.Phys.J. C75 (2015) 4, 147.

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CMS Collaboration
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Search for long-lived particles that decay into final states containing two electrons or two muons in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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JHEP 1501 (2015) 096.

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CMS Collaboration
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CMS and LHCb Collaborations
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CMS Collaboration
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CMS Collaboration
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JINST 10 (2015) 02, P02006.

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CMS Collaboration
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Phys.Lett. B755 (2016) 102-124.

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration

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JHEP 1503 (2015) 022..

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CMS Collaboration

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JHEP 1412 (2014) 017..

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CMS Collaboration

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CMS Collaboration

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Measurement of Prompt $\psi(2S) \rightarrow J/\psi$ Yield Ratios in Pb-Pb and $p - p$ Collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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CMS Collaboration

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JHEP 1411 (2014) 154.

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CMS Collaboration

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CMS Collaboration

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Phys.Rev.Lett. 114 (2015) 6, 061801.

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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TeV

CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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TeV at the LHC

CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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JHEP 1310 (2013) 062.

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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JHEP 1307 (2013) 163.

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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JHEP 1307 (2013) 178.

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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Eur.Phys.J. C73 (2013) 9, 2568.

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CMS Collaboration

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JHEP 1305 (2013) 145.

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CMS Collaboration

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Phys.Rev. D87 (2013) 11, 114015.

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CMS Collaboration

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JHEP 1304 (2013) 154.

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CMS Collaboration

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CMS Collaboration

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Phys.Rev. D87 (2013) 7, 072005.

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CMS Collaboration

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CMS Collaboration

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Phys.Lett. B725 (2013) 36-59.

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CMS Collaboration

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Phys.Rev.Lett. 110 (2013) 141802.

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CMS Collaboration

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JHEP 1305 (2013) 065.

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CMS Collaboration

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CMS Collaboration

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Phys.Rev. D87 (2013) 5, 052017.

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CMS Collaboration

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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TeV

CMS Collaboration

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Phys.Rev.Lett. 111 (2013) 8, 081802.

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CMS Collaboration

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JHEP 1303 (2013) 037, Erratum-ibid. 1307 (2013) 041.

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CMS Collaboration

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Phys.Lett. B720 (2013) 63-82.

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CMS Collaboration

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Phys.Rev. D87 (2013) 3, 032001.

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CMS Collaboration

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Phys.Lett. B723 (2013) 280-301.

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CMS Collaboration

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Phys.Lett. B722 (2013) 273-294.

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CMS Collaboration

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JHEP 1302 (2013) 036.

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CMS Collaboration

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JHEP 1301 (2013) 063.

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***pp* collisions at $\sqrt{s} = 7$ TeV**

CMS Collaboration

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JHEP 1303 (2013) 111.

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CMS Collaboration

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JINST 8 (2013) P04013.

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CMS Collaboration

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Phys.Rev. D87 (2013) 072002.

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CMS Collaboration

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Phys.Rev. D87 (2013) 5, 052006.

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CMS Collaboration

arXiv:1211.2472 [hep-ex].

JHEP 1302 (2013) 085.

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CMS Collaboration

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Eur.Phys.J. C73 (2013) 3, 2339.

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CMS Collaboration

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JHEP 1301 (2013) 077.

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CMS Collaboration

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Phys.Lett. B726 (2013) 564-586.

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sions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Eur.Phys.J. C73 (2013) 2, 2283.

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CMS Collaboration

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JHEP 1301 (2013) 154.

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CMS Collaboration

arXiv:1210.6718 [hep-ex].

Phys.Lett. B722 (2013) 5-27.

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CMS Collaboration

arXiv:1210.5629 [hep-ex].

Phys.Rev.Lett. 110 (2013) 081801.

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CMS Collaboration

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JHEP 1212 (2012) 055.

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CMS Collaboration

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Phys.Lett. B718 (2013) 795-814.

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CMS Collaboration

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JHEP 1212 (2012) 034.

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CMS Collaboration

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Phys.Lett. B720 (2013) 309-329.

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CMS Collaboration
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CMS Collaboration
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JHEP 1301 (2013) 013.

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CMS Collaboration
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Phys.Rev. D87 (2013) 9, 092008.

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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Eur.Phys.J. C72 (2012) 2251.

Search for anomalous production of highly boosted Z bosons decaying to dimuons in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration
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Phys.Lett. B722 (2013) 28-47.

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CMS Collaboration
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JHEP 1212 (2012) 035.

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CMS Collaboration
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JHEP 1212 (2012) 015.

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CMS Collaboration
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JHEP 1211 (2012) 088.

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CMS Collaboration
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CMS Collaboration
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Phys.Rev.Lett. 110 (2013) 081802.

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CMS Collaboration
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Eur.Phys.J. C72 (2012) 2202.

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CMS Collaboration
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JHEP 1212 (2012) 105.

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CMS Collaboration
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CMS Collaboration
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JHEP 1211 (2012) 080.

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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Phys.Rev.Lett. 109 (2012) 222301.

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CMS Collaboration
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JHEP 1211 (2012) 067.

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CMS Collaboration
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Phys.Rev.Lett. 110 (2013) 042301.

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CMS Collaboration
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Phys.Lett. B718 (2013) 1252-1272.

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CMS Collaboration

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CMS Collaboration

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Phys.Lett. B717 (2012) 109-128.

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CMS Collaboration

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CMS Collaboration

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Eur.Phys.J. C72 (2012) 2164.

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CMS Collaboration

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Phys.Lett. B718 (2013) 752-772.

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CMS Collaboration

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Eur.Phys.J. C72 (2012) 2189.

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CMS Collaboration

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JHEP 1208 (2012) 130.

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CMS Collaboration

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Phys.Rev.Lett. 109 (2012) 171803.

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CMS Collaboration

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JHEP 1210 (2012) 018.

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CMS Collaboration

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JHEP 1209 (2012) 111.

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CMS Collaboration

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JHEP 1211 (2012) 172.

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CMS Collaboration

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JHEP 1208 (2012) 026.

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CMS Collaboration

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Phys.Lett. B717 (2012) 129-150.

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CMS Collaboration

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Phys.Rev.Lett. 109 (2012) 121801.

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CMS Collaboration

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JHEP 1209 (2012) 094.

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CMS Collaboration

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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Phys.Lett. B716 (2012) 82-102.

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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JHEP 1210 (2012) 087.

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CMS Collaboration

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JHEP 1207 (2012) 143.

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CMS Collaboration

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JHEP 1208 (2012) 110.

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CMS Collaboration

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Phys.Rev.Lett. 109 (2012) 152303.

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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JHEP 1206 (2012) 169.

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CMS Collaboration

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JHEP 1208 (2012) 023.

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CMS Collaboration

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JHEP 1206 (2012) 160.

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CMS Collaboration

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JHEP 1206 (2012) 109.

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CMS Collaboration

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JHEP 1209 (2012) 029, Erratum-ibid. 1403 (2014) 132.

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CMS Collaboration

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Phys.Rev.Lett. 109 (2012) 022301.

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CMS Collaboration

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JHEP 1206 (2012) 126.

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CMS Collaboration

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Phys.Rev. C87 (2013) 014902.

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CMS Collaboration

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Eur.Phys.J. C72 (2012) 2080.

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CMS Collaboration

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JHEP 1205 (2012) 123.

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CMS Collaboration

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Phys.Rev.Lett. 108 (2012) 261803.

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CMS Collaboration

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Eur.Phys.J. C72 (2012) 2216.

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CMS Collaboration

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Phys.Rev. D85 (2012) 112007.

Search for heavy, top-like quark pair production in the dilepton final state in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Phys.Lett. B716 (2012) 103-121.

Search for $B_s^0 \rightarrow \mu^+ \mu^-$ and $B^0 \rightarrow \mu^+ \mu^-$ decays

CMS Collaboration

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JHEP 1204 (2012) 033.

Measurement of the cross section for production of $b\bar{b}$ plus X , decaying to muons in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1206 (2012) 110.

Search for microscopic black holes in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1204 (2012) 061.

Search for quark compositeness in dijet angular distributions from pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1205 (2012) 055.

Jet momentum dependence of jet quenching in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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Phys.Lett. B712 (2012) 176-197.

Inclusive b -jet production in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1202.4617 [hep-ex].

JHEP 1204 (2012) 084.

Search for the standard model Higgs boson decaying to bottom quarks in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1202.4195 [hep-ex].

Phys.Lett. B710 (2012) 284-306.

Search for neutral Higgs bosons decaying to τ pairs in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Phys.Lett. B713 (2012) 68-90.

Search for large extra dimensions in dimuon and dielectron events in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Phys.Lett. B711 (2012) 15-34.

Search for the standard model Higgs boson in the H to ZZ to $2\ell 2\nu$ channel in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1203 (2012) 040.

Search for the standard model Higgs boson in the H to ZZ to $\ell\ell\tau\tau$ decay channel in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1203 (2012) 081.

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$\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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Eur.Phys.J. C72 (2012) 1945.

Search for the standard model Higgs boson in the decay channel H to ZZ to 4 leptons in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Phys.Rev.Lett. 108 (2012) 111804.

Combined results of searches for the standard model Higgs boson in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Phys.Lett. B710 (2012) 26-48.

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CMS Collaboration

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Phys.Lett. B710 (2012) 403-425.

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CMS Collaboration

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JHEP 1204 (2012) 036.

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 $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1206 (2012) 036.

Suppression of non-prompt J/ψ , prompt J/ψ , and $\Upsilon(1S)$ in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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JHEP 1205 (2012) 063.

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CMS Collaboration

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Eur.Phys.J. C72 (2012) 2012.

Measurement of isolated photon production in pp and PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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Phys.Lett. B710 (2012) 256-277.

Measurement of the charge asymmetry in top-quark pair production in proton-proton collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Phys.Lett. B709 (2012) 28-49.

Search for signatures of extra dimensions in the diphoton mass spectrum at the Large Hadron Collider

CMS Collaboration

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Phys.Rev.Lett. 108 (2012) 111801.

Exclusive photon-photon production of muon pairs in proton-proton collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1201 (2012) 052.

J/ψ and ψ_{2S} production in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1202 (2012) 011.

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CMS Collaboration

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JHEP 1201 (2012) 133.

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CMS Collaboration

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Phys.Rev. D85 (2012) 032002.

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CMS Collaboration

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JHEP 1201 (2012) 010.

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CMS Collaboration

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Phys.Rev. D84 (2011) 112002.

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CMS Collaboration

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JHEP 1111 (2011) 148, Erratum-ibid. 1202 (2012) 055.

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CMS Collaboration

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Eur.Phys.J. C72 (2012) 1839.

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CMS Collaboration

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JINST 7 (2012) P01001.

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CMS Collaboration

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CMS Collaboration

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Phys.Rev.Lett. 107 (2011) 221804.

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CMS Collaboration

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Phys.Rev. D84 (2011) 052011.

Measurement of the Drell-Yan Cross Section in pp Collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1110 (2011) 007.

Search for B(s) and B to dimuon decays in pp collisions at 7 TeV

CMS Collaboration

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Phys.Rev.Lett. 107 (2011) 191802.

Search for Resonances in the Dijet Mass Spectrum from 7 TeV pp Collisions at CMS

CMS Collaboration

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Phys.Lett. B704 (2011) 123-142.

Measurement of the Inclusive W and Z Production Cross Sections in pp Collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1110 (2011) 132.

Dependence on pseudorapidity and centrality of charged hadron production in PbPb collisions at a nucleon-nucleon centre-of-mass energy of 2.76 TeV

CMS Collaboration

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JHEP 1108 (2011) 141.

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CMS Collaboration

arXiv:1107.4277 [physics.ins-det].

JINST 6 (2011) P11002.

Search for Three-Jet Resonances in pp Collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Phys.Rev.Lett. 107 (2011) 101801.

Search for supersymmetry in pp collisions at $\sqrt{s} = 7$ TeV in events with a single lepton, jets, and missing transverse momentum

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Run-1 Single-top measurements at CMS, *Rebeca Gonzalez Suarez*, Proceedings DPF 2015, arXiv:1510.05235

Inclusive single top cross section at the LHC, *Rebeca Gonzalez Suarez on behalf of the CMS and ATLAS collaborations*, Proceedings TOP 2013, DOI:10.3204/DESY-PROC-2014-02/16

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Discovery Potential for the SM Higgs Boson in the $H \rightarrow WW^* \rightarrow 2l2\nu$ channel at LHC, *Rebeca Gonzalez Suarez*, Proceedings ICHEP 2008, arXiv:0810.1468

A Software and Computing prototype for CMS Muon System alignment, (*Iban Cabrillo, Isidro Gonzalez Caballero, Rebeca Gonzalez Suarez...*), Proceedings CHEP 2007, Journal of Physics: Conference Series 119 (2008) 072008

Public Analysis Summaries

CMS Public Analysis Summaries in which I had a relevant contribution in reverse chronological order. This kind of document is reviewed by a board of four referees and circulated to the Collaboration before being made public:

‘Search for Higgs boson pair production in the $b\bar{b}l\nu l\nu$ final state at $\sqrt{s} = 13$ TeV’ - HIG-16-024 - [R - Higgs to WW]

‘Search for high mass Higgs to WW with fully leptonic decays using 2015 data’ - HIG-16-023 [R - Higgs to WW]

‘Search for associated production of Higgs bosons and top quarks in multilepton final states at $\sqrt{s} = 13$ TeV’ - HIG-16-022 [R - Higgs to WW]

‘Search for associated production of a Z boson with a single top quark and for tZ flavour-changing interactions in pp collisions at $\sqrt{s} = 8$ TeV’ - TOP-12-039 [R - Single top]

‘Measurement of the top quark mass in the dileptonic $t\bar{t}$ decay channel using the Mbl, MT2, and MAOS Mblv observables’ - TOP-15-008 [R-ARC] [Chair of the review]

‘First results on Higgs to WW at $\sqrt{s} = 13$ TeV’ - HIG-15-003 [ED- HWW]

‘Combination of cross-section measurements of associated production of a single top quark and a W boson at $\sqrt{s} = 8$ TeV with the ATLAS and CMS experiments’ - TOP-15-019 [C]

‘Search for resonant Higgs boson pair production in the $b\bar{b}l\nu l\nu$ final state at $\sqrt{s} = 13$ TeV’ - HIG-16-011 [R - Higgs to WW]

‘Search for $t\bar{t}H$ production in multilepton final states at $\sqrt{s} = 13$ TeV’ - HIG-15-008 [C, R - HWW]

‘Measurement of the top quark mass from single-top production events’ - TOP-15-001 [R-ARC] [Chair of the review]

‘Measurement of the transverse momentum spectrum of the Higgs boson produced in pp collisions at $\sqrt{s} = 8$ TeV using the $H \rightarrow WW$ decays’ (CMS-PAS-HIG-15-010) [R - Higgs to WW]

‘Measurement of the top-quark mass from the b jet energy spectrum’ (CMS-PAS-TOP-15-002) [R-ARC] [Chair of the review]

‘Measurements of the Higgs boson production and decay rates and constraints on its couplings from a combined ATLAS and CMS analysis of the LHC pp collision data at $\sqrt{s} = 7$ and 8 TeV’ (CMS-PAS-HIG-15-002) [C]

‘Measurement of the W boson helicity using $t\bar{t}$ events in the dilepton final state at $\sqrt{s} = 8$ TeV’ CMS-PAS-TOP-14-017 [R-ARC] [Chair of the review]

‘Measurements of the differential cross section of single top-quark production in the t channel in proton-proton collisions at $\sqrt{s} = 8\text{TeV}$ ’ (CMS-PAS-TOP-14-004) [R - Single top]

‘Search for $H \rightarrow b\bar{b}$ in association with single top quarks as a test of Higgs boson couplings’ (CMS-PAS-HIG-14-015) [C]

‘Combination of cross-section measurements of associated production of a single top-quark and a W boson at $\sqrt{s} = 8\text{ TeV}$ with the ATLAS and CMS experiments’ (CMS-PAS-TOP-14-009) [C, R - Single top]

‘Constraints on Anomalous HWW Interactions using Higgs boson decays to $W+W-$ in the fully leptonic final state’ (CMS-PAS-HIG-14-012) [PA, ED]

‘Constraints on anomalous HVV interactions using H to 4l decays’ (CMS-PAS-HIG-14-014) [C]

‘Search for $t\bar{t}H$ events in the $H \rightarrow b\bar{b}$ final state using the Matrix Element Method’ (CMS-PAS-HIG-14-010) [R-ARC]

‘Search for anomalous Wtb couplings and top FCNC in t-channel single-top-quark events’ (CMS-PAS-TOP-14-007) [R - Single top]

‘Search for anomalous single top quark production in association with a photon’ (CMS-PAS-TOP-14-003) [R - Single top]

‘Search for new physics with monotop final states in pp collisions at $\sqrt{s} = 8\text{ TeV}$ ’ (CMS-PAS-B2G-12-022) [R-ARC] [Chair of the review]

‘Search for associated production of a single top quark and a Higgs boson in events where the Higgs boson decays to two photons at $\sqrt{s} = 8\text{ TeV}$ ’ (CMS-PAS-HIG-14-001) [R-ARC]

‘Projections for Top FCNC Searches in 3000fb^{-1} at the LHC’ (CMS-PAS-FTR-13-016) [R-ARC]

‘Sensitivity study of the prospects for searching for heavy vector-like charge 2/3 quarks at $\sqrt{s} = 14\text{ TeV}$ with the upgraded CMS detector’ (CMS-PAS-FTR-13-026) [R-ARC]

‘Projected improvement of the accuracy of top-quark mass measurements at the upgraded LHC’ (CMS-PAS-FTR-13-017) [R-ARC]

‘CMS reach in $B_s^0 \rightarrow \mu^+\mu^-$ and $B^0 \rightarrow \mu^+\mu^-$ branching fractions for the new LHC runs’ (CMS-PAS-FTR-13-022) [R-ARC]

‘Search for s-channel single top-quark production in pp collisions at $\sqrt{s} = 8\text{TeV}$ ’ (CMS-PAS-TOP-13-009) [R - Single top]

‘Measurement of top quark polarization in t-channel single-top production’ (CMS-PAS-TOP-13-001)

[R - Single top]

‘Combination of single top-quark cross-sections measurements in the t-channel at $\sqrt{s} = 8\text{TeV}$ with the ATLAS and CMS experiments’ (CMS-PAS-TOP-12-002) [R - Single top]

‘Search for electroweak production of charginos and neutralinos using leptonic final states’ (CMS-PAS-SUS-13-006) [R-ARC]

‘Observation of Associated Production of a Single Top Quark and W Boson in pp Collisions at $\sqrt{s} = 8\text{TeV}$ ’ (CMS-PAS-TOP-12-040) [PA]

‘Search for Flavor-Changing Neutral Currents in tZ events in proton-proton collisions at $\sqrt{s} = 7\text{TeV}$ ’ (CMS-PAS-TOP-12-021) [R - Single top]

‘Search for electroweak production of charginos, neutralinos and sleptons using leptonic final states in pp collisions at $\sqrt{s} = 8\text{TeV}$ ’ (CMS-PAS-SUS-12-022) [R-ARC]

‘Measurement of the single-top t-channel charge ratio at 8 TeV’ (CMS-PAS-TOP-12-038) [R - Single top]

‘Measurement of W-helicity fractions in single top events topology’ (CMS-PAS-TOP-12-020) [R - Single top]

‘Search for single top tW associated production in the dilepton decay channel in pp collisions at $\sqrt{s} = 7\text{TeV}$ ’ (CMS-PAS-TOP-11-022) [PA, ED]

‘Search for Physics Beyond the Standard Model in Z+MET+Jets events at the LHC’ (CMS-PAS-SUS-11-019) [R-ARC]

‘Measurement of the top-quark pair-production cross section in the lepton+jets channel with the use of b-tagging’ (CMS-PAS-TOP-10-003) [C]

‘Measurement of the top-quark pair-production cross section in the di-lepton channel at 7 TeV’ (CMS-PAS-TOP-10-005) [C]

‘Search for $H \rightarrow WW \rightarrow 2l 2\nu$ ’ (CMS-PAS-HIG-10-003) [C]

‘Observation of WW final state’ (CMS-PAS-EWK-009) [C]

‘Performance of muon identification in pp collisions at $\sqrt{s} = 7\text{TeV}$ ’ (CMS-PAS-MUO-10-002) [PA]

‘Search Strategy for a Standard Model Higgs Boson Decaying to Two W Bosons in the Fully Leptonic Final State’ (CMS-PAS-HIG-08-006) [PA]

‘Search for the Higgs boson in the WW decay channel with the CMS experiment’ (CMS-PAS-HIG-07-001) [PA]

Public top results

Public analysis summaries made public during my convenership of the top quark physics analysis group in CMS, in reverse chronological order:

'Investigations of the impact of the parton shower tuning in Pythia 8 in the modelling of $t\bar{t}$ at $\sqrt{s}=8$ and 13 TeV' (TOP-16-021)

'Combinations of the CMS alternative technique measurements of the top quark mass' (TOP-15-012)

'Bounding the top quark width using final states with two charged leptons and two jets at $\sqrt{s} = 13$ TeV' (TOP-16-019)

'Measurement of the $t\bar{t} + \gamma$ production cross-section in pp collisions at $\sqrt{s} = 8$ TeV' (TOP-14-008)

'Measurement of the jet mass distribution in boosted $t\bar{t}$ production at $\sqrt{s} = 8$ TeV' (TOP-15-015)

Internal Analysis Notes

Internal notes that I am an author of in reverse chronological order:

CMS AN-2015/300 - 'Higgs Boson decaying to WW in the leptonic final state at 13 TeV' (*HWW team*) [ED]

CMS AN-2015/299 - 'Common analysis object definitions and triggers efficiencies for the H→WW Run-2 analysis' (*HWW team*) [ED]

CMS AN-2015/321 - 'Search for ttH in multilepton final states at 13 TeV' (*Anne-Catherine Le Bihan et al.*) [C]

CMS AN-2013/113 - 'Search for H→bb in association with single top quarks as a test of Higgs boson couplings' (*A. Anuar, A. Bean et al.*) [C]

CMS AN-2014/083 - 'Spin Parity of the Higgs Boson and Tensor Structure of the HWW interaction in the H→WW dileptonic decay channel' (*Rebeca Gonzalez Suarez et al.*) [PA-ED]

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February 27, 2017