

Rebeca Gonzalez Suarez - Publication List

Contents

Metrics, 1 • Main publications in peer-reviewed journals, 2 • Publications from top, 4 • Other, 5 • Conference proceedings, 80 • Public Analysis Summaries, 81 • Public top results, 84 • Internal Analysis Notes, 85.

Metrics

As of October 18, 2016:

	Citeable papers	Published only
Number of papers	580	529
Number of citations	52685	52489
Average citations per paper	90.8	99.2
h index	110	110

Breakdown of papers by citations:

	Citeable papers	Published only
Renowned papers (500+)	9	9
Famous papers (250-499)	21	21
Very well-known papers (100-249)	99	99
Well-known papers (50-99)	155	154
Known papers (10-49)	201	199
Less known papers (1-9)	68	44
Unknown papers (0)	27	3

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 (Serguei Chatrchyan et al.)*, arXiv:1606.01522, Submitted to 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 (Serguei Chatrchyan et al.)*, arXiv:1605.09047, Accepted by Phys. Lett. B. [R - ARC]

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 (Serguei Chatrchyan et al.)*, 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 (Serguei Chatrchyan et al.)*, 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 (Serguei Chatrchyan et al.)*, arXiv:1511.03951, JHEP 04 (2016) 035 [R - Single Top]

Measurement of top quark polarisation in t-channel single top quark production, *CMS Collaboration (Serguei Chatrchyan et al.)*, 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 (Serguei Chatrchyan et al.)*, arXiv:1509.08159, JHEP06(2016)177 [C, R-ARC]

Cited by 9.

Measurement of the Charge Asymmetry in Top Quark Pair Production in pp Collisions at $\sqrt{s} = 8$ TeV using a Template Method, *CMS Collaboration (Serguei Chatrchyan et al.)*, 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 (Serguei Chatrchyan et al.)*, 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 (Serguei Chatrchyan et al.)*, 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 pro-**

ton collisions at 7 and 8 TeV, *CMS Collaboration (Serguei Chatrchyan et al.)*, arXiv:1411.3441, Phys. Rev. D 92, 012004 (2015) [PA, ED]
Cited by [147](#) (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 (Serguei Chatrchyan et al.)*, arXiv:1410.1154, JHEP01(2015)053 [R - Single Top]

★ **Search for monotop signatures in proton-proton collisions at $\sqrt{s}=8$ TeV**, *CMS Collaboration (Serguei Chatrchyan et al.)*, arXiv:1410.1149, Phys. Rev. Lett. 114, 101801 (2015) [R - Chair of the Review]
Cited by 40.

★ **Observation of the associated production of a single top quark and a W boson in pp collisions at $\sqrt{s}=8$ TeV**, *CMS Collaboration (Serguei Chatrchyan et al.)*, arXiv:1401.2942, Phys. Rev. Lett. 112, 231802. [PA]
Cited by [102](#) (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 (Serguei Chatrchyan et al.)*, 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 (Serguei Chatrchyan et al.)*, 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 (Serguei Chatrchyan et al.)*, arXiv:1312.1129, JHEP 01(2014)096 [PA]
Cited by [281](#) (250+).

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

★ **Evidence for associated production of a single top quark and W boson in pp collisions at 7 TeV**, *CMS Collaboration (Serguei Chatrchyan et al.)*, arXiv:1209.3489, Phys. Rev. Lett. 110, 022003 (2013) [PA, ED]
Cited by [120](#) (100+).

★ **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 (Serguei Chatrchyan et al.)*, arXiv:1202.1489, Phys.Lett. B 710 (2012) 91-113 [C]
Cited by [159](#) (100+).

Search for electroweak production of charginos and neutralinos using leptonic final states in pp collisions at $\sqrt{s}=7$ TeV, *CMS Collaboration (Serguei Chatrchyan et al.)*, arXiv:1209.6620,

JHEP 1211 (2012) 147 [R-ARC]

★ **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 (Serguei Chatrchyan et al.)*, arXiv:1204.3774, Physics Letters B 716 (2012) 260-284 [R-ARC]
Cited by 50 (50+).

★ **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 (Serguei Chatrchyan et al.)*, Phys.Rev. D84 (2011) 092004, arXiv:1108.3773 [C]
Cited by [126](#) (100+).

★ **Measurement of W^+W^- Production and Search for the Higgs Boson in pp Collisions at $\sqrt{s} = 7$ TeV**, *CMS Collaboration (Serguei Chatrchyan et al.)*, Phys.Lett. B 699 (2011) 25-47, arXiv:1102.5429 [C]
Cited by [165](#) (100+).

Publications from top

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

Search for top quark decays via Higgs-boson-mediated flavor-changing neutral currents in pp collisions at $\sqrt{s} = 8$ TeV, *CMS Collaboration (Vardan Khachatryan et al.)*, Submitted to 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 (Vardan Khachatryan et al.)*, Submitted to 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 (Serguei Chatrchyan et al.)*, Submitted to Phys. Lett. B., arXiv:1610.00678

Other

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

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

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].

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].

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/psi meson in pp collisions at 8 TeV

CMS Collaboration
arXiv:1608.03560 [hep-ex].

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].

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].

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].

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].

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].

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].

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].

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].

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].

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

CMS Collaboration

arXiv:1606.03577 [hep-ex].

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

By ATLAS and CMS Collaborations

arXiv:1606.02266 [hep-ex].

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].

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].

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]

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

CMS Collaboration

arXiv:1605.00116 [hep-ex].

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].

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].

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

CMS Collaboration

arXiv:1604.04464 [hep-ex].

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].

Search for two Higgs bosons in final states containing two photons and two bottom quarks

CMS Collaboration

arXiv:1603.06896 [hep-ex].

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

CMS Collaboration

arXiv:1603.06536 [hep-ex].

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].

Search for new physics with the MT2 variable in all-jets final states produced in pp collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration

arXiv:1603.04053 [hep-ex].

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].

$Y(nS)$ Polarizations Versus Particle Multiplicity in pp Collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1603.02913 [hep-ex].

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].

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

CMS Collaboration

arXiv:1603.02248 [hep-ex].

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

CMS Collaboration

arXiv:1603.01803 [hep-ex].

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].

Measurements of the t-tbar 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].

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

CMS Collaboration

arXiv:1602.08762 [hep-ex].

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].

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].

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

CMS Collaboration

arXiv:1602.04384 [hep-ex].

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].

Combined search for anomalous pseudoscalar HVV couplings in VH production and H to VV decay

CMS Collaboration

arXiv:1602.04305 [hep-ex].

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].

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

arXiv:1602.02917 [hep-ex].

Azimuthal decorrelation of jets widely separated in rapidity in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1601.06713 [hep-ex].

Search for massive WH resonances decaying into the $\ell\nu b\bar{b}$ final state at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1601.06431 [hep-ex].

Forward-backward asymmetry of Drell-Yan lepton pairs in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1601.04768 [hep-ex].

Measurement of inclusive jet production and nuclear modifications in pPb collisions at $\sqrt{s[NN]} = 5.02$ TeV

CMS Collaboration

arXiv:1601.02001 [nucl-ex].

Measurements of t-tbar spin correlations and top quark polarization using dilepton final states in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1601.01107 [hep-ex].

Correlations between jets and charged particles in PbPb and pp collisions at $\sqrt{s[NN]} = 2.76$ TeV

CMS Collaboration

arXiv:1601.00079 [nucl-ex].

Measurement of differential and integrated fiducial cross sections for Higgs boson production in the four-lepton decay channel in pp collisions at $\sqrt{s} = 7$ and 8 TeV

CMS Collaboration

arXiv:1512.08377 [hep-ex].

Search for supersymmetry in events with soft leptons, low jet multiplicity, and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1512.08002 [hep-ex].

Study of Z boson production in pPb collisions at $\sqrt{s[NN]} = 5.02$ TeV

CMS Collaboration

arXiv:1512.06461 [hep-ex].

Measurement of the inclusive jet cross section in pp collisions at $\sqrt{s} = 2.76$ TeV

CMS Collaboration

arXiv:1512.06212 [hep-ex].

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

CMS Collaboration

arXiv:1512.01224 [hep-ex].

Event generator tunes obtained from underlying event and multiparton scattering measurements

CMS Collaboration

arXiv:1512.00815 [hep-ex].

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

CMS Collaboration

arXiv:1511.09375 [hep-ex].

Measurement of spin correlations in t-tbar production using the matrix element method in the muon+jets final state in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1511.06170 [hep-ex].

Search for a low-mass pseudoscalar Higgs boson produced in association with a b-bbar pair in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1511.03610 [hep-ex].

Search for excited leptons in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1511.01407 [hep-ex].

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

CMS Collaboration

arXiv:1510.07488 [physics.ins-det].

Search for a very light NMSSM Higgs boson produced in decays of the 125 GeV scalar boson and decaying into τ leptons in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1510.06534 [hep-ex].

Measurement of the top quark pair production cross section in proton-proton collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration

arXiv:1510.05302 [hep-ex].

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

CMS Collaboration

arXiv:1510.04252 [hep-ex].

10.1007/JHEP12(2015)178.

JHEP 1512 (2015) 178.

Transverse momentum spectra of b jets in pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV

CMS Collaboration

arXiv:1510.03373 [nucl-ex].

Measurement of $t\bar{t}$ production with additional jet activity, including b quark jets, in the dilepton decay channel using pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1510.03072 [hep-ex].

Measurement of long-range near-side two-particle angular correlations in pp collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration

arXiv:1510.03068 [nucl-ex].

Searches for a heavy scalar boson H decaying to a pair of 125 GeV Higgs bosons hh or for a heavy pseudoscalar boson A decaying to Zh , in the final states with $h \rightarrow \tau\tau$

CMS Collaboration

arXiv:1510.01181 [hep-ex].

Observation of top quark pairs produced in association with a vector boson in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1510.01131 [hep-ex].

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

CMS Collaboration

arXiv:1509.09029 [nucl-ex].

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

CMS Collaboration

arXiv:1509.08141 [hep-ex].

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

arXiv:1509.06076 [hep-ex].

Search for $W' \rightarrow t\bar{b}$ in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1509.06051 [hep-ex].

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

CMS Collaboration

arXiv:1509.04177 [hep-ex].

Measurement of the top quark mass using proton-proton data at $\sqrt{s} = 7$ and 8 TeV

CMS Collaboration

arXiv:1509.04044 [hep-ex].

Measurement of the Inelastic Cross Section in Proton-Lead Collisions at $\sqrt{s_{NN}} = 5.02$ TeV

CMS Collaboration

arXiv:1509.03893 [hep-ex].

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

CMS Collaboration

arXiv:1509.03750 [hep-ex].

Search for Pair Production of First and Second Generation Leptoquarks in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1509.03744 [hep-ex].

Measurement of Differential Cross Sections for Higgs Boson Production in the Diphoton Decay Channel in pp Collisions at $\sqrt{s}=8$ TeV

CMS Collaboration

arXiv:1508.07819 [hep-ex].

Search for a charged Higgs boson in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1508.07774 [hep-ex].

10.1007/JHEP11(2015)018.

JHEP 1511 (2015) 018.

Search for supersymmetry in the vector-boson fusion topology in proton-proton collisions

at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1508.07628 [hep-ex].

10.1007/JHEP11(2015)189.

JHEP 1511 (2015) 189.

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

CMS Collaboration

arXiv:1508.06678 [nucl-ex].

Search for W' decaying to tau lepton and neutrino in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1508.04308 [hep-ex].

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

CMS Collaboration

arXiv:1508.01437 [hep-ex].

10.1016/j.physletb.2015.11.042.

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

arXiv:1508.01218 [hep-ex].

Angular analysis of the decay $B^0 \rightarrow K^{*0}\mu^+\mu^-$ from pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1507.08126 [hep-ex].

10.1016/j.physletb.2015.12.020.

Phys.Lett. B753 (2016) 424-448.

Measurement of the CP-violating weak phase ϕ_s and the decay width difference $\Delta\Gamma_s$ using the $B_s^0 \rightarrow J/\psi\phi(1020)$ decay channel in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1507.07527 [hep-ex].

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

CMS Collaboration

arXiv:1507.07229 [hep-ex].

10.1007/JHEP09(2015)137.

JHEP 1509 (2015) 137.

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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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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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Search for supersymmetry with razor variables in pp collisions at $\sqrt{s}=7$ 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 and TOTEM Collaborations

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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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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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Search for a Higgs boson decaying into a b-quark pair and produced in association with b quarks in proton-proton collisions at 7 TeV

CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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JHEP 1304 (2013) 072.

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CMS Collaboration

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CMS Collaboration

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Measurement of the $t\bar{t}$ production cross section in the all-jet final state in pp collisions at $\sqrt{s} = 7$ 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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TeV

CMS Collaboration

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CMS Collaboration

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

CMS Collaboration

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Study of the Mass and Spin-Parity of the Higgs Boson Candidate Via Its Decays to Z Boson Pairs

CMS Collaboration

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CMS Collaboration

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Phys.Rev. D87 (2013) 11, 112002.

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CMS Collaboration

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CMS Collaboration

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Search for new physics in events with same-sign dileptons and b jets in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

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Search for heavy narrow dilepton resonances in pp collisions at $\sqrt{s} = 7$ TeV and $\sqrt{s} = 8$ TeV

CMS Collaboration

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

Search for contact interactions in $\mu^+\mu^-$ events in pp collisions at $\sqrt{s} = 7$ TeV

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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CMS Collaboration

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JHEP 1302 (2013) 036.

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CMS Collaboration

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JHEP 1301 (2013) 063.

Search for new physics in events with photons, jets, and missing transverse energy in 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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Search for Z' resonances decaying to $t\bar{t}$ in dilepton+jets final states in pp collisions at $\sqrt{s} = 7$ TeV

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

Search in leptonic channels for heavy resonances decaying to long-lived neutral particles

CMS Collaboration
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JHEP 1302 (2013) 085.

Measurement of differential top-quark pair production cross sections in pp collisions at $\sqrt{s} = 7$ TeV

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

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CMS Collaboration

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CMS Collaboration
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CMS Collaboration
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Search for heavy quarks decaying into a top quark and a W or Z boson using lepton + jets events in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration
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CMS Collaboration
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Search for pair production of third-generation leptoquarks and top squarks in pp collisions at $\sqrt{s} = 7$ TeV

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

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CMS Collaboration
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LHC

CMS Collaboration

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Observation of Z decays to four leptons with the CMS detector at the LHC

CMS Collaboration

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JHEP 1212 (2012) 034.

Search for excited leptons in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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

Search for heavy neutrinos and W[R] bosons with right-handed couplings in a left-right symmetric model in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Search for narrow resonances and quantum black holes in inclusive and b -tagged dijet mass spectra from pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1210.2387 [hep-ex].

10.1007/JHEP01(2013)013.

JHEP 1301 (2013) 013.

Search for fractionally charged particles in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1210.2311 [hep-ex].

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

Search for supersymmetry in events with photons and low missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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of the type III seesaw mechanism

CMS Collaboration

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Phys.Lett. B718 (2012) 348-368.

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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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10.1016/j.physletb.2013.03.037.

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

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CMS Collaboration

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JHEP 1212 (2012) 035.

Search for resonant $t\bar{t}$ production in lepton+jets events in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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10.1007/JHEP12(2012)015.

JHEP 1212 (2012) 015.

Search for the standard model Higgs boson produced in association with W and Z bosons in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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JHEP 1211 (2012) 088.

Search for a narrow spin-2 resonance decaying to a pair of Z vector bosons in the semileptonic final state

CMS Collaboration

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CMS Collaboration

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10.1103/PhysRevLett.110.081802.

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

Measurement of the top-quark mass in $t\bar{t}$ events with dilepton final states in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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

Measurement of the top-quark mass in $t\bar{t}$ events with lepton+jets final states in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1209.2319 [hep-ex].

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JHEP 1212 (2012) 105.

Observation of a diffractive contribution to dijet production in proton-proton collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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10.1103/PhysRevD.87.012006.

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CMS Collaboration

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JHEP 1211 (2012) 080.

Combined search for the quarks of a sequential fourth generation

CMS Collaboration

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Phys.Rev. D86 (2012) 112003.

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CMS Collaboration

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Phys.Lett. B718 (2012) 307-328.

Search for supersymmetry in events with b-quark jets and missing transverse energy in pp collisions at 7 TeV

CMS Collaboration

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Phys.Rev. D86 (2012) 072010.

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CMS Collaboration

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Phys.Rev.Lett. 109 (2012) 251801.

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CMS Collaboration

arXiv:1208.2931 [hep-ex].

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Observation of sequential Upsilon suppression in PbPb collisions

CMS Collaboration

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

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CMS Collaboration

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10.1007/JHEP11(2012)067.

JHEP 1211 (2012) 067.

Measurement of the azimuthal anisotropy of neutral pions in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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10.1103/PhysRevLett.110.042301.

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

Search for flavor changing neutral currents in top quark decays in pp collisions at 7 TeV

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. B716 (2012) 30-61.

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CMS Collaboration

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

Search for pair production of first and second-generation scalar leptoquarks in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Study of the inclusive production of charged pions, kaons, and protons in pp collisions at $\sqrt{s} = 0.9, 2.76, \text{ and } 7$ TeV

CMS Collaboration

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

Forward-backward asymmetry of Drell-Yan lepton pairs in pp collisions at $\sqrt{s} = 7$ TeV

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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10.1007/JHEP08(2012)130.

JHEP 1208 (2012) 130.

Search for new physics in the multijet and missing transverse momentum final state in proton-proton collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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

Search for supersymmetry in hadronic final states using MT_2 in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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10.1007/JHEP10(2012)018.

JHEP 1210 (2012) 018.

Search for a fermiophobic Higgs boson in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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10.1007/JHEP09(2012)111.

JHEP 1209 (2012) 111.

Search for new physics with long-lived particles decaying to photons and missing energy in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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10.1007/JHEP11(2012)172.

JHEP 1211 (2012) 172.

Search for stopped long-lived particles produced in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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10.1007/JHEP08(2012)026.

JHEP 1208 (2012) 026.

Inclusive and differential measurements of the $t\bar{t}$ charge asymmetry in proton-proton collisions at 7 TeV

CMS Collaboration

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Search for a light pseudoscalar Higgs boson in the dimuon decay channel in pp collisions at $\sqrt{s} = 7$ TeV

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

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

CMS Collaboration
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JHEP 1209 (2012) 094.

Search for new physics in events with opposite-sign leptons, jets, and missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration
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Search for charge-asymmetric production of W' bosons in top pair + jet events from pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration
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10.1016/j.physletb.2012.09.048.
Phys.Lett. B717 (2012) 351-370.

Measurement of the electron charge asymmetry in inclusive W production in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration
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Phys.Rev.Lett. 109 (2012) 111806.

Search for narrow resonances in dilepton mass spectra in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration
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Phys.Lett. B714 (2012) 158-179.

Search for high mass resonances decaying into $\tau^-\tau^+$ lepton pairs in pp collisions at $\sqrt{s} = 7$ TeV

TeV

CMS Collaboration

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

Search for a W' or Techni- ρ Decaying into WZ in pp Collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1206.0433 [hep-ex].

10.1103/PhysRevLett.109.141801.

Phys.Rev.Lett. 109 (2012) 141801.

Search for new physics with same-sign isolated dilepton events with jets and missing transverse energy

CMS Collaboration

arXiv:1205.6615 [hep-ex].

10.1103/PhysRevLett.109.071803.

Phys.Rev.Lett. 109 (2012) 071803.

Study of W boson production in PbPb and pp collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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10.1016/j.physletb.2012.07.025.

Phys.Lett. B715 (2012) 66-87.

Measurement of jet fragmentation into charged particles in pp and PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

arXiv:1205.5872 [nucl-ex].

10.1007/JHEP10(2012)087.

JHEP 1210 (2012) 087.

Search for a light charged Higgs boson in top quark decays in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1205.5736 [hep-ex].

10.1007/JHEP07(2012)143.

JHEP 1207 (2012) 143.

Search for new physics in events with same-sign dileptons and b -tagged jets in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1205.3933 [hep-ex].

10.1007/JHEP08(2012)110.

JHEP 1208 (2012) 110.

Measurement of the pseudorapidity and centrality dependence of the transverse energy density in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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

Measurement of the Λ_{cb} cross section and the $\bar{\Lambda}(b)$ to Λ_{cb} ratio with Λ_{cb} to J/Psi Λ decays in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1205.0594 [hep-ex].

10.1016/j.physletb.2012.05.063.

Phys.Lett. B714 (2012) 136-157.

Search for heavy long-lived charged particles in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Phys.Lett. B713 (2012) 408-433.

Studies of jet quenching using isolated-photon+jet correlations in PbPb and pp collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

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10.1016/j.physletb.2012.11.003.

Phys.Lett. B718 (2013) 773-794.

Observation of a new $\Xi(b)$ baryon

CMS Collaboration

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10.1103/PhysRevLett.108.252002.

Phys.Rev.Lett. 108 (2012) 252002.

Search for anomalous production of multilepton events in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1204.5341 [hep-ex].

10.1007/JHEP06(2012)169.

JHEP 1206 (2012) 169.

Search for leptonic decays of W' bosons in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1204.4764 [hep-ex].

10.1007/JHEP08(2012)023.

JHEP 1208 (2012) 023.

Shape, Transverse Size, and Charged Hadron Multiplicity of Jets in pp Collisions at 7 TeV

CMS Collaboration

arXiv:1204.3170 [hep-ex].

10.1007/JHEP06(2012)160.

JHEP 1206 (2012) 160.

Measurement of the mass difference between top and antitop quarks

CMS Collaboration

arXiv:1204.2807 [hep-ex].

10.1007/JHEP06(2012)109.

JHEP 1206 (2012) 109.

Search for Anomalous $t\bar{t}$ Production in the Highly-Boosted All-Hadronic Final State

CMS Collaboration

arXiv:1204.2488 [hep-ex].

10.1007/JHEP03(2014)132, 10.1007/JHEP09(2012)029.

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

Azimuthal anisotropy of charged particles at high transverse momenta in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV

CMS Collaboration

arXiv:1204.1850 [nucl-ex].

10.1103/PhysRevLett.109.022301.

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

Measurement of the Z/gamma*+b-jet cross section in pp collisions at 7 TeV

CMS Collaboration

arXiv:1204.1643 [hep-ex].

10.1007/JHEP06(2012)126.

JHEP 1206 (2012) 126.

Measurement of the elliptic anisotropy of charged particles produced in PbPb collisions at nucleon-nucleon center-of-mass energy = 2.76 TeV

CMS Collaboration

arXiv:1204.1409 [nucl-ex].

10.1103/PhysRevC.87.014902.

Phys.Rev. C87 (2013) 014902.

Measurement of the underlying event in the Drell-Yan process in proton-proton collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1204.1411 [hep-ex].

10.1140/epjc/s10052-012-2080-4.

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

Search for heavy bottom-like quarks in 4.9 inverse femtobarns of pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1204.1088 [hep-ex].

10.1007/JHEP05(2012)123.

JHEP 1205 (2012) 123.

Search for Dark Matter and Large Extra Dimensions in pp Collisions Yielding a Photon and Missing Transverse Energy

CMS Collaboration

arXiv:1204.0821 [hep-ex].

10.1103/PhysRevLett.108.261803.

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

Ratios of dijet production cross sections as a function of the absolute difference in rapidity between jets in proton-proton collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1204.0696 [hep-ex].

10.1140/epjc/s10052-012-2216-6.

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

Measurement of the top quark pair production cross section in pp collisions at $\sqrt{s} = 7$ TeV in dilepton final states containing a τ

CMS Collaboration

arXiv:1203.6810 [hep-ex].

10.1103/PhysRevD.85.112007.

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

arXiv:1203.5410 [hep-ex].

10.1016/j.physletb.2012.07.059.

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

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

CMS Collaboration

arXiv:1203.3976 [hep-ex].

10.1007/JHEP04(2012)033.

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

arXiv:1203.3458 [hep-ex].

10.1007/JHEP06(2012)110.

JHEP 1206 (2012) 110.

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

CMS Collaboration

arXiv:1202.6396 [hep-ex].

10.1007/JHEP04(2012)061.

JHEP 1204 (2012) 061.

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

CMS Collaboration

arXiv:1202.5535 [hep-ex].

10.1007/JHEP05(2012)055.

JHEP 1205 (2012) 055.

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

CMS Collaboration

arXiv:1202.5022 [nucl-ex].

10.1016/j.physletb.2012.04.058.

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].

10.1007/JHEP04(2012)084.

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].

10.1016/j.physletb.2012.02.085.

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

arXiv:1202.4083 [hep-ex].

10.1016/j.physletb.2012.05.028.

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

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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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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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Collider

CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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JHEP 1106 (2011) 026.

Search for Supersymmetry in pp Collisions at $\sqrt{s} = 7$ TeV in Events with Two Photons and Missing Transverse Energy

CMS Collaboration

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CMS Collaboration

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JHEP 1105 (2011) 093.

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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 1103 (2011) 136.

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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 1103 (2011) 090.

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CMS Collaboration

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JHEP 1105 (2011) 029.

Search for Supersymmetry in pp Collisions at 7 TeV in Events with Jets and Missing Transverse Energy

CMS Collaboration

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CMS Collaboration

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JHEP 1103 (2011) 024.

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CMS Collaboration

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Search for a heavy gauge boson W' in the final state with an electron and large missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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CMS Collaboration

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TeV

CMS Collaboration

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Phys.Rev.Lett. 106 (2011) 201802.

Search for Pair Production of Second-Generation Scalar Leptoquarks in pp Collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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Measurement of the Isolated Prompt Photon Production Cross Section in pp Collisions at $\sqrt{s} = 7$ 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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Search for Dijet Resonances in 7 TeV pp Collisions at CMS

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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Measurement of Bose-Einstein correlations with first CMS data

CMS Collaboration
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Transverse-momentum and pseudorapidity distributions of charged hadrons in pp collisions at $\sqrt{s} = 7$ 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

arXiv:0911.4991 [physics.ins-det].

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JINST 5 (2010) T03012.

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CMS Collaboration

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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]

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'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]

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'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]

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‘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:

'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]

CMS AN-2013/096 - 'Study of associated Higgs boson (ZH) production in the three leptons, two jets final state at 7 and 8 TeV' (*Rebeca Gonzalez Suarez et al.*) [PA-ED]

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CMS AN-2012/060 - 'Search for single top tW production using a boosted decision tree method in the dilepton channel' (*Rebeca Gonzalez Suarez et al.*) [C]

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CMS AN 2010/008 - 'The CMS physics reach for searches at 7 TeV' (*CMS Collaboration*) [PA]

CMS AN 2009/139 - 'Search Strategy for a Standard Model Higgs Boson Decaying to Two W Bosons in the Fully Leptonic Final State at $\sqrt{s} = 10$ TeV' (*G. Bauer, J. Bendavid et al.*)

CMS AN-2009/185 - 'Analysis strategy for the measurement of the $WW \rightarrow \mu\nu\mu\nu$ cross-section with 200 pb^{-1} at center of mass energy of 10 TeV' (*C.Jorda, R. Villar et al.*) [C]

CMS AN-2009/025 - 'Analysis strategy for the measurement of the $WW \rightarrow \mu\nu\mu\nu$ cross-section' (*C.Jorda, R. Villar et al.*) [C]

CMS AN-2009/020 - 'Projected exclusion limits on the SM Higgs boson cross sections obtained by combining the $H \rightarrow WW$ and ZZ decay channels' (*S. Baffioni, C. Botta et al.*) [PA]

CMS AN-2008/074 - 'Measurement of muon charge asymmetry in the $W \rightarrow \mu\nu$ channel' (*J. Alcaraz, M.I. Josa et al.*) [C]

CMS AN-2008/039 - 'Search Strategy for a Standard Model Higgs Boson Decaying to Two W Bosons in the Fully Leptonic Final State' (*C. Charlot, J. Cuevas et al.*) [PA]

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