

Rebeca Gonzalez Suarez - Publication List

Contents

1	Metrics	1
2	Publications in peer-reviewed journals	2
3	Conference proceedings	63
4	Public Analysis Summaries	64
5	Internal Analysis Notes	67

1 Metrics

As of January 21, 2016:

	Citeable papers	Published only
Number of papers	500	448
Number of citations	40634	40291
Average citations per paper	81.3	89.9
h index	98	98

Breakdown of papers by citations:

	Citeable papers	Published only
Renowned papers (500+)	4	4
Famous papers (250-499)	16	16
Very well-known papers (100-249)	73	73
Well-known papers (50-99)	124	123
Known papers (10-49)	197	190
Less known papers (1-9)	68	39
Unknown papers (0)	18	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>

2 Publications in peer-reviewed journals

First, publications in which I have had a substantial personal contribution, chronologically ordered. The ten most relevant publications are marked with a \star sign.

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, Submitted to J. High Energy Phys [R - Single Top]

Measurement of top quark polarisation in t-channel single top quark production, CMS Collaboration (Serguei Chatrchyan et al.), arXiv:1511.02138, Submitted to J. High Energy Phys [R - Single Top]

\star **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, Submitted to JHEP [C, R-ARC]

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, Accepted Phys. Rev. D [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]

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

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]

\star **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]

\star **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]

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]

Personal contribution: I was a primary author of this paper, contributing to the main HWW analysis and performing entirely the ZH, HWW analysis.

Snowmass 2013 Top quark working group report, *Top Quark Working Group Collaboration (K. Agashe et al.)*, 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]

★ **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.)*, Phys.Lett. B 710 (2012) 91-113, arXiv:1202.1489 [C]

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]

★ **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]

★ **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]

Additional peer-reviewed publications from which I am also an author, chronologically ordered:

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

$\sqrt{s} = 8 \text{ TeV}$

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 $\sqrt{s_{NN}} = 5.02 \text{ TeV}$

CMS Collaboration

arXiv:1508.06678 [nucl-ex].

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

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 $\sqrt{s} = 8 \text{ TeV}$

CMS Collaboration

arXiv:1508.01218 [hep-ex].

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

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 $\sqrt{s} = 8 \text{ TeV}$

CMS Collaboration

arXiv:1507.07527 [hep-ex].

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

CMS Collaboration

arXiv:1507.07229 [hep-ex].

10.1007/JHEP09(2015)137.

JHEP 1509 (2015) 137.

Search for pair-produced vector-like B quarks in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$

CMS Collaboration

arXiv:1507.07129 [hep-ex].

Limits on the Higgs boson lifetime and width from its decay to four charged leptons

CMS Collaboration

arXiv:1507.06656 [hep-ex].

10.1103/PhysRevD.92.072010.

Phys.Rev. D92 (2015) 7, 072010.

Pseudorapidity distribution of charged hadrons in proton-proton collisions at $\sqrt{s} = 13$ TeV

CMS Collaboration

arXiv:1507.05915 [hep-ex].

10.1016/j.physletb.2015.10.004.

Phys.Lett. B751 (2015) 143-163.

Measurement of the W^+W^- cross section in pp collisions at $\sqrt{s} = 8$ TeV and limits on anomalous gauge couplings

CMS Collaboration

arXiv:1507.03268 [hep-ex].

Inclusive and differential measurements of the $t\bar{t}$ charge asymmetry in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1507.03119 [hep-ex].

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

arXiv:1507.03031 [hep-ex].

10.1016/j.physletb.2015.12.039.

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

Search for supersymmetry with photons in pp collisions at $\sqrt{s}=8$ TeV CMS Collaboration

arXiv:1507.02898 [hep-ex].

10.1103/PhysRevD.92.072006.

Phys.Rev. D92 (2015) 7, 072006.

Search for exotic decays of a Higgs boson into undetectable particles and one or more photons

CMS Collaboration

arXiv:1507.00359 [hep-ex].

10.1016/j.physletb.2015.12.017.

Phys.Lett. B753 (2016) 363-388.

Production of leading charged particles and leading charged-particle jets at small transverse momenta in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1507.00233 [hep-ex].

10.1103/PhysRevD.92.112001.

Phys.Rev. D92 (2015) 11, 112001.

Search for Neutral MSSM Higgs Bosons Decaying into A Pair of Bottom Quarks

CMS Collaboration

arXiv:1506.08329 [hep-ex].

10.1007/JHEP11(2015)071.

JHEP 1511 (2015) 071.

Search for Resonant $t\bar{t}$ Production in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1506.03062 [hep-ex].

Search for diphoton resonances in the mass range from 150 to 850 GeV in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1506.02301 [hep-ex].

10.1016/j.physletb.2015.09.062.

Phys.Lett. B750 (2015) 494-519.

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

arXiv:1506.01443 [hep-ex].

Search for the standard model Higgs boson produced through vector boson fusion and decaying to $b\bar{b}$ CMS Collaboration

arXiv:1506.01010 [hep-ex].

10.1103/PhysRevD.92.032008.

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

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

arXiv:1506.00424 [hep-ex].

10.1016/j.physletb.2015.10.067.

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

Search for neutral color-octet weak-triplet scalar particles in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1505.08118 [hep-ex].

10.1007/JHEP09(2015)201.

JHEP 1509 (2015) 201.

Comparison of the Z/gamma* + jets to gamma + jets cross sections in pp collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1505.06520 [hep-ex].

10.1007/JHEP10(2015)128.

JHEP 1510 (2015) 128.

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

CMS Collaboration

arXiv:1505.04480 [hep-ex].

10.1140/epjc/s10052-015-3709-x.

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

arXiv:1504.04710 [hep-ex].

10.1016/j.physletb.2015.07.010.

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

Angular coefficients of Z bosons produced in pp collisions at $\sqrt{s} = 8$ TeV and decaying to $\mu^+\mu^-$ as a function of transverse momentum and rapidity

CMS Collaboration

arXiv:1504.03512 [hep-ex].
10.1016/j.physletb.2015.08.061.
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
arXiv:1504.03511 [hep-ex].
10.1016/j.physletb.2015.07.065.
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
arXiv:1504.03198 [hep-ex].
10.1007/JHEP06(2015)121.
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
arXiv:1504.00936 [hep-ex].
10.1007/JHEP10(2015)144.
JHEP 1510 (2015) 144.

Search for Third-Generation Scalar Leptoquarks in the $t\tau$ Channel in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration
arXiv:1503.09049 [hep-ex].
10.1007/JHEP07(2015)042.
JHEP 1507 (2015) 042.

Measurement of diffraction dissociation cross sections in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration
arXiv:1503.08689 [hep-ex].
10.1103/PhysRevD.92.012003.
Phys.Rev. D92 (2015) 1, 012003.

Searches for third-generation squark production in fully hadronic final states in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration
arXiv:1503.08037 [hep-ex].
10.1007/JHEP06(2015)116.
JHEP 1506 (2015) 116.

Combined Measurement of the Higgs Boson Mass in pp Collisions at $\sqrt{s} = 7$ and 8 TeV with the ATLAS and CMS Experiments

ATLAS and CMS Collaborations
arXiv:1503.07589 [hep-ex].
10.1103/PhysRevLett.114.191803.
Phys.Rev.Lett. 114 (2015) 191803.

Study of W boson production in pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV

CMS Collaboration
arXiv:1503.05825 [nucl-ex].
10.1016/j.physletb.2015.09.057.
Phys.Lett. B750 (2015) 565-586.

Measurements of the $Z Z$ production cross sections in the $2l2\nu$ channel in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV and combined constraints on triple gauge couplings

CMS Collaboration
arXiv:1503.05467 [hep-ex].
10.1140/epjc/s10052-015-3706-0.
Eur.Phys.J. C75 (2015) 10, 511.

Search for resonant pair production of Higgs bosons decaying to two bottom quark-antiquark pairs in proton-proton collisions at 8 TeV

CMS Collaboration
arXiv:1503.04114 [hep-ex].
10.1016/j.physletb.2015.08.047.
Phys.Lett. B749 (2015) 560-582.

Search for vector-like T quarks decaying to top quarks and Higgs bosons in the all-hadronic channel using jet substructure

CMS Collaboration
arXiv:1503.01952 [hep-ex].
10.1007/JHEP06(2015)080.
JHEP 1506 (2015) 080.

Evidence for transverse momentum and pseudorapidity dependent event plane fluctuations in PbPb and pPb collisions

CMS Collaboration
arXiv:1503.01692 [nucl-ex].
10.1103/PhysRevC.92.034911.
Phys.Rev. C92 (2015) 3, 034911.124.

Study of Final-State Radiation in Decays of Z Bosons Produced in pp Collisions at 7 TeV

CMS Collaboration
arXiv:1502.07940 [hep-ex].
10.1103/PhysRevD.91.092012.
Phys.Rev. D91 (2015) 9, 092012.124.

Search for Lepton-Flavour-Violating Decays of the Higgs Boson

CMS Collaboration
arXiv:1502.07400 [hep-ex].
10.1016/j.physletb.2015.07.053.
Phys.Lett. B749 (2015) 337-362.124.

Search for Physics Beyond the Standard Model in Events with Two Leptons, Jets, and Missing Transverse Momentum in pp Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration
arXiv:1502.06031 [hep-ex].
10.1007/JHEP04(2015)124.
JHEP 1504 (2015) 124.

Measurement of the $Z\gamma$ Production Cross Section in pp Collisions at 8 TeV and Search for

Anomalous Triple Gauge Boson Couplings

CMS Collaboration

arXiv:1502.05664 [hep-ex].

10.1007/JHEP04(2015)164.

JHEP 1504 (2015) 164.

Nuclear Effects on the Transverse Momentum Spectra of Charged Particles in pPb Collisions

at $\sqrt{s_{NN}} = 5.02$ TeV

CMS Collaboration

arXiv:1502.05387 [nucl-ex].

10.1140/epjc/s10052-015-3435-4.

Eur.Phys.J. C75 (2015) 5, 237.

Evidence for Collective Multiparticle Correlations in p-Pb Collisions

CMS Collaboration

arXiv:1502.05382 [nucl-ex].

10.1103/PhysRevLett.115.012301.

Phys.Rev.Lett. 115 (2015) 1, 012301.

Search for Narrow High-Mass Resonances in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV Decaying to a Z and a Higgs Boson

CMS Collaboration

arXiv:1502.04994 [hep-ex].

10.1016/j.physletb.2015.07.011.

Phys.Lett. B748 (2015) 255-277.

Distributions of Topological Observables in Inclusive Three- and Four-Jet Events in pp Collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1502.04785 [hep-ex].

10.1140/epjc/s10052-015-3491-9.

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

arXiv:1502.04358 [hep-ex].

10.1007/JHEP05(2015)078.

JHEP 1505 (2015) 078.

Measurement of J/ψ and $\psi(2S)$ Prompt Double-Differential Cross Sections in pp Collisions at $\sqrt{s}=7$ TeV

CMS Collaboration

arXiv:1502.04155 [hep-ex]. 10.1103/PhysRevLett.114.191802. Phys.Rev.Lett. 114 (2015) 19, 191802.

Performance of Photon Reconstruction and Identification with the CMS Detector in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1502.02702 [physics.ins-det].

10.1088/1748-0221/10/08/P08010.

JINST 10 (2015) 08, P08010.

Performance of Electron Reconstruction and Selection with the CMS Detector in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1502.02701 [physics.ins-det].

10.1088/1748-0221/10/06/P06005.

JINST 10 (2015) 06, P06005.

Constraints on the pMSSM, AMSB Model and on Other Models from the Search for Long-Lived Charged Particles in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1502.02522 [hep-ex].

10.1140/epjc/s10052-015-3533-3.

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

Search for Supersymmetry Using Razor Variables in Events with b -Tagged Jets in pp Collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1502.00300 [hep-ex].

10.1103/PhysRevD.91.052018.

Phys.Rev. D91 (2015) 052018.

Measurements of the $\Upsilon(1S)$, $\Upsilon(2S)$, and $\Upsilon(3S)$ differential cross sections in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1501.07750 [hep-ex].

10.1016/j.physletb.2015.07.037.

Phys.Lett. B749 (2015) 14-34.

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

arXiv:1501.06089 [hep-ex].

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

CMS Collaboration

arXiv:1501.05603 [hep-ex].

10.1140/epjc/s10052-015-3367-z.

Eur.Phys.J. C75 (2015) 4, 151.

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

CMS Collaboration

arXiv:1501.05566 [hep-ex].

10.1016/j.physletb.2015.06.070.

Phys.Lett. B748 (2015) 144-166.

Search for resonances and quantum black holes using dijet mass spectra in proton-proton collisions at $\sqrt{s} = 8$ TeV

CMS Collaboration

arXiv:1501.04198 [hep-ex].

10.1103/PhysRevD.91.052009.

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

arXiv:1412.7706 [hep-ex].

10.1016/j.physletb.2015.04.045.

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

arXiv:1412.6302 [hep-ex].

10.1007/JHEP04(2015)025.

JHEP 1504 (2015) 025.

Searches for supersymmetry based on events with b jets and four W bosons in pp collisions at 8 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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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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

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

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

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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Pairs

CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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CMS Collaboration
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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 1212 (2012) 055.

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CMS Collaboration

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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 1301 (2013) 013.

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CMS Collaboration

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CMS Collaboration

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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 1212 (2012) 035.

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

CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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

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CMS Collaboration

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at $\sqrt{s} = 7$ TeV

CMS Collaboration

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Observation of a diffractive contribution to dijet production in proton-proton collisions at

$\sqrt{s} = 7$ TeV

CMS Collaboration

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Phys.Rev. D87 (2013) 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

arXiv:1209.0471 [hep-ex].

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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.

Search for three-jet resonances in pp collisions at $\sqrt{s} = 7$ TeV

CMS Collaboration

arXiv:1208.2931 [hep-ex].

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Phys.Lett. B718 (2012) 329-347.

Observation of sequential Upsilon suppression in PbPb collisions

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

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

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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

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

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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CMS Collaboration

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4 Public Analysis Summaries

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

'Measurement of the transverse momentum spectrum of the Higgs boson produced in pp collisions at $\sqrt{s} = 8\text{TeV}$ 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 $\sqrt{s} = 8\text{ TeV}$ ' (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]

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'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]

5 Internal Analysis Notes

Internal notes that I am an author of:

CMS AN-2013/113 - 'Search for $H \rightarrow b\bar{b}$ 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 $H \rightarrow WW$ dileptonic decay channel' (Rebeca Gonzalez Suarez *et al.*) [PA-ED]

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CMS AN-2012/458 - 'Single top associated tW production at 8 TeV' (Rebeca Gonzalez Suarez *et al.*) [PA-ED]

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]

CMS AN-2011/465 - 'Search for the Single top tW associated production in the dilepton decay channel with the full 2011 dataset' (Rebeca Gonzalez Suarez *et al.*) [PA-ED]

CMS AN-2011/253 - 'Search for the Single top tW associated production in the dilepton decay channel' (Rebeca Gonzalez Suarez *et al.*) [PA-ED]

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CMS AN2010/344 - 'First Measurement of $pp \rightarrow WW$ Production Cross-Section at $\sqrt{s} = 7\text{ TeV}$ ' (W. Andrews, D. Barge *et al.*) [C]

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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]

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