### Rebeca Gonzalez Suarez - Publication List

#### Contents

1	Metrics	1
2	Publications in peer-reviewed journals	2
3	Conference proceedings	64
4	Public Analysis Summaries	65
5	Internal Analysis Notes	68

#### 1 Metrics

As of May 10, 2016:

	Citeable papers	Published only
Number of papers	532	486
Number of citations	46193	46001
Average citations per paper	86.8	94.7
h index	103	103

Breakdown of papers by citations:

	Citeable papers	Published only
Renowned papers (500+)	4	4
Famous papers (250-499)	22	22
Very well-known papers (100-249)	84	84
Well-known papers (50-99)	145	144
Known papers (10-49)	184	182
Less known papers (1-9)	77	50
Unknown papers (o)	16	0

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 personal contribution, chronologically ordered. The ten most relevant publications are marked with a \* sign.

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, Submitted to J. High Energy Phys [R - Higgs to WW]

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

\* Search for the associated production of a Higgs boson with a single top quark in protonproton 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]

\* 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]

**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]
- $\star$  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]

- $\star$  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]
- $\star$  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 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 t-bar 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-tbar 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 $\gamma \to \nu \bar{\nu} \gamma$ 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

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 $\overline{\theta}$  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 protonproton 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 au lepton decays to hadrons and $u_{ au}$ 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 au 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

 $\sqrt{s} = 13 \, \text{TeV}$ 

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

CMS Collaboration

arXiv:1510.03373 [nucl-ex].

Measurement of  $\mathfrak{P}$  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  $\to \tau\tau$  CMS Collaboration

arXiv:1510.01181 [hep-ex].

Observation of top quark pairs produced in association with a vector boson in pp collisions at sgrt(s) = 8 TeV

CMS Collaboration

arXiv:1510.01131 [hep-ex].

Measurement of transverse momentum relative to dijet systems in PbPb and pp collisions at

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

CMS Collaboration

arXiv:1509.09029 [nucl-ex].

Search for the Production of an Excited Bottom Quark Decaying to tW in Proton-Proton Col-

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

CMS Collaboration

arXiv:1509.08141 [hep-ex].

Measurement of the ttbar 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' ightarrow tb 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

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 $\sqrt{s_{_{ m NN}}}=$ 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 $\sqrt{s}=8\,{\rm TeV}$

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 $\sqrt{s_{\rm NN}}$ = = 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 $B^0 o K^{*0} \mu^+ \mu^-$ 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 $\phi_s$ and the decay width difference $\Delta\Gamma_s$ using the B $_s^o \to J/\psi \phi(1020)$ 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.

### Search for pair-produced vector-like B quarks in proton-proton collisions at $\sqrt{s}$ = 8 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 ${\mathfrak P}$ charge asymmetry in pp collisions at $\sqrt{s}=$ 8 TeV

CMS Collaboration

arXiv:1507.03119 [hep-ex].

### Search for a Higgs boson decaying into $\gamma^*\gamma \to \ell\ell\gamma$ 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 $\square$ 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 $\sqrt{s}=8\,\text{TeV}$

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

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 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 $\sqrt{s_{ m NN}}=$ 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

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  $\sqrt{s_{\rm NN}}=5.02\,{\rm TeV}$  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

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 $\mathbf{M}_{T2}$ 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/ $\psi$ and $\psi$ (2S)Prompt Double-Differential Cross Sections in pp Collisions at $\sqrt{s}$ =7TeV

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

#### $\sqrt{s} = 7 \text{ TeV}$

CMS Collaboration

arXiv:1501.07750 [hep-ex].

10.1016/j.physletb.2015.07.037.

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

#### Measurement of the ratio $\mathcal{B}(\mathsf{B}^0_s\to\mathsf{J}/\psi\,\mathsf{f}_0(980))/\mathcal{B}(\mathsf{B}^0_s\to\mathsf{J}/\psi\,\phi(1020))$ 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

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

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 $\mu^{\pm}\mu^{\pm}+$ 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 col**lisions 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 $\sqrt{s} = 8 \text{ TeV}$

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

arXiv:1412.4109 [hep-ex].

10.1016/j.physletb.2015.04.002.

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

#### Measurement of the inclusive 3-jet production differential cross section in proton-proton col-

#### lisions at 7 TeV and determination of the strong coupling constant in the TeV range

CMS Collaboration

arXiv:1412.1633 [hep-ex].

10.1140/epjc/s10052-015-3376-y.

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

### Measurements of differential and double-differential Drell-Yan cross sections in proton-proton collisions at 8 TeV

CMS Collaboration

arXiv:1412.1115 [hep-ex].

10.1140/epjc/s10052-015-3364-2.

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

### Search for stealth supersymmetry in events with jets, either photons or leptons, and low missing transverse momentum in pp collisions at 8 TeV

CMS Collaboration

arXiv:1411.7255 [hep-ex].

10.1016/j.physletb.2015.03.017.

Phys.Lett. B743 (2015) 503-525.

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

CMS Collaboration

arXiv:1411.6977 [hep-ex].

10.1103/PhysRevD.91.052012.

Phys.Rev. D91 (2015) 5, 052012.

### Search for Long-Lived Neutral Particles Decaying to Quark-Antiquark Pairs in Proton-Proton Collisions at $\sqrt{s}=$ 8 TeV

CMS Collaboration

arXiv:1411.6530 [hep-ex].

10.1103/PhysRevD.91.012007.

Phys.Rev. D91 (2015) 1, 012007.

#### Search for disappearing tracks in proton-proton collisions at $\sqrt{s}=8\,{\rm TeV}$

CMS Collaboration

arXiv:1411.6006 [hep-ex].

10.1007/JHEP01(2015)096.

JHEP 1501 (2015) 096.

#### Measurement of the cross section ratio $\sigma_{\text{tEb}}/\sigma_{\text{tEjj}}$ in pp collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration

arXiv:1411.5621 [hep-ex].

10.1016/j.physletb.2015.04.060.

Phys.Lett. B746 (2015) 132-153.

### Observation of the rare $B_s^0 \to \mu^+\mu^-$ decay from the combined analysis of CMS and LHCb data

CMS and LHCb Collaborations

arXiv:1411.4413 [hep-ex].

10.1038/nature14474.

Nature 522 (2015) 68-72.

### Search for quark contact interactions and extra spatial dimensions using dijet angular distributions in proton-proton collisions at $\sqrt{s}=$ 8 TeV

CMS Collaboration arXiv:1411.2646 [hep-ex]. 10.1016/j.physletb.2015.04.042. Phys.Lett. B746 (2015) 79-99.

### Performance of the CMS missing transverse momentum reconstruction in pp data at $\sqrt{s}$ = 8 TeV

CMS Collaboration arXiv:1411.0511 [physics.ins-det]. 10.1088/1748-0221/10/02/P02006. JINST 10 (2015) 02, P02006.

### Search for new phenomena in monophoton final states in proton-proton collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration arXiv:1410.8812 [hep-ex].

# Constraints on parton distribution functions and extraction of the strong coupling constant from the inclusive jet cross section in pp collisions at $\sqrt{s}=7{\rm TeV}$

CMS Collaboration arXiv:1410.6765 [hep-ex]. 10.1140/epjc/s10052-015-3499-1. Eur.Phys.J. C75 (2015) 6, 288.

### Search for a standard model-like Higgs boson in the $\mu^+\mu^-$ and $e^+e^-$ decay channels at the LHC

CMS Collaboration arXiv:1410.6679 [hep-ex]. 10.1016/j.physletb.2015.03.048. Phys.Lett. B744 (2015) 184-207.

## Study of vector boson scattering and search for new physics in events with two same-sign leptons and two jets

CMS Collaboration arXiv:1410.6315 [hep-ex]. 10.1103/PhysRevLett.114.051801. Phys.Rev.Lett. 114 (2015) 5, 051801.

# Measurement of the ratio of the production cross sections times branching fractions of $B_c^\pm \to J/\psi \pi^\pm$ and $B^\pm \to J/\psi K^\pm$ and $\mathcal{B}(B_c^\pm \to J/\psi \pi^\pm \pi^\pm \pi^\mp)/\mathcal{B}(B_c^\pm \to J/\psi \pi^\pm)$ in pp collisions at $\sqrt{s}=$ 7 TeV

CMS Collaboration arXiv:1410.5729 [hep-ex]. 10.1007/JHEP01(2015)063. JHEP 1501 (2015) 063.

### Study of Z production in PbPb and pp collisions at $\sqrt{s_{\rm NN}}=2.76$ TeV in the dimuon and dielectron decay channels

CMS Collaboration arXiv:1410.4825 [nucl-ex]. 10.1007/JHEP03(2015)022. JHEP 1503 (2015) 022..

#### Identification techniques for highly boosted W bosons that decay into hadrons

CMS Collaboration arXiv:1410.4227 [hep-ex]. 10.1007/JHEP12(2014)017. JHEP 1412 (2014) 017..

### Measurement of electroweak production of two jets in association with a Z boson in proton-proton collisions at $\sqrt{s}=8\,\text{TeV}$

CMS Collaboration arXiv:1410.3153 [hep-ex]. 10.1140/epjc/s10052-014-3232-5. Eur.Phys.J. C75 (2015) 2, 66..

### Searches for heavy Higgs bosons in two-Higgs-doublet models and for t-ch decay using multilepton and diphoton final states in pp collisions at 8 TeV

CMS Collaboration arXiv:1410.2751 [hep-ex]. 10.1103/PhysRevD.90.112013. Phys.Rev. D90 (2014) 112013..

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

CMS Collaboration arXiv:1410.1804 [nucl-ex]. 10.1103/PhysRevLett.113.262301. Phys.Rev.Lett. 113 (2014) 26, 262301.

### Search for Standard Model Production of Four Top Quarks in the Lepton + Jets Channel in pp Collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration arXiv:1409.7339 [hep-ex]. 10.1007/JHEP11(2014)154. JHEP 1411 (2014) 154.

### Measurement of the production cross section ratio sigma(chi[b2](1P)) / sigma(chi[b1](1P)) in pp collisions at sqrt(s) = 8 TeV

CMS Collaboration arXiv:1409.5761 [hep-ex]. 10.1016/j.physletb.2015.02.048. Phys.Lett. B743 (2015) 383-402.

# Search for Displaced Supersymmetry in events with an electron and a muon with large impact parameters

CMS Collaboration arXiv:1409.4789 [hep-ex]. 10.1103/PhysRevLett.114.061801. Phys.Rev.Lett. 114 (2015) 6, 061801.

# Long-range two-particle correlations of strange hadrons with charged particles in pPb and PbPb collisions at LHC energies

CMS Collaboration arXiv:1409.3392 [nucl-ex].

10.1016/j.physletb.2015.01.034. Phys.Lett. B742 (2015) 200-224.

### Searches for electroweak neutralino and chargino production in channels with Higgs, Z, and W bosons in pp collisions at 8 TeV

CMS Collaboration arXiv:1409.3168 [hep-ex]. 10.1103/PhysRevD.90.092007. Phys.Rev. D90 (2014) 9, 092007.

### Search for dark matter, extra dimensions, and unparticles in monojet events in proton-proton collisions at $\sqrt{s}=8\,\text{TeV}$

CMS Collaboration arXiv:1408.3583 [hep-ex]. 10.1140/epjc/s10052-015-3451-4. Eur.Phys.J. C75 (2015) 5, 235.

#### Search for neutral MSSM Higgs bosons decaying to a pair of tau leptons in pp collisions

CMS Collaboration arXiv:1408.3316 [hep-ex]. 10.1007/JHEP10(2014)160. JHEP 1410 (2014) 160.

### Measurements of jet multiplicity and differential production cross sections of Z+ jets events in proton-proton collisions at $\sqrt{s}=$ 7 TeV

CMS Collaboration arXiv:1408.3104 [hep-ex]. 10.1103/PhysRevD.91.052008. Phys.Rev. D91 (2015) 5, 052008.

### Search for physics beyond the standard model in final states with a lepton and missing transverse energy in proton-proton collisions at sqrt(s) = 8 TeV

CMS Collaboration arXiv:1408.2745 [hep-ex]. 10.1103/PhysRevD.91.092005. Phys.Rev. D91 (2015) 9, 092005.

#### Search for the associated production of the Higgs boson with a top-quark pair

CMS Collaboration arXiv:1408.1682 [hep-ex]. 10.1007/JHEP10(2014)106, 10.1007/JHEP09(2014)087. JHEP 1409 (2014) 087, Erratum-ibid. 1410 (2014) 106.

#### Search for pair production of third-generation scalar leptoquarks and top squarks in protonproton collisions at sqrt(s) = 8 TeV

CMS Collaboration arXiv:1408.0806 [hep-ex]. 10.1016/j.physletb.2014.10.063. Phys.Lett. B739 (2014) 229.

# Measurement of the $t\bar{t}$ production cross section in pp collisions at $\sqrt{s}=8$ TeV in dilepton final states containing one $\tau$ lepton

arXiv:1407.6643 [hep-ex]. 10.1016/j.physletb.2014.10.032. Phys.Lett. B739 (2014) 23-43.

#### Search for heavy neutrinos and W bosons with right-handed couplings in proton-proton collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration arXiv:1407.3683 [hep-ex]. 10.1140/epjc/s10052-014-3149-z. Eur.Phys.J. C74 (2014) 11, 3149.

#### Search for new resonances decaying via WZ to leptons in proton-proton collisions at $\sqrt{s}=$ 8 TeV

CMS Collaboration arXiv:1407.3476 [hep-ex]. 10.1016/j.physletb.2014.11.026. Phys.Lett. B740 (2014) 83-104.

#### Study of hadronic event-shape variables in multijet final states in pp collisions at sqrt(s) = 7 TeV

CMS Collaboration arXiv:1407.2856 [hep-ex]. 10.1007/JHEP10(2014)087. JHEP 1410 (2014) 87.

### Observation of the diphoton decay of the Higgs boson and measurement of its properties

CMS Collaboration arXiv:1407.0558 [hep-ex].

10.1140/epjc/s10052-014-3076-z. Eur.Phys.J. C74 (2014) 10, 3076.

#### Measurement of top quark-antiquark pair production in association with a W or Z boson in pp collisions at $\sqrt{s} = 8 \text{ TeV}$

CMS Collaboration arXiv:1406.7830 [hep-ex]. 10.1140/epjc/s10052-014-3060-7. Eur.Phys.J. C74 (2014) 9, 3060.

#### Differential cross section measurements for the production of a W boson in association with jets in proton-proton collisions at sqrt(s) = 7 TeV

CMS Collaboration arXiv:1406.7533 [hep-ex]. 10.1016/j.physletb.2014.12.003. Phys.Lett. B741 (2015) 12.

### Search for excited quarks in the $\gamma$ +jet final state in proton proton collisions at $\sqrt{s}=8$ TeV

CMS Collaboration arXiv:1406.5171 [hep-ex]. 10.1016/j.physletb.2014.09.048. Phys.Lett. B738 (2014) 274-293.

#### Measurement of jet fragmentation in PbPb and pp collisions at $\sqrt{s_{NN}}=2.76\,\text{TeV}$ CMS Collaboration

arXiv:1406.0932 [nucl-ex]. 10.1103/PhysRevC.90.024908. Phys.Rev. C90 (2014) 2, 024908.

#### Measurement of prompt $J/\psi$ pair production in pp collisions at $\sqrt{s}$ = 7 Tev

CMS Collaboration arXiv:1406.0484 [hep-ex]. 10.1007/JHEP09(2014)094. JHEP 1409 (2014) 094.

### Measurement of the ratio of inclusive jet cross sections using the anti- $k_T$ algorithm with radius parameters R=0.5 and 0.7 in pp collisions at $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration arXiv:1406.0324 [hep-ex]. 10.1103/PhysRevD.90.072006. Phys.Rev. D90 (2014) 7, 072006.

### Measurement of the pp to ZZ production cross section and constraints on anomalous triple gauge couplings in four-lepton final states at sqrt(s) = 8 TeV

CMS Collaboration arXiv:1406.0113 [hep-ex]. 10.1016/j.physletb.2014.11.059. Phys.Lett. B740 (2015) 250.

### Search for jet extinction in the inclusive jet- $p_t$ spectrum from proton-proton collisions at $\sqrt{s}=$ 8 TeV

CMS Collaboration arXiv:1405.7653 [hep-ex]. 10.1103/PhysRevD.90.032005. Phys.Rev. D90 (2014) 3, 032005.

### Measurement of differential cross sections for the production of a pair of isolated photons in pp collisions at $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration arXiv:1405.7225 [hep-ex]. 10.1140/epjc/s10052-014-3129-3. Eur.Phys.J. C74 (2014) 11, 3129.

### $Description\ and\ performance\ of\ track\ and\ primary-vertex\ reconstruction\ with\ the\ CMS\ tracker$

arXiv:1405.6569 [physics.ins-det]. 10.1088/1748-0221/9/10/P10009. JINST 9 (2014) 10, P10009.

CMS Collaboration

#### Search for supersymmetry with razor variables in pp collisions at $\sqrt{s}$ =7 TeV

CMS Collaboration arXiv:1405.3961 [hep-ex]. 10.1103/PhysRevD.90.112001. Phys.Rev. D90 (2014) 11, 112001.

### Search for top-squark pairs decaying into Higgs or Z bosons in pp collisions at $\sqrt{s}$ =8 TeV CMS Collaboration

arXiv:1405.3886 [hep-ex].

```
10.1016/j.physletb.2014.07.053.
Phys.Lett. B736 (2014) 371-397.
```

### Constraints on the Higgs boson width from off-shell production and decay to Z-boson pairs

CMS Collaboration

arXiv:1405.3455 [hep-ex].

10.1016/j.physletb.2014.06.077.

Phys.Lett. B736 (2014) 64.

### Search for massive resonances decaying into pairs of boosted bosons in semi-leptonic final states at $\sqrt{s}=$ 8 TeV

CMS Collaboration

arXiv:1405.3447 [hep-ex].

10.1007/JHEP08(2014)174.

JHEP 1408 (2014) 174.

### Search for massive resonances in dijet systems containing jets tagged as W or Z boson decays in pp collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration

arXiv:1405.1994 [hep-ex].

10.1007/JHEP08(2014)173.

JHEP 1408 (2014) 173.

### Measurement of pseudorapidity distributions of charged particles in proton-proton collisions at $\sqrt{s}$ = 8 TeV by the CMS and TOTEM experiments

CMS and TOTEM Collaborations

arXiv:1405.0722 [hep-ex].

10.1140/epjc/s10052-014-3053-6.

Eur.Phys.J. C74 (2014) 10, 3053.

### Search for anomalous production of events with three or more leptons in pp collisions at $\sqrt(s)=8$ TeV

CMS Collaboration

arXiv:1404.5801 [hep-ex].

10.1103/PhysRevD.90.032006.

Phys.Rev. D90 (2014) 3, 032006.

### Search for $WW\gamma$ and $WZ\gamma$ production and constraints on anomalous quartic gauge couplings in pp collisions at $\sqrt{s}=$ 8 TeV

CMS Collaboration

arXiv:1404.4619 [hep-ex].

10.1103/PhysRevD.90.032008.

Phys.Rev. D90 (2014) 3, 032008.

### Measurement of jet multiplicity distributions in $t \bar t$ production in pp collisions at $\sqrt s = 7\,{\rm TeV}$

CMS Collaboration

arXiv:1404.3171 [hep-ex].

10.1140/epjc/s10052-014-3014-0.

Eur.Phys.J. C74 (2014) 8, 3014.

#### Measurement of the ratio $B(t \to Wb)/B(t \to Wq)$ in pp collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration

arXiv:1404.2292 [hep-ex].

10.1016/j.physletb.2014.06.076. Phys.Lett. B736 (2014) 33.

### Search for invisible decays of Higgs bosons in the vector boson fusion and associated ZH production modes

CMS Collaboration arXiv:1404.1344 [hep-ex]. 10.1140/epjc/s10052-014-2980-6. Eur.Phys.J. C74 (2014) 8, 2980.

### Measurement of WZ and ZZ production in pp collisions at $\sqrt{s}=8$ TeV in final states with b-tagged jets

CMS Collaboration arXiv:1403.3047 [hep-ex]. 10.1140/epjc/s10052-014-2973-5. Eur.Phys.J. C74 (2014) 8, 2973.

#### Alignment of the CMS tracker with LHC and cosmic ray data

CMS Collaboration arXiv:1403.2286 [physics.ins-det]. 10.1088/1748-0221/9/06/P06009. JINST 9 (2014) P06009.

#### Search for new physics in the multijet and missing transverse momentum final state in protonproton collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration arXiv:1402.4770 [hep-ex]. 10.1007/JHEP06(2014)055. JHEP 1406 (2014) 055.

### Measurements of the $t\bar{t}$ charge asymmetry using the dilepton decay channel in pp collisions at $\sqrt{s}=$ 7 TeV

CMS Collaboration arXiv:1402.3803 [hep-ex]. 10.1007/JHEP04(2014)191. JHEP 1404 (2014) 191.

#### Search for W' $\rightarrow$ tb decays in the lepton + jets final state in pp collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration arXiv:1402.2176 [hep-ex]. 10.1007/JHEP05(2014)108. JHEP 1405 (2014) 108.

### Measurement of the production cross sections for a Z boson and one or more b jets in pp collisions at sqrt(s) = 7 TeV

CMS Collaboration arXiv:1402.1521 [hep-ex]. 10.1007/JHEP06(2014)120. JHEP 1406 (2014) 120.

### Measurement of inclusive W and Z boson production cross sections in pp collisions at $\sqrt{s}$ = 8 TeV

arXiv:1402.0923 [hep-ex]. 10.1103/PhysRevLett.112.191802. Phys.Rev.Lett. 112 (2014) 191802.

#### Evidence for the direct decay of the 125 GeV Higgs boson to fermions

CMS Collaboration arXiv:1401.6527 [hep-ex]. 10.1038/nphys3005. Nature Phys. 10 (2014) 557-560.

#### Evidence for the 125 GeV Higgs boson decaying to a pair of au leptons

CMS Collaboration arXiv:1401.5041 [hep-ex]. 10.1007/JHEP05(2014)104. JHEP 1405 (2014) 104.

### Studies of dijet transverse momentum balance and pseudorapidity distributions in pPb collisions at $\sqrt{s_{\rm NN}}=5.02\,{\rm TeV}$

CMS Collaboration arXiv:1401.4433 [nucl-ex]. 10.1140/epjc/s10052-014-2951-y. Eur.Phys.J. C74 (2014) 7, 2951.

### Measurement of the $t\bar{t}$ production cross section in the dilepton channel in pp collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration arXiv:1312.7582 [hep-ex], arXiv:1312.7582. 10.1007/JHEP02(2014)024, 10.1007/JHEP02(2014)102. JHEP 1402 (2014) 024, Erratum-ibid. 1402 (2014) 102.

### Measurement of the production cross section for a W boson and two b jets in pp collisions at sqrt(s) = 7 TeV

CMS Collaboration arXiv:1312.6608 [hep-ex]. 10.1016/j.physletb.2014.06.041. Phys.Lett. B735 (2014) 204.

#### Measurement of four-jet production in proton-proton collisions at $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration arXiv:1312.6440 [hep-ex]. 10.1103/PhysRevD.89.092010. Phys.Rev. D89 (2014) 9, 092010.

### Event activity dependence of Y(nS) production in $\sqrt{s_{NN}}$ =5.02 TeV pPb and $\sqrt{s}$ =2.76 TeV pp collisions

CMS Collaboration arXiv:1312.6300 [nucl-ex]. 10.1007/JHEP04(2014)103. JHEP 1404 (2014) 103.

# Measurement of the muon charge asymmetry in inclusive $pp \to W+X$ production at $\sqrt{s}=$ 7 TeV and an improved determination of light parton distribution functions

arXiv:1312.6283 [hep-ex]. 10.1103/PhysRevD.90.032004. Phys.Rev. D90 (2014) 3, 032004.

### Study of double parton scattering using W + 2-jet events in proton-proton collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration arXiv:1312.5729 [hep-ex]. 10.1007/JHEP03(2014)032. JHEP 1403 (2014) 032.

#### Measurement of the properties of a Higgs boson in the four-lepton final state

CMS Collaboration arXiv:1312.5353 [hep-ex]. 10.1103/PhysRevD.89.092007. Phys.Rev. D89 (2014) 092007.

#### Evidence of b-Jet Quenching in PbPb Collisions at $\sqrt{s_{NN}}=2.76\,\mathrm{TeV}$

CMS Collaboration arXiv:1312.4198 [nucl-ex]. 10.1103/PhysRevLett.113.132301. Phys.Rev.Lett. 113 (2014) 13, 132301.

### Search for Flavor-Changing Neutral Currents in Top-Quark Decays $t \to Zq$ in pp Collisions at $\sqrt{s} = 8\, \text{TeV}$

CMS Collaboration arXiv:1312.4194 [hep-ex]. 10.1103/PhysRevLett.112.171802. Phys.Rev.Lett. 112 (2014) 17, 171802.

#### Search for top squark and higgsino production using diphoton Higgs boson decays

CMS Collaboration arXiv:1312.3310 [hep-ex]. 10.1103/PhysRevLett.112.161802. Phys.Rev.Lett. 112 (2014) 161802.

#### Search for top-quark partners with charge 5/3 in the same-sign dilepton final state

CMS Collaboration arXiv:1312.2391 [hep-ex]. 10.1103/PhysRevLett.112.171801. Phys.Rev.Lett. 112 (2014) 171801.

### Studies of azimuthal dihadron correlations in ultra-central PbPb collisions at $\sqrt{s_{NN}}=$ 2.76 TeV

CMS Collaboration arXiv:1312.1845 [nucl-ex]. 10.1007/JHEP02(2014)088. JHEP 1402 (2014) 088.

### Inclusive search for a vector-like T quark with charge $\frac{2}{3}$ in pp collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration arXiv:1311.7667 [hep-ex]. 10.1016/j.physletb.2014.01.006.

Phys.Lett. B729 (2014) 149-171.

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

CMS Collaboration arXiv:1311.6736 [hep-ex]. 10.1007/JHEP01(2014)163. JHEP 1401 (2014) 163.

### Measurement of the triple-differential cross section for photon+jets production in proton-proton collisions at $\sqrt{s}$ =7 TeV

CMS Collaboration arXiv:1311.6141 [hep-ex]. 10.1007/JHEP06(2014)009. JHEP 1406 (2014) 009.

#### Probing color coherence effects in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1311.5815 [hep-ex]. 10.1140/epjc/s10052-014-2901-8. Eur.Phys.J. C74 (2014) 6, 2901.

#### Search for pair production of excited top quarks in the lepton + jets final state

CMS Collaboration arXiv:1311.5357 [hep-ex]. 10.1007/JHEP06(2014)125. JHEP 1406 (2014) 125.

### Search for supersymmetry in pp collisions at $\sqrt{s}$ =8 TeV in events with a single lepton, large jet multiplicity, and multiple b jets

CMS Collaboration arXiv:1311.4937 [hep-ex]. 10.1016/j.physletb.2014.04.023. Phys.Lett. B733 (2014) 328-353.

### Measurements of $t\bar{t}$ spin correlations and top-quark polarization using dilepton final states in pp collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration arXiv:1311.3924 [hep-ex]. 10.1103/PhysRevLett.112.182001. Phys.Rev.Lett. 112 (2014) 182001.

### Searches for lightand heavy-flavour three-jet resonances in pp collisions at $\sqrt{s}=8\,\mathrm{TeV}$

CMS Collaboration arXiv:1311.1799 [hep-ex]. 10.1016/j.physletb.2014.01.049. Phys.Lett. B730 (2014) 193-214.

### Measurement of higher-order harmonic azimuthal anisotropy in PbPb collisions at $\sqrt{s_{NN}}$ = 2.76 TeV

CMS Collaboration arXiv:1310.8651 [nucl-ex].

10.1103/PhysRevC.89.044906. Phys.Rev. C89 (2014) 044906.

### Measurement of the differential and double-differential Drell-Yan cross sections in proton-proton collisions at $\sqrt{s}=$ 7 TeV

CMS Collaboration arXiv:1310.7291 [hep-ex]. 10.1007/JHEP12(2013)030. JHEP 1312 (2013) 030.

### Jet and underlying event properties as a function of charged-particle multiplicity in proton proton collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration arXiv:1310.4554 [hep-ex]. 10.1140/epjc/s10052-013-2674-5. Eur.Phys.J. C73 (2013) 12, 2674.

### Search for the standard model Higgs boson produced in association with a W or a Z boson and decaying to bottom quarks

CMS Collaboration arXiv:1310.3687 [hep-ex]. 10.1103/PhysRevD.89.012003. Phys.Rev. D89 (2014) 1, 012003.

#### Rapidity distributions in exclusive Z + jet and $\gamma$ + jet events in pp collisions at $\sqrt{s}$ =7 TeV

CMS Collaboration arXiv:1310.3082 [hep-ex]. 10.1103/PhysRevD.88.112009. Phys.Rev. D88 (2013) 112009.

#### Search for baryon number violation in top-quark decays

CMS Collaboration arXiv:1310.1618 [hep-ex]. 10.1016/j.physletb.2014.02.033. Phys.Lett. B731 (2014) 173-196.

## Measurement of the cross section and angular correlations for associated production of a Z boson with b hadrons in pp collisions at $\sqrt{s}=$ 7 TeV

CMS Collaboration arXiv:1310.1349 [hep-ex]. 10.1007/JHEP12(2013)039. JHEP 1312 (2013) 039.

#### Measurement of associated W + charm production in pp collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration arXiv:1310.1138 [hep-ex]. 10.1007/JHEP02(2014)013. JHEP 1402 (2014) 013.

#### Modification of jet shapes in PbPb collisions at $\sqrt{s_{NN}}=2.76\,\mathrm{TeV}$

CMS Collaboration arXiv:1310.0878 [nucl-ex]. 10.1016/j.physletb.2014.01.042.

Phys.Lett. B730 (2014) 243-263.

### Observation of a peaking structure in the J/psi phi mass spectrum from B(+/-) to J/psi phi K(+/-) decays

CMS Collaboration arXiv:1309.6920 [hep-ex]. 10.1016/j.physletb.2014.05.055. Phys.Lett. B734 (2014) 261.

### Searches for new physics using the $t\bar{t}$ invariant mass distribution in pp collisions at $\sqrt{s}$ =8 TeV CMS Collaboration

arXiv:1309.2030 [hep-ex]. 10.1103/PhysRevLett.112.119903, 10.1103/PhysRevLett.111.211804. Phys.Rev.Lett. 111 (2013) 21, 211804, Erratum-ibid. 112 (2014) 11, 119903.

### Measurement of the production cross section for $Z\gamma \to \nu \bar{\nu} \gamma$ in pp collisions at $\sqrt{s}=$ 7 TeV and limits on $ZZ\gamma$ and $Z\gamma\gamma$ triple gauge boson couplings

CMS Collaboration arXiv:1309.1117 [hep-ex]. 10.1007/JHEP10(2013)164. JHEP 1310 (2013) 164.

### Search for a new bottomonium state decaying to $\Upsilon(1S)\pi^+\pi^-$ in pp collisions at $\sqrt{s}$ = 8 TeV CMS Collaboration

arXiv:1309.0250 [hep-ex]. 10.1016/j.physletb.2013.10.016. Phys.Lett. B727 (2013) 57-76.

### Measurement of the W gamma and Z gamma inclusive cross sections in pp collisions at $\sqrt{s}$ = 7 TeV and limits on anomalous triple gauge boson couplings

CMS Collaboration arXiv:1308.6832 [hep-ex]. 10.1103/PhysRevD.89.092005. Phys.Rev. D89 (2014) 092005.

## Measurement of the W-boson helicity in top-quark decays from $t\bar{t}$ production in lepton+jets events in pp collisions at $\sqrt{s}=$ 7 TeV

CMS Collaboration arXiv:1308.3879 [hep-ex]. 10.1007/JHEP10(2013)167. JHEP 1310 (2013) 167.

### Angular analysis and branching fraction measurement of the decay $B^0 o K^{*0} \mu^+ \mu^-$

CMS Collaboration arXiv:1308.3409 [hep-ex]. 10.1016/j.physletb.2013.10.017. Phys.Lett. B727 (2013) 77-100.

### Search for top-squark pair production in the single-lepton final state in pp collisions at $\sqrt{s}$ = 8 TeV

CMS Collaboration arXiv:1308.1586 [hep-ex]. 10.1140/epjc/s10052-013-2677-2.

Eur.Phys.J. C73 (2013) 12, 2677.

#### Measurement of the prompt $J/\psi$ and $\psi$ (2S) polarizations in pp collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration

arXiv:1307.6070 [hep-ex].

10.1016/j.physletb.2013.10.055.

Phys.Lett. B727 (2013) 381-402.

### Search for a Higgs boson decaying into a Z and a photon in pp collisions at $\sqrt{s}$ = 7 and 8 TeV

CMS Collaboration

arXiv:1307.5515 [hep-ex].

10.1016/j.physletb.2013.09.057.

Phys.Lett. B726 (2013) 587-609.

### Measurement of the B(s) to mu+ mubranching fraction and search for Bo to mu+ muwith the CMS Experiment

CMS Collaboration

arXiv:1307.5025 [hep-ex].

10.1103/PhysRevLett.111.101804.

Phys.Rev.Lett. 111 (2013) 101804.

#### Measurement of the top-quark mass in all-jets $tar{t}$ events in pp collisions at $\sqrt{s}$ =7 TeV

CMS Collaboration

arXiv:1307.4617 [hep-ex].

10.1140/epjc/s10052-014-2758-x.

Eur.Phys.J. C74 (2014) 4, 2758.

# Study of the production of charged pions, kaons, and protons in pPb collisions at $\sqrt{s_{NN}}=$ 5.02 TeV

CMS Collaboration

arXiv:1307.3442 [hep-ex].

10.1140/epjc/s10052-014-2847-x, 10.1140/epjc/210052-014-2847-x.

Eur.Phys.J. C74 (2014) 6, 2847.

# Determination of the top-quark pole mass and strong coupling constant from the t t-bar production cross section in pp collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration

arXiv:1307.1907 [hep-ex].

10.1016/j.physletb.2014.08.040, 10.1016/j.physletb.2013.12.009.

Phys.Lett. B728 (2014) 496-517, Erratum-ibid. B728 (2014) 526-528.

# Search for top squarks in ${\cal R}$ -parity-violating supersymmetry using three or more leptons and b-tagged jets

CMS Collaboration

arXiv:1306.6643 [hep-ex].

10.1103/PhysRevLett.111.221801.

Phys.Rev.Lett. 111 (2013) 22, 221801.

### The performance of the CMS muon detector in proton-proton collisions at sqrt(s) = 7 TeV at the LHC

CMS Collaboration

arXiv:1306.6905 [physics.ins-det].

10.1088/1748-0221/8/11/P11002.

JINST 8 (2013) P11002.

### Energy Calibration and Resolution of the CMS Electromagnetic Calorimeter in pp Collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1306.2016 [hep-ex]. 10.1088/1748-0221/8/09/P09009. JINST 8 (2013) P09009.

### Measurement of the $W^+W^-$ Cross section in pp Collisions at $\sqrt{s}=7$ TeV and Limits on Anomalous $WW\gamma$ and WWZ couplings

CMS Collaboration arXiv:1306.1126 [hep-ex]. 10.1140/epjc/s10052-013-2610-8. Eur.Phys.J. C73 (2013) 10, 2610.

# Measurement of the hadronic activity in events with a Z and two jets and extraction of the cross section for the electroweak production of a Z with two jets in pp collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration arXiv:1305.7389 [hep-ex]. 10.1007/JHEP10(2013)062. JHEP 1310 (2013) 062.

### Measurement of neutral strange particle production in the underlying event in proton-proton collisions at sqrt(s) = 7 TeV

CMS Collaboration arXiv:1305.6016 [hep-ex]. 10.1103/PhysRevD.88.052001. Phys.Rev. D88 (2013) 052001.

### Study of exclusive two-photon production of $W^+W^-$ in pp collisions at $\sqrt{s}=7$ TeV and constraints on anomalous quartic gauge couplings

CMS Collaboration arXiv:1305.5596 [hep-ex]. 10.1007/JHEP07(2013)116. JHEP 1307 (2013) 116.

### Search for gluino mediated bottomand top-squark production in multijet final states in pp collisions at 8 TeV

CMS Collaboration arXiv:1305.2390 [hep-ex]. 10.1016/j.physletb.2013.06.058. Phys.Lett. B725 (2013) 243-270.

### Multiplicity and transverse momentum dependence of two and four-particle correlations in pPb and PbPb collisions

CMS Collaboration arXiv:1305.0609 [nucl-ex]. 10.1016/j.physletb.2013.06.028. Phys.Lett. B724 (2013) 213-240.

#### Searches for long-lived charged particles in pp collisions at $\sqrt{s}$ =7 and 8 TeV

arXiv:1305.0491 [hep-ex]. 10.1007/JHEP07(2013)122. JHEP 1307 (2013) 122.

# Measurement of the ratio of the inclusive 3-jet cross section to the inclusive 2-jet cross section in pp collisions at $\sqrt{s}$ = 7 TeV and first determination of the strong coupling constant in the TeV range

CMS Collaboration arXiv:1304.7498 [hep-ex]. 10.1140/epjc/s10052-013-2604-6. Eur.Phys.J. C73 (2013) 10, 2604.

#### Measurement of the $\Lambda_b^0$ lifetime in pp collisions at $\sqrt{s}=7\,{\rm TeV}$

CMS Collaboration arXiv:1304.7495 [hep-ex]. 10.1007/JHEP07(2013)163. JHEP 1307 (2013) 163.

### Measurement of masses in the $t\bar{t}$ system by kinematic endpoints in pp collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration arXiv:1304.5783 [hep-ex]. 10.1140/epjc/s10052-013-2494-7. Eur.Phys.J. C73 (2013) 2494.

### Search for a standard-model-like Higgs boson with a mass in the range 145 to 1000 GeV at the LHC

CMS Collaboration arXiv:1304.0213 [hep-ex]. 10.1140/epjc/s10052-013-2469-8. Eur.Phys.J. C73 (2013) 6, 2469.

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

CMS Collaboration arXiv:1303.5900 [hep-ex]. 10.1016/j.physletb.2013.10.033. Phys.Lett. B727 (2013) 101-125.

#### Search for microscopic black holes in pp collisions at sqrt(s) = 8 TeV

CMS Collaboration arXiv:1303.5338 [hep-ex]. 10.1007/JHEP07(2013)178. JHEP 1307 (2013) 178.

#### Studies of jet mass in dijet and W/Z + jet events

CMS Collaboration arXiv:1303.4811 [hep-ex]. 10.1007/JHEP05(2013)090. JHEP 1305 (2013) 090.

### Observation of a new boson with mass near 125 GeV in pp collisions at $\sqrt{s}$ = 7 and 8 TeV CMS Collaboration

arXiv:1303.4571 [hep-ex].

10.1007/JHEP06(2013)081. JHEP 1306 (2013) 081.

### A New Boson with a Mass of 125 GeV Observed with the CMS Experiment at the Large Hadron Collider

CMS Collaboration 10.1126/science.1230816. Science 338 (2012) 1569-1575.

### Measurement of associated production of vector bosons and top quark-antiquark pairs at sqrt(s) = 7 TeV

CMS Collaboration arXiv:1303.3239 [hep-ex]. 10.1103/PhysRevLett.110.172002. Phys.Rev.Lett. 110 (2013) 172002.

### Search for supersymmetry in hadronic final states with missing transverse energy using the variables $\alpha_T$ and b-quark multiplicity in pp collisions at $\sqrt{s}=8\,\text{TeV}$

CMS Collaboration arXiv:1303.2985 [hep-ex]. 10.1140/epjc/s10052-013-2568-6. Eur.Phys.J. C73 (2013) 9, 2568.

### Search for the standard model Higgs boson produced in association with a top-quark pair in pp collisions at the LHC

CMS Collaboration arXiv:1303.0763 [hep-ex]. 10.1007/JHEP05(2013)145. JHEP 1305 (2013) 145.

#### Search for narrow resonances using the dijet mass spectrum in pp collisions at $\sqrt{s}$ =8 TeV

CMS Collaboration arXiv:1302.4794 [hep-ex]. 10.1103/PhysRevD.87.114015. Phys.Rev. D87 (2013) 11, 114015.

### Measurement of the X(3872) production cross section via decays to J/psi pi in pp collisions at sqrt(s) = 7 TeV

CMS Collaboration arXiv:1302.3968 [hep-ex]. 10.1007/JHEP04(2013)154. JHEP 1304 (2013) 154.

# 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 arXiv:1302.2892 [hep-ex]. 10.1016/j.physletb.2013.04.017. Phys.Lett. B722 (2013) 207-232.

### Search for new physics in final states with a lepton and missing transverse energy in pp collisions at the LHC

arXiv:1302.2812 [hep-ex]. 10.1103/PhysRevD.87.072005. Phys.Rev. D87 (2013) 7, 072005.

### Study of the underlying event at forward rapidity in pp collisions at $\sqrt{s}$ = 0.9, 2.76, and 7 TeV

CMS Collaboration arXiv:1302.2394 [hep-ex].

10.1007/JHEP04(2013)072.

JHEP 1304 (2013) 072.

### Searches for Higgs bosons in pp collisions at sqrt(s) = 7 and 8 TeV in the context of four-generation and fermiophobic models

CMS Collaboration arXiv:1302.1764 [hep-ex]. 10.1016/j.physletb.2013.06.043. Phys.Lett. B725 (2013) 36-59.

### Search for pair-produced dijet resonances in four-jet final states in pp collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration

arXiv:1302.0531 [hep-ex].

10.1103/PhysRevLett.110.141802.

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

### 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 arXiv:1302.0508 [hep-ex]. 10.1007/JHEP05(2013)065. JHEP 1305 (2013) 065.

### Measurement of the top-antitop production cross section in the tau+jets channel in pp collisions at sqrt(s) = 7 TeV

CMS Collaboration arXiv:1301.5755 [hep-ex]. 10.1140/epjc/s10052-013-2386-x. Eur.Phys.J. C73 (2013) 4, 2386.

### Search for contact interactions using the inclusive jet $p_T$ spectrum in pp collisions at $\sqrt{s}=7$ TeV

CMS Collaboration arXiv:1301.5023 [hep-ex]. 10.1103/PhysRevD.87.052017. Phys.Rev. D87 (2013) 5, 052017.

#### Measurement of W+Wand ZZ production cross sections in pp collisions at sqrt(s) = 8 TeV

CMS Collaboration

arXiv:1301.4698 [hep-ex].

10.1016/j.physletb.2013.03.027.

Phys.Lett. B721 (2013) 190-211.

# Search for physics beyond the standard model in events with $\tau$ leptons, jets, and large transverse momentum imbalance in pp collisions at $\sqrt{s}$ = 7 TeV

arXiv:1301.3792 [hep-ex]. 10.1140/epjc/s10052-013-2493-8. Eur.Phys.J. C73 (2013) 2493.

#### Interpretation of Searches for Supersymmetry with simplified Models

CMS Collaboration arXiv:1301.2175 [hep-ex]. 10.1103/PhysRevD.88.052017. Phys.Rev. D88 (2013) 5, 052017.

#### Event shapes and azimuthal correlations in Z + jets events in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1301.1646 [hep-ex]. 10.1016/j.physletb.2013.04.025. Phys.Lett. B722 (2013) 238-261.

### Search for supersymmetry in events with opposite-sign dileptons and missing transverse energy using an artificial neural network

CMS Collaboration arXiv:1301.0916 [hep-ex]. 10.1103/PhysRevD.87.072001. Phys.Rev. D87 (2013) 072001.

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

CMS Collaboration arXiv:1212.6428 [hep-ex]. 10.1140/epjc/s10052-013-2404-z. Eur.Phys.J. C73 (2013) 2404.

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

CMS Collaboration arXiv:1212.6639 [hep-ex]. 10.1103/PhysRevLett.110.081803. Phys.Rev.Lett. 110 (2013) 081803.

### Measurements of differential jet cross sections in proton-proton collisions at $\sqrt{s}=7$ TeV with the CMS detector

CMS Collaboration arXiv:1212.6660 [hep-ex]. 10.1103/PhysRevD.87.112002. Phys.Rev. D87 (2013) 11, 112002.

### Measurement of the $t\bar{t}$ production cross section in pp collisions at $\sqrt{s}=7$ TeV with lepton + jets final states

CMS Collaboration arXiv:1212.6682. 10.1016/j.physletb.2013.02.021. Phys.Lett. B720 (2013) 83-104.

### Inclusive search for supersymmetry using the razor variables in pp collisions at $\sqrt{s}=7\,\text{TeV}$ CMS Collaboration

arXiv:1212.6961 [hep-ex]. 10.1103/PhysRevLett.111.081802. Phys.Rev.Lett. 111 (2013) 8, 081802.

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

CMS Collaboration arXiv:1212.6194 [hep-ex]. 10.1007/JHEP07(2013)041, 10.1007/JHEP03(2013)037. JHEP 1303 (2013) 037, Erratum-ibid. 1307 (2013) 041.

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

CMS Collaboration arXiv:1212.6175 [hep-ex]. 10.1016/j.physletb.2013.02.003. Phys.Lett. B720 (2013) 63-82.

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

CMS Collaboration arXiv:1212.4563 [hep-ex]. 10.1103/PhysRevD.87.032001. Phys.Rev. D87 (2013) 3, 032001.

### Search for heavy resonances in the W/Z-tagged dijet mass spectrum in pp collisions at 7 TeV

CMS Collaboration arXiv:1212.1910 [hep-ex]. 10.1016/j.physletb.2013.05.040. Phys.Lett. B723 (2013) 280-301.

# Search for long-lived particles decaying to photons and missing energy in proton-proton collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1212.1838 [hep-ex]. 10.1016/j.physletb.2013.04.027. Phys.Lett. B722 (2013) 273-294.

#### Search for exotic resonances decaying into WZ/ZZ in pp collisions at $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration arXiv:1211.5779 [hep-ex]. 10.1007/JHEP02(2013)036. JHEP 1302 (2013) 036.

# Measurement of the ZZ production cross section and search for anomalous couplings in 2 I2I 'final states in pp collisions at $\sqrt{s}=7\,{\rm TeV}$

CMS Collaboration arXiv:1211.4890 [hep-ex]. 10.1007/JHEP01(2013)063. JHEP 1301 (2013) 063.

### Search for new physics in events with photons, jets, and missing transverse energy in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1211.4784 [hep-ex].

```
10.1007/JHEP03(2013)111.
JHEP 1303 (2013) 111.
```

#### Identification of b-quark jets with the CMS experiment

CMS Collaboration arXiv:1211.4462 [hep-ex]. 10.1088/1748-0221/8/04/P04013. JINST 8 (2013) P04013.

### Search for Z ' resonances decaying to $t\bar{t}$ in dilepton+jets final states in pp collisions at $\sqrt{s}=7$ TeV

CMS Collaboration arXiv:1211.3338 [hep-ex]. 10.1103/PhysRevD.87.072002. Phys.Rev. D87 (2013) 072002.

# Search for supersymmetry in final states with a single lepton, b-quark jets, and missing transverse energy in proton-proton collisions at $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration arXiv:1211.3143 [hep-ex]. 10.1103/PhysRevD.87.052006. Phys.Rev. D87 (2013) 5, 052006.

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

CMS Collaboration arXiv:1211.2472 [hep-ex]. 10.1007/JHEP02(2013)085. JHEP 1302 (2013) 085.

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

CMS Collaboration arXiv:1211.2220 [hep-ex]. 10.1140/epjc/s10052-013-2339-4. Eur.Phys.J. C73 (2013) 3, 2339.

# Search for supersymmetry in final states with missing transverse energy and o, 1, 2, or at least 3 b-quark jets in 7 TeV pp collisions using the variable alphaT

CMS Collaboration arXiv:1210.8115 [hep-ex]. 10.1007/JHEP01(2013)077. JHEP 1301 (2013) 077.

# Search for a non-standard-model Higgs boson decaying to a pair of new light bosons in four-muon final states

CMS Collaboration arXiv:1210.7619 [hep-ex]. 10.1016/j.physletb.2013.09.009. Phys.Lett. B726 (2013) 564-586.

### Measurement of the sum of WW and WZ production with W+ dijet events in pp collisions at $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration

arXiv:1210.7544 [hep-ex]. 10.1140/epjc/s10052-013-2283-3. Eur.Phys.J. C73 (2013) 2, 2283.

## 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 arXiv:1210.7471 [hep-ex]. 10.1007/JHEP01(2013)154. JHEP 1301 (2013) 154.

#### Measurement of the inelastic proton-proton cross section at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1210.6718 [hep-ex]. 10.1016/j.physletb.2013.03.024. Phys.Lett. B722 (2013) 5-27.

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

CMS Collaboration arXiv:1210.5629 [hep-ex]. 10.1103/PhysRevLett.110.081801. Phys.Rev.Lett. 110 (2013) 081801.

### Search for third-generation leptoquarks and scalar bottom quarks in pp collisions at $\sqrt{s}=7$ TeV

CMS Collaboration arXiv:1210.5627 [hep-ex]. 10.1007/JHEP12(2012)055. JHEP 1212 (2012) 055.

### Observation of long-range near-side angular correlations in proton-lead collisions at the LHC CMS Collaboration

arXiv:1210.5482 [nucl-ex]. 10.1016/j.physletb.2012.11.025. Phys.Lett. B718 (2013) 795-814.

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

CMS Collaboration arXiv:1210.3844 [hep-ex]. 10.1007/JHEP12(2012)034. JHEP 1212 (2012) 034.

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

CMS Collaboration arXiv:1210.2422 [hep-ex]. 10.1016/j.physletb.2013.02.031. 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 arXiv:1210.2402 [hep-ex].

10.1103/PhysRevLett.109.261802. Phys.Rev.Lett. 109 (2012) 261802.

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

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 $\sqrt{s}=7~\mathrm{TeV}$

CMS Collaboration arXiv:1210.2311 [hep-ex]. 10.1103/PhysRevD.87.092008. Phys.Rev. D87 (2013) 9, 092008.

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

CMS Collaboration arXiv:1210.2052 [hep-ex]. 10.1016/j.physletb.2012.12.055. Phys.Lett. B719 (2013) 42-61.

# Search for heavy lepton partners of neutrinos in proton-proton collisions in the context of the type III seesaw mechanism

CMS Collaboration arXiv:1210.1797 [hep-ex]. 10.1016/j.physletb.2012.10.070. Phys.Lett. B718 (2012) 348-368.

# Measurement of the relative prompt production rate of chi(c2) and chi(c1) in pp collisions at $\sqrt{s}=7\,{\rm TeV}$

CMS Collaboration arXiv:1210.0875 [hep-ex]. 10.1140/epjc/s10052-012-2251-3. Eur.Phys.J. C72 (2012) 2251.

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

CMS Collaboration arXiv:1210.0867 [hep-ex]. 10.1016/j.physletb.2013.03.037. Phys.Lett. B722 (2013) 28-47.

### Measurement of the single-top-quark $t\text{-}\mathrm{channel}$ cross section in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1209.4533 [hep-ex]. 10.1007/JHEP12(2012)035. 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

arXiv:1209.4397 [hep-ex].

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 $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1209.3937 [hep-ex]. 10.1007/JHEP11(2012)088. 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 arXiv:1209.3807 [hep-ex]. 10.1016/j.physletb.2012.11.063. Phys.Lett. B718 (2013) 1208-1228.

#### Measurement of the Y1S, Y2S and Y3S polarizations in pp collisions at $\sqrt{s}=7~{\rm TeV}$

CMS Collaboration arXiv:1209.2922 [hep-ex]. 10.1103/PhysRevLett.110.081802. Phys.Rev.Lett. 110 (2013) 081802.

### Measurement of the top-quark mass in $tar{t}$ events with dilepton final states in pp collisions at

 $\sqrt{s}=7\,\text{TeV}$  CMS Collaboration arXiv:1209.2393 [hep-ex]. 10.1140/epjc/s10052-012-2202-Z. 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 $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration arXiv:1209.2319 [hep-ex]. 10.1007/JHEP12(2012)105. JHEP 1212 (2012) 105.

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

CMS Collaboration arXiv:1209.1805 [hep-ex]. 10.1103/PhysRevD.87.012006. Phys.Rev. D87 (2013) 012006.

# Search for exclusive or semi-exclusive photon pair production and observation of exclusive and semi-exclusive electron pair production in pp collisions at $\sqrt{s}=7$ TeV

CMS Collaboration arXiv:1209.1666 [hep-ex]. 10.1007/JHEP11(2012)080. JHEP 1211 (2012) 080.

#### Combined search for the quarks of a sequential fourth generation

CMS Collaboration

arXiv:1209.1062 [hep-ex]. 10.1103/PhysRevD.86.112003. Phys.Rev. D86 (2012) 112003.

# Search for pair produced fourth-generation up-type quarks in pp collisions at $\sqrt{s}=7$ TeV with a lepton in the final state

CMS Collaboration arXiv:1209.0471 [hep-ex]. 10.1016/j.physletb.2012.10.038. 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 arXiv:1208.4859 [hep-ex]. 10.1103/PhysRevD.86.072010. Phys.Rev. D86 (2012) 072010.

#### Study of the dijet mass spectrum in pp o W+ jets events at $\sqrt{s}=7$ TeV

CMS Collaboration arXiv:1208.3477 [hep-ex]. 10.1103/PhysRevLett.109.251801. Phys.Rev.Lett. 109 (2012) 251801.

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

CMS Collaboration arXiv:1208.2931 [hep-ex]. 10.1016/j.physletb.2012.10.048. Phys.Lett. B718 (2012) 329-347.

#### Observation of sequential Upsilon suppression in PbPb collisions

CMS Collaboration arXiv:1208.2826 [nucl-ex]. 10.1103/PhysRevLett.109.222301. Phys.Rev.Lett. 109 (2012) 222301.

### Measurement of the $t\bar{t}$ production cross section in the dilepton channel in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1208.2671 [hep-ex]. 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 arXiv:1208.2470 [nucl-ex]. 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 arXiv:1208.0957 [hep-ex].

10.1016/j.physletb.2012.12.045. Phys.Lett. B718 (2013) 1252-1272.

### Search for a W ' boson decaying to a bottom quark and a top quark in pp collisions at $\sqrt{s}=7$ TeV

CMS Collaboration arXiv:1208.0956 [hep-ex]. 10.1016/j.physletb.2012.12.008. Phys.Lett. B718 (2013) 1229-1251.

#### Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC

CMS Collaboration arXiv:1207.7235 [hep-ex].

10.1016/j.physletb.2012.08.021.

Phys.Lett. B716 (2012) 30-61.

# Search for heavy Majorana neutrinos in $\mu^+\mu^+[\mu^-\mu^-]$ and $e^+e^+[e^-e^-]$ events in pp collisions at $\sqrt{s}=7\,{\rm TeV}$

CMS Collaboration

arXiv:1207.6079 [hep-ex].

10.1016/j.physletb.2012.09.012.

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

### Search for pair production of firstand second-generation scalar leptoquarks in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1207.5406 [hep-ex].

10.1103/PhysRevD.86.052013.

Phys.Rev. D86 (2012) 052013.

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

CMS Collaboration

arXiv:1207.4724 [hep-ex].

10.1140/epjc/s10052-012-2164-1.

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

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

CMS Collaboration

arXiv:1207.3973 [hep-ex].

10.1016/j.physletb.2012.10.082.

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

#### A search for a doubly-charged Higgs boson in pp collisions at $\sqrt{s}=7~{\sf TeV}$

CMS Collaboration

arXiv:1207.2666 [hep-ex].

10.1140/epjc/s10052-012-2189-5.

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

# Measurement of the underlying event activity in pp collisions at $\sqrt{s}=0.9$ and 7 TeV with the novel jet-area/median approach

CMS Collaboration

arXiv:1207.2392 [hep-ex].

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 $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration arXiv:1207.1898 [hep-ex]. 10.1103/PhysRevLett.109.171803. Phys.Rev.Lett. 109 (2012) 171803.

### Search for supersymmetry in hadronic final states using MT2 in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1207.1798 [hep-ex]. 10.1007/JHEP10(2012)018. JHEP 1210 (2012) 018.

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

CMS Collaboration arXiv:1207.1130 [hep-ex]. 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 $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1207.0627 [hep-ex]. 10.1007/JHEP11(2012)172. JHEP 1211 (2012) 172.

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

CMS Collaboration arXiv:1207.0106 [hep-ex]. 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 arXiv:1207.0065 [hep-ex]. 10.1016/j.physletb.2012.09.028. Phys.Lett. B717 (2012) 129-150.

### Search for a light pseudoscalar Higgs boson in the dimuon decay channel in pp collisions at

 $\sqrt{s} = 7 \, \text{TeV}$  CMS Collaboration arXiv:1206.6326 [hep-ex]. 10.1103/PhysRevLett.109.121801. 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 arXiv:1206.5663 [hep-ex].

10.1007/JHEP09(2012)094. JHEP 1209 (2012) 094.

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

CMS Collaboration arXiv:1206.3949 [hep-ex]. 10.1016/j.physletb.2012.11.036. Phys.Lett. B718 (2013) 815-840.

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

CMS Collaboration arXiv:1206.3921 [hep-ex]. 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 $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1206.2598 [hep-ex]. 10.1103/PhysRevLett.109.111806. Phys.Rev.Lett. 109 (2012) 111806.

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

CMS Collaboration arXiv:1206.1849 [hep-ex]. 10.1016/j.physletb.2012.06.051. Phys.Lett. B714 (2012) 158-179.

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

arXiv:1206.1725 [hep-ex]. 10.1016/j.physletb.2012.07.062. Phys.Lett. B716 (2012) 82-102.

#### Search for a W' or Techni- $\rho$ 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 $\sqrt{s_{NN}}=2.76\,{\rm TeV}$

CMS Collaboration arXiv:1205.6334 [nucl-ex].

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 $\sqrt{s}=7\,\mathrm{TeV}$

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 $\sqrt{s}=7\,\mathrm{TeV}$

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

CMS Collaboration arXiv:1205.2488 [nucl-ex]. 10.1103/PhysRevLett.109.152303. Phys.Rev.Lett. 109 (2012) 152303.

# Measurement of the $Lambda_b$ cross section and the $\bar{\Lambda}$ ( $b^{\rm i}$ to $Lambda_b$ ratio with $Lambda_b$ to J/Psi $\Lambda$ 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 $\sqrt{s}=7\,{\rm TeV}$

CMS Collaboration arXiv:1205.0272 [hep-ex]. 10.1016/j.physletb.2012.06.023. Phys.Lett. B713 (2012) 408-433.

#### Studies of jet quenching using isolated-photon+jet correlations in PbPb and pp collisions at

 $\sqrt{s_{NN}}=2.76\, {
m TeV}$  CMS Collaboration arXiv:1205.0206 [nucl-ex]. 10.1016/j.physletb.2012.11.003. Phys.Lett. B718 (2013) 773-794.

#### Observation of a new Xi(b) baryon

CMS Collaboration arXiv:1204.5955 [hep-ex].

10.1103/PhysRevLett.108.252002. Phys.Rev.Lett. 108 (2012) 252002.

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

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 $\sqrt{s}=7\,\mathrm{TeV}$

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 tar 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

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

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

 $\sqrt{s}=7\,{
m TeV}$ 

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 $\sqrt{s}=7\,\mathrm{TeV}$

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 $\sqrt{s}=7\,{\rm TeV}$

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 $\tau$

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

 $\sqrt{s} = 7 \, {\rm TeV}$  CMS Collaboration

arXiv:1203.5410 [hep-ex].

10.1016/j.physletb.2012.07.059.

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

### Search for $B^0_s \to \mu^+\mu^-$ and $B^0 \to \mu^+\mu^-$ 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 $bb^-$ bar X , decaying to muons in pp collisions at $\sqrt{s}=7\,\text{TeV}$

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 $\sqrt{s}=7~{\rm TeV}$

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

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 $\sqrt{s}=7~{\rm TeV}$

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 $\sqrt{s}=7\,\mathrm{TeV}$

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 au pairs in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1202.4083 [hep-ex]. 10.1016/j.physletb.2012.05.028. Phys.Lett. B713 (2012) 68-90.

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

CMS Collaboration arXiv:1202.3827 [hep-ex]. 10.1016/j.physletb.2012.03.029. Phys.Lett. B711 (2012) 15-34.

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

CMS Collaboration arXiv:1202.3478 [hep-ex]. 10.1007/JHEP03(2012)040. JHEP 1203 (2012) 040.

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

CMS Collaboration arXiv:1202.3617 [hep-ex]. 10.1007/JHEP03(2012)081. JHEP 1203 (2012) 081.

### Study of high-pT charged particle suppression in PbPb compared to pp collisions at $\sqrt{s_{NN}}=2.76\,\text{TeV}$

CMS Collaboration arXiv:1202.2554 [nucl-ex]. 10.1140/epjc/s10052-012-1945-x. Eur.Phys.J. C72 (2012) 1945.

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

CMS Collaboration arXiv:1202.1997 [hep-ex]. 10.1103/PhysRevLett.108.111804. Phys.Rev.Lett. 108 (2012) 111804.

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

CMS Collaboration arXiv:1202.1488 [hep-ex]. 10.1016/j.physletb.2012.02.064. Phys.Lett. B710 (2012) 26-48.

## Search for the standard model Higgs boson decaying into two photons in pp collisions at $\sqrt{s}=7~{\rm TeV}$

CMS Collaboration arXiv:1202.1487 [hep-ex]. 10.1016/j.physletb.2012.03.003. Phys.Lett. B710 (2012) 403-425.

# Search for a Higgs boson in the decay channel H to ZZ(\*) to q qbar $\ell^-$ I+ in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1202.1416 [hep-ex]. 10.1007/JHEP04(2012)036. JHEP 1204 (2012) 036.

# Measurement of the inclusive production cross sections for forward jets and for dijet events with one forward and one central jet in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1202.0704 [hep-ex]. 10.1007/JHEP06(2012)036. JHEP 1206 (2012) 036.

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

CMS Collaboration

```
arXiv:1201.5069 [nucl-ex].
10.1007/JHEP05(2012)063.
JHEP 1205 (2012) 063.
```

# Centrality dependence of dihadron correlations and azimuthal anisotropy harmonics in PbPb collisions at $\sqrt{s_{NN}}=2.76\,\text{TeV}$

CMS Collaboration arXiv:1201.3158 [nucl-ex]. 10.1140/epjc/s10052-012-2012-3. Eur.Phys.J. C72 (2012) 2012.

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

CMS Collaboration arXiv:1201.3093 [nucl-ex]. 10.1016/j.physletb.2012.02.077. Phys.Lett. B710 (2012) 256-277.

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

CMS Collaboration arXiv:1112.5100 [hep-ex]. 10.1016/j.physletb.2012.01.078. Phys.Lett. B709 (2012) 28-49.

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

CMS Collaboration arXiv:1112.0688 [hep-ex]. 10.1103/PhysRevLett.108.111801. Phys.Rev.Lett. 108 (2012) 111801.

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

arXiv:1111.5536 [hep-ex]. 10.1007/JHEP01(2012)052. JHEP 1201 (2012) 052.

#### $J/\psi$ and $\psi_{2S}$ production in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1111.1557 [hep-ex]. 10.1007/JHEP02(2012)011. JHEP 1202 (2012) 011.

### Measurement of the Production Cross Section for Pairs of Isolated Photons in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration arXiv:1110.6461 [hep-ex]. 10.1007/JHEP01(2012)133. JHEP 1201 (2012) 133.

# Measurement of the Rapidity and Transverse Momentum Distributions of Z Bosons in pp Collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1110.4973 [hep-ex]. 10.1103/PhysRevD.85.032002. Phys.Rev. D85 (2012) 032002.

#### Jet Production Rates in Association with W and Z Bosons in pp Collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1110.3226 [hep-ex]. 10.1007/JHEP01(2012)010.

JHEP 1201 (2012) 010.

### Measurement of the weak mixing angle with the Drell-Yan process in proton-proton collisions at the LHC

CMS Collaboration arXiv:1110.2682 [hep-ex]. 10.1103/PhysRevD.84.112002. Phys.Rev. D84 (2011) 112002.

### Measurement of energy flow at large pseudorapidities in pp collisions at $\sqrt{s}=0.9$ and 7 TeV

CMS Collaboration

arXiv:1110.0211 [hep-ex].

10.1007/JHEP11(2011)148, 10.1007/JHEP02(2012)055.

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

# Forward Energy Flow, Central Charged-Particle Multiplicities, and Pseudorapidity Gaps in W and Z Boson Events from pp Collisions at $\sqrt{s}$ = 7 TeV

CMS Collaboration arXiv:1110.0181 [hep-ex]. 10.1140/epjc/s10052-011-1839-3. Eur.Phys.J. C72 (2012) 1839.

#### Performance of tau-lepton reconstruction and identification in CMS

CMS Collaboration

arXiv:1109.6034 [physics.ins-det]. 10.1088/1748-0221/7/01/P01001. JINST 7 (2012) P01001.

### Search for a Vector-like Quark with Charge 2/3 in t + Z Events from pp Collisions at $\sqrt{s}=7$ TeV

CMS Collaboration arXiv:1109.4985 [hep-ex]. 10.1103/PhysRevLett.107.271802. Phys.Rev.Lett. 107 (2011) 271802.

#### Search for Supersymmetry at the LHC in Events with Jets and Missing Transverse Energy

CMS Collaboration

arXiv:1109.2352 [hep-ex]. 10.1103/PhysRevLett.107.221804.

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

### Measurement of the Differential Cross Section for Isolated Prompt Photon Production in pp Collisions at 7 TeV

CMS Collaboration arXiv:1108.2044 [hep-ex].

10.1103/PhysRevD.84.052011. Phys.Rev. D84 (2011) 052011.

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

CMS Collaboration arXiv:1108.0566 [hep-ex]. 10.1007/JHEP10(2011)007. JHEP 1110 (2011) 007.

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

CMS Collaboration arXiv:1107.5834 [hep-ex]. 10.1103/PhysRevLett.107.191802. Phys.Rev.Lett. 107 (2011) 191802.

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

CMS Collaboration arXiv:1107.4771 [hep-ex]. 10.1016/j.physletb.2011.09.015. Phys.Lett. B704 (2011) 123-142.

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

CMS Collaboration arXiv:1107.4789 [hep-ex]. 10.1007/JHEP10(2011)132. JHEP 1110 (2011) 132.

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

CMS Collaboration arXiv:1107.4800 [nucl-ex]. 10.1007/JHEP08(2011)141. JHEP 1108 (2011) 141.

#### Determination of Jet Energy Calibration and Transverse Momentum Resolution in CMS

CMS Collaboration arXiv:1107.4277 [physics.ins-det]. 10.1088/1748-0221/6/11/P11002. JINST 6 (2011) P11002.

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

CMS Collaboration arXiv:1107.3084 [hep-ex]. 10.1103/PhysRevLett.107.101801. Phys.Rev.Lett. 107 (2011) 101801.

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

CMS Collaboration arXiv:1107.1870 [hep-ex]. 10.1007/JHEP08(2011)156. JHEP 1108 (2011) 156.

#### A search for excited leptons in pp Collisions at $\sqrt{s}=7~{\rm TeV}$

CMS Collaboration

arXiv:1107.1773 [hep-ex].

10.1016/j.physletb.2011.09.021.

Phys.Lett. B704 (2011) 143-162.

#### Inclusive search for squarks and gluinos in pp collisions at $\sqrt{s}=7~{\rm TeV}$

CMS Collaboration

arXiv:1107.1279 [hep-ex].

10.1103/PhysRevD.85.012004.

Phys.Rev. D85 (2012) 012004.

# Measurement of the Underlying Event Activity at the LHC with $\sqrt{s}=7$ TeV and Comparison with $\sqrt{s}=0.9\,\mathrm{TeV}$

CMS Collaboration

arXiv:1107.0330 [hep-ex].

10.1007/JHEP09(2011)109.

JHEP 1109 (2011) 109.

#### Missing transverse energy performance of the CMS detector

CMS Collaboration

arXiv:1106.5048 [physics.ins-det].

10.1088/1748-0221/6/09/P09001.

JINST 6 (2011) P09001.

### Search for New Physics with a Mono-Jet and Missing Transverse Energy in pp Collisions at

 $\sqrt{s}=7\,{
m TeV}$ 

CMS Collaboration

arXiv:1106.4775 [hep-ex].

10.1103/PhysRevLett.107.201804.

Phys.Rev.Lett. 107 (2011) 201804.

### Search for New Physics with Jets and Missing Transverse Momentum in pp collisions at $\sqrt{s}=7$ TeV

CMS Collaboration

arXiv:1106.4503 [hep-ex].

10.1007/JHEP08(2011)155.

JHEP 1108 (2011) 155.

#### Measurement of the Strange B Meson Production Cross Section with J/Psi $\phi$ Decays in pp Col-

lisions at  $\sqrt{s} = 7 \text{ TeV}$ 

CMS Collaboration

arXiv:1106.4048 [hep-ex].

10.1103/PhysRevD.84.052008.

Phys.Rev. D84 (2011) 052008.

### Search for Supersymmetry in Events with b Jets and Missing Transverse Momentum at the LHC

CMS Collaboration

arXiv:1106.3272 [hep-ex].

10.1007/JHEP07(2011)113.

JHEP 1107 (2011) 113.

### Measurement of the $t\mbox{-}{\mbox{channel}}$ single top quark production cross section in pp collisions at

 $\sqrt{s} = 7 \, \text{TeV}$ 

CMS Collaboration

arXiv:1106.3052 [hep-ex].

10.1103/PhysRevLett.107.091802.

Phys.Rev.Lett. 107 (2011) 091802.

#### Search for Light Resonances Decaying into Pairs of Muons as a Signal of New Physics

CMS Collaboration

arXiv:1106.2375 [hep-ex].

10.1007/JHEP07(2011)098.

JHEP 1107 (2011) 098.

# Search for Same-Sign Top-Quark Pair Production at $\sqrt{s}=7$ TeV and Limits on Flavour Changing Neutral Currents in the Top Sector

CMS Collaboration

arXiv:1106.2142 [hep-ex].

10.1007/JHEP08(2011)005.

JHEP 1108 (2011) 005.

# Measurement of the Top-antitop Production Cross Section in pp Collisions at $\sqrt{s}=7$ TeV using the Kinematic Properties of Events with Leptons and Jets

CMS Collaboration

arXiv:1106.0902 [hep-ex].

10.1140/epjc/s10052-011-1721-3.

Eur.Phys.J. C71 (2011) 1721.

### Search for Physics Beyond the Standard Model Using Multilepton Signatures in pp Collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1106.0933 [hep-ex].

10.1016/j.physletb.2011.09.047.

Phys.Lett. B704 (2011) 411-433.

### Measurement of the Ratio of the 3-jet to 2-jet Cross Sections in pp Collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1106.0647 [hep-ex].

10.1016/j.physletb.2011.07.067.

Phys.Lett. B702 (2011) 336-354.

#### Measurement of the Inclusive Jet Cross Section in pp Collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1106.0208 [hep-ex].

10.1103/PhysRevLett.107.132001.

Phys.Rev.Lett. 107 (2011) 132001.

# Measurement of the $t\bar{t}$ production cross section and the top quark mass in the dilepton channel in pp collisions at $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration

arXiv:1105.5661 [hep-ex].

10.1007/JHEP07(2011)049.

JHEP 1107 (2011) 049.

# Search for First Generation Scalar Leptoquarks in the evjj channel in pp collisions at $\sqrt{s}=7$ TeV

CMS Collaboration arXiv:1105.5237 [hep-ex]. 10.1016/j.physletb.2011.07.089. Phys.Lett. B703 (2011) 246-266.

#### Indications of suppression of excited $\Upsilon$ states in PbPb collisions at $\sqrt{S_{NN}}$ = 2.76 TeV

CMS Collaboration arXiv:1105.4894 [nucl-ex]. 10.1103/PhysRevLett.107.052302. Phys.Rev.Lett. 107 (2011) 052302.

# Search for supersymmetry in events with a lepton, a photon, and large missing transverse energy in pp collisions at $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration arXiv:1105.3152 [hep-ex]. 10.1007/JHEP06(2011)093. JHEP 1106 (2011) 093.

#### Measurement of $W\gamma$ and $Z\gamma$ production in pp collisions at $\sqrt{s}=7~{\rm TeV}$

CMS Collaboration arXiv:1105.2758 [hep-ex]. 10.1016/j.physletb.2011.06.034. Phys.Lett. B701 (2011) 535-555.

#### Long-range and short-range dihadron angular correlations in central PbPb collisions at a nucleonnucleon center of mass energy of 2.76 TeV

CMS Collaboration arXiv:1105.2438 [nucl-ex]. 10.1007/JHEP07(2011)076. JHEP 1107 (2011) 076.

### Charged particle transverse momentum spectra in pp collisions at $\sqrt{s}=0.9$ and 7 TeV

CMS Collaboration arXiv:1104.3547 [hep-ex]. 10.1007/JHEP08(2011)086. JHEP 1108 (2011) 086.

### Measurement of the Polarization of W Bosons with Large Transverse Momenta in W+Jets Events at the LHC

CMS Collaboration arXiv:1104.3829 [hep-ex]. 10.1103/PhysRevLett.107.021802. Phys.Rev.Lett. 107 (2011) 021802.

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

CMS Collaboration arXiv:1104.3168 [hep-ex]. 10.1007/JHEP06(2011)077.

JHEP 1106 (2011) 077.

#### Measurement of the $B^0$ production cross section in pp Collisions at $\sqrt{s}=7$ TeV

CMS Collaboration

arXiv:1104.2892 [hep-ex].

10.1103/PhysRevLett.106.252001.

Phys.Rev.Lett. 106 (2011) 252001.

### Measurement of the differential dijet production cross section in proton-proton collisions at

 $\sqrt{s} = 7 \, \text{TeV}$ 

CMS Collaboration

arXiv:1104.1693 [hep-ex].

10.1016/j.physletb.2011.05.027.

Phys.Lett. B700 (2011) 187-206.

### Measurement of the Inclusive Z Cross Section via Decays to Tau Pairs in pp Collisions at $\sqrt{s}=7$ TeV

CMS Collaboration

arXiv:1104.1617 [hep-ex].

10.1007/JHEP08(2011)117.

JHEP 1108 (2011) 117.

### Search for Neutral MSSM Higgs Bosons Decaying to Tau Pairs in pp Collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1104.1619 [hep-ex].

10.1103/PhysRevLett.106.231801.

Phys.Rev.Lett. 106 (2011) 231801.

#### Search for Large Extra Dimensions in the Diphoton Final State at the Large Hadron Collider

CMS Collaboration

arXiv:1103.4279 [hep-ex].

10.1007/JHEP05(2011)085.

JHEP 1105 (2011) 085.

#### Measurement of the lepton charge asymmetry in inclusive $\boldsymbol{W}$ production in pp collisions at

 $\sqrt{s}=7\,{
m TeV}$ 

CMS Collaboration

arXiv:1103.3470 [hep-ex].

10.1007/JHEP04(2011)050.

JHEP 1104 (2011) 050.

### Search for Physics Beyond the Standard Model in Opposite-Sign Dilepton Events at $\sqrt{s}=7$ TeV

CMS Collaboration

arXiv:1103.1348 [hep-ex].

10.1007/JHEP06(2011)026.

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

arXiv:1103.0953 [hep-ex].

10.1103/PhysRevLett.106.211802.

Phys.Rev.Lett. 106 (2011) 211802.

### Search for Resonances in the Dilepton Mass Distribution in pp Collisions at $\sqrt(s)=7~{\rm TeV}$

CMS Collaboration

arXiv:1103.0981 [hep-ex].

10.1007/JHEP05(2011)093.

JHEP 1105 (2011) 093.

### Search for a W' boson decaying to a muon and a neutrino in pp collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1103.0030 [hep-ex].

10.1016/j.physletb.2011.05.048.

Phys.Lett. B701 (2011) 160-179.

### Study of Z boson production in PbPb collisions at nucleon-nucleon centre of mass energy = 2.76 TeV

CMS Collaboration

arXiv:1102.5435 [nucl-ex].

10.1103/PhysRevLett.106.212301.

Phys.Rev.Lett. 106 (2011) 212301.

#### Search for a Heavy Bottom-like Quark in pp Collisions at $\sqrt{s}=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1102.4746 [hep-ex].

10.1016/j.physletb.2011.05.074.

Phys.Lett. B701 (2011) 204-223.

### Strange Particle Production in pp Collisions at $\sqrt{s}=0.9$ and 7 TeV

CMS Collaboration

arXiv:1102.4282 [hep-ex].

10.1007/JHEP05(2011)064.

JHEP 1105 (2011) 064.

### Measurement of $B\bar{B}$ Angular Correlations based on Secondary Vertex Reconstruction at $\sqrt{s}=7\,\text{TeV}$

CMS Collaboration

arXiv:1102.3194 [hep-ex].

10.1007/JHEP03(2011)136.

JHEP 1103 (2011) 136.

### Measurement of Dijet Angular Distributions and Search for Quark Compositeness in pp Colli-

sions at  $sqrts=7\,\mathrm{TeV}$ 

CMS Collaboration

arXiv:1102.2020 [hep-ex].

10.1103/PhysRevLett.106.201804.

Phys.Rev.Lett. 106 (2011) 201804.

#### Observation and studies of jet quenching in PbPb collisions at nucleon-nucleon center-ofmass energy = 2.76 TeV

CMS Collaboration

arXiv:1102.1957 [nucl-ex].

10.1103/PhysRevC.84.024906.

Phys.Rev. C84 (2011) 024906.

#### First Measurement of Hadronic Event Shapes in pp Collisions at $\sqrt(s)=7\,\mathrm{TeV}$

CMS Collaboration

arXiv:1102.0068 [hep-ex].

10.1016/j.physletb.2011.03.060.

Phys.Lett. B699 (2011) 48-67.

#### Dijet Azimuthal Decorrelations in pp Collisions at $\sqrt{s}=7~{\rm TeV}$

CMS Collaboration

arXiv:1101.5029 [hep-ex].

10.1103/PhysRevLett.106.122003.

Phys.Rev.Lett. 106 (2011) 122003.

#### Inclusive b-hadron production cross section with muons in pp collisions at $\sqrt{s}=7$ TeV

CMS Collaboration

arXiv:1101.3512 [hep-ex].

10.1007/JHEP03(2011)090.

JHEP 1103 (2011) 090.

#### Measurement of Bose-Einstein Correlations in pp Collisions at $\sqrt{s}=0.9$ and 7 TeV

CMS Collaboration

arXiv:1101.3518 [hep-ex].

10.1007/JHEP05(2011)029.

JHEP 1105 (2011) 029.

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

CMS Collaboration

arXiv:1101.1628 [hep-ex].

10.1016/j.physletb.2011.03.021.

Phys.Lett. B698 (2011) 196-218.

#### Search for Heavy Stable Charged Particles in pp collisions at $\sqrt{s}=7$ TeV

CMS Collaboration

arXiv:1101.1645 [hep-ex].

10.1007/JHEP03(2011)024.

JHEP 1103 (2011) 024.

#### Measurement of the $B^+$ Production Cross Section in pp Collisions at $\sqrt{s}=7\,{\rm TeV}$

CMS Collaboration

arXiv:1101.0131 [hep-ex].

10.1103/PhysRevLett.106.112001.

Phys.Rev.Lett. 106 (2011) 112001.

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

CMS Collaboration

arXiv:1012.5945 [hep-ex].

10.1016/j.physletb.2011.02.048.

Phys.Lett. B698 (2011) 21-39.

#### Upsilon Production Cross-Section in pp Collisions at $sqrts=7~{\sf TeV}$

CMS Collaboration

arXiv:1012.5545 [hep-ex]. 10.1103/PhysRevD.83.112004. Phys.Rev. D83 (2011) 112004.

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

CMS Collaboration arXiv:1012.4031 [hep-ex]. 10.1103/PhysRevLett.106.201802. Phys.Rev.Lett. 106 (2011) 201802.

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

CMS Collaboration arXiv:1012.4033 [hep-ex]. 10.1103/PhysRevLett.106.201803. Phys.Rev.Lett. 106 (2011) 201803.

#### Search for Microscopic Black Hole Signatures at the Large Hadron Collider

CMS Collaboration arXiv:1012.3375 [hep-ex]. 10.1016/j.physletb.2011.02.032. Phys.Lett. B697 (2011) 434-453.

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

CMS Collaboration arXiv:1012.2466 [hep-ex]. 10.1007/JHEP01(2011)080. JHEP 1101 (2011) 080.

### Measurement of the Isolated Prompt Photon Production Cross Section in pp Collisions at $\sqrt{s}=7\,{\rm TeV}$

CMS Collaboration arXiv:1012.0799 [hep-ex]. 10.1103/PhysRevLett.106.082001. Phys.Rev.Lett. 106 (2011) 082001.

#### Charged particle multiplicities in pp interactions at $\sqrt{s}=0.9$ , 2.36, and 7 TeV

CMS Collaboration arXiv:1011.5531 [hep-ex]. 10.1007/JHEP01(2011)079. JHEP 1101 (2011) 079.

#### Search for Stopped Gluinos in pp collisions at $\sqrt{s}=7~{\rm TeV}$

CMS Collaboration arXiv:1011.5861 [hep-ex]. 10.1103/PhysRevLett.106.011801. Phys.Rev.Lett. 106 (2011) 011801.

#### Prompt and non-prompt $J/\psi$ production in pp collisions at $\sqrt{s}=7~{\rm TeV}$

CMS Collaboration arXiv:1011.4193 [hep-ex]. 10.1140/epjc/s10052-011-1575-8.

Eur.Phys.J. C71 (2011) 1575.

### First Measurement of the Cross Section for Top-Quark Pair Production in Proton-Proton Col-

lisions at  $\sqrt{s}=7\,\mathrm{TeV}$ 

CMS Collaboration

arXiv:1010.5994 [hep-ex].

10.1016/j.physletb.2010.11.058.

Phys.Lett. B695 (2011) 424-443.

### Search for Quark Compositeness with the Dijet Centrality Ratio in pp Collisions at $\sqrt{s}=7$ TeV

CMS Collaboration

arXiv:1010.4439 [hep-ex].

10.1103/PhysRevLett.105.262001.

Phys.Rev.Lett. 105 (2010) 262001.

#### Search for Dijet Resonances in 7 TeV pp Collisions at CMS

CMS Collaboration

arXiv:1010.0203 [hep-ex].

10.1103/PhysRevLett.105.211801, 10.1103/PhysRevLett.106.029902.

Phys.Rev.Lett. 105 (2010) 211801.

### Observation of Long-Range Near-Side Angular Correlations in Proton-Proton Collisions at the LHC

CMS Collaboration

arXiv:1009.4122 [hep-ex].

10.1007/JHEP09(2010)091.

JHEP 1009 (2010) 091.

#### CMS Tracking Performance Results from early LHC Operation

CMS Collaboration

arXiv:1007.1988 [physics.ins-det].

10.1140/epjc/s10052-010-1491-3.

Eur.Phys.J. C70 (2010) 1165-1192.

#### First Measurement of the Underlying Event Activity at the LHC with $\sqrt{s}=0.9\,{\rm TeV}$

CMS Collaboration

arXiv:1006.2083 [hep-ex].

10.1140/epjc/s10052-010-1453-9.

Eur.Phys.J. C70 (2010) 555-572.

#### Measurement of the charge ratio of atmospheric muons with the CMS detector

CMS Collaboration

arXiv:1005.5332 [hep-ex].

10.1016/j.physletb.2010.07.033.

Phys.Lett. B692 (2010) 83-104.

#### Measurement of Bose-Einstein correlations with first CMS data

CMS Collaboration

arXiv:1005.3294 [hep-ex].

10.1103/PhysRevLett.105.032001.

Phys.Rev.Lett. 105 (2010) 032001.

### Transverse-momentum and pseudorapidity distributions of charged hadrons in pp collisions

at  $\sqrt{s} = 7 \, \text{TeV}$ 

CMS Collaboration

arXiv:1005.3299 [hep-ex].

10.1103/PhysRevLett.105.022002.

Phys.Rev.Lett. 105 (2010) 022002.

### Transverse momentum and pseudorapidity distributions of charged hadrons in pp collisions at $\sqrt{s}=0.9$ and 2.36 TeV

CMS Collaboration

arXiv:1002.0621 [hep-ex].

10.1007/JHEP02(2010)041.

JHEP 1002 (2010) 041.

#### Commissioning and Performance of the CMS Pixel Tracker with Cosmic Ray Muons

CMS Collaboration

arXiv:0911.5434 [physics.ins-det].

10.1088/1748-0221/5/03/T03007.

JINST 5 (2010) T03007.

#### Performance of the CMS Level-1 Trigger during Commissioning with Cosmic Ray Muons

CMS Collaboration

arXiv:0911.5422 [physics.ins-det].

10.1088/1748-0221/5/03/T03002.

JINST 5 (2010) T03002.

#### Measurement of the Muon Stopping Power in Lead Tungstate

CMS Collaboration

arXiv:0911.5397 [physics.ins-det].

10.1088/1748-0221/5/03/P03007.

JINST 5 (2010) P03007.

#### Commissioning and Performance of the CMS Silicon Strip Tracker with Cosmic Ray Muons

CMS Collaboration

arXiv:0911.4996 [physics.ins-det].

10.1088/1748-0221/5/03/T03008.

JINST 5 (2010) T03008.

#### Performance of CMS Muon Reconstruction in Cosmic-Ray Events

CMS Collaboration

arXiv:0911.4994 [physics.ins-det].

10.1088/1748-0221/5/03/T03022.

JINST 5 (2010) T03022.

#### Performance of the CMS Cathode Strip Chambers with Cosmic Rays

CMS Collaboration

arXiv:0911.4992 [physics.ins-det].

10.1088/1748-0221/5/03/T03018.

JINST 5 (2010) T03018.

#### Performance of the CMS Hadron Calorimeter with Cosmic Ray Muons and LHC Beam Data

CMS Collaboration

arXiv:0911.4991 [physics.ins-det].

10.1088/1748-0221/5/03/T03012. JINST 5 (2010) T03012.

#### Fine Synchronization of the CMS Muon Drift-Tube Local Trigger using Cosmic Rays

CMS Collaboration arXiv:0911.4904 [physics.ins-det]. 10.1088/1748-0221/5/03/T03004. JINST 5 (2010) T03004.

### Calibration of the CMS Drift Tube Chambers and Measurement of the Drift Velocity with Cosmic Rays

CMS Collaboration arXiv:0911.4895 [physics.ins-det]. 10.1088/1748-0221/5/03/T03016. JINST 5 (2010) T03016.

#### Performance of the CMS Drift-Tube Local Trigger with Cosmic Rays

CMS Collaboration arXiv:0911.4893 [physics.ins-det]. 10.1088/1748-0221/5/03/T03003. JINST 5 (2010) T03003.

#### Commissioning of the CMS High-Level Trigger with Cosmic Rays

CMS Collaboration arXiv:0911.4889 [physics.ins-det]. 10.1088/1748-0221/5/03/T03005. JINST 5 (2010) T03005.

#### Identification and Filtering of Uncharacteristic Noise in the CMS Hadron Calorimeter

CMS Collaboration arXiv:0911.4881 [physics.ins-det]. 10.1088/1748-0221/5/03/T03014. JINST 5 (2010) T03014.

# Performance of CMS Hadron Calorimeter Timing and Synchronization using Test Beam, Cosmic Ray, and LHC Beam Data

CMS Collaboration arXiv:0911.4877 [physics.ins-det]. 10.1088/1748-0221/5/03/T03013. JINST 5 (2010) T03013.

#### Performance of the CMS Drift Tube Chambers with Cosmic Rays

CMS Collaboration arXiv:0911.4855 [physics.ins-det]. 10.1088/1748-0221/5/03/T03015. JINST 5 (2010) T03015.

#### Commissioning of the CMS Experiment and the Cosmic Run at Four Tesla

CMS Collaboration arXiv:0911.4845 [physics.ins-det]. 10.1088/1748-0221/5/03/T03001. JINST 5 (2010) T03001.

#### CMS Data Processing Workflows during an Extended Cosmic Ray Run

CMS Collaboration arXiv:0911.4842 [physics.ins-det]. 10.1088/1748-0221/5/03/T03006. JINST 5 (2010) T03006.

### Aligning the CMS Muon Chambers with the Muon Alignment System during an Extended Cosmic Ray Run

CMS Collaboration arXiv:0911.4770 [physics.ins-det]. 10.1088/1748-0221/5/03/T03019. JINST 5 (2010) T03019.

#### Performance Study of the CMS Barrel Resistive Plate Chambers with Cosmic Rays

CMS Collaboration arXiv:0911.4045 [physics.ins-det]. 10.1088/1748-0221/5/03/T03017. JINST 5 (2010) T03017.

#### Time Reconstruction and Performance of the CMS Electromagnetic Calorimeter

CMS Collaboration arXiv:0911.4044 [physics.ins-det]. 10.1088/1748-0221/5/03/T03011. JINST 5 (2010) T03011.

#### Alignment of the CMS Muon System with Cosmic-Ray and Beam-Halo Muons

CMS Collaboration arXiv:0911.4022 [physics.ins-det]. 10.1088/1748-0221/5/03/T03020. JINST 5 (2010) T03020.

#### Precise Mapping of the Magnetic Field in the CMS Barrel Yoke using Cosmic Rays

CMS Collaboration arXiv:0910.5530 [physics.ins-det]. 10.1088/1748-0221/5/03/T03021. JINST 5 (2010) T03021.

#### Performance and Operation of the CMS Electromagnetic Calorimeter

CMS Collaboration arXiv:0910.3423 [physics.ins-det]. 10.1088/1748-0221/5/03/T03010. JINST 5 (2010) T03010.

#### Alignment of the CMS Silicon Tracker during Commissioning with Cosmic Rays

CMS Collaboration arXiv:0910.2505 [physics.ins-det]. 10.1088/1748-0221/5/03/T03009. JINST 5 (2010) T03009.

### The CMS experiment at the CERN LHC

CMS Collaboration 10.1088/1748-0221/3/08/S08004. JINST 3 (2008) S08004.

### 3 Conference proceedings

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

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

Single top Production at  $\sqrt{s}=7$  TeV, Rebeca Gonzalez Suarez on behalf of the CMS, ATLAS collaborations, Proceedings Moriond 2012, arXiv:1205.2786 [P]

**Higgs search prospects at the LHC**, *Rebeca Gonzalez Suarez*, Proceedings BEACH 2010, Nucl. Phys. Proc. Suppl. 210-211 (2011) 283-288 [P]

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

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

#### 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:

`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 ttH production in multilepton final states at  $\sqrt{s}=13\,\text{TeV}'$  - 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  $H\to WW$  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  $\sqrt{s}=8$ TeV' (CMS-PAS-TOP-14-004) [R - Single top]

`Search for  $H\to b\bar b$  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  $\sqrt{s}=8$  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  $H\to b\bar{b}$  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  $\sqrt{s}=8$  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  $\sqrt{s}=8$  TeV' (CMS-PAS-HIG-14-001) [R-ARC]

`Projections for Top FCNC Searches in 3000  $fb^{-1}$  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  $\sqrt{s}=14$  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 $_{\rm s}^{\rm o} \to \mu^+\mu^-$  and B $^{\rm o} \to \mu^+\mu^-$  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  $\sqrt{s}=8$ 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  $\sqrt{s}=8$ 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  $\sqrt{s}=8$ TeV' (CMS-PAS-TOP-12-040) [PA]

`Search for Flavor-Changing Neutral Currents in tZ events in proton-proton collisions at  $\sqrt{s}=7$ 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  $\sqrt(s) = 8$  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]

<sup>`</sup>Search for H ightarrow WW ightarrow 2l 2nu' (CMS-PAS-HIG-10-003) [C]

<sup>&#</sup>x27;Observation of WW final state' (CMS-PAS-EWK-009) [C]

<sup>`</sup>Performance of muon identification in pp collisions at  $\sqrt{s}=7\,{\rm TeV'}$  (CMS-PAS-MUO-10-002) [PA]

<sup>`</sup>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]

<sup>`</sup>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-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  $H \rightarrow bb$  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  $H \rightarrow WW$  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]

**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]

**CMS AN2010/281** - `A measurement of  $t\bar{t}$  cross section in early 7 TeV data using the semileptonic topology: electron plus jets with one or more b-tags, using 36  $pb^{-1}$  of CMS data.' (*M. Barrett, F. Blekman et al.*) [C-ED]

**CMS AN2010/411** - 'Search for Higgs Boson Decays to Two W Bosons in the Fully Leptonic Final State at  $\sqrt(s) = 7 \, \text{TeV'}$  (*G. Bauer, J. Bendavid et al.*) [C]

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

**CMS AN2010/406** - `Measurement of the  $t\bar{t}$  cross section in the dilepton final state using b-tagging at  $\sqrt{s}=7~TeV'$  ( *J. Brochero, A. Calderón et al.*) [C-ED]

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  $WW \to \mu\nu\mu\nu$  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  $WW \to \mu\nu\mu\nu$  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 ightarrow WW and ZZ decay channels' (S. Baffioni, C. Botta et al.) [PA]

**CMS AN-2008/074** - 'Measurement of muon charge asymmetry in the  $W\to \mu\nu$  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]

CMS AN-2007/037 - `Search for the Higgs boson in the WW decay channel with the CMS experiment' (C. Charlot, J. Cuevas et al.) [PA]