Elenco pubblicazioni Roberto Dell'Orso, 2014 - 2018

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

S. Chatrchyan *et al.* [CMS Collaboration]. Eur. Phys. J. C **74**, no. 6, 2847 (2014) CMS-HIN-12-016, CERN-PH-EP-2013-096

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

S. Chatrchyan et al. [CMS Collaboration].

Eur. Phys. J. C **74**, no. 4, 2758 (2014) CMS-TOP-11-017, CERN-PH-EP-2013-124

3. "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"

S. Chatrchyan *et al.* [CMS Collaboration]. Phys. Rev. D **89**, no. 9, 092005 (2014) CMS-EWK-11-009, CERN-PH-EP-2013-108

4. "Observation of a peaking structure in the $J/\psi\phi$ mass spectrum from $B^{\pm}\to J/\psi\phi K^{\pm}$ decays"

S. Chatrchyan *et al.* [CMS Collaboration]. Phys. Lett. B **734**, 261 (2014) CMS-BPH-11-026, CERN-PH-EP-2013-167

5. "Modification of jet shapes in PbPb collisions at $\sqrt{s_{NN}} = 2.76 \text{ TeV}$ "

S. Chatrchyan et~al. [CMS Collaboration]. Phys. Lett. B 730, 243 (2014) CERN-PH-EP-2013-189, CMS-HIN-12-002

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

S. Chatrchyan *et al.* [CMS Collaboration]. JHEP **1402**, 013 (2014)

CMS-SMP-12-002, CERN-PH-EP-2013-149

7. "Search for baryon number violation in top-quark decays"

S. Chatrchyan *et al.* [CMS Collaboration]. Phys. Lett. B **731**, 173 (2014) CMS-B2G-12-023, CERN-PH-EP-2013-179

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

S. Chatrchyan *et al.* [CMS Collaboration]. Phys. Rev. D **89**, no. 1, 012003 (2014) CMS-HIG-13-012, CERN-PH-EP-2013-188

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

S. Chatrchyan *et al.* [CMS Collaboration]. Phys. Rev. C **89**, no. 4, 044906 (2014) CMS-HIN-11-005, CERN-PH-EP-2013-196

10. "Searches for light- and heavy-flavour three-jet resonances in pp collisions at √s = 8 TeV" S. Chatrchyan et al. [CMS Collaboration]. Phys. Lett. B 730, 193 (2014)
CMS-EXO-12-049, CERN-PH-EP-2013-204
11. "Measurements of t̄ spin correlations and top guark polarization using dilector final

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

S. Chatrchyan *et al.* [CMS Collaboration]. Phys. Rev. Lett. **112**, no. 18, 182001 (2014) CMS-TOP-13-003, CERN-PH-EP-2013-211

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

S. Chatrchyan *et al.* [CMS Collaboration]. Phys. Lett. B **733**, 328 (2014) CMS-SUS-13-007, CERN-PH-EP-2013-209

13. "Search for pair production of excited top quarks in the lepton + jets final state"

S. Chatrchyan *et al.* [CMS Collaboration]. JHEP **1406**, 125 (2014) CMS-B2G-12-014, CERN-PH-EP-2013-206

14. "Probing color coherence effects in pp collisions at $\sqrt{s} = 7 \, \text{TeV}$ "

S. Chatrchyan *et al.* [CMS Collaboration]. Eur. Phys. J. C **74**, no. 6, 2901 (2014) CMS-SMP-12-010, CERN-PH-EP-2013-200

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

S. Chatrchyan *et al.* [CMS Collaboration]. JHEP **1406**, 009 (2014) CMS-QCD-11-005, CERN-PH-EP-2013-194

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

S. Chatrchyan *et al.* [CMS Collaboration]. JHEP **1401**, 163 (2014), Erratum: [JHEP **1501**, 014 (2015)] CERN-PH-EP-2013-213

17. "Inclusive search for a vector-like T quark with charge $\frac{2}{3}$ in pp collisions at $\sqrt{s} = 8$ TeV" S. Chatrchyan *et al.* [CMS Collaboration].

Phys. Lett. B **729**, 149 (2014) CMS-B2G-12-015, CERN-PH-EP-2013-215

18. "Measurement of Higgs boson production and properties in the WW decay channel with leptonic final states"

S. Chatrchyan *et al.* [CMS Collaboration]. JHEP **1401**, 096 (2014) CMS-HIG-13-023, CERN-PH-EP-2013-221

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

S. Chatrchyan *et al.* [CMS Collaboration]. JHEP **1402**, 088 (2014) CMS-HIN-12-011, CERN-PH-EP-2013-214

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

S. Chatrchyan *et al.* [CMS Collaboration]. Phys. Rev. Lett. **112**, no. 17, 171801 (2014) CMS-B2G-12-012, CERN-PH-EP-2013-216

21. "Search for top squark and higgsino production using diphoton Higgs boson decays"

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. Lett. 112, 161802 (2014)

CMS-SUS-13-014, CERN-PH-EP-2013-226

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

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. Lett. 112, no. 17, 171802 (2014)

CMS-TOP-12-037, CERN-PH-EP-2013-208

23. "Evidence of b-Jet Quenching in PbPb Collisions at $\sqrt{s_{NN}} = 2.76 \text{ TeV}$ "

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. Lett. $\mathbf{113}$, no. 13, 132301 (2014), Erratum: [Phys. Rev. Lett. $\mathbf{115}$, no. 2, 029903 (2015)] CMS-HIN-12-003, CERN-PH-EP-2013-228

24. "Measurement of the properties of a Higgs boson in the four-lepton final state"

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. D 89, no. 9, 092007 (2014)

CMS-HIG-13-002, CERN-PH-EP-2013-220

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

S. Chatrchyan et al. [CMS Collaboration].

JHEP **1403**, 032 (2014)

CMS-FSQ-12-028, CERN-PH-EP-2013-224

26. "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"

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. D 90, no. 3, 032004 (2014)

CMS-SMP-12-021, CERN-PH-EP-2013-232

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

S. Chatrchyan et al. [CMS Collaboration].

JHEP **1404**, 103 (2014)

CMS-HIN-13-003, CERN-PH-EP-2013-219

28. "Measurement of four-jet production in proton-proton collisions at $\sqrt{s} = 7$ TeV"

S. Chatrchyan *et al.* [CMS Collaboration].

Phys. Rev. D 89, no. 9, 092010 (2014)

CMS-FSQ-12-013, CERN-PH-EP-2013-229

29. "Measurement of the production cross section for a W boson and two b jets in pp collisions at \sqrt{s} =7 TeV"

S. Chatrchyan et al. [CMS Collaboration].

Phys. Lett. B **735**, 204 (2014)

CMS-SMP-12-026, CERN-PH-EP-2013-223, CERN-PH-EP-2013-2223

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

S. Chatrchyan et al. [CMS Collaboration].

JHEP **1402**, 024 (2014), Erratum: [JHEP **1402**, 102 (2014)]

CMS-TOP-12-007, CERN-PH-EP-2013-234

31. "Observation of the associated production of a single top quark and a W boson in pp collisions at $\sqrt{s}=8$ TeV"

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. Lett. 112, no. 23, 231802 (2014)

CMS-TOP-12-040, CERN-PH-EP-2013-237

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

S. Chatrchyan et al. [CMS Collaboration].

Eur. Phys. J. C 74, no. 7, 2951 (2014)

CMS-HIN-13-001, CERN-PH-EP-2013-236

33. "Evidence for the 125 GeV Higgs boson decaying to a pair of τ leptons"

S. Chatrchyan et al. [CMS Collaboration].

JHEP **1405**, 104 (2014)

CMS-HIG-13-004, CERN-PH-EP-2014-001

34. "Evidence for the direct decay of the 125 GeV Higgs boson to fermions"

S. Chatrchyan et al. [CMS Collaboration].

Nature Phys. 10, 557 (2014)

CMS-HIG-13-033, CERN-PH-EP-2014-004

35. "Measurement of inclusive W and Z boson production cross sections in pp collisions at $\sqrt{s}=8~{\rm TeV}$ "

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. Lett. 112, 191802 (2014)

CMS-SMP-12-011, CERN-PH-EP-2013-217

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

S. Chatrchyan et al. [CMS Collaboration].

JHEP **1406**, 120 (2014)

CMS-SMP-13-004, CERN-PH-EP-2014-005

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

S. Chatrchyan et al. [CMS Collaboration].

JHEP **1405**, 108 (2014)

CMS-B2G-12-010, CERN-PH-EP-2014-011

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

S. Chatrchyan et al. [CMS Collaboration].

JHEP **1404**, 191 (2014)

CMS-TOP-12-010, CERN-PH-EP-2014-010

39. "Search for new physics in the multijet and missing transverse momentum final state in proton-proton collisions at \sqrt{s} = 8 TeV"

S. Chatrchyan et al. [CMS Collaboration].

JHEP **1406**, 055 (2014)

CMS-SUS-13-012, CERN-PH-EP-2014-015

40. "Alignment of the CMS tracker with LHC and cosmic ray data"

S. Chatrchyan *et al.* [CMS Collaboration].

JINST 9, P06009 (2014)

CMS-TRK-11-002, CERN-PH-EP-2014-028

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

S. Chatrchyan et al. [CMS Collaboration].

Eur. Phys. J. C 74, no. 8, 2973 (2014)

CMS-SMP-13-011, CERN-PH-EP-2014-022

42. "Measurement of the t-channel single-top-quark production cross section and of the $\mid V_{tb} \mid$ CKM matrix element in pp collisions at \sqrt{s} = 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1406**, 090 (2014)

CMS-TOP-12-038, CERN-PH-EP-2014-032

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

S. Chatrchyan et al. [CMS Collaboration].

Eur. Phys. J. C 74, 2980 (2014)

CMS-HIG-13-030, CERN-PH-EP-2014-051

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **736**, 33 (2014)

CMS-TOP-12-035, CERN-PH-EP-2014-052

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

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. D **90**, no. 3, 032008 (2014)

CMS-SMP-13-009, CERN-PH-EP-2014-046

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

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. D 90, 032006 (2014)

CMS-SUS-13-002, CERN-PH-EP-2014-039

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

S. Chatrchyan et al. [CMS and TOTEM Collaborations].

Eur. Phys. J. C 74, no. 10, 3053 (2014)

CMS-FSQ-12-026, CERN-PH-EP-TOTEM-2014-002, CERN-PH-EP-2014-063

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1408**, 173 (2014)

CMS-EXO-12-024, CERN-PH-EP-2014-071

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1408**, 174 (2014)

CMS-EXO-13-009, CERN-PH-EP-2014-076

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **736**, 64 (2014)

CMS-HIG-14-002, CERN-PH-EP-2014-078

51. "Search for top-squark pairs decaying into Higgs or Z bosons in pp collisions at \sqrt{s} =8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **736**, 371 (2014)

CMS-SUS-13-024, CERN-PH-EP-2014-073

52. "Search for supersymmetry with razor variables in pp collisions at \sqrt{s} =7 TeV"

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. D 90, no. 11, 112001 (2014)

CMS-SUS-12-005, CERN-PH-EP-2014-057

53. "Description and performance of track and primary-vertex reconstruction with the CMS tracker"

S. Chatrchyan et al. [CMS Collaboration].

```
JINST 9, no. 10, P10009 (2014)
CMS-TRK-11-001, CERN-PH-EP-2014-070
```

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

S. Chatrchyan $\it et~\it al.~$ [CMS Collaboration].

Eur. Phys. J. C **74**, no. 11, 3129 (2014)

CMS-SMP-13-001, CERN-PH-EP-2014-067

55. "Searches for electroweak production of charginos, neutralinos, and sleptons decaying to leptons and W, Z, and Higgs bosons in pp collisions at 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 74, no. 9, 3036 (2014)

CMS-SUS-13-006, CERN-PH-EP-2014-098

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **90**, no. 3, 032005 (2014)

CMS-EXO-12-051, CERN-PH-EP-2014-108

57. "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 $\sqrt{s} = 7$ TeV"

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. D **90**, no. 7, 072006 (2014)

CMS-SMP-13-002, CERN-PH-EP-2014-068

58. "Measurement of prompt J/ψ pair production in pp collisions at $\sqrt{s}=7$ Tev"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1409**, 094 (2014)

CMS-BPH-11-021, CERN-PH-EP-2014-111

59. "Measurement of jet fragmentation in PbPb and pp collisions at $\sqrt{s_{NN}} = 2.76$ TeV"

S. Chatrchyan et al. [CMS Collaboration].

Phys. Rev. C 90, no. 2, 024908 (2014)

CMS-HIN-12-013, CERN-PH-EP-2014-100

60. "Search for excited quarks in the $\gamma+{\bf jet}$ final state in protonproton collisions at $\sqrt{s}=8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **738**, 274 (2014)

CMS-EXO-13-003, CERN-PH-EP-2014-129

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **74**, no. 9, 3060 (2014)

CMS-TOP-12-036, CERN-PH-EP-2014-136

62. "Observation of the diphoton decay of the Higgs boson and measurement of its properties"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 74, no. 10, 3076 (2014)

CMS-HIG-13-001, CERN-PH-EP-2014-117

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1410**, 87 (2014)

CMS-SMP-12-022, CERN-PH-EP-2014-146

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 74, no. 11, 3149 (2014)

CMS-EXO-13-008, CERN-PH-EP-2014-161

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **739**, 23 (2014)

CERN-PH-EP-2014-167, CMS-TOP-12-026

66. "Search for pair production of third-generation scalar leptoquarks and top squarks in protonproton collisions at \sqrt{s} =8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **739**, 229 (2014)

CMS-EXO-12-032, CERN-PH-EP-2014-190

67. "Search for the associated production of the Higgs boson with a top-quark pair"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1409**, 087 (2014), Erratum: [JHEP **1410**, 106 (2014)]

CMS-HIG-13-029, CERN-PH-EP-2014-189

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **90**, no. 9, 092007 (2014)

CMS-SUS-14-002, CERN-PH-EP-2014-216

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1411**, 154 (2014)

CMS-TOP-13-012, CERN-PH-EP-2014-222

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. Lett. **113**, no. 26, 262301 (2014)

CMS-HIN-12-007, CERN-PH-EP-2014-240

71. "Searches for heavy Higgs bosons in two-Higgs-doublet models and for $t \to ch$ decay using multilepton and diphoton final states in pp collisions at 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 90, 112013 (2014)

CMS-HIG-13-025, CERN-PH-EP-2014-239

72. "Identification techniques for highly boosted W bosons that decay into hadrons"

V. Khachatryan et al. [CMS Collaboration].

JHEP 1412, 017 (2014)

CMS-JME-13-006, CERN-PH-EP-2014-241

73. "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"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **740**, 250 (2015), Erratum: [Phys. Lett. B **757**, 569 (2016)]

CMS-SMP-13-005, CERN-PH-EP-2014-080

74. "Differential cross section measurements for the production of a W boson in association with jets in protonproton collisions at $\sqrt{s} = 7$ TeV"

V. Khachatryan *et al.* [CMS Collaboration].

```
Phys. Lett. B 741, 12 (2015)
CMS-SMP-12-023, CERN-PH-EP-2014-134
```

75. "Search for new resonances decaying via WZ to leptons in proton-proton collisions at $\sqrt{s}=8~{\rm TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **740**, 83 (2015)

CMS-EXO-12-025, CERN-PH-EP-2014-160

76. "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"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 91, no. 9, 092005 (2015)

CMS-EXO-12-060, CERN-PH-EP-2014-176

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 91, no. 5, 052008 (2015)

CMS-SMP-12-017, CERN-PH-EP-2014-205

78. "Search for dark matter, extra dimensions, and unparticles in monojet events in protonproton collisions at $\sqrt{s} = 8 \text{ TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 75, no. 5, 235 (2015)

CMS-EXO-12-048, CERN-PH-EP-2014-164

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **742**, 200 (2015)

CMS-HIN-14-002, CERN-PH-EP-2014-212

80. "Search for Displaced Supersymmetry in events with an electron and a muon with large impact parameters"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. Lett. 114, no. 6, 061801 (2015)

CMS-B2G-12-024, CERN-PH-EP-2014-219

81. "Measurement of the production cross section ratio $\sigma(Xb2(1P)) / \sigma(Xb1(1P))$ in pp collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **743**, 383 (2015)

CMS-BPH-13-005, CERN-PH-EP-2014-217

82. "Search for Monotop Signatures in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. Lett. **114**, no. 10, 101801 (2015)

CMS-B2G-12-022, CERN-PH-EP-2014-225

83. "Measurement of the W boson helicity in events with a single reconstructed top quark in pp collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1501**, 053 (2015)

CMS-TOP-12-020, CERN-PH-EP-2014-242

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **75**, no. 2, 66 (2015)

CMS-FSQ-12-035, CERN-PH-EP-2014-234

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

S. Chatrchyan et al. [CMS Collaboration].

JHEP **1503**, 022 (2015)

CMS-HIN-13-004, CERN-PH-EP-2014-235

86. "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"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1501**, 063 (2015)

CMS-BPH-12-011, CERN-PH-EP-2014-248

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. Lett. 114, no. 5, 051801 (2015)

CMS-SMP-13-015, CERN-PH-EP-2014-250

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **744**, 184 (2015)

CMS-HIG-13-007, CERN-PH-EP-2014-243

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 75, no. 6, 288 (2015)

CMS-SMP-12-028, CERN-PH-EP-2014-238

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

V. Khachatryan et al. [CMS Collaboration].

JINST 10, no. 02, P02006 (2015)

CMS-JME-13-003, CERN-PH-EP-2014-246

91. "Search for quark contact interactions and extra spatial dimensions using dijet angular distributions in protonproton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **746**, 79 (2015)

CMS-EXO-12-050, CERN-PH-EP-2014-261

92. "Constraints on the spin-parity and anomalous HVV couplings of the Higgs boson in proton collisions at 7 and 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 92, no. 1, 012004 (2015)

CMS-HIG-14-018, CERN-PH-EP-2014-265

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

V. Khachatryan et al. [CMS and LHCb Collaborations].

Nature **522**, 68 (2015)

CERN-PH-EP-2014-220, CMS-BPH-13-007, LHCB-PAPER-2014-049

94. "Measurement of the cross section ratio $\sigma_{t\bar{t}b\bar{b}}/\sigma_{t\bar{t}ij}$ in pp collisions at $\sqrt{s}=8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **746**, 132 (2015)

CMS-TOP-13-010, CERN-PH-EP-2014-249

95. "Search for disappearing tracks in proton-proton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1501**, 096 (2015)

CMS-EXO-12-034, CERN-PH-EP-2014-273

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 91, no. 1, 012007 (2015)

CMS-EXO-12-038, CERN-PH-EP-2014-256

97. "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"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 91, no. 5, 052012 (2015)

CMS-EXO-12-037, CERN-PH-EP-2014-263

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **743**, 503 (2015)

CMS-SUS-14-009, CERN-PH-EP-2014-277

99. "Measurements of differential and double-differential Drell-Yan cross sections in proton-proton collisions at $8~{\rm TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 75, no. 4, 147 (2015)

CMS-SMP-14-003, CERN-PH-EP-2014-289

100. "Measurement of the inclusive 3-jet production differential cross section in protonproton collisions at 7 TeV and determination of the strong coupling constant in the TeV range"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 75, no. 5, 186 (2015)

CMS-SMP-12-027, CERN-PH-EP-2014-287

101. "Searches for supersymmetry based on events with b jets and four W bosons in pp collisions at 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **745**, 5 (2015)

CMS-SUS-14-010, CERN-PH-EP-2014-286

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1504**, 025 (2015)

CMS-EXO-12-061, CERN-PH-EP-2014-272

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **747**, 98 (2015)

CMS-EXO-12-052, CERN-PH-EP-2014-293

104. "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"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 75, no. 5, 212 (2015)

CMS-HIG-14-009, CERN-PH-EP-2014-288

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 91, no. 5, 052009 (2015)

CMS-EXO-12-059, CERN-PH-EP-2014-300

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **748**, 144 (2015)

CMS-EXO-12-057, CERN-PH-EP-2015-001

107. "Search for Decays of Stopped Long-Lived Particles Produced in ProtonProton Collisions at $\sqrt{s} = 8 \text{ TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 75, no. 4, 151 (2015)

CMS-EXO-12-036, CERN-PH-EP-2015-002

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **749**, 14 (2015)

CMS-BPH-12-006, CERN-PH-EP-2015-007

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 91, 052018 (2015)

CMS-SUS-13-004, CERN-PH-EP-2015-005

110. "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"

V. Khachatryan *et al.* [CMS Collaboration].

Eur. Phys. J. C 75, no. 6, 251 (2015)

CMS-HIG-14-010, CERN-PH-EP-2015-016

111. "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"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 75, no. 7, 325 (2015)

CMS-EXO-13-006, CERN-PH-EP-2015-014

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

V. Khachatryan et al. [CMS Collaboration].

JINST **10**, no. 06, P06005 (2015)

CMS-EGM-13-001, CERN-PH-EP-2015-004

113. "Performance of Photon Reconstruction and Identification with the CMS Detector in Proton-Proton Collisions at sqrt(s) = 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

JINST 10, no. 08, P08010 (2015)

CMS-EGM-14-001, CERN-PH-EP-2015-006

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. Lett. 114, no. 19, 191802 (2015)

CMS-BPH-14-001, CERN-PH-EP-2015-022

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1505**, 078 (2015)

CMS-SUS-13-019, CERN-PH-EP-2015-017

116. "Distributions of Topological Observables in Inclusive Three- and Four-Jet Events in pp Collisions at sqrt(s) = 7 TeV"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **75**, no. 7, 302 (2015)

CMS-QCD-11-006, CERN-PH-EP-2014-302

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **748**, 255 (2015)

CMS-EXO-13-007, CERN-PH-EP-2015-010

118. "Evidence for Collective Multiparticle Correlations in p-Pb Collisions"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. Lett. **115**, no. 1, 012301 (2015)

CMS-HIN-14-006, CERN-PH-EP-2015-011

119. "Nuclear Effects on the Transverse Momentum Spectra of Charged Particles in pPb Collisions at $\sqrt{s_{_{\rm NN}}}=5.02~{\rm TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 75, no. 5, 237 (2015)

CMS-HIN-12-017, CERN-PH-EP-2014-282

120. "Measurement of the $\mathbf{Z}\gamma$ Production Cross Section in pp Collisions at 8 TeV and Search for Anomalous Triple Gauge Boson Couplings"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1504**, 164 (2015)

CMS-SMP-13-014, CERN-PH-EP-2014-303

121. "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"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1504**, 124 (2015)

CMS-SUS-14-014, CERN-PH-EP-2015-033

122. "Search for Lepton-Flavour-Violating Decays of the Higgs Boson"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **749**, 337 (2015)

CMS-HIG-14-005, CERN-PH-EP-2015-027

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 91, no. 9, 092012 (2015)

CMS-EWK-11-016, CERN-PH-EP-2015-031

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. C 92, no. 3, 034911 (2015)

CMS-HIN-14-012, CERN-PH-EP-2015-039

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

V. Khachatryan et al. [CMS Collaboration].

```
JHEP 1506, 080 (2015)
CMS-B2G-14-002, CERN-PH-EP-2015-034
```

126. "Search for resonant pair production of Higgs bosons decaying to two bottom quarkantiquark pairs in protonproton collisions at 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **749**, 560 (2015)

CMS-HIG-14-013, CERN-PH-EP-2015-042

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 75, no. 10, 511 (2015)

CMS-SMP-12-016, CERN-PH-EP-2015-029

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **750**, 565 (2015)

CMS-HIN-13-007, CERN-PH-EP-2015-054

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

G. Aad et al. [ATLAS and CMS Collaborations].

Phys. Rev. Lett. **114**, 191803 (2015)

ATLAS-HIGG-2014-14, CMS-HIG-14-042, CERN-PH-EP-2015-075

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1506**, 116 (2015)

CMS-SUS-14-001, CERN-PH-EP-2015-055

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **92**, no. 1, 012003 (2015)

CMS-FSQ-12-005, CERN-PH-EP-2015-062

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

V. Khachatryan et al. [CMS Collaboration].

JHEP 1507, 042 (2015), Erratum: [JHEP 1611, 056 (2016)]

CMS-EXO-14-008, CERN-PH-EP-2015-063

133. "Search for a Higgs boson in the mass range from 145 to 1000 GeV decaying to a pair of W or Z bosons"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1510**, 144 (2015)

CMS-HIG-13-031, CERN-PH-EP-2015-074

134. "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"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1506**, 121 (2015)

CMS-B2G-14-004, CERN-PH-EP-2015-087

135. "Measurement of the Z boson differential cross section in transverse momentum and rapidity in protonproton collisions at 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **749**, 187 (2015)

CMS-SMP-13-013, CERN-PH-EP-2015-059

136. "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"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **750**, 154 (2015)

CMS-SMP-13-010, CERN-PH-EP-2015-046

137. "Search for a pseudoscalar boson decaying into a Z boson and the 125 GeV Higgs boson in $\ell^+\ell^-b\bar{b}$ final states"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B 748, 221 (2015)

CMS-HIG-14-011, CERN-PH-EP-2015-088

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **75**, no. 11, 542 (2015)

CMS-TOP-12-028, CERN-PH-EP-2015-117

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1509**, 201 (2015)

CMS-EXO-12-007, CERN-PH-EP-2015-119

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **92**, no. 3, 032008 (2015)

CMS-14-004, CERN-PH-EP-2015-121, CMS-HIG-14-004

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **750**, 494 (2015)

CMS-HIG-14-006, CERN-PH-EP-2015-113

142. "Search for neutral MSSM Higgs bosons decaying into a pair of bottom quarks"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1511**, 071 (2015)

CMS-HIG-14-017, CERN-PH-EP-2015-133

143. "Production of leading charged particles and leading charged-particle jets at small transverse momenta in pp collisions at sqrt(s) = 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 92, no. 11, 112001 (2015)

CMS-FSQ-12-032, CERN-PH-EP-2015-135

144. "Search for supersymmetry with photons in pp collisions at \sqrt{s} =8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **92**, no. 7, 072006 (2015)

CMS-SUS-14-004, CERN-PH-EP-2015-129

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **751**, 143 (2015)

 $CMS-FSQ-15-001,\ CERN-PH-EP-2015-180$

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 92, no. 7, 072010 (2015)

CMS-HIG-14-036, CERN-PH-EP-2015-159

147. "Measurement of the underlying event activity using charged-particle jets in protonproton collisions at sqrt(s) = 2.76 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1509**, 137 (2015)

CMS-FSQ-12-025, CERN-PH-EP-2015-176

148. "High speed optical wireless data transmission system for particle sensors in high energy physics"

W. Ali, R. Corsini, E. Ciaramella, R. Dell'Orso, A. Messineo and F. Palla. JINST 10, no. 08, C08003 (2015).

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1511**, 189 (2015)

CMS-SUS-14-005, CERN-PH-EP-2015-213

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1511**, 018 (2015)

CMS-HIG-14-023, CERN-PH-EP-2015-221

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1512**, 178 (2015)

CMS-HIG-13-035, CERN-PH-EP-2015-266

152. "Search for new phenomena in monophoton final states in proton-proton collisions at $\sqrt{s}=8~{\rm TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **755**, 102 (2016)

CMS-EXO-12-047, CERN-PH-EP-2014-253

153. "Measurement of the ratio $B(B^0_s \to J/\psi f_0(980))$ / $B(B^0_s \to J/\psi \phi(1020))$ in pp collisions at $\sqrt{s}=7$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **756**, 84 (2016)

CMS-BPH-14-002, CERN-PH-EP-2015-003

154. "Trapping in proton irradiated p⁺-n-n⁺ silicon sensors at fluences anticipated at the HL-LHC outer tracker"

W. Adam et al. [CMS Tracker Group].

JINST 11, no. 04, P04023 (2016)

155. "A search for pair production of new light bosons decaying into muons"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **752**, 146 (2016)

CMS-HIG-13-010, CERN-PH-EP-2015-116

156. "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"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1602**, 145 (2016)

CMS-EXO-14-009, CERN-PH-EP-2015-096

157. "Search for resonant $t\bar{t}$ production in proton-proton collisions at $\sqrt{s}=8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **93**, no. 1, 012001 (2016)

CMS-B2G-13-008, CERN-PH-EP-2015-126

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **753**, 363 (2016)

CMS-HIG-14-025, CERN-PH-EP-2015-131

159. "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"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **753**, 341 (2016)

CMS-HIG-14-003, CERN-PH-EP-2015-137

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **757**, 154 (2016)

CMS-TOP-12-033, CERN-PH-EP-2015-141

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **76**, no. 7, 401 (2016)

CMS-SMP-14-016, CERN-PH-EP-2015-122

162. "Search for pair-produced vectorlike B quarks in proton-proton collisions at \sqrt{s} =8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 93, no. 11, 112009 (2016)

CMS-B2G-13-006, CERN-PH-EP-2015-170

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **757**, 97 (2016)

CMS-BPH-13-012, CERN-PH-EP-2015-192

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **753**, 424 (2016)

CMS-BPH-13-010, CERN-PH-EP-2015-178

165. "Search for supersymmetry in events with a photon, a lepton, and missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **757**, 6 (2016)

CMS-SUS-14-013, CERN-PH-EP-2015-169

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B 752, 221 (2016)

CMS-HIG-13-024, CERN-PH-EP-2015-148

167. "Measurement of the charge asymmetry in top quark pair production in pp collisions at $\sqrt(s) = 8$ TeV using a template method"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **93**, no. 3, 034014 (2016)

CMS-TOP-13-013, CERN-PH-EP-2015-189

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

V. Khachatryan et al. [CMS Collaboration].

```
Phys. Lett. B 755, 196 (2016)
CMS-EXO-12-011, CERN-PH-EP-2015-190
```

169. "Study of B Meson Production in p+Pb Collisions at $\sqrt{s_{NN}} = 5.02$ TeV Using Exclusive Hadronic Decays"

V. Khachatryan et al. [CMS Collaboration].

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

CMS-HIN-14-004, CERN-PH-EP-2015-209

170. "Measurement of differential cross sections for Higgs boson production in the diphoton decay channel in pp collisions at $\sqrt{s} = 8 \, \text{TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 76, no. 1, 13 (2016)

CMS-HIG-14-016, CERN-PH-EP-2015-195

171. "Search for pair production of first and second generation leptoquarks in proton-proton collisions at $\sqrt{s}=8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 93, no. 3, 032004 (2016)

CMS-EXO-12-041, CERN-PH-EP-2015-197

172. "Search for single production of scalar leptoquarks in proton-proton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 93, no. 3, 032005 (2016), Erratum: [Phys. Rev. D 95, no. 3, 039906 (2017)]

CMS-EXO-12-043, CERN-PH-EP-2015-149

173. "Measurement of the inelastic cross section in protonlead collisions at $\sqrt{s_{NN}} = 5.02 \text{ TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **759**, 641 (2016)

CMS-FSQ-13-006, CERN-PH-EP-2015-210

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 93, no. 7, 072004 (2016)

CMS-TOP-14-022, CERN-PH-EP-2015-234

175. "Search for vector-like charge 2/3 T quarks in proton-proton collisions at sqrt(s) = 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 93, no. 1, 012003 (2016)

 $CMS-B2G-13-005,\ CERN-PH-EP-2015-228$

176. "Search for $W' \to tb$ in proton-proton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP 1602, 122 (2016)

CMS-B2G-12-009, CERN-PH-EP-2015-231

177. "Measurement of the $t\bar{t}$ production cross section in the all-jets final state in pp collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **76**, no. 3, 128 (2016)

CMS-TOP-14-018, CERN-PH-EP-2015-243

178. "Search for the production of an excited bottom quark decaying to tW in proton-proton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1601**, 166 (2016)

CMS-B2G-14-005, CERN-PH-EP-2015-246

179. "Search for the associated production of a Higgs boson with a single top quark in proton-proton collisions at $\sqrt{s}=8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1606**, 177 (2016)

CMS-HIG-14-027, CERN-PH-EP-2015-255

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1601**, 006 (2016)

CMS-HIN-14-010, CERN-PH-EP-2015-260

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1601**, 096 (2016)

CMS-TOP-14-021, CERN-PH-EP-2015-248

182. "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 $h \to \tau \tau$ "

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **755**, 217 (2016)

CMS-HIG-14-034, CERN-PH-EP-2015-211

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

V. Khachatryan et al. [CMS Collaboration].

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

CMS-FSQ-15-002, CERN-PH-EP-2015-271

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 76, no. 7, 379 (2016)

CMS-TOP-12-041, CERN-PH-EP-2015-240

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **754**, 59 (2016)

CMS-HIN-14-007, CERN-PH-EP-2015-205

186. "Measurement of the top quark pair production cross section in proton-proton collisions at $\sqrt(s) = 13 \text{ TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

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

CMS-TOP-15-003, CERN-PH-EP-2015-280

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1601**, 079 (2016)

CMS-HIG-14-019, CERN-PH-EP-2015-264

188. "Reconstruction and identification of τ lepton decays to hadrons and ν_{τ} at CMS"

V. Khachatryan et al. [CMS Collaboration].

JINST **11**, no. 01, P01019 (2016)

CMS-TAU-14-001, CERN-PH-EP-2015-261

189. "Search for excited leptons in proton-proton collisions at sqrt(s) = 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1603**, 125 (2016)

CMS-EXO-14-015, CERN-PH-EP-2015-281

190. "Measurement of top quark polarisation in t-channel single top quark production"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1604**, 073 (2016)

CMS-TOP-13-001, CERN-PH-EP-2015-282

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **758**, 296 (2016)

CMS-HIG-14-033, CERN-PH-EP-2015-284, FERMILAB-PUB-15-514-CMS

192. "Search for anomalous single top quark production in association with a photon in pp collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1604**, 035 (2016)

CMS-TOP-14-003, CERN-PH-EP-2015-287

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **758**, 321 (2016)

CMS-TOP-13-015, CERN-PH-EP-2015-289, FERMILAB-PUB-15-512-CMS

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 93, no. 5, 052011 (2016)

CMS-EXO-12-054, CERN-PH-EP-2015-297

195. "Event generator tunes obtained from underlying event and multiparton scattering measurements"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **76**, no. 3, 155 (2016)

CMS-GEN-14-001, CERN-PH-EP-2015-291

196. "Search for narrow resonances decaying to dijets in proton-proton collisions at $\sqrt(s) = 13$ TeV"

V. Khachatryan et al. [CMS Collaboration].

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

CMS-EXO-15-001, CERN-PH-EP-2015-317

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **76**, no. 5, 265 (2016)

CMS-SMP-14-017, CERN-PH-EP-2015-299

198. "Study of Z boson production in pPb collisions at $\sqrt{s_{NN}} = 5.02 \text{ TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **759**, 36 (2016)

CMS-HIN-15-002, CERN-PH-EP-2015-302

199. "Search for supersymmetry in events with soft leptons, low jet multiplicity, and missing transverse energy in protonproton collisions at \sqrt{s} =8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **759**, 9 (2016)

CMS-SUS-14-021, CERN-PH-EP-2015-307

200. "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"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1604**, 005 (2016)

CMS-HIG-14-028, CERN-PH-EP-2015-285

201. "Correlations between jets and charged particles in PbPb and pp collisions at $\sqrt{s_{\rm NN}} = 2.76$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1602**, 156 (2016)

CMS-HIN-14-016, CERN-PH-EP-2015-329

202. "Measurements of t t-bar spin correlations and top quark polarization using dilepton final states in pp collisions at sqrt(s) = 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **93**, no. 5, 052007 (2016)

CMS-TOP-14-023, CERN-PH-EP-2015-333

203. "Measurement of inclusive jet production and nuclear modifications in pPb collisions at $\sqrt{s_{_{
m NN}}}=5.02~{
m TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 76, no. 7, 372 (2016)

CMS-HIN-14-001, CERN-PH-EP-2015-334

204. "Forwardbackward asymmetry of DrellYan lepton pairs in pp collisions at $\sqrt{s}=8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 76, no. 6, 325 (2016)

CMS-SMP-14-004, CERN-PH-EP-2015-295

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **76**, no. 5, 237 (2016)

CMS-EXO-14-010, CERN-PH-EP-2015-332

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

V. Khachatryan et al. [CMS Collaboration].

JHEP 1608, 139 (2016)

CMS-FSQ-12-002, CERN-PH-EP-2015-309

207. "Search for supersymmetry in pp collisions at sqrt(s) = 8 TeV in final states with boosted W bosons and b jets using razor variables"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 93, no. 9, 092009 (2016)

CMS-SUS-14-007, CERN-EP-2016-008

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1607**, 027 (2016), Erratum: [JHEP **1609**, 056 (2016)]

 $CMS\text{-}SUS\text{-}14\text{-}015,\ CERN\text{-}EP\text{-}2016\text{-}004$

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **759**, 672 (2016)

CMS-HIG-14-035, CERN-PH-EP-2015-331

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **760**, 178 (2016)

 $CMS\text{-}EXO\text{-}14\text{-}013,\ CERN\text{-}EP\text{-}2016\text{-}005$

211. "Measurement of dijet azimuthal decorrelation in pp collisions at $\sqrt{s} = 8 \,\mathrm{TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **76**, no. 10, 536 (2016)

CMS-SMP-14-015, CERN-EP-2016-013, CERN-SMP-14-015

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **758**, 152 (2016)

CMS-SUS-15-002, CERN-EP-2016-036

213. "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"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **760**, 448 (2016)

CMS-SMP-14-019, CERN-EP-2016-007

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C **76**, no. 7, 371 (2016)

CMS-EXO-12-053, CERN-EP-2016-041

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **759**, 479 (2016)

CMS-SUS-14-016, CERN-EP-2016-012

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

V. Khachatryan et al. [CMS Collaboration].

arXiv:1603.00765 [hep-ex]

DOI:10.1140/epjc/s10052-016-4292-5

Eur. Phys. J. C 76, no. 8, 460 (2016)

CMS-SUS-13-023, CERN-EP-2016-040

217. "Measurement of the differential cross section and charge asymmetry for inclusive pp \rightarrow W[±] + X production at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 76, no. 8, 469 (2016)

CMS-SMP-14-022, CERN-EP-2016-043

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1604**, 169 (2016)

CMS-EXO-14-014, CERN-EP-2016-032

219. "Measurement of the t-tbar production cross section in the e-mu channel in proton-proton collisions at sqrt(s) = 7 and 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP 1608, 029 (2016)

CMS-TOP-13-004, CERN-EP-2016-044

220. "Search for s channel single top quark production in pp collisions at $\sqrt{s} = 7$ and 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP 1609, 027 (2016)

CMS-TOP-13-009, CERN-EP-2016-045

221. " $\Upsilon(nS)$ polarizations versus particle multiplicity in pp collisions at $\sqrt{s} = 7$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **761**, 31 (2016)

CMS-HIN-15-003, CERN-PH-EP-2015-310

222. "Search for neutral resonances decaying into a Z boson and a pair of b jets or τ leptons"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **759**, 369 (2016)

CMS-HIG-15-001, CERN-EP-2016-039

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1610**, 006 (2016)

CMS-SUS-15-003, CERN-EP-2016-067

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B 760, 365 (2016)

CMS-TOP-15-009, CERN-EP-2016-059

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 93, no. 9, 092006 (2016)

CMS-TOP-12-030, CERN-EP-2016-062

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **94**, no. 5, 052012 (2016)

CMS-HIG-13-032, CERN-EP-2016-050

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

V. Khachatrvan et al. [CMS Collaboration]

JHEP **1612**. 088 (2016)

CMS-EXO-14-004, CERN-EP-2016-025

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1608**, 119 (2016)

CMS-FSQ-13-008, CERN-EP-2016-073

229. "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"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 76, no. 6, 317 (2016)

CMS-EXO-13-002, CERN-EP-2016-068

230. "Search for narrow resonances in dijet final states at $\sqrt(s) = 8$ TeV with the novel CMS technique of data scouting"

V. Khachatryan et al. [CMS Collaboration].

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

CMS-EXO-14-005, CERN-EP-2016-090

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 94, no. 7, 072002 (2016)

CMS-TOP-14-012, CERN-EP-2016-078

232. "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"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1609**, 051 (2016)

CMS-HIG-14-032, CERN-EP-2016-054

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 76, no. 8, 439 (2016)

CMS-SUS-15-008, CERN-EP-2016-119

234. "The INFNFBK "Phase-2" R&D; program"

G. F. Dalla Betta et al..

Nucl. Instrum. Meth. A 824, 388 (2016)

235. "Measurement of the double-differential inclusive jet cross section in protonproton collisions at $\sqrt{s} = 13 \, \text{TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 76, no. 8, 451 (2016)

CMS-SMP-15-007, CERN-EP-2016-104

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1608**, 122 (2016)

CMS-SUS-15-007, CERN-EP-2016-111

237. "Measurement of the W boson helicity fractions in the decays of top quark pairs to lepton + jets final states produced in pp collisions at $\sqrt{s} = 8\text{TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **762**, 512 (2016)

CMS-TOP-13-008, CERN-EP-2016-118

238. "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"

G. Aad et al. [ATLAS and CMS Collaborations].

JHEP **1608**, 045 (2016)

CERN-EP-2016-100, ATLAS-HIGG-2015-07, CMS-HIG-15-002

239. "Phenomenological MSSM interpretation of CMS searches in pp collisions at sqrt(s) = 7 and 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1610**, 129 (2016)

CMS-SUS-15-010, CERN-EP-2016-094

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

V. Khachatryan et al. [CMS Collaboration].

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

CMS-EXO-16-018, CERN-EP-2016-154

241. "Searches for R-parity-violating supersymmetry in pp collisions at $\sqrt(s) = 8$ TeV in final states with 0-4 leptons"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 94, no. 11, 112009 (2016)

CMS-SUS-14-003, CERN-EP-2016-097

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 94, no. 5, 052006 (2016)

CMS-TOP-12-042, CERN-EP-2016-139

243. "Search for new physics in final states with two opposite-sign, same-flavor leptons, jets, and missing transverse momentum in pp collisions at sqrt(s) = 13 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1612**, 013 (2016)

CMS-SUS-15-011, CERN-EP-2016-132

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **763**, 472 (2016)

CMS-HIG-14-040, CERN-EP-2016-112

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1612**, 083 (2016), Erratum: [JHEP **1708**, 035 (2017)]

CMS-EXO-12-055, CERN-EP-2016-178

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1611**, 147 (2016)

CMS-SMP-13-012, CERN-EP-2016-093

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1612**, 123 (2016)

CMS-TOP-15-014, CERN-EP-2016-202

248. "Decomposing transverse momentum balance contributions for quenched jets in PbPb collisions at $\sqrt{s_{\mathrm{N}\,\mathrm{N}}} = 2.76~\mathrm{TeV}$ "

V. Khachatryan *et al.* [CMS Collaboration].

JHEP **1611**, 055 (2016)

CMS-HIN-15-011, CERN-EP-2016-199

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **94**, no. 11, 112005 (2016)

CMS-FSQ-13-010, CERN-EP-2016-191

250. "Search for long-lived charged particles in proton-proton collisions at $\sqrt{s} = 13$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 94, no. 11, 112004 (2016)

CMS-EXO-15-010, CERN-EP-2016-204

251. "2.5 Gb/s Simple Optical Wireless Communication System for Particle Detectors in High Energy Physics"

A. Wajahat, G. Cossu, R. Corsini, E. Ciaramella, R. Dell'Orso, A. Messineo and F. Palla. PoS Vertex **2016**, 070 (2017).

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. C **96**, no. 1, 014915 (2017) CMS-HIN-14-008, CERN-EP-2016-042

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B 768, 103 (2017)

CMS-HIN-15-006, CERN-EP-2016-105

254. "Coherent J/ψ photoproduction in ultra-peripheral PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV with the CMS experiment"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **772**, 489 (2017)

CMS-HIN-12-009, CERN-EP-2016-098

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **767**, 403 (2017)

CMS-SUS-14-006, CERN-EP-2016-103

256. "Search for Dark Matter and Supersymmetry with a Compressed Mass Spectrum in the Vector Boson Fusion Topology in Proton-Proton Collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. Lett. 118, no. 2, 021802 (2017)

CMS-SUS-14-019, CERN-EP-2016-096

257. "Measurement of the transverse momentum spectrum of the Higgs boson produced in pp collisions at $\sqrt{s}=8$ TeV using $H\to WW$ decays"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1703**, 032 (2017)

CMS-HIG-15-010, CERN-EP-2016-125

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1702**, 096 (2017)

CMS-SMP-14-012, CERN-EP-2016-152

259. "Evidence for collectivity in pp collisions at the LHC"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **765**, 193 (2017)

CMS-HIN-16-010, CERN-EP-2016-147

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **764**, 66 (2017)

CMS-BPH-13-009, CERN-EP-2016-161

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

V. Khachatryan et al. [CMS Collaboration].

JINST 12, no. 02, P02014 (2017)

CMS-JME-13-004, CERN-PH-EP-2015-305

262. "Measurement of the WZ production cross section in pp collisions at $\sqrt(s) = 13$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **766**, 268 (2017)

CMS-SMP-16-002, CERN-EP-2016-169

263. "Search for new phenomena in events with high jet multiplicity and low missing transverse momentum in protonproton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **770**, 257 (2017)

CMS-EXO-13-001, CERN-EP-2016-187

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

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 2, 92 (2017)

CMS-SMP-14-020, CERN-EP-2016-190

265. "Measurement of the total and differential inclusive B^+ hadron cross sections in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **771**, 435 (2017)

CMS-BPH-15-004, CERN-EP-2016-198

266. "The CMS trigger system"

V. Khachatryan et al. [CMS Collaboration].

JINST 12, no. 01, P01020 (2017)

CMS-TRG-12-001, CERN-EP-2016-160

267. "Search for high-mass diphoton resonances in protonproton collisions at 13 TeV and combination with 8 TeV search"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **767**, 147 (2017)

CMS-EXO-16-027, CERN-EP-2016-216, CMS-EXO-16-02

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

V. Khachatryan et al. [CMS Collaboration].

JHEP **1703**, 156 (2017)

CMS-SMP-14-001, CERN-EP-2016-196

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

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. C 96, no. 1, 015202 (2017)

CMS-HIN-13-005, CERN-EP-2016-217

270. "Search for narrow resonances in dilepton mass spectra in proton-proton collisions at \sqrt{s} = 13 TeV and combination with 8 TeV data"

V. Khachatryan *et al.* [CMS Collaboration].

Phys. Lett. B **768**, 57 (2017)

CMS-EXO-15-005, CERN-EP-2016-209, FERMILAB-PUB-16-491-CMS

271. "Measurement of the WZ production cross section in pp collisions at $\sqrt{s} = 7$ and 8 TeV and search for anomalous triple gauge couplings at $\sqrt{s} = 8 \, \text{TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 4, 236 (2017)

CMS-SMP-14-014, CERN-EP-2016-205

272. "Inclusive search for supersymmetry using razor variables in pp collisions at $\sqrt{s} = 13$ TeV" V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **95**, no. 1, 012003 (2017)

CMS-SUS-15-004, CERN-EP-2016-214

273. "Search for supersymmetry in events with one lepton and multiple jets in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 95, no. 1, 012011 (2017)

CMS-SUS-15-006, CERN-EP-2016-239

274. "Observation of charge-dependent azimuthal correlations in *p*-Pb collisions and its implication for the search for the chiral magnetic effect"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. Lett. 118, no. 12, 122301 (2017)

CMS-HIN-16-009, CERN-EP-2016-236

275. "Suppression and azimuthal anisotropy of prompt and nonprompt J/ψ production in PbPb collisions at $\sqrt{s_{_{NN}}}=2.76~{\rm TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 4, 252 (2017)

CMS-HIN-14-005, CERN-EP-2016-243

276. "Cross section measurement of t-channel single top quark production in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 772, 752 (2017)

CMS-TOP-16-003, CERN-EP-2016-233

277. "Search for high-mass $Z\gamma$ resonances in $e^+e^-\gamma$ and $\mu^+\mu^-\gamma$ final states in proton-proton collisions at $\sqrt{s}=8$ and 13 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1701**, 076 (2017)

CMS-EXO-16-021, CERN-EP-2016-230

278. "Search for anomalous Wtb couplings and flavour-changing neutral currents in t-channel single top quark production in pp collisions at $\sqrt{s} = 7$ and 8 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1702**, 028 (2017)

CMS-TOP-14-007, CERN-EP-2016-207

279. "Measurement of differential cross sections for top quark pair production using the lepton+jets final state in proton-proton collisions at 13 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 95, no. 9, 092001 (2017)

CMS-TOP-16-008, CERN-EP-2016-227

280. "Measurements of differential cross sections for associated production of a W boson and jets in proton-proton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 95, 052002 (2017)

CMS-SMP-14-023, CERN-EP-2016-231, CERN-PH-EP-2016-231

281. "Search for top quark decays via Higgs-boson-mediated flavor-changing neutral currents in pp collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1702**, 079 (2017)

CMS-TOP-13-017, CERN-EP-2016-208

282. "Search for electroweak production of charginos in final states with two τ leptons in pp collisions at $\sqrt{s}=8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP 1704, 018 (2017)

CMS-SUS-14-022, CERN-EP-2016-225

283. "Search for R-parity violating supersymmetry with displaced vertices in proton-proton collisions at $\sqrt{s}=8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D **95**, no. 1, 012009 (2017)

CMS-SUS-14-020, CERN-EP-2016-224

284. "Observation of $\Upsilon(1S)$ pair production in proton-proton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1705**, 013 (2017)

CMS-BPH-14-008, CERN-EP-2016-237

285. "Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos, and b quarks"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **768**, 137 (2017)

CMS-B2G-16-003, CERN-EP-2016-226

286. "Searches for invisible decays of the Higgs boson in pp collisions at $\sqrt{s} = 7$, 8, and 13 TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1702**, 135 (2017)

CMS-HIG-16-016, CERN-EP-2016-240

287. "Measurement of the mass difference between top quark and antiquark in pp collisions at $\sqrt{s} = 8 \text{ TeV}$ "

S. Chatrchyan et al. [CMS Collaboration].

Phys. Lett. B **770**, 50 (2017)

CMS-TOP-12-031, CERN-EP-2016-249

288. "A search for new phenomena in pp collisions at $\sqrt{s} = 13 \, \text{TeV}$ in final states with missing transverse momentum and at least one jet using the α_T variable"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 5, 294 (2017)

CMS-SUS-15-005, CERN-EP-2016-246

289. "Relative Modification of Prompt $\psi(2S)$ and J/ψ Yields from pp to PbPb Collisions at $\sqrt{s_{NN}} = 5.02 \, \text{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **118**, no. 16, 162301 (2017)

CMS-HIN-16-004, CERN-EP-2016-258

290. "Suppression of $\Upsilon(1S), \Upsilon(2S)$ and $\Upsilon(3S)$ production in PbPb collisions at $\sqrt{s_{\rm NN}}=$ 2.76 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B 770, 357 (2017)

CMS-HIN-15-001, CERN-EP-2016-248

291. "Charged-particle nuclear modification factors in PbPb and pPb collisions at $\sqrt{s_{\rm N~N}} = 5.02$

V. Khachatryan et al. [CMS Collaboration].

JHEP **1704**, 039 (2017)

CMS-HIN-15-015, CERN-EP-2016-242

292. "Search for dijet resonances in proton proton collisions at $\sqrt{s}=13$ TeV and constraints on dark matter and other models"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 769, 520 (2017), Erratum: [Phys. Lett. B 772, 882 (2017)]

CMS-EXO-16-032, CERN-EP-2016-277

293. "Measurements of differential production cross sections for a Z boson in association with jets in pp collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1704**, 022 (2017)

CMS-SMP-14-013, CERN-EP-2016-256

294. "Measurement of the $t\bar{t}$ production cross section using events in the e μ final state in pp collisions at $\sqrt{s} = 13$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 77, 172 (2017)

CMS-TOP-16-005, CERN-EP-2016-265

295. "Measurements of the associated production of a Z boson and b jets in pp collisions at $\sqrt{s} = 8 \, \text{TeV}$ "

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 11, 751 (2017)

CMS-SMP-14-010, CERN-EP-2016-254

296. "Search for heavy resonances decaying to tau lepton pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1702**, 048 (2017)

CMS-EXO-16-008, CERN-EP-2016-273

297. "Search for supersymmetry in events with photons and missing transverse energy in pp collisions at 13 TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **769**, 391 (2017)

CMS-SUS-15-012, CERN-EP-2016-269

298. "Search for CP violation in $t\bar{t}$ production and decay in proton-proton collisions at $\sqrt{s}=8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1703**, 101 (2017)

CMS-TOP-16-001, CERN-EP-2016-266, CMS-TO-16-001

299. "Search for single production of a heavy vector-like T quark decaying to a Higgs boson and a top quark with a lepton and jets in the final state"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B 771, 80 (2017)

CMS-B2G-15-008, CERN-EP-2016-279

300. "Search for heavy neutrinos or third-generation leptoquarks in final states with two hadronically decaying τ leptons and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1703**, 077 (2017)

CMS-EXO-16-016, CERN-EP-2016-286

301. "Searches for pair production of third-generation squarks in $\sqrt{s} = 13$ TeV pp collisions"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 5, 327 (2017)

CMS-SUS-16-008, CERN-EP-2016-284

302. "Search for electroweak production of a vector-like quark decaying to a top quark and a Higgs boson using boosted topologies in fully hadronic final states"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1704**, 136 (2017)

CMS-B2G-16-005, CERN-EP-2016-290

303. "Measurements of the charm jet cross section and nuclear modification factor in pPb collisions at $\sqrt{s_{NN}}=5.02~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 772, 306 (2017)

CMS-HIN-15-012, CERN-EP-2016-274

304. "Search for massive resonances decaying into WW, WZ or ZZ bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1703**, 162 (2017)

CMS-B2G-16-004, CERN-EP-2016-296

305. "Measurement of electroweak-induced production of W γ with two jets in pp collisions at $\sqrt{s} = 8$ TeV and constraints on anomalous quartic gauge couplings"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1706**, 106 (2017)

CMS-SMP-14-011, CERN-EP-2016-289

306. "Search for heavy gauge W' boson in events with an energetic lepton and large missing transverse momentum at $\sqrt{s} = 13$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **770**, 278 (2017)

CMS-EXO-15-006, CERN-EP-2016-281

307. "Search for high-mass $Z\gamma$ resonances in proton-proton collisions at $\sqrt{s}=8$ and 13 TeV using jet substructure techniques"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **772**, 363 (2017)

CMS-EXO-16-025, CERN-EP-2016-300

308. "Search for leptophobic Z' bosons decaying into four-lepton final states in proton proton collisions at \sqrt{s} =8TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Lett. B **773**, 563 (2017)

CMS-EXO-14-006, CERN-EP-2016-295

309. "Search for supersymmetry in the all-hadronic final state using top quark tagging in pp collisions at $\sqrt{s} = 13$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Phys. Rev. D 96, no. 1, 012004 (2017)

CMS-SUS-16-009, CERN-EP-2016-293

310. "Mechanical stability of the CMS strip tracker measured with a laser alignment system" A. M. Sirunyan *et al.* [CMS Collaboration].

JINST 12, no. 04, P04023 (2017)

CMS-TRK-15-002, CERN-EP-2016-320

311. "Search for light bosons in decays of the 125 GeV Higgs boson in proton-proton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan et al. [CMS Collaboration].

JHEP **1710**, 076 (2017)

CMS-HIG-16-015, CERN-EP-2016-292

312. "Search for dark matter and unparticles in events with a Z boson and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1703**, 061 (2017), Erratum: [JHEP **1709**, 106 (2017)]

CMS-EXO-16-010, CERN-EP-2016-309

313. "Measurement of the $t\bar{t}$ production cross section using events with one lepton and at least one jet in pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1709**, 051 (2017)

CMS-TOP-16-006, CERN-EP-2016-321

314. "Search for new phenomena with multiple charged leptons in proton proton collisions at $\sqrt{s}=13$ TeV"

V. Khachatryan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 9, 635 (2017)

CMS-SUS-16-003, CERN-EP-2016-306

315. "Search for single production of vector-like quarks decaying to a Z boson and a top or a bottom quark in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1705**, 029 (2017)

CMS-B2G-16-001, CERN-EP-2016-326

316. "Search for single production of vector-like quarks decaying into a b quark and a W boson in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **772**, 634 (2017)

CMS-B2G-16-006, CERN-EP-2016-319

317. "Measurement of the inclusive energy spectrum in the very forward direction in proton-proton collisions at $\sqrt{s}=13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1708**, 046 (2017)

CMS-FSQ-16-002, CERN-EP-2016-313

318. "Study of Jet Quenching with $Z+{
m jet}$ Correlations in Pb-Pb and pp Collisions at $\sqrt{s}_{NN}=5.02~{
m TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 119, no. 8, 082301 (2017)

CMS-HIN-15-013, CERN-EP-2017-002

319. "Search for associated production of a Z boson with a single top quark and for tZ flavour-changing interactions in pp collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1707**, 003 (2017)

CMS-TOP-12-039, CERN-EP-2016-324

320. "Measurement of prompt and nonprompt J/ψ production in pp and pPb collisions at $\sqrt{s_{\rm NN}} = 5.02\,{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 4, 269 (2017)

CMS-HIN-14-009, CERN-EP-2017-009

321. "Measurement of the cross section for electroweak production of $\mathbf{Z}\gamma$ in association with two jets and constraints on anomalous quartic gauge couplings in protonproton collisions at $\sqrt{s} = 8$ TeV"

V. Khachatryan *et al.* [CMS Collaboration].

Phys. Lett. B 770, 380 (2017)

CMS-SMP-14-018, CERN-EP-2016-308

322. "Search for standard model production of four top quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 772, 336 (2017)

CMS-TOP-16-016, CERN-EP-2017-023

323. "Measurement of double-differential cross sections for top quark pair production in pp collisions at $\sqrt{s} = 8$ TeV and impact on parton distribution functions"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 7, 459 (2017)

CMS-TOP-14-013, CERN-EP-2017-030

324. "Search for dark matter produced with an energetic jet or a hadronically decaying W or Z boson at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1707**, 014 (2017)

CMS-EXO-16-037, CERN-EP-2017-031

325. "Measurement of the top quark mass using single top quark events in proton-proton collisions at $\sqrt{s}=8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 5, 354 (2017)

CMS-TOP-15-001, CERN-EP-2017-012

326. "Search for third-generation scalar leptoquarks and heavy right-handed neutrinos in final states with two tau leptons and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1707**, 121 (2017)

CMS-EXO-16-023, CERN-EP-2017-025

327. "Search for associated production of dark matter with a Higgs boson decaying to $b\bar{b}$ or $\gamma\gamma$ at $\sqrt{s}=13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1710**, 180 (2017)

CMS-EXO-16-012, CERN-EP-2017-027

328. "Search for anomalous couplings in boosted WW/WZ $\rightarrow \ell \nu q \bar{q}$ production in proton-proton collisions at $\sqrt{s}=8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 772, 21 (2017)

CMS-SMP-13-008, CERN-EP-2017-029

329. "Measurement of the jet mass in highly boosted $t\bar{t}$ events from pp collisions at $\sqrt{s}=8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 7, 467 (2017)

CMS-TOP-15-015, CERN-EP-2017-018

330. "Search for a heavy resonance decaying to a top quark and a vector-like top quark at $\sqrt{s}=13~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1709**, 053 (2017)

CMS-B2G-16-013, CERN-EP-2017-035

331. "Search for new physics with dijet angular distributions in proton-proton collisions at $\sqrt{s}=13~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1707**, 013 (2017)

CMS-EXO-15-009, CERN-EP-2017-047

332. "Measurements of the pp $\to W\gamma\gamma$ and pp $\to Z\gamma\gamma$ cross sections and limits on anomalous quartic gauge couplings at $\sqrt{s}=8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1710**, 072 (2017)

CMS-SMP-15-008, CERN-EP-2017-039

333. "Search for $t\bar{t}$ resonances in highly boosted lepton+jets and fully hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1707, 001 (2017)

CMS-B2G-16-015, CERN-EP-2017-049

334. "Measurement of the top quark mass in the dileptonic $t\bar{t}$ decay channel using the mass observables $M_{b\ell}$, M_{T2} , and $M_{b\ell\nu}$ in pp collisions at $\sqrt{s}=8\,\text{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D **96**, no. 3, 032002 (2017)

CMS-TOP-15-008, CERN-EP-2017-050

335. "Search for physics beyond the standard model in events with two leptons of same sign, missing transverse momentum, and jets in protonproton collisions at $\sqrt{s} = 13 \, \text{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 9, 578 (2017)

CMS-SUS-16-035, CERN-EP-2017-071

336. "Search for supersymmetry in multijet events with missing transverse momentum in proton-proton collisions at 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 96, no. 3, 032003 (2017)

CMS-SUS-16-033, CERN-EP-2017-072

337. "Search for black holes in high-multiplicity final states in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **774**, 279 (2017)

CMS-EXO-15-007, CERN-EP-2017-074

338. "Measurement of the triple-differential dijet cross section in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$ and constraints on parton distribution functions"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 11, 746 (2017)

CMS-SMP-16-011, CERN-EP-2017-061

339. "Search for Charged Higgs Bosons Produced via Vector Boson Fusion and Decaying into a Pair of W and Z Bosons Using pp Collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 119, no. 14, 141802 (2017)

CMS-HIG-16-027, CERN-EP-2017-068

340. "Search for new phenomena with the $M_{\rm T2}$ variable in the all-hadronic final state produced in protonproton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 10, 710 (2017)

CMS-SUS-16-036, CERN-EP-2017-084

341. "Search for Supersymmetry in pp Collisions at $\sqrt{s} = 13$ TeV in the Single-Lepton Final State Using the Sum of Masses of Large-Radius Jets"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **119**, no. 15, 151802 (2017)

CMS-SUS-16-037, CERN-EP-2017-088

342. "Measurement of the B^{\pm} Meson Nuclear Modification Factor in Pb-Pb Collisions at $\sqrt{s_{NN}}=5.02~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 119, no. 15, 152301 (2017)

CMS-HIN-16-011, CERN-EP-2017-076

343. "Combination of searches for heavy resonances decaying to WW, WZ, ZZ, WH, and ZH boson pairs in protonproton collisions at $\sqrt{s} = 8$ and 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 774, 533 (2017)

CMS-B2G-16-007, CERN-EP-2017-077

344. "Measurements of $t\bar{t}$ cross sections in association with b jets and inclusive jets and their ratio using dilepton final states in pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **776**, 355 (2018)

CMS-TOP-16-010, CERN-EP-2017-069

345. "Search for Low Mass Vector Resonances Decaying to Quark-Antiquark Pairs in Proton-Proton Collisions at $\sqrt{s}=13~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **119**, no. 11, 111802 (2017)

CMS-EXO-16-030, CERN-EP-2017-098

346. "Search for top quark partners with charge 5/3 in proton-proton collisions at $\sqrt{s}=13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1708**, 073 (2017)

CMS-B2G-15-006, CERN-EP-2017-102

347. "Test Beam Performance Measurements for the Phase I Upgrade of the CMS Pixel Detector"

M. Dragicevic et al..

JINST **12**, no. 05, P05022 (2017)

CMS-NOTE-2017-002

348. "Search for dark matter produced in association with heavy-flavor quark pairs in protonproton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 12, 845 (2017)

CMS-EXO-16-005, CERN-EP-2017-087

349. "Search for pair production of vector-like T and B quarks in single-lepton final states using boosted jet substructure in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1711, 085 (2017)

CMS-B2G-16-024, CERN-EP-2017-107

350. "Search for new physics in the monophoton final state in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1710**, 073 (2017)

CMS-EXO-16-039, CERN-EP-2017-097

351. "Searches for W' bosons decaying to a top quark and a bottom quark in proton-proton collisions at 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1708**, 029 (2017)

CMS-B2G-16-016, CERN-EP-2017-090

352. "Search for top squark pair production in pp collisions at $\sqrt{s}=13$ TeV using single lepton events"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1710, 019 (2017)

CMS-SUS-16-051, CERN-EP-2017-109

353. "Particle-flow reconstruction and global event description with the CMS detector"

A. M. Sirunyan et al. [CMS Collaboration].

JINST 12, no. 10, P10003 (2017)

CMS-PRF-14-001, CERN-EP-2017-110

354. "Measurements of jet charge with dijet events in pp collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1710**, 131 (2017)

CMS-SMP-15-003, CERN-EP-2017-085

355. "Measurement of the semileptonic $t\bar{t}+\gamma$ production cross section in pp collisions at $\sqrt{s}=8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1710**, 006 (2017)

CMS-TOP-14-008, CERN-EP-2017-112

356. "Search for a heavy composite Majorana neutrino in the final state with two leptons and two quarks at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 775, 315 (2017)

CMS-EXO-16-026, CERN-EP-2017-125

357. "Search for electroweak production of charginos and neutralinos in WH events in protonproton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1711**, 029 (2017)

CMS-SUS-16-043, CERN-EP-2017-113

358. "Measurements of properties of the Higgs boson decaying into the four-lepton final state in pp collisions at $\sqrt{s}=13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1711**, 047 (2017)

CMS-HIG-16-041, CERN-EP-2017-123

359. "Measurement of charged pion, kaon, and proton production in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 96, no. 11, 112003 (2017)

CMS-FSQ-16-004, CERN-EP-2017-091

360. "Search for Higgs boson pair production in the $bb\tau\tau$ final state in proton-proton collisions at $\sqrt(s) = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 96, no. 7, 072004 (2017)

CMS-HIG-215-013, CERN-EP-2017-104

361. "Constraints on anomalous Higgs boson couplings using production and decay information in the four-lepton final state"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **775**, 1 (2017)

CMS-HIG-17-011, CERN-EP-2017-143

362. "P-Type Silicon Strip Sensors for the new CMS Tracker at HL-LHC"

W. Adam et al. [CMS Collaboration].

JINST 12, no. 06, P06018 (2017).

363. "Search for heavy resonances that decay into a vector boson and a Higgs boson in hadronic final states at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 77, no. 9, 636 (2017)

CMS-B2G-17-002, CERN-EP-2017-128

364. "Measurement of the differential cross sections for the associated production of a W boson and jets in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D **96**, no. 7, 072005 (2017)

CMS-SMP-16-005, CERN-EP-2017-142

365. "Search for supersymmetry in events with at least one photon, missing transverse momentum, and large transverse event activity in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1712**, 142 (2017)

CMS-SUS-16-047, CERN-EP-2017-130

366. "Search for a light pseudoscalar Higgs boson produced in association with bottom quarks in pp collisions at $\sqrt{s}=8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1711, 010 (2017)

CMS-HIG-15-009, CERN-EP-2017-159

367. "Measurement of vector boson scattering and constraints on anomalous quartic couplings from events with four leptons and two jets in protonproton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 774, 682 (2017)

CMS-SMP-17-006, CERN-EP-2017-177

368. "Characterisation of irradiated thin silicon sensors for the CMS phase II pixel upgrade" W. Adam et al. [Tracker Group].

Eur. Phys. J. C 77, no. 8, 567 (2017).

369. "Principal-component analysis of two-particle azimuthal correlations in PbPb and pPb collisions at CMS"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. C 96, no. 6, 064902 (2017)

CMS-HIN-15-010, CERN-EP-2017-133

370. "Search for Evidence of the Type-III Seesaw Mechanism in Multilepton Final States in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **119**, no. 22, 221802 (2017)

CMS-EXO-17-006, CERN-EP-2017-194

371. "Observation of top quark production in proton-nucleus collisions"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **119**, no. 24, 242001 (2017)

CMS-HIN-17-002, CERN-EP-2017-239

372. "Azimuthal anisotropy of charged particles with transverse momentum up to 100 GeV/c in PbPb collisions at $\sqrt{s_{NN}}$ =5.02 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **776**, 195 (2018)

CMS-HIN-15-014, CERN-EP-2017-001

373. "Measurements of $t\bar{t}$ cross sections in association with b jets and inclusive jets and their ratio using dilepton final states in pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **776**, 355 (2018)

CMS-TOP-16-010, CERN-EP-2017-069

374. "Suppression of Excited Υ States Relative to the Ground State in Pb-Pb Collisions at $\sqrt{s_{\rm NN}}{=}5.02~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **120**, no. 14, 142301 (2018)

CMS-HIN-16-008, CERN-EP-2017-080

375. "Search for Higgs boson pair production in events with two bottom quarks and two tau leptons in proton–proton collisions at $\sqrt{s} = 13 \text{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 778, 101 (2018)

CMS-HIG-17-002, CERN-EP-2017-126

376. "Search for natural supersymmetry in events with top quark pairs and photons in pp collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1803**, 167 (2018)

CMS-SUS-15-009, CERN-EP-2017-124

377. "Search for the pair production of third-generation squarks with two-body decays to a bottom or charm quark and a neutralino in proton–proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 778, 263 (2018)

CMS-SUS-16-032, CERN-EP-2017-144

378. "Observation of the Higgs boson decay to a pair of τ leptons with the CMS detector"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **779**, 283 (2018)

CMS-HIG-16-043, CERN-EP-2017-181

379. "Search for single production of a vector-like T quark decaying to a Z boson and a top quark in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **781**, 574 (2018)

CMS-B2G-17-007, CERN-EP-2017-155

380. "Constraints on the chiral magnetic effect using charge-dependent azimuthal correlations in pPb and PbPb collisions at the CERN Large Hadron Collider"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. C 97, no. 4, 044912 (2018)

CMS-HIN-17-001, CERN-EP-2017-193

381. "Search for vectorlike light-flavor quark partners in proton-proton collisions at \sqrt{s} =8 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 97, 072008 (2018)

CMS-B2G-12-016, CERN-EP-2017-145

382. "Measurement of prompt D^0 meson azimuthal anisotropy in Pb-Pb collisions at $\sqrt{s_{NN}}=$ 5.02 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 120, no. 20, 202301 (2018)

CMS-HIN-16-007, CERN-EP-2017-174

383. "Search for resonant and nonresonant Higgs boson pair production in the $b\bar{b}\ell\nu\ell\nu$ final state in proton-proton collisions at $\sqrt{s}=13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

arXiv:1708.04188 [hep-ex]

CMS-HIG-17-006, CERN-EP-2017-168

384. "Nuclear modification factor of D^0 mesons in PbPb collisions at $\sqrt{s_{\rm NN}} = 5.02$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **782**, 474 (2018)

CMS-HIN-16-001, CERN-EP-2017-186

385. "Search for massive resonances decaying into $WW,\,WZ,\,ZZ,\,qW,$ and qZ with dijet final states at $\sqrt{s}=13\,$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 97, no. 7, 072006 (2018)

CMS-B2G-17-001, CERN-EP-2017-184

386. "Measurement of normalized differential $t\bar{t}$ cross sections in the dilepton channel from pp collisions at $\sqrt{s}=13$ TeV"

```
JHEP 1804, 060 (2018)
CMS-TOP-16-007, CERN-EP-2017-120
```

387. "Search for heavy resonances decaying to a top quark and a bottom quark in the lepton+jets final state in proton-proton collisions at 13 TeV"

A. M. Sirunyan *et al.* [CMS Collaboration]. arXiv:1708.08539 [hep-ex] CMS-B2G-17-010, CERN-EP-2017-196

388. "Measurement of the Splitting Function in pp and Pb-Pb Collisions at $\sqrt{s_{_{\mathrm{NN}}}} =$ 5.02 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

arXiv:1708.09429 [nucl-ex]

CMS-HIN-16-006, CERN-EP-2017-205

389. "Search for supersymmetry with Higgs boson to diphoton decays using the razor variables at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 779, 166 (2018)

CMS-SUS-16-045, CERN-EP-2017-158

390. "Search for Higgsino pair production in pp collisions at $\sqrt{s} = 13$ TeV in final states with large missing transverse momentum and two Higgs bosons decaying via $H \to b\bar{b}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 97, no. 3, 032007 (2018)

CMS-SUS-16-044, CERN-EP-2017-127

391. "Combination of inclusive and differential $t\bar{t}$ charge asymmetry measurements using AT-LAS and CMS data at $\sqrt{s}=7$ and 8 TeV"

M. Aaboud et al. [ATLAS and CMS Collaborations].

JHEP **1804**, 033 (2018)

CMS-TOP-15-016, ATLAS-TOPQ-2016-16, CERN-EP-2017-236

392. "Search for electroweak production of charginos and neutralinos in multilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1803**, 166 (2018)

CMS-SUS-16-039, CERN-EP-2017-121

393. "Inclusive search for a highly boosted Higgs boson decaying to a bottom quark-antiquark pair"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 120, no. 7, 071802 (2018)

CMS-HIG-17-010, CERN-EP-2017-207

394. "Observation of electroweak production of same-sign W boson pairs in the two jet and two same-sign lepton final state in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **120**, no. 8, 081801 (2018)

CMS-SMP-17-004, CERN-EP-2017-232

395. "Evidence for the Higgs boson decay to a bottom quark-antiquark pair"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **780**, 501 (2018)

CMS-HIG-16-044, CERN-EP-2017-233

396. "Measurements of the pp \to ZZ production cross section and the Z \to 4 ℓ branching fraction, and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13 \, \text{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, 165 (2018), Erratum: [Eur. Phys. J. C 78, no. 6, 515 (2018)]

CMS-SMP-16-017, CERN-EP-2017-219

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

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1803**, 076 (2018)

CMS-SUS-16-034, CERN-EP-2017-170

398. "Observation of Correlated Azimuthal Anisotropy Fourier Harmonics in pp and p + Pb Collisions at the LHC"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **120**, no. 9, 092301 (2018)

CMS-HIN-16-022, CERN-EP-2017-220

399. "Search for supersymmetry in events with one lepton and multiple jets exploiting the angular correlation between the lepton and the missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **780**, 384 (2018)

CMS-SUS-16-042, CERN-EP-2017-201

400. "Search for low mass vector resonances decaying into quark-antiquark pairs in protonproton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1801**, 097 (2018)

CMS-EXO-17-001, CERN-EP-2017-235

401. "Search for pair production of vector-like quarks in the bWbW channel from protonproton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **779**, 82 (2018)

CMS-B2G-17-003, CERN-EP-2017-224

402. "Study of dijet events with a large rapidity gap between the two leading jets in pp collisions at $\sqrt{s} = 7$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 3, 242 (2018)

CMS-FSQ-12-001, CERN-EP-2017-141

403. "Measurement of angular parameters from the decay $B^0 \to K^{*0} \mu^+ \mu^-$ in proton-proton collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **781**, 517 (2018)

CMS-BPH-15-008, CERN-EP-2017-240

404. "Search for a massive resonance decaying to a pair of Higgs bosons in the four b quark final state in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 781, 244 (2018)

CMS-B2G-16-026, CERN-EP-2017-238

405. "Pseudorapidity and transverse momentum dependence of flow harmonics in pPb and PbPb collisions"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. C **98**, no. 4, 044902 (2018)

CMS-HIN-15-008, CERN-EP-2017-218

406. "Measurement of differential cross sections in the kinematic angular variable ϕ^* for inclusive Z boson production in pp collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1803, 172 (2018)

CMS-SMP-17-002, CERN-EP-2017-234

407. "Measurement of b hadron lifetimes in pp collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 6, 457 (2018), Erratum: [Eur. Phys. J. C 78, no. 7, 561 (2018)]

CMS-BPH-13-008, CERN-EP-2017-244

408. "Search for supersymmetry in events with at least three electrons or muons, jets, and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1802**, 067 (2018)

CMS-SUS-16-041, CERN-EP-2017-243

409. "Pseudorapidity distributions of charged hadrons in proton-lead collisions at $\sqrt{s_{_{\mathrm{NN}}}}=5.02$ and 8.16 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1801**, 045 (2018)

CMS-HIN-16-021, CERN-EP-2017-261

410. "Search for standard model production of four top quarks with same-sign and multilepton final states in proton–proton collisions at $\sqrt{s} = 13 \, \text{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 2, 140 (2018)

CMS-TOP-17-009, CERN-EP-2017-262

411. "Measurement of quarkonium production cross sections in pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 780, 251 (2018)

CMS-BPH-15-005, CERN-EP-2017-267

412. "Search for supersymmetry in proton-proton collisions at 13 TeV using identified top quarks"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 97, no. 1, 012007 (2018)

CMS-SUS-16-050, CERN-EP-2017-269

413. "Search for new physics in events with a leptonically decaying **Z** boson and a large transverse momentum imbalance in proton–proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 4, 291 (2018)

CMS-EXO-16-052, CERN-EP-2017-259

414. "Search for top squarks and dark matter particles in opposite-charge dilepton final states at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 97, no. 3, 032009 (2018)

CMS-SUS-17-001, CERN-EP-2017-252

415. "Measurement of associated Z + charm production in proton-proton collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 4, 287 (2018)

CMS-SMP-15-009, CERN-EP-2017-257

416. "Measurement of the cross section for top quark pair production in association with a W or Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1808, 011 (2018)

CMS-TOP-17-005, CERN-EP-2017-286

417. "Measurement of the inclusive $t\bar{t}$ cross section in pp collisions at $\sqrt{s} = 5.02$ TeV using final states with at least one charged lepton"

```
JHEP 1803, 115 (2018)
TOP-16-023, CERN-EP-2017-258
```

418. "Measurement of the underlying event activity in inclusive Z boson production in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1807**, 032 (2018)

CMS-FSQ-16-008, CERN-EP-2017-249

419. "Search for ZZ resonances in the $2\ell 2\nu$ final state in proton-proton collisions at 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1803**, 003 (2018)

CMS-B2G-16-023, CERN-EP-2017-279

420. "Search for excited quarks of light and heavy flavor in $\gamma+$ jet final states in proton–proton collisions at $\sqrt{s}=$ 13TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 781, 390 (2018)

CMS-EXO-17-002, CERN-EP-2017-271

421. "Search for gauge-mediated supersymmetry in events with at least one photon and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **780**, 118 (2018)

CMS-SUS-16-046, CERN-EP-2017-284

422. "Search for new long-lived particles at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **780**, 432 (2018)

CMS-EXO-16-003, CERN-EP-2017-264

423. "Study of jet quenching with isolated-photon+jet correlations in PbPb and pp collisions at $\sqrt{s_{\rm NN}} = 5.02$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **785**, 14 (2018)

CMS-HIN-16-002, CERN-EP-2017-285

424. "Search for pair production of excited top quarks in the lepton + jets final state"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 778, 349 (2018)

 $CMS-B2G-16-025,\ CERN-EP-2017-272$

425. "Constraints on the double-parton scattering cross section from same-sign W boson pair production in proton-proton collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1802**, 032 (2018)

CMS-FSQ-16-005, CERN-EP-2017-310

426. "Search for new physics in final states with an energetic jet or a hadronically decaying W or Z boson and transverse momentum imbalance at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 97, no. 9, 092005 (2018)

CMS-EXO-16-048, CERN-EP-2017-294

427. "Search for the flavor-changing neutral current interactions of the top quark and the Higgs boson which decays into a pair of b quarks at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1806**, 102 (2018)

CMS-TOP-17-003, CERN-EP-2017-309

428. "Measurement of the associated production of a single top quark and a Z boson in pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B 779, 358 (2018)

CMS-TOP-16-020, CERN-EP-2017-296

429. "Search for ${\bf Z}\gamma$ resonances using leptonic and hadronic final states in proton-proton collisions at $\sqrt{s}={\bf 13}$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1809**, 148 (2018)

CMS-EXO-17-005, CERN-EP-2017-301

430. "Azimuthal correlations for inclusive 2-jet, 3-jet, and 4-jet events in pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 7, 566 (2018)

CMS-SMP-16-014, CERN-EP-2017-290

431. "Search for the X(5568) state decaying into $B_s^0 \pi^{\pm}$ in proton-proton collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **120**, no. 20, 202005 (2018)

CMS-BPH-16-002, CERN-EP-2017-287

432. "Identification of heavy-flavour jets with the CMS detector in pp collisions at 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JINST 13, no. 05, P05011 (2018)

CMS-BTV-16-002, CERN-EP-2017-326

433. "Search for lepton flavour violating decays of the Higgs boson to $\mu\tau$ and $e\tau$ in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1806**, 001 (2018)

CMS-HIG-17-001, CERN-EP-2017-292

434. "Bose-Einstein correlations in pp, pPb, and PbPb collisions at $\sqrt{s_{NN}} = 0.9 - 7$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. C 97, no. 6, 064912 (2018)

CMS-FSQ-14-002, CERN-EP-2017-327

435. "Search for Physics Beyond the Standard Model in Events with High-Momentum Higgs Bosons and Missing Transverse Momentum in Proton-Proton Collisions at 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 120, no. 24, 241801 (2018)

 $CMS-SUS-17-006,\ CERN-EP-2017-322$

436. "Search for *R*-parity violating supersymmetry in pp collisions at $\sqrt{s} = 13$ TeV using b jets in a final state with a single lepton, many jets, and high sum of large-radius jet masses"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **783**, 114 (2018)

CMS-SUS-16-040, CERN-EP-2017-312

437. "Measurement of prompt and nonprompt charmonium suppression in PbPb collisions at $5.02~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 6, 509 (2018)

CMS-HIN-16-025, CERN-EP-2017-308

438. "Electroweak production of two jets in association with a Z boson in proton–proton collisions at $\sqrt{s} = 13$ TeV"

```
Eur. Phys. J. C 78, no. 7, 589 (2018)
CMS-SMP-16-018, CERN-EP-2017-328
```

439. "Search for decays of stopped exotic long-lived particles produced in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1805**, 127 (2018)

CMS-EXO-16-004, CERN-EP-2017-330

440. "Search for new physics in events with two soft oppositely charged leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **782**, 440 (2018)

CERN-EP-2017-336, CMS-SUS-16-048

441. "Measurement of the $Z\gamma^* \to \tau\tau$ cross section in pp collisions at $\sqrt{s} = 13$ TeV and validation of τ lepton analysis techniques"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 9, 708 (2018)

CMS-HIG-15-007, CERN-EP-2017-307

442. "Combined search for electroweak production of charginos and neutralinos in protonproton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1803, 160 (2018)

CMS-SUS-17-004, CERN-EP-2017-283

443. "Observation of Medium-Induced Modifications of Jet Fragmentation in Pb-Pb Collisions at $\sqrt{s_{NN}} = 5.02$ TeV Using Isolated Photon-Tagged Jets"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 121, no. 24, 242301 (2018)

CMS-HIN-16-014, CERN-EP-2017-337

444. "Search for dark matter in events with energetic, hadronically decaying top quarks and missing transverse momentum at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1806, 027 (2018)

CMS-EXO-16-051, CERN-EP-2017-299

445. "Comparing transverse momentum balance of b jet pairs in pp and PbPb collisions at $\sqrt{s_{\rm NN}}=5.02~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1803**, 181 (2018)

CMS-HIN-16-005, CERN-EP-2018-005

446. "Search for lepton-flavor violating decays of heavy resonances and quantum black holes to $e\mu$ final states in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1804**, 073 (2018)

CMS-EXO-16-058, CERN-EP-2018-001

447. "Search for single production of vector-like quarks decaying to a b quark and a Higgs boson"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1806**, 031 (2018)

CMS-B2G-17-009, CERN-EP-2017-338

448. "Search for natural and split supersymmetry in proton-proton collisions at $\sqrt{s} = 13$ TeV in final states with jets and missing transverse momentum"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1805**, 025 (2018)

CMS-SUS-16-038, CERN-EP-2018-003

449. "Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1807**, 161 (2018)

CMS-FSQ-15-005, CERN-EP-2018-004

450. "Search for heavy neutral leptons in events with three charged leptons in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 120, no. 22, 221801 (2018)

CMS-EXO-17-012, CERN-EP-2018-006

451. "Measurement of the Λ_b polarization and angular parameters in $\Lambda_b \to J/\psi \Lambda$ decays from pp collisions at $\sqrt{s} = 7$ and 8 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 97, no. 7, 072010 (2018)

CMS-BPH-15-002, CERN-EP-2017-331

452. "Search for narrow resonances in the b-tagged dijet mass spectrum in proton-proton collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 120, no. 20, 201801 (2018)

CMS-EXO-16-057, CERN-EP-2018-007

453. "Search for a heavy resonance decaying to a pair of vector bosons in the lepton plus merged jet final state at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1805**, 088 (2018)

CMS-B2G-16-029, CERN-EP-2018-015

454. "Jet properties in PbPb and pp collisions at $\sqrt{s_{\rm N~N}} = 5.02~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1805**, 006 (2018)

CMS-HIN-16-020, CERN-EP-2018-011

455. "Search for third-generation scalar leptoquarks decaying to a top quark and a τ lepton at $\sqrt{s}=$ 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, 707 (2018)

CMS-B2G-16-028, CERN-EP-2018-019

456. "Test beam demonstration of silicon microstrip modules with transverse momentum discrimination for the future CMS tracking detector"

W. Adam et al. [CMS Tracker Collaboration].

JINST 13, no. 03, P03003 (2018).

FERMILAB-PUB-18-385-CMS, CERN-CMS-NOTE-2017-010

457. "Measurements of differential cross sections of top quark pair production as a function of kinematic event variables in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1806, 002 (2018)

CMS-TOP-16-014, CERN-EP-2018-013

458. "Search for a heavy resonance decaying into a Z boson and a vector boson in the $\nu \overline{\nu} q \overline{q}$ final state"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1807**, 075 (2018)

CMS-B2G-17-005, CERN-EP-2018-023

459. "Observation of proton-tagged, central (semi)exclusive production of high-mass lepton pairs in pp collisions at 13 TeV with the CMS-TOTEM precision proton spectrometer" A. M. Sirunyan *et al.* [CMS and TOTEM Collaborations].

```
JHEP 1807, 153 (2018)
CMS-PPS-17-001, TOTEM 2018-001, CERN-EP-2018-014
```

460. "Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying τ leptons at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1808**, 066 (2018)

CMS-HIG-17-018, CERN-EP-2018-017

461. "Search for high-mass resonances in dilepton final states in proton-proton collisions at $\sqrt{s}=13~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1806**, 120 (2018)

CMS-EXO-16-047, CERN-EP-2018-027

462. "Search for additional neutral MSSM Higgs bosons in the $\tau\tau$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1809**, 007 (2018)

CMS-HIG-17-020, CERN-EP-2018-026

463. "Search for $t\bar{t}H$ production in the all-jet final state in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1806**, 101 (2018)

CMS-HIG-17-022, CERN-EP-2018-038

464. "Search for new physics in dijet angular distributions using proton–proton collisions at $\sqrt{s} = 13$ TeV and constraints on dark matter and other models"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 9, 789 (2018)

CMS-EXO-16-046, CERN-EP-2018-036

465. "Measurement of differential cross sections for the production of top quark pairs and of additional jets in lepton+jets events from pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 97, no. 11, 112003 (2018)

CMS-TOP-17-002, CERN-EP-2018-039

466. "Search for a heavy resonance decaying into a Z boson and a Z or W boson in $2\ell 2q$ final states at $\sqrt{s}=13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1809**, 101 (2018)

CMS-B2G-17-013, CERN-EP-2018-037

467. "Search for a heavy right-handed W boson and a heavy neutrino in events with two same-flavor leptons and two jets at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1805**, no. 05, 148 (2018)

CMS-EXO-17-011, CERN-EP-2018-028

468. "Search for high-mass resonances in final states with a lepton and missing transverse momentum at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1806**, 128 (2018)

CMS-EXO-16-033, CERN-EP-2018-020

469. "Search for a new scalar resonance decaying to a pair of Z bosons in proton-proton collisions at $\sqrt{s}=13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1806**, 127 (2018), Erratum: [JHEP **1903**, 128 (2019)]

CMS-HIG-17-012, CERN-EP-2018-009

470. "Observation of ttH production"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **120**, no. 23, 231801 (2018)

CMS-HIG-17-035, CERN-EP-2018-064

471. "Measurements of Higgs boson properties in the diphoton decay channel in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1811**, 185 (2018)

CMS-HIG-16-040, CERN-EP-2018-060

472. "Search for $t\bar{t}H$ production in the $H\to b\bar{b}$ decay channel with leptonic $t\bar{t}$ decays in proton-proton collisions at $\sqrt{s}=13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1903**, 026 (2019)

CMS-HIG-17-026, CERN-EP-2018-065

473. "Performance of the CMS muon detector and muon reconstruction with proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JINST 13, no. 06, P06015 (2018)

CMS-MUO-16-001, CERN-EP-2018-058

474. "Measurement of differential cross sections for Z boson production in association with jets in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 11, 965 (2018)

CMS-SMP-16-015, CERN-EP-2018-071

475. "Search for disappearing tracks as a signature of new long-lived particles in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1808**, 016 (2018)

CMS-EXO-16-044, CERN-EP-2018-061

476. "Elliptic flow of charm and strange hadrons in high-multiplicity pPb collisions at $\sqrt{s_{\scriptscriptstyle {\rm NN}}}=$ 8.16 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 121, no. 8, 082301 (2018)

CMS-HIN-17-003, CERN-EP-2018-076

477. "Measurement of the top quark mass with lepton+jets final states using p p collisions at $\sqrt{s} = 13\,\mathrm{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 11, 891 (2018)

CMS-TOP-17-007, CERN-EP-2018-063

478. "Measurement of prompt $\psi(2S)$ production cross sections in proton-lead and protonproton collisions at $\sqrt{s_{_{\rm NN}}} = 5.02$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **790**, 509 (2019)

CMS-HIN-16-015, CERN-EP-2018-056

479. "Constraining gluon distributions in nuclei using dijets in proton-proton and proton-lead collisions at $\sqrt{s_{_{
m NN}}}=$ 5.02 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 121, no. 6, 062002 (2018)

CMS-HIN-16-003, CERN-EP-2018-091

480. "Measurement of the groomed jet mass in PbPb and pp collisions at $\sqrt{s_{\rm NN}} = 5.02$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1810**, 161 (2018)

CMS-HIN-16-024, CERN-EP-2018-097

481. "Search for vector-like T and B quark pairs in final states with leptons at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1808, 177 (2018)

CMS-B2G-17-011, CERN-EP-2018-069

482. "Search for an exotic decay of the Higgs boson to a pair of light pseudoscalars in the final state of two muons and two τ leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1811**, 018 (2018)

CMS-HIG-17-029, CERN-EP-2018-078

483. "Search for top squarks decaying via four-body or chargino-mediated modes in single-lepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1809**, 065 (2018)

CMS-SUS-17-005, CERN-EP-2018-079

484. "Search for black holes and sphalerons in high-multiplicity final states in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1811**, 042 (2018)

CMS-EXO-17-023, CERN-EP-2018-093

485. "Measurement of the production cross section for single top quarks in association with W bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1810**, 117 (2018)

CMS-TOP-17-018, CERN-EP-2018-074

486. "Measurement of nuclear modification factors of $\Upsilon(1S)$, $\Upsilon(2S)$, and $\Upsilon(3S)$ mesons in PbPb collisions at $\sqrt{s_{\scriptscriptstyle NN}} = 5.02$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **790**, 270 (2019)

CMS-HIN-16-023, CERN-EP-2018-110

487. "Search for an exotic decay of the Higgs boson to a pair of light pseudoscalars in the final state with two b quarks and two τ leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **785**, 462 (2018)

 $CMS\text{-}HIG\text{-}17\text{-}024,\ CERN\text{-}EP\text{-}2018\text{-}089$

488. "Constraints on models of scalar and vector leptoquarks decaying to a quark and a neutrino at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 98, no. 3, 032005 (2018)

CMS-SUS-18-001, CERN-EP-2018-109

489. "Observation of the $\chi_{b1}(3P)$ and $\chi_{b2}(3P)$ and measurement of their masses"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **121**, 092002 (2018)

CMS-BPH-17-008, CERN-EP-2018-134

490. "Search for beyond the standard model Higgs bosons decaying into a $b\overline{b}$ pair in pp collisions at $\sqrt{s}=13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1808**, 113 (2018)

CMS-HIG-16-018, CERN-EP-2018-124

491. "Search for Higgs boson pair production in the $\gamma\gamma b\bar{b}$ final state in pp collisions at \sqrt{s} 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **788**, 7 (2019)

CMS-HIG-17-008, CERN-EP-2017-343

492. "Angular analysis of the decay $B^+ \to K^+ \mu^+ \mu^-$ in proton-proton collisions at $\sqrt{s} = 8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration]. Phys. Rev. D 98, no. 11, 112011 (2018)

CMS-BPH-15-001, CERN-EP-2018-125

493. "Search for narrow and broad dijet resonances in proton-proton collisions at $\sqrt{s} = 13$ TeV and constraints on dark matter mediators and other new particles"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1808**, 130 (2018)

CMS-EXO-16-056, CERN-EP-2018-123

494. "Measurement of the weak mixing angle using the forward-backward asymmetry of Drell-Yan events in pp collisions at 8 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 9, 701 (2018)

CMS-SMP-16-007, CERN-EP-2018-126

495. "Search for pair-produced resonances each decaying into at least four quarks in protonproton collisions at $\sqrt{s} = 13 \text{ TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 121, no. 14, 141802 (2018)

CMS-EXO-17-022, CERN-EP-2018-094

496. "Search for a singly produced third-generation scalar leptoquark decaying to a τ lepton and a bottom quark in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1807**, 115 (2018)

CMS-EXO-17-029, CERN-EP-2018-136

497. "Search for resonant pair production of Higgs bosons decaying to bottom quark-antiquark pairs in proton-proton collisions at 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1808**, 152 (2018)

CMS-HIG-17-009, CERN-EP-2018-127

498. "Observation of the $Z \rightarrow \psi \ell^+ \ell^-$ decay in pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 121, no. 14, 141801 (2018)

CMS-BPH-16-001, CERN-EP-2018-131

499. "Search for dark matter produced in association with a Higgs boson decaying to $\gamma\gamma$ or $\tau^+\tau^-$ at $\sqrt{s}=13$ TeV"

A. M. Sirunyan *et al.* [CMS Collaboration].

JHEP **1809**, 046 (2018)

CMS-EXO-16-055, CERN-EP-2018-129

500. "Measurements of properties of the Higgs boson decaying to a W boson pair in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **791**, 96 (2019)

CMS-HIG-16-042, CERN-EP-2018-141

501. "Search for supersymmetric partners of electrons and muons in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ "

```
Phys. Lett. B 790, 140 (2019)
CMS-SUS-17-009, CERN-EP-2018-132
```

502. "Search for the decay of a Higgs boson in the $\ell\ell\gamma$ channel in proton-proton collisions at $\sqrt{s}=$ 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1811**, 152 (2018)

CMS-HIG-17-007, CERN-EP-2018-092

503. "Search for heavy Majorana neutrinos in same-sign dilepton channels in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1901**, 122 (2019)

CMS-EXO-17-028, CERN-EP-2018-159

504. "Measurement of differential cross sections for Z boson pair production in association with jets at $\sqrt{s}=8$ and 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **789**, 19 (2019)

CMS-SMP-17-005, CERN-EP-2018-161

505. "Measurement of charged particle spectra in minimum-bias events from proton–proton collisions at $\sqrt{s} = 13 \, \text{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 9, 697 (2018)

CMS-FSQ-16-011, CERN-EP-2018-187

506. "Measurement of differential cross sections for inclusive isolated-photon and photon+jets production in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 79, no. 1, 20 (2019)

CMS-SMP-16-003, CERN-EP-2018-167

507. "Search for supersymmetry in events with a τ lepton pair and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1811**, 151 (2018)

CMS-SUS-17-003, CERN-EP-2018-149

508. "Study of the underlying event in top quark pair production in pp collisions at 13 TeV" A. M. Sirunyan *et al.* [CMS Collaboration].

Eur. Phys. J. C 79, no. 2, 123 (2019)

CMS-TOP-17-015, CERN-EP-2018-177

509. "Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos and b quarks at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1811**, 172 (2018)

CMS-B2G-17-004, CERN-EP-2018-169

510. "Measurement of inclusive and differential Higgs boson production cross sections in the diphoton decay channel in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan *et al.* [CMS Collaboration].

JHEP **1901**, 183 (2019)

CMS-HIG-17-025, CERN-EP-2018-166

511. "Precision measurement of the structure of the CMS inner tracking system using nuclear interactions"

A. M. Sirunyan et al. [CMS Collaboration].

JINST 13, no. 10, P10034 (2018)

CMS-TRK-17-001, CERN-EP-2018-144

512. "Measurements of the differential jet cross section as a function of the jet mass in dijet events from proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1811**, 113 (2018)

CMS-SMP-16-010, CERN-EP-2018-180

513. "Search for the Higgs boson decaying to two muons in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **122**, no. 2, 021801 (2019)

CMS-HIG-17-019, CERN-EP-2018-165

514. "Search for dark matter particles produced in association with a top quark pair at $\sqrt{s} =$ 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **122**, no. 1, 011803 (2019)

CMS-EXO-16-049, CERN-EP-2018-183

515. "Searches for pair production of charginos and top squarks in final states with two oppositely charged leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1811**, 079 (2018)

CMS-SUS-17-010, CERN-EP-2018-186

516. "Search for a W' boson decaying to a τ lepton and a neutrino in proton-proton collisions at $\sqrt{s}=$ 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **792**, 107 (2019)

CMS-EXO-17-008, CERN-EP-2018-202

517. "Search for narrow H γ resonances in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. **122**, no. 8, 081804 (2019)

CMS-EXO-17-019, CERN-EP-2018-200

518. "Search for resonances in the mass spectrum of muon pairs produced in association with b quark jets in proton-proton collisions at $\sqrt{s} = 8$ and 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP 1811, 161 (2018)

CMS-HIG-16-017, CERN-EP-2018-204

519. "Search for production of Higgs boson pairs in the four b quark final state using largearea jets in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1901**, 040 (2019)

CMS-B2G-17-019, CERN-EP-2018-195

520. "Search for heavy resonances decaying into two Higgs bosons or into a Higgs boson and a W or Z boson in proton-proton collisions at 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1901**, 051 (2019)

CMS-B2G-17-006, CERN-EP-2018-182

521. "Search for pair-produced resonances decaying to quark pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D **98**, no. 11, 112014 (2018)

CMS-EXO-17-021, CERN-EP-2018-211

522. "Search for long-lived particles with displaced vertices in multijet events in proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 98, no. 9, 092011 (2018)

CMS-EXO-17-018, CERN-EP-2018-203

523. "Evidence for the associated production of a single top quark and a photon in proton-proton collisions at $\sqrt{s}=$ 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 121, no. 22, 221802 (2018)

CMS-TOP-17-016, CERN-EP-2018-206

524. "Search for an $L_{\mu}-L_{\tau}$ gauge boson using $\mathbf{Z}\rightarrow 4\mu$ events in proton-proton collisions at $\sqrt{s}=$ 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Lett. B **792**, 345 (2019)

CMS-EXO-18-008, CERN-EP-2018-208

525. "Search for pair production of second-generation leptoquarks at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 99, no. 3, 032014 (2019)

CMS-EXO-17-003, CERN-EP-2018-218

526. "Search for a charged Higgs boson decaying to charm and bottom quarks in proton-proton collisions at $\sqrt{s}=8$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1811**, 115 (2018)

CMS-HIG-16-030, CERN-EP-2018-121

527. "Measurement of jet substructure observables in $t\bar{t}$ events from proton-proton collisions at $\sqrt{s} = 13 \text{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 98, no. 9, 092014 (2018)

CMS-TOP-17-013, CERN-EP-2018-214

528. "Observation of Higgs boson decay to bottom quarks"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 121, no. 12, 121801 (2018)

CMS-HIG-18-016, CERN-EP-2018-223

529. "Charged-particle nuclear modification factors in XeXe collisions at $\sqrt{s_{\rm NN}} = 5.44$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1810**, 138 (2018)

CMS-HIN-18-004, CERN-EP-2018-228

530. "Search for physics beyond the standard model in high-mass diphoton events from proton-proton collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. D 98, no. 9, 092001 (2018)

CMS-EXO-17-017, CERN-EP-2018-219

531. "Performance of reconstruction and identification of τ leptons decaying to hadrons and ν_{τ} in pp collisions at $\sqrt{s} = 13$ TeV"

A. M. Sirunyan et al. [CMS Collaboration].

JINST 13, no. 10, P10005 (2018)

CMS-TAU-16-003, CERN-EP-2018-229

532. "Studies of $B^{*s2}(5840)^0$ and $B_{s1}(5830)^0$ mesons including the observation of the $B^{*s2}(5840)^0 \rightarrow B^0K_S^0$ decay in proton-proton collisions at $\sqrt{s} = 8 \, \text{TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

Eur. Phys. J. C 78, no. 11, 939 (2018)

CMS-BPH-16-003, CERN-EP-2018-224

533. "Search for leptoquarks coupled to third-generation quarks in proton-proton collisions at $\sqrt{s}=$ 13 TeV"

A. M. Sirunyan et al. [CMS Collaboration].

Phys. Rev. Lett. 121, no. 24, 241802 (2018)

CMS-B2G-16-027, CERN-EP-2018-233

534. "The INFN R&D: New Pixel Detector for the High Luminosity Upgrade of the LHC" M. E. Dinardo et al..

Nuovo Cim. C 41, no. 1-2, 75 (2018).

FERMILAB-CONF-17-695

535. "Event shape variables measured using multijet final states in proton-proton collisions at $\sqrt{s}=13~{\rm TeV}$ "

A. M. Sirunyan et al. [CMS Collaboration].

JHEP **1812**, 117 (2018)

CMS-SMP-17-003, CERN-EP-2018-253