



# Luca Pernié

## *Selected Publication List*

### Analysis note, physics notes and publications

- CMS PAS A Search for BSM Light Bosons Decaying into Muon Pairs  
HIG-16-035
- CMS AN A Search for Beyond Standard Model Light Bosons Decaying into Muon Pairs  
2016-044
- CMS Performance of Track-based Muon Alignment.  
DP-2016/053
- Eur. Phys. J. C 75 (2015) 511 Measurements of the  $ZZ$  production cross sections in the  $2l2\nu$  channel in proton-proton collisions at  $\sqrt{s} = 7$  and 8 TeV and combined constraints on triple gauge couplings.
- CMS Simulation studies on precise timing information during High Luminosity LHC.  
CR-2015/101
- NIMA Response of microchannel plates to single particles and to electromagnetic showers (Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, doi:10.1016/j.nima.2015.06.057)
- CMS CR Measurement of the  $ZZ$  production cross section in the  $2l2\nu$  decay channel and limits on anomalous triple gauge couplings (preliminary results).  
2014/181
- CMS AN Performance of jets and missing transverse energy with fast ECAL timing.  
2014/088
- CMS DN Studies on a precision timing electromagnetic calorimeter for the CMS upgrade.  
2014/06
- CMS CR  $ZZ$  cross section measurements and limits on anomalous coupling constants for neutral triple gauge boson.  
013/453
- CMS AN Bounding the Higgs width using  $Z\ell\bar{\ell}$  events with high missing transverse energy.  
2013/411
- CMS AN CMS ECAL calibration with  $\pi^0$  and  $\eta$  in the LHC RUN1.  
2013/344
- CMS AN Search for  $Z(\rightarrow \ell\ell) H(\rightarrow \text{invisible})$  at  $\sqrt{s} = 7$  and 8 TeV.  
2013/333
- CMS CR Evolution of the response of the CMS ECAL, and upgrade design options for electromagnetic calorimetry at the HL-LHC, CMS Conference report.  
2013/284

*General Jacques 69 – Bruxelles, Belgium*

☎ +32489537499 • ☎ +41766513784 • ✉ [luca.pernie@cern.ch](mailto:luca.pernie@cern.ch)

- CMS PAS SMP-12-016 Measurements of the ZZ production cross sections in the 2l2nu channel in proton-proton collisions at  $\sqrt{s} = 7$  and 8 TeV and combined constraints on triple gauge couplings.
- CMS AN 2012/371 Search for a high-mass Higgs boson in the  $H \rightarrow ZZ \rightarrow 2l2\nu$  decay channel in pp collisions with the CMS detector.
- CMS AN 2012/148 Measurement of ZZ production cross section at 7 and 8 TeV and anomalous gauge couplings limits in 2l2nu decay channel.
- CMS AN 2012/138 Search for the Higgs boson in the  $H \rightarrow ZZ \rightarrow 2l2\nu$  decay channel in pp collisions with the CMS detector.
- CMS AN 2012/123 Search for Invisible Higgs Decays in the  $ZH \rightarrow ll + \text{MET}$  channel.
- CMS AN 2012/004 Search for a Standard Model Higgs boson in the decay channel  $H \rightarrow WW \rightarrow lvjj$ .
- CMS AN 2011/432 Search for Higgs Boson Decays to two W Bosons in the Fully Leptonic Final State with Full 2011 pp Dataset at  $\sqrt{s} = 7$  TeV.
- CMS AN 2011/110 Search for a Standard Model Higgs boson produced via vector boson fusion, in the decay channel  $H \rightarrow WW \rightarrow lvjj$ .

## Publications in the CMS collaboration

1. **"Study of W boson production in pPb collisions at  $\sqrt{s}[\text{NN}] = 5.02$  TeV"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1503.05825 [nucl-ex]
2. **"Measurements of the ZZ production cross sections in the 2 l 2 nu channel in proton-proton collisions at  $\sqrt{s} = 7$  and 8 TeV and combined constraints on triple gauge couplings"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1503.05467 [hep-ex]
3. **"Search for resonant pair production of Higgs bosons decaying to two bottom quark-antiquark pairs in proton-proton collisions at 8 TeV"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1503.04114 [hep-ex]
4. **"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].  
arXiv:1503.01952 [hep-ex]
5. **"Evidence for transverse momentum and pseudorapidity dependent event plane fluctuations in PbPb and pPb collisions"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1503.01692 [nucl-ex]
6. **"A study of final-state radiation in decays of Z bosons produced in pp collisions at 7 TeV"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1502.07940 [hep-ex]

7. **"Search for lepton-flavour-violating decays of the Higgs boson"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1502.07400 [hep-ex]
8. **"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].  
arXiv:1502.06031 [hep-ex]
9. **"Measurement of the 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].  
arXiv:1502.05664 [hep-ex]
10. **"Nuclear effects on the transverse momentum spectra of charged particles in pPb collisions at a nucleon-nucleon center-of-mass energy of 5.02 TeV"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1502.05387 [nucl-ex]
11. **"Evidence for collective multi-particle correlations in pPb collisions"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1502.05382 [nucl-ex]
12. **"Search for narrow high-mass resonances in proton-proton collisions at  $\sqrt{s} = 8$  TeV decaying to Z and Higgs bosons"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1502.04994 [hep-ex]
13. **"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].  
arXiv:1502.04785 [hep-ex]
14. **"Searches for supersymmetry using the MT2 variable in hadronic events produced in pp collisions at 8 TeV"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1502.04358 [hep-ex]
15. **"Measurement of J/psi and psi(2S) prompt double-differential cross sections in pp collisions at  $\sqrt{s} = 7$  TeV"**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1502.04155 [hep-ex]
16. **"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].  
arXiv:1502.02702 [physics.ins-det]
17. **"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].  
arXiv:1502.02701 [physics.ins-det]
18. **"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].  
arXiv:1502.02522 [hep-ex]
19. **"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].  
arXiv:1502.02485 [hep-ex]

20. **“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].  
arXiv:1502.00300 [hep-ex]
21. **“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].  
arXiv:1501.07750 [hep-ex]
22. **“Measurement of the ratio  $\mathcal{B}(B_s^0 \rightarrow J/\psi f_0(980))/\mathcal{B}(B_s^0 \rightarrow J/\psi \phi(1020))$  in pp collisions at  $\sqrt{s} = 7$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1501.06089 [hep-ex]
23. **“Search for decays of stopped long-lived particles produced in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1501.05603 [hep-ex]
24. **“Search for heavy Majorana neutrinos in  $\mu^\pm\mu^\pm$ +jets events in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1501.05566 [hep-ex]
25. **“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].  
arXiv:1501.04198 [hep-ex]  
10.1103/PhysRevD.91.052009  
Phys. Rev. D **91**, no. 5, 052009 (2015)
26. **“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].  
arXiv:1412.8662 [hep-ex]
27. **“Search for pair-produced resonances decaying to jet pairs in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1412.7706 [hep-ex]
28. **“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].  
arXiv:1412.6302 [hep-ex]
29. **“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].  
arXiv:1412.4109 [hep-ex]
30. **“Measurement of the inclusive 3-jet production differential cross section in proton-proton collisions at 7 TeV and determination of the strong coupling constant in the TeV range”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1412.1633 [hep-ex]
31. **“Measurements of differential and double-differential Drell-Yan cross sections in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1412.1115 [hep-ex]

32. **“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].  
arXiv:1411.7255 [hep-ex]  
10.1016/j.physletb.2015.03.017  
Phys. Lett. B **743**, 503 (2015)
33. **“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].  
arXiv:1411.6977 [hep-ex]  
10.1103/PhysRevD.91.052012  
Phys. Rev. D **91**, no. 5, 052012 (2015)
34. **“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].  
arXiv:1411.6530 [hep-ex]  
10.1103/PhysRevD.91.012007  
Phys. Rev. D **91**, no. 1, 012007 (2015)
35. **“Search for disappearing tracks in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1411.6006 [hep-ex]  
10.1007/JHEP01(2015)096  
JHEP **1501**, 096 (2015)
36. **“Measurement of the cross section ratio  $\sigma_{t\bar{t}b\bar{b}}/\sigma_{t\bar{t}jj}$  in pp collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1411.5621 [hep-ex]
37. **“Observation of the rare  $B_s^0 \rightarrow \mu^+\mu^-$  decay from the combined analysis of CMS and LHCb data”**  
V. Khachatryan *et al.* [CMS and LHCb Collaborations].  
arXiv:1411.4413 [hep-ex]
38. **“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].  
arXiv:1411.3441 [hep-ex]
39. **“Search for quark contact interactions and extra spatial dimensions using dijet angular distributions in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1411.2646 [hep-ex]
40. **“Performance of the CMS missing transverse momentum reconstruction in pp data at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1411.0511 [physics.ins-det]  
10.1088/1748-0221/10/02/P02006  
JINST **10**, no. 02, P02006 (2015)
41. **“Search for new phenomena in monophoton final states in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1410.8812 [hep-ex]
42. **“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].  
arXiv:1410.6765 [hep-ex]
43. **“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].  
arXiv:1410.6679 [hep-ex]
  44. **“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].  
arXiv:1410.6315 [hep-ex]  
10.1103/PhysRevLett.114.051801  
Phys. Rev. Lett. **114**, no. 5, 051801 (2015)
  45. **“Measurement of the ratio of the production cross sections times branching fractions of  $B_c^\pm \rightarrow J/\psi\pi^\pm$  and  $B^\pm \rightarrow J/\psi K^\pm$  and  $\mathcal{B}(B_c^\pm \rightarrow J/\psi\pi^\pm\pi^\pm\pi^\mp)/\mathcal{B}(B_c^\pm \rightarrow J/\psi\pi^\pm)$  in pp collisions at  $\sqrt{s} = 7$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1410.5729 [hep-ex]  
10.1007/JHEP01(2015)063  
JHEP **1501**, 063 (2015)
  46. **“Study of Z production in PbPb and pp collisions at  $\sqrt{s_{NN}} = 2.76$  TeV in the dimuon and dielectron decay channels”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1410.4825 [nucl-ex]  
10.1007/JHEP03(2015)022  
JHEP **1503**, 022 (2015)
  47. **“Identification techniques for highly boosted W bosons that decay into hadrons”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1410.4227 [hep-ex]  
10.1007/JHEP12(2014)017  
JHEP **1412**, 017 (2014)
  48. **“Measurement of electroweak production of two jets in association with a Z boson in proton-proton collisions at  $\sqrt{s}=8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1410.3153 [hep-ex]  
10.1140/epjc/s10052-014-3232-5  
Eur. Phys. J. C **75**, no. 2, 66 (2015)
  49. **“Searches for heavy Higgs bosons in two-Higgs-doublet models and for  $t\bar{a}E\check{S}ch$  decay using multilepton and diphoton final states in pp collisions at 8 TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1410.2751 [hep-ex]  
10.1103/PhysRevD.90.112013  
Phys. Rev. D **90**, no. 11, 112013 (2014)
  50. **“Measurement of Prompt  $\psi(2S) \rightarrow J/\psi$  Yield Ratios in Pb-Pb and p – p Collisions at  $\sqrt{s_{NN}} = 2.76$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1410.1804 [nucl-ex]  
10.1103/PhysRevLett.113.262301  
Phys. Rev. Lett. **113**, no. 26, 262301 (2014)
  51. **“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].  
arXiv:1410.1154 [hep-ex]  
10.1007/JHEP01(2015)053  
JHEP **1501**, 053 (2015)
52. **“Search for monotop signatures in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1410.1149 [hep-ex]  
10.1103/PhysRevLett.114.101801  
Phys. Rev. Lett. **114**, no. 10, 101801 (2015)
53. **“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].  
arXiv:1409.7339 [hep-ex]  
10.1007/JHEP11(2014)154  
JHEP **1411**, 154 (2014)
54. **“Measurement of the production cross section ratio  $\sigma(\text{chi}[b2](1P)) / \sigma(\text{chi}[b1](1P))$  in pp collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1409.5761 [hep-ex]  
10.1016/j.physletb.2015.02.048  
Phys. Lett. B **743**, 383 (2015)
55. **“Search for Displaced Supersymmetry in events with an electron and a muon with large impact parameters”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1409.4789 [hep-ex]  
10.1103/PhysRevLett.114.061801  
Phys. Rev. Lett. **114**, no. 6, 061801 (2015)
56. **“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].  
arXiv:1409.3392 [nucl-ex]  
10.1016/j.physletb.2015.01.034  
Phys. Lett. B **742**, 200 (2015)
57. **“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].  
arXiv:1409.3168 [hep-ex]  
10.1103/PhysRevD.90.092007  
Phys. Rev. D **90**, no. 9, 092007 (2014)
58. **“ZZ cross section measurement and limits on anomalous Triple Gauge Couplings at CMS experiment (preliminary results)”**  
L. Pernie [CMS Collaboration].  
arXiv:1409.1740 [hep-ex]
59. **“Search for dark matter, extra dimensions, and unparticles in monojet events in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1408.3583 [hep-ex]
60. **“Search for neutral MSSM Higgs bosons decaying to a pair of tau leptons in pp collisions”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1408.3316 [hep-ex]

- 10.1007/JHEP10(2014)160  
JHEP **1410**, 160 (2014)
61. **“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].  
arXiv:1408.3104 [hep-ex]  
10.1103/PhysRevD.91.052008  
Phys. Rev. D **91**, no. 5, 052008 (2015)
62. **“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].  
arXiv:1408.2745 [hep-ex]
63. **“Search for the associated production of the Higgs boson with a top-quark pair”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1408.1682 [hep-ex]  
10.1007/JHEP09(2014)087, 10.1007/JHEP10(2014)106  
JHEP **1409**, 087 (2014), [Erratum-ibid. **1410**, 106 (2014)]
64. **“Search for pair production of third-generation scalar leptoquarks and top squarks in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1408.0806 [hep-ex]  
10.1016/j.physletb.2014.10.063  
Phys. Lett. B **739**, 229 (2014)
65. **“Measurement of the  $t\bar{t}$  production cross section in  $pp$  collisions at  $\sqrt{s} = 8$  TeV in dilepton final states containing one  $\tau$  lepton”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1407.6643 [hep-ex]  
10.1016/j.physletb.2014.10.032  
Phys. Lett. B **739**, 23 (2014)
66. **“Search for heavy neutrinos and W bosons with right-handed couplings in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1407.3683 [hep-ex]  
10.1140/epjc/s10052-014-3149-z  
Eur. Phys. J. C **74**, no. 11, 3149 (2014)
67. **“Search for new resonances decaying via WZ to leptons in proton-proton collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1407.3476 [hep-ex]  
10.1016/j.physletb.2014.11.026  
Phys. Lett. B **740**, 83 (2015)
68. **“Study of hadronic event-shape variables in multijet final states in  $pp$  collisions at  $\sqrt{s} = 7$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1407.2856 [hep-ex]  
10.1007/JHEP10(2014)087  
JHEP **1410**, 87 (2014)
69. **“Observation of the diphoton decay of the Higgs boson and measurement of its properties”**  
V. Khachatryan *et al.* [CMS Collaboration].



- arXiv:1407.0558 [hep-ex]  
 10.1140/epjc/s10052-014-3076-z  
 Eur. Phys. J. C **74**, no. 10, 3076 (2014)
70. **“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].  
 arXiv:1406.7830 [hep-ex]  
 10.1140/epjc/s10052-014-3060-7  
 Eur. Phys. J. C **74**, no. 9, 3060 (2014)
  71. **“Differential cross section measurements for the production of a W boson in association with jets in proton–proton collisions at  $\sqrt{s} = 7$  TeV”**  
 V. Khachatryan *et al.* [CMS Collaboration].  
 arXiv:1406.7533 [hep-ex]  
 10.1016/j.physletb.2014.12.003  
 Phys. Lett. B **741**, 12 (2015)
  72. **“Search for excited quarks in the  $\gamma$ +jet final state in proton–proton collisions at  $\sqrt{s} = 8$  TeV”**  
 V. Khachatryan *et al.* [CMS Collaboration].  
 arXiv:1406.5171 [hep-ex]  
 10.1016/j.physletb.2014.09.048  
 Phys. Lett. B **738**, 274 (2014)
  73. **“Measurement of jet fragmentation in PbPb and pp collisions at  $\sqrt{s_{NN}} = 2.76$  TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1406.0932 [nucl-ex]  
 10.1103/PhysRevC.90.024908  
 Phys. Rev. C **90**, no. 2, 024908 (2014)
  74. **“Measurement of prompt  $J/\psi$  pair production in pp collisions at  $\sqrt{s} = 7$  TeV”**  
 V. Khachatryan *et al.* [CMS Collaboration].  
 arXiv:1406.0484 [hep-ex]  
 10.1007/JHEP09(2014)094  
 JHEP **1409**, 094 (2014)
  75. **“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].  
 arXiv:1406.0324 [hep-ex]  
 10.1103/PhysRevD.90.072006  
 Phys. Rev. D **90**, no. 7, 072006 (2014)
  76. **“Measurement of the  $pp \rightarrow ZZ$  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].  
 arXiv:1406.0113 [hep-ex]  
 10.1016/j.physletb.2014.11.059  
 Phys. Lett. B **740**, 250 (2015)
  77. **“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].  
 arXiv:1405.7653 [hep-ex]  
 10.1103/PhysRevD.90.032005  
 Phys. Rev. D **90**, no. 3, 032005 (2014)
  78. **“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].

arXiv:1405.7570 [hep-ex]

10.1140/epjc/s10052-014-3036-7

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

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

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

arXiv:1405.7225 [hep-ex]

10.1140/epjc/s10052-014-3129-3

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

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

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

arXiv:1405.6569 [physics.ins-det]

10.1088/1748-0221/9/10/P10009

JINST **9**, no. 10, P10009 (2014)

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

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

arXiv:1405.3961 [hep-ex]

10.1103/PhysRevD.90.112001

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

82. **"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].

arXiv:1405.3886 [hep-ex]

10.1016/j.physletb.2014.07.053

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

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

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

arXiv:1405.3455 [hep-ex]

10.1016/j.physletb.2014.06.077

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

84. **"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].

arXiv:1405.3447 [hep-ex]

10.1007/JHEP08(2014)174

JHEP **1408**, 174 (2014)

85. **"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].

arXiv:1405.1994 [hep-ex]

10.1007/JHEP08(2014)173

JHEP **1408**, 173 (2014)

86. **"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].

arXiv:1405.0722 [hep-ex]

- 10.1140/epjc/s10052-014-3053-6  
Eur. Phys. J. C **74**, no. 10, 3053 (2014)
87. **“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].  
arXiv:1404.5801 [hep-ex]  
10.1103/PhysRevD.90.032006  
Phys. Rev. D **90**, no. 3, 032006 (2014)
  88. **“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].  
arXiv:1404.4619 [hep-ex]  
10.1103/PhysRevD.90.032008  
Phys. Rev. D **90**, no. 3, 032008 (2014)
  89. **“Measurement of jet multiplicity distributions in  $t\bar{t}$  production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1404.3171 [hep-ex]  
10.1140/epjc/s10052-014-3014-0  
Eur. Phys. J. C **74**, no. 8, 3014 (2014)
  90. **“Measurement of the ratio  $B(t \rightarrow Wb)/B(t \rightarrow Wq)$  in  $pp$  collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1404.2292 [hep-ex]  
10.1016/j.physletb.2014.06.076  
Phys. Lett. B **736**, 33 (2014)
  91. **“Search for invisible decays of Higgs bosons in the vector boson fusion and associated  $ZH$  production modes”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1404.1344 [hep-ex]  
10.1140/epjc/s10052-014-2980-6  
Eur. Phys. J. C **74**, 2980 (2014)
  92. **“Measurement of the  $t$ -channel single-top-quark production cross section and of the  $|V_{tb}|$  CKM matrix element in  $pp$  collisions at  $\sqrt{s} = 8$  TeV”**  
V. Khachatryan *et al.* [CMS Collaboration].  
arXiv:1403.7366 [hep-ex]  
10.1007/JHEP06(2014)090  
JHEP **1406**, 090 (2014)
  93. **“Measurement of  $WZ$  and  $ZZ$  production in  $pp$  collisions at  $\sqrt{s} = 8$  TeV in final states with  $b$ -tagged jets”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1403.3047 [hep-ex]  
10.1140/epjc/s10052-014-2973-5  
Eur. Phys. J. C **74**, no. 8, 2973 (2014)
  94. **“Alignment of the CMS tracker with LHC and cosmic ray data”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1403.2286 [physics.ins-det]  
10.1088/1748-0221/9/06/P06009  
JINST **9**, P06009 (2014)
  95. **“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].  
arXiv:1402.4770 [hep-ex]  
10.1007/JHEP06(2014)055  
JHEP **1406**, 055 (2014)
96. **“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].  
arXiv:1402.3803 [hep-ex]  
10.1007/JHEP04(2014)191  
JHEP **1404**, 191 (2014)
97. **“Search for  $W' \rightarrow t\bar{b}$  decays in the lepton + jets final state in pp collisions at  $\sqrt{s} = 8$  TeV”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1402.2176 [hep-ex]  
10.1007/JHEP05(2014)108  
JHEP **1405**, 108 (2014)
98. **“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].  
arXiv:1402.1521 [hep-ex]  
10.1007/JHEP06(2014)120  
JHEP **1406**, 120 (2014)
99. **“Measurement of inclusive W and Z boson production cross sections in pp collisions at  $\sqrt{s} = 8$  TeV”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1402.0923 [hep-ex]  
10.1103/PhysRevLett.112.191802  
Phys. Rev. Lett. **112**, 191802 (2014)
100. **“Evidence for the direct decay of the 125 GeV Higgs boson to fermions”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1401.6527 [hep-ex]  
10.1038/nphys3005  
Nature Phys. **10**, 557 (2014)
101. **“Evidence for the 125 GeV Higgs boson decaying to a pair of  $\tau$  leptons”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1401.5041 [hep-ex]  
10.1007/JHEP05(2014)104  
JHEP **1405**, 104 (2014)
102. **“Studies of dijet transverse momentum balance and pseudorapidity distributions in pPb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1401.4433 [nucl-ex]  
10.1140/epjc/s10052-014-2951-y  
Eur. Phys. J. C **74**, no. 7, 2951 (2014)
103. **“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].  
arXiv:1401.2942 [hep-ex]  
10.1103/PhysRevLett.112.231802  
Phys. Rev. Lett. **112**, no. 23, 231802 (2014)

104. **“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].  
arXiv:1312.7582 [hep-ex], arXiv:1312.7582  
10.1007/JHEP02(2014)024, 10.1007/JHEP02(2014)102  
JHEP **1402**, 024 (2014), [Erratum-ibid. **1402**, 102 (2014)]
105. **“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].  
arXiv:1312.6608 [hep-ex]  
10.1016/j.physletb.2014.06.041  
Phys. Lett. B **735**, 204 (2014)
106. **“Measurement of four-jet production in proton-proton collisions at  $\sqrt{s} = 7$  TeV”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1312.6440 [hep-ex]  
10.1103/PhysRevD.89.092010  
Phys. Rev. D **89**, no. 9, 092010 (2014)
107. **“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].  
arXiv:1312.6300 [nucl-ex]  
10.1007/JHEP04(2014)103  
JHEP **1404**, 103 (2014)
108. **“Measurement of the muon charge asymmetry in inclusive  $pp \rightarrow W + X$  production at  $\sqrt{s} = 7$  TeV and an improved determination of light parton distribution functions”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1312.6283 [hep-ex]  
10.1103/PhysRevD.90.032004  
Phys. Rev. D **90**, no. 3, 032004 (2014)
109. **“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].  
arXiv:1312.5729 [hep-ex]  
10.1007/JHEP03(2014)032  
JHEP **1403**, 032 (2014)
110. **“Measurement of the properties of a Higgs boson in the four-lepton final state”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1312.5353 [hep-ex]  
10.1103/PhysRevD.89.092007  
Phys. Rev. D **89**, no. 9, 092007 (2014)
111. **“Evidence of b-Jet Quenching in PbPb Collisions at  $\sqrt{s_{NN}} = 2.76$  TeV”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1312.4198 [nucl-ex]  
10.1103/PhysRevLett.113.132301  
Phys. Rev. Lett. **113**, no. 13, 132301 (2014)
112. **“Search for Flavor-Changing Neutral Currents in Top-Quark Decays  $t \rightarrow Zq$  in pp Collisions at  $\sqrt{s} = 8$  TeV”**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1312.4194 [hep-ex]  
10.1103/PhysRevLett.112.171802

- Phys. Rev. Lett. **112**, no. 17, 171802 (2014)
113. **“Search for top squark and higgsino production using diphoton Higgs boson decays”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1312.3310 [hep-ex]  
 10.1103/PhysRevLett.112.161802  
 Phys. Rev. Lett. **112**, 161802 (2014)
  114. **“Search for top-quark partners with charge 5/3 in the same-sign dilepton final state”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1312.2391 [hep-ex]  
 10.1103/PhysRevLett.112.171801  
 Phys. Rev. Lett. **112**, no. 17, 171801 (2014)
  115. **“Studies of azimuthal dihadron correlations in ultra-central PbPb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1312.1845 [nucl-ex]  
 10.1007/JHEP02(2014)088  
 JHEP **1402**, 088 (2014)
  116. **“Measurement of Higgs boson production and properties in the WW decay channel with leptonic final states”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1312.1129 [hep-ex]  
 10.1007/JHEP01(2014)096  
 JHEP **1401**, 096 (2014)
  117. **“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].  
 arXiv:1311.7667 [hep-ex]  
 10.1016/j.physletb.2014.01.006  
 Phys. Lett. B **729**, 149 (2014)
  118. **“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].  
 arXiv:1311.6736, arXiv:1311.6736 [hep-ex]  
 10.1007/JHEP01(2015)014, 10.1007/JHEP01(2014)163  
 JHEP **1401**, 163 (2014), [Erratum-ibid. **1501**, 014 (2015)]
  119. **“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].  
 arXiv:1311.6141 [hep-ex]  
 10.1007/JHEP06(2014)009  
 JHEP **1406**, 009 (2014)
  120. **“Probing color coherence effects in pp collisions at  $\sqrt{s} = 7$  TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1311.5815 [hep-ex]  
 10.1140/epjc/s10052-014-2901-8  
 Eur. Phys. J. C **74**, no. 6, 2901 (2014)
  121. **“Search for pair production of excited top quarks in the lepton + jets final state”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1311.5357 [hep-ex]  
 10.1007/JHEP06(2014)125  
 JHEP **1406**, 125 (2014)

122. **"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].  
arXiv:1311.4937 [hep-ex]  
10.1016/j.physletb.2014.04.023  
Phys. Lett. B **733**, 328 (2014)
123. **"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].  
arXiv:1311.3924 [hep-ex]  
10.1103/PhysRevLett.112.182001  
Phys. Rev. Lett. **112**, no. 18, 182001 (2014)
124. **"Searches for light- and heavy-flavour three-jet resonances in pp collisions at  $\sqrt{s} = 8$  TeV"**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1311.1799 [hep-ex]  
10.1016/j.physletb.2014.01.049  
Phys. Lett. B **730**, 193 (2014)
125. **"Measurement of higher-order harmonic azimuthal anisotropy in PbPb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV"**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1310.8651 [nucl-ex]  
10.1103/PhysRevC.89.044906  
Phys. Rev. C **89**, no. 4, 044906 (2014)
126. **"Measurement of the differential and double-differential Drell-Yan cross sections in proton-proton collisions at  $\sqrt{s} = 7$  TeV"**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1310.7291 [hep-ex]  
10.1007/JHEP12(2013)030  
JHEP **1312**, 030 (2013)
127. **"Jet and underlying event properties as a function of charged-particle multiplicity in proton-proton collisions at  $\sqrt{s} = 7$  TeV"**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1310.4554 [hep-ex]  
10.1140/epjc/s10052-013-2674-5  
Eur. Phys. J. C **73**, no. 12, 2674 (2013)
128. **"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].  
arXiv:1310.3687 [hep-ex]  
10.1103/PhysRevD.89.012003  
Phys. Rev. D **89**, no. 1, 012003 (2014)
129. **"Rapidity distributions in exclusive Z + jet and  $\gamma$  + jet events in pp collisions at  $\sqrt{s} = 7$  TeV"**  
S. Chatrchyan *et al.* [CMS Collaboration].  
arXiv:1310.3082 [hep-ex]  
10.1103/PhysRevD.88.112009  
Phys. Rev. D **88**, no. 11, 112009 (2013)
130. **"Search for baryon number violation in top-quark decays"**  
S. Chatrchyan *et al.* [CMS Collaboration].

- arXiv:1310.1618 [hep-ex]  
 10.1016/j.physletb.2014.02.033  
 Phys. Lett. B **731**, 173 (2014)
131. **“Measurement of the cross section and angular correlations for associated production of a Z boson with b hadrons in pp collisions at  $\sqrt{s} = 7$  TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1310.1349 [hep-ex]  
 10.1007/JHEP12(2013)039  
 JHEP **1312**, 039 (2013)
132. **“Measurement of associated W + charm production in pp collisions at  $\sqrt{s} = 7$  TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1310.1138 [hep-ex]  
 10.1007/JHEP02(2014)013  
 JHEP **1402**, 013 (2014)
133. **“Modification of jet shapes in PbPb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1310.0878 [nucl-ex]  
 10.1016/j.physletb.2014.01.042  
 Phys. Lett. B **730**, 243 (2014)
134. **“Observation of a peaking structure in the  $J/\psi\phi$  mass spectrum from  $B^\pm \rightarrow J/\psi\phi K^\pm$  decays”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1309.6920 [hep-ex]  
 10.1016/j.physletb.2014.05.055  
 Phys. Lett. B **734**, 261 (2014)
135. **“Searches for new physics using the  $t\bar{t}$  invariant mass distribution in pp collisions at  $\sqrt{s}=8\text{ TeV}$ ”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1309.2030 [hep-ex]  
 10.1103/PhysRevLett.111.211804, 10.1103/PhysRevLett.112.119903  
 Phys. Rev. Lett. **111**, no. 21, 211804 (2013), [Erratum-ibid. **112**, no. 11, 119903 (2014)]
136. **“Measurement of the production cross section for  $Z\gamma \rightarrow \nu\bar{\nu}\gamma$  in pp collisions at  $\sqrt{s} = 7$  TeV and limits on  $ZZ\gamma$  and  $Z\gamma\gamma$  triple gauge boson couplings”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1309.1117 [hep-ex]  
 10.1007/JHEP10(2013)164  
 JHEP **1310**, 164 (2013)
137. **“Search for a new bottomonium state decaying to  $\Upsilon(1S)\pi^+\pi^-$  in pp collisions at  $\sqrt{s} = 8$  TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1309.0250 [hep-ex]  
 10.1016/j.physletb.2013.10.016  
 Phys. Lett. B **727**, 57 (2013)
138. **“Measurement of the  $W\gamma$  and  $Z\gamma$  inclusive cross sections in pp collisions at  $\sqrt{s} = 7\text{ TeV}$  and limits on anomalous triple gauge boson couplings”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1308.6832 [hep-ex]  
 10.1103/PhysRevD.89.092005  
 Phys. Rev. D **89**, no. 9, 092005 (2014)
139. **“Measurement of the W-boson helicity in top-quark decays from  $t\bar{t}$  production in lep-**



**ton+jets events in pp collisions at  $\sqrt{s} = 7$  TeV"**

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

arXiv:1308.3879 [hep-ex]

10.1007/JHEP10(2013)167

JHEP **1310**, 167 (2013)

140. **"Angular analysis and branching fraction measurement of the decay  $B^0 \rightarrow K^{*0} \mu^+ \mu^-$ "**

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

arXiv:1308.3409 [hep-ex]

10.1016/j.physletb.2013.10.017

Phys. Lett. B **727**, 77 (2013)

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

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

arXiv:1308.1586 [hep-ex]

10.1140/epjc/s10052-013-2677-2

Eur. Phys. J. C **73**, no. 12, 2677 (2013)

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

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

arXiv:1307.6070 [hep-ex]

10.1016/j.physletb.2013.10.055

Phys. Lett. B **727**, 381 (2013)

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

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

arXiv:1307.5515 [hep-ex]

10.1016/j.physletb.2013.09.057

Phys. Lett. B **726**, 587 (2013)

144. **"Measurement of the B(s) to  $\mu^+ \mu^-$  branching fraction and search for B0 to  $\mu^+ \mu^-$  with the CMS Experiment"**

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

arXiv:1307.5025 [hep-ex]

10.1103/PhysRevLett.111.101804

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

145. **"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].

arXiv:1307.4617 [hep-ex]

10.1140/epjc/s10052-014-2758-x

Eur. Phys. J. C **74**, no. 4, 2758 (2014)

146. **"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].

arXiv:1307.3442 [hep-ex]

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

Eur. Phys. J. C **74**, no. 6, 2847 (2014)

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

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

arXiv:1307.1907 [hep-ex]

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

- Phys. Lett. B **728**, 496 (2014), [Erratum-ibid. B **728**, 526 (2014)]
148. **“Search for top squarks in  $R$ -parity-violating supersymmetry using three or more leptons and b-tagged jets”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1306.6643 [hep-ex]  
 10.1103/PhysRevLett.111.221801  
 Phys. Rev. Lett. **111**, no. 22, 221801 (2013)
  149. **“Measurement of the  $W^+W^-$  Cross section in  $pp$  Collisions at  $\sqrt{s} = 7$  TeV and Limits on Anomalous  $WW\gamma$  and  $WWZ$  couplings”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1306.1126 [hep-ex]  
 10.1140/epjc/s10052-013-2610-8  
 Eur. Phys. J. C **73**, no. 10, 2610 (2013)
  150. **“Measurement of neutral strange particle production in the underlying event in proton-proton collisions at  $\sqrt{s} = 7$  TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1305.6016 [hep-ex]  
 10.1103/PhysRevD.88.052001  
 Phys. Rev. D **88**, 052001 (2013)
  151. **“Study of exclusive two-photon production of  $W^+W^-$  in  $pp$  collisions at  $\sqrt{s} = 7$  TeV and constraints on anomalous quartic gauge couplings”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1305.5596 [hep-ex]  
 10.1007/JHEP07(2013)116  
 JHEP **1307**, 116 (2013)
  152. **“Search for gluino mediated bottom- and top-squark production in multijet final states in  $pp$  collisions at 8 TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1305.2390 [hep-ex]  
 10.1016/j.physletb.2013.06.058  
 Phys. Lett. B **725**, 243 (2013)
  153. **“Multiplicity and transverse momentum dependence of two- and four-particle correlations in pPb and PbPb collisions”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1305.0609 [nucl-ex]  
 10.1016/j.physletb.2013.06.028  
 Phys. Lett. B **724**, 213 (2013)
  154. **“Searches for long-lived charged particles in  $pp$  collisions at  $\sqrt{s}=7$  and 8 TeV”**  
 S. Chatrchyan *et al.* [CMS Collaboration].  
 arXiv:1305.0491 [hep-ex]  
 10.1007/JHEP07(2013)122  
 JHEP **1307**, 122 (2013)