

# Publication List from all Collaborations and Experiments

Oliver Gutsche

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- A.M. Sirunyan et al., **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**, *Submitted to: JHEP.* (2018), arXiv:[1803.04496 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Search for massive resonances decaying into  $WW$ ,  $WZ$ ,  $ZZ$ ,  $qW$ , and  $qZ$  with dijet final states at  $\sqrt{s} = 13\text{TeV}$** , *Phys. Rev. D* 97 (2018) 072006, doi:[10.1103/PhysRevD.97.072006](#), arXiv:[1708.05379 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Measurement of the Splitting Function in  $pp$  and Pb-Pb Collisions at  $\sqrt{s_{NN}} = 5.02\text{ TeV}$** , *Phys. Rev. Lett.* 120 (2018) 142302, doi:[10.1103/PhysRevLett.120.142302](#), arXiv:[1708.09429 \[nucl-ex\]](#)
- A.M. Sirunyan et al., **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**, *Phys. Rev. Lett.* 120 (2018) 241801, doi:[10.1103/PhysRevLett.120.241801](#), arXiv:[1712.08501 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Inclusive search for a highly boosted Higgs boson decaying to a bottom quark-antiquark pair**, *Phys. Rev. Lett.* 120 (2018) 071802, doi:[10.1103/PhysRevLett.120.071802](#), arXiv:[1709.05543 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Search for natural supersymmetry in events with top quark pairs and photons in pp collisions at  $\sqrt{s} = 8\text{ TeV}$** , *JHEP.* 03 (2018) 167, doi:[10.1007/JHEP03\(2018\)167](#), arXiv:[1707.03325 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Search for  $R$ -parity violating supersymmetry in pp collisions at  $\sqrt{s} = 13\text{ TeV}$  using b jets in a final state with a single lepton, many jets, and high sum of large-radius jet masses**, *Phys. Lett.* B783 (2018) 114–139, doi:[10.1016/j.physletb.2018.06.028](#), arXiv:[1712.08920 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Measurement of angular parameters from the decay  $B^0 \rightarrow K^{*0} \mu^+ \mu^-$  in proton-proton collisions at  $\sqrt{s} = 8\text{ TeV}$** , *Phys. Lett.* B781 (2018) 517–541, doi:[10.1016/j.physletb.2018.04.030](#), arXiv:[1710.02846 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Search for Higgs boson pair production in events with two bottom quarks and two tau leptons in proton–proton collisions at  $\sqrt{s} = 13\text{TeV}$** , *Phys. Lett.* B778 (2018) 101–127, doi:[10.1016/j.physletb.2018.01.001](#), arXiv:[1707.02909 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Search for supersymmetry with Higgs boson to diphoton decays using the razor variables at  $\sqrt{s} = 13\text{ TeV}$** , *Phys. Lett.* B779 (2018) 166–190, doi:[10.1016/j.physletb.2017.12.069](#), arXiv:[1709.00384 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Evidence for the Higgs boson decay to a bottom quark–antiquark pair**, *Phys. Lett.* B780 (2018) 501–532, doi:[10.1016/j.physletb.2018.02.050](#), arXiv:[1709.07497 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Identification of heavy-flavour jets with the CMS detector in pp collisions at 13 TeV**, *JINST.* 13 (2018) P05011, doi:[10.1088/1748-0221/13/05/P05011](#), arXiv:[1712.07158 \[physics.ins-det\]](#)
- A.M. Sirunyan et al., **Search for excited quarks of light and heavy flavor in  $\gamma$ +jet final states in proton–proton collisions at  $\sqrt{s} = 13\text{TeV}$** , *Phys. Lett.* B781 (2018) 390–411, doi:[10.1016/j.physletb.2018.04.007](#), arXiv:[1711.04652 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Search for resonant and nonresonant Higgs boson pair production in the  $b\bar{b}l\nu l\nu$  final state in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$** , *JHEP.* 01 (2018) 054, doi:[10.1007/JHEP01\(2018\)054](#), arXiv:[1708.04188 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Constraints on the double-parton scattering cross section from same-sign W boson pair production in proton-proton collisions at  $\sqrt{s} = 8\text{ TeV}$** , *JHEP.* 02 (2018) 032, doi:[10.1007/JHEP02\(2018\)032](#), arXiv:[1712.02280 \[hep-ex\]](#)
- A.M. Sirunyan et al., **Search for supersymmetry in events with at least three electrons or muons, jets, and missing transverse momentum in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$** , *JHEP.* 02 (2018) 067, doi:[10.1007/JHEP02\(2018\)067](#), arXiv:[1710.09154 \[hep-ex\]](#)

- A.M. Sirunyan et al., **Bose-Einstein correlations in  $pp$ ,  $pPb$ , and  $PbPb$  collisions at  $\sqrt{s_{NN}} = 0.9 - 7$  TeV**, *Phys. Rev. C* 97 (2018) 064912, doi:[10.1103/PhysRevC.97.064912](https://doi.org/10.1103/PhysRevC.97.064912), arXiv:[1712.07198](https://arxiv.org/abs/1712.07198) [hep-ex]
- A.M. Sirunyan et al., **Measurement of differential cross sections in the kinematic angular variable  $\phi^*$  for inclusive  $Z$  boson production in  $pp$  collisions at  $\sqrt{s} = 8$  TeV**, *JHEP*. 03 (2018) 172, doi:[10.1007/JHEP03\(2018\)172](https://doi.org/10.1007/JHEP03(2018)172), arXiv:[1710.07955](https://arxiv.org/abs/1710.07955) [hep-ex]
- A.M. Sirunyan et al., **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**, *Phys. Lett. B* 781 (2018) 244–269, doi:[10.1016/j.physletb.2018.03.084](https://doi.org/10.1016/j.physletb.2018.03.084), arXiv:[1710.04960](https://arxiv.org/abs/1710.04960) [hep-ex]
- A.M. Sirunyan et al., **Measurement of prompt and nonprompt charmonium suppression in  $PbPb$  collisions at  $5.02$  TeV**, *Eur. Phys. J. C* 78 (2018) 509, doi:[10.1140/epjc/s10052-018-5950-6](https://doi.org/10.1140/epjc/s10052-018-5950-6), arXiv:[1712.08959](https://arxiv.org/abs/1712.08959) [nucl-ex]
- A.M. Sirunyan et al., **Search for new long-lived particles at  $\sqrt{s} = 13$  TeV**, *Phys. Lett. B* 780 (2018) 432–454, doi:[10.1016/j.physletb.2018.03.019](https://doi.org/10.1016/j.physletb.2018.03.019), arXiv:[1711.09120](https://arxiv.org/abs/1711.09120) [hep-ex]
- A.M. Sirunyan et al., **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 (2018) 589, doi:[10.1140/epjc/s10052-018-6049-9](https://doi.org/10.1140/epjc/s10052-018-6049-9), arXiv:[1712.09814](https://arxiv.org/abs/1712.09814) [hep-ex]
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- A.M. Sirunyan et al., **Search for  $ZZ$  resonances in the  $2\ \mu\ 2\ \nu$  final state in proton-proton collisions at 13 TeV**, *JHEP*. 03 (2018) 003, doi:[10.1007/JHEP03\(2018\)003](https://doi.org/10.1007/JHEP03(2018)003), arXiv:[1711.04370](https://arxiv.org/abs/1711.04370) [hep-ex]
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- A.M. Sirunyan et al., **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**, *Phys. Lett. B* 778 (2018) 263–291, doi:[10.1016/j.physletb.2018.01.012](https://doi.org/10.1016/j.physletb.2018.01.012), arXiv:[1707.07274](https://arxiv.org/abs/1707.07274) [hep-ex]
- A.M. Sirunyan et al., **Search for electroweak production of charginos and neutralinos in multilepton final states in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 03 (2018) 166, doi:[10.1007/JHEP03\(2018\)166](https://doi.org/10.1007/JHEP03(2018)166), arXiv:[1709.05406](https://arxiv.org/abs/1709.05406) [hep-ex]
- A.M. Sirunyan et al., **Search for top squarks and dark matter particles in opposite-charge dilepton final states at  $\sqrt{s} = 13$  TeV**, *Phys. Rev. D* 97 (2018) 032009, doi:[10.1103/PhysRevD.97.032009](https://doi.org/10.1103/PhysRevD.97.032009), arXiv:[1711.00752](https://arxiv.org/abs/1711.00752) [hep-ex]
- M. Aaboud et al., **Combination of inclusive and differential  $t\bar{t}$  charge asymmetry measurements using ATLAS and CMS data at  $\sqrt{s} = 7$  and 8 TeV**, *JHEP*. 04 (2018) 033, doi:[10.1007/JHEP04\(2018\)033](https://doi.org/10.1007/JHEP04(2018)033), arXiv:[1709.05327](https://arxiv.org/abs/1709.05327) [hep-ex]
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- A.M. Sirunyan et al., **Measurement of normalized differential  $t\bar{t}$  cross sections in the dilepton channel from  $pp$  collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 04 (2018) 060, doi:[10.1007/JHEP04\(2018\)060](https://doi.org/10.1007/JHEP04(2018)060), arXiv:[1708.07638](https://arxiv.org/abs/1708.07638) [hep-ex]
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- A.M. Sirunyan et al., **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  $H \rightarrow b\bar{b}$** , *Phys. Rev. D* 97 (2018) 032007, doi:[10.1103/PhysRevD.97.032007](https://doi.org/10.1103/PhysRevD.97.032007), arXiv:[1709.04896](https://arxiv.org/abs/1709.04896) [hep-ex]
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