

# Publication List from all Collaborations and Experiments

Oliver Gutsche

July 1, 2020

- G. Aad et al., **Combination of the W boson polarization measurements in top quark decays using ATLAS and CMS data at  $\sqrt{s} = 8$  TeV**, (2020), arXiv:[2005.03799](#) [hep-ex]
- A.M. Sirunyan et al., **Search for direct pair production of supersymmetric partners to the  $\tau$  lepton in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Eur. Phys. J. C* 80 (2020) 189, doi:[10.1140/epjc/s10052-020-7739-7](#), arXiv:[1907.13179](#) [hep-ex]
- A.M. Sirunyan et al., **Measurement of top quark pair production in association with a Z boson in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 03 (2020) 056, doi:[10.1007/JHEP03\(2020\)056](#), arXiv:[1907.11270](#) [hep-ex]
- A.M. Sirunyan et al., **Measurement of the single top quark and antiquark production cross sections in the  $t$  channel and their ratio in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Phys. Lett. B* 800 (2020) 135042, doi:[10.1016/j.physletb.2019.135042](#), arXiv:[1812.10514](#) [hep-ex]
- A.M. Sirunyan et al., **Constraints on the  $\chi_{c1}$  versus  $\chi_{c2}$  polarizations in proton-proton collisions at  $\sqrt{s} = 8$  TeV**, *Phys. Rev. Lett.* 124 (2020) 162002, doi:[10.1103/PhysRevLett.124.162002](#), arXiv:[1912.07706](#) [hep-ex]
- A.M. Sirunyan et al., **Search for a charged Higgs boson decaying into top and bottom quarks in events with electrons or muons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 01 (2020) 096, doi:[10.1007/JHEP01\(2020\)096](#), arXiv:[1908.09206](#) [hep-ex]
- A.M. Sirunyan et al., **Search for physics beyond the standard model in multilepton final states in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 03 (2020) 051, doi:[10.1007/JHEP03\(2020\)051](#), arXiv:[1911.04968](#) [hep-ex]
- A.M. Sirunyan et al., **Determination of the strong coupling constant  $\alpha_s(m_Z)$  from measurements of inclusive  $W^\pm$  and Z boson production cross sections in proton-proton collisions at  $\sqrt{s} = 7$  and 8 TeV**, *JHEP*. 06 (2020) 018, doi:[10.1007/JHEP06\(2020\)018](#), arXiv:[1912.04387](#) [hep-ex]
- A.M. Sirunyan et al., **Extraction and validation of a new set of CMS PYTHIA8 tunes from underlying-event measurements**, *Eur. Phys. J. C* 80 (2020) 4, doi:[10.1140/epjc/s10052-019-7499-4](#), arXiv:[1903.12179](#) [hep-ex]
- A.M. Sirunyan et al., **Calibration of the CMS hadron calorimeters using proton-proton collision data at  $\sqrt{s} = 13$  TeV**, *JINST*. 15 (2020) P05002, doi:[10.1088/1748-0221/15/05/P05002](#), arXiv:[1910.00079](#) [physics.ins-det]
- A.M. Sirunyan et al., **Observation of nuclear modifications in  $W^\pm$  boson production in pPb collisions at  $\sqrt{s_{NN}} = 8.16$  TeV**, *Phys. Lett. B* 800 (2020) 135048, doi:[10.1016/j.physletb.2019.135048](#), arXiv:[1905.01486](#) [hep-ex]
- A.M. Sirunyan et al., **Observation of the  $\Lambda_b^0 \rightarrow J/\psi \Lambda \phi$  decay in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Phys. Lett. B* 802 (2020) 135203, doi:[10.1016/j.physletb.2020.135203](#), arXiv:[1911.03789](#) [hep-ex]
- A.M. Sirunyan et al., **Measurement of electroweak production of a W boson in association with two jets in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Eur. Phys. J. C* 80 (2020) 43, doi:[10.1140/epjc/s10052-019-7585-7](#), arXiv:[1903.04040](#) [hep-ex]
- A.M. Sirunyan et al., **Measurement of the top quark forward-backward production asymmetry and the anomalous chromoelectric and chromomagnetic moments in pp collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 06 (2020) 146, doi:[10.1007/JHEP06\(2020\)146](#), arXiv:[1912.09540](#) [hep-ex]
- A.M. Sirunyan et al., **Production of  $\Lambda_c^+$  baryons in proton-proton and lead-lead collisions at  $\sqrt{s_{NN}} = 5.02$  TeV**, *Phys. Lett. B* 803 (2020) 135328, doi:[10.1016/j.physletb.2020.135328](#), arXiv:[1906.03322](#) [hep-ex]
- A.M. Sirunyan et al., **Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment**, *JHEP*. 05 (2020) 032, doi:[10.1007/JHEP05\(2020\)032](#), arXiv:[1912.08887](#) [hep-ex]

- A.M. Sirunyan et al., **Search for light pseudoscalar boson pairs produced from decays of the 125 GeV Higgs boson in final states with two muons and two nearby tracks in pp collisions at  $\sqrt{s} = 13$  TeV**, *Phys. Lett. B* 800 (2020) 135087, doi:[10.1016/j.physletb.2019.135087](https://doi.org/10.1016/j.physletb.2019.135087), arXiv:[1907.07235](https://arxiv.org/abs/1907.07235) [hep-ex]
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- A.M. Sirunyan et al., **Measurement of differential cross sections and charge ratios for  $t$ -channel single top quark production in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Eur. Phys. J. C* 80 (2020) 370, doi:[10.1140/epjc/s10052-020-7858-1](https://doi.org/10.1140/epjc/s10052-020-7858-1), arXiv:[1907.08330](https://arxiv.org/abs/1907.08330) [hep-ex]
- A.M. Sirunyan et al., **Mixed higher-order anisotropic flow and nonlinear response coefficients of charged particles in PbPb collisions at  $\sqrt{s_{NN}} = 2.76$  and 5.02 TeV**, *Eur. Phys. J. C* 80 (2020) 534, doi:[10.1140/epjc/s10052-020-7834-9](https://doi.org/10.1140/epjc/s10052-020-7834-9), arXiv:[1910.08789](https://arxiv.org/abs/1910.08789) [hep-ex]
- A.M. Sirunyan et al., **A multi-dimensional search for new heavy resonances decaying to boosted WW, WZ, or ZZ boson pairs in the dijet final state at 13 TeV**, *Eur. Phys. J. C* 80 (2020) 237, doi:[10.1140/epjc/s10052-020-7773-5](https://doi.org/10.1140/epjc/s10052-020-7773-5), arXiv:[1906.05977](https://arxiv.org/abs/1906.05977) [hep-ex]
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- A.M. Sirunyan et al., **Search for top squark pair production in a final state with two tau leptons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 02 (2020) 015, doi:[10.1007/JHEP02\(2020\)015](https://doi.org/10.1007/JHEP02(2020)015), arXiv:[1910.12932](https://arxiv.org/abs/1910.12932) [hep-ex]
- A.M. Sirunyan et al., **Search for Supersymmetry with a Compressed Mass Spectrum in Events with a Soft  $\tau$  Lepton, a Highly Energetic Jet, and Large Missing Transverse Momentum in Proton-Proton Collisions at  $\sqrt{s} = 13$  TeV**, *Phys. Rev. Lett.* 124 (2020) 041803, doi:[10.1103/PhysRevLett.124.041803](https://doi.org/10.1103/PhysRevLett.124.041803), arXiv:[1910.01185](https://arxiv.org/abs/1910.01185) [hep-ex]
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- A.M. Sirunyan et al., **Search for a heavy Higgs boson decaying to a pair of W bosons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 03 (2020) 034, doi:[10.1007/JHEP03\(2020\)034](https://doi.org/10.1007/JHEP03(2020)034), arXiv:[1912.01594](https://arxiv.org/abs/1912.01594) [hep-ex]
- A.M. Sirunyan et al., **A search for the standard model Higgs boson decaying to charm quarks**, *JHEP*. 03 (2020) 131, doi:[10.1007/JHEP03\(2020\)131](https://doi.org/10.1007/JHEP03(2020)131), arXiv:[1912.01662](https://arxiv.org/abs/1912.01662) [hep-ex]
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