

# Publication List from all Collaborations and Experiments

Oliver Gutsche

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- A.M. Sirunyan et al., **Search for the lepton flavor violating decay  $\tau \rightarrow 3 \mu$  in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 01 (2021) 163, doi:[10.1007/JHEP01\(2021\)163](https://doi.org/10.1007/JHEP01(2021)163), arXiv:[2007.05658](https://arxiv.org/abs/2007.05658) [hep-ex]
- A.M. Sirunyan et al., **Search for top squarks in final states with two top quarks and several light-flavor jets in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, (2021). <http://arxiv.org/abs/2102.06976>, arXiv:[2102.06976](https://arxiv.org/abs/2102.06976) [hep-ex]
- V. Khachatryan et al., **The very forward CASTOR calorimeter of the CMS experiment**, *JINST*. 16 (2021) P02010, doi:[10.1088/1748-0221/16/02/P02010](https://doi.org/10.1088/1748-0221/16/02/P02010), arXiv:[2011.01185](https://arxiv.org/abs/2011.01185) [physics.ins-det]
- A.M. Sirunyan et al., **Correlations of azimuthal anisotropy Fourier harmonics with subevent cumulants in  $pPb$  collisions at  $\sqrt{s_{NN}} = 8.16$  TeV**, *Phys. Rev. C* 103 (2021) 014902, doi:[10.1103/PhysRevC.103.014902](https://doi.org/10.1103/PhysRevC.103.014902), arXiv:[1905.09935](https://arxiv.org/abs/1905.09935) [hep-ex]
- A.M. Sirunyan et al., **Evidence for electroweak production of four charged leptons and two jets in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Phys. Lett. B* 812 (2021) 135992, doi:[10.1016/j.physletb.2020.135992](https://doi.org/10.1016/j.physletb.2020.135992), arXiv:[2008.07013](https://arxiv.org/abs/2008.07013) [hep-ex]
- A.M. Sirunyan et al., **Measurement of differential cross sections for Z bosons produced in association with charm jets in pp collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 04 (2021) 109, doi:[10.1007/JHEP04\(2021\)109](https://doi.org/10.1007/JHEP04(2021)109), arXiv:[2012.04119](https://arxiv.org/abs/2012.04119) [hep-ex]
- A.M. Sirunyan et al., **Measurement of prompt  $D^0$  and  $\bar{D}^0$  meson azimuthal anisotropy and search for strong electric fields in PbPb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV**, *Phys. Lett. B* 816 (2021) 136253, doi:[10.1016/j.physletb.2021.136253](https://doi.org/10.1016/j.physletb.2021.136253), arXiv:[2009.12628](https://arxiv.org/abs/2009.12628) [hep-ex]
- A.M. Sirunyan et al., **Search for supersymmetry in final states with two oppositely charged same-flavor leptons and missing transverse momentum in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 04 (2021) 123, doi:[10.1007/JHEP04\(2021\)123](https://doi.org/10.1007/JHEP04(2021)123), arXiv:[2012.08600](https://arxiv.org/abs/2012.08600) [hep-ex]
- A.M. Sirunyan et al., **Search for dark matter produced in association with a leptonically decaying Z boson in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Eur. Phys. J. C* 81 (2021) 13, doi:[10.1140/epjc/s10052-020-08739-5](https://doi.org/10.1140/epjc/s10052-020-08739-5), arXiv:[2008.04735](https://arxiv.org/abs/2008.04735) [hep-ex]
- A.M. Sirunyan et al., **Measurements of production cross sections of polarized same-sign W boson pairs in association with two jets in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Phys. Lett. B* 812 (2021) 136018, doi:[10.1016/j.physletb.2020.136018](https://doi.org/10.1016/j.physletb.2020.136018), arXiv:[2009.09429](https://arxiv.org/abs/2009.09429) [hep-ex]
- A.M. Sirunyan et al., **Angular analysis of the decay  $B^+ \rightarrow K^*(892)^+ \mu^+ \mu^-$  in proton-proton collisions at  $\sqrt{s} = 8$  TeV**, *JHEP*. 04 (2021) 124, doi:[10.1007/JHEP04\(2021\)124](https://doi.org/10.1007/JHEP04(2021)124), arXiv:[2010.13968](https://arxiv.org/abs/2010.13968) [hep-ex]
- A.M. Sirunyan et al., **Studies of charm and beauty hadron long-range correlations in pp and pPb collisions at LHC energies**, *Phys. Lett. B* 813 (2021) 136036, doi:[10.1016/j.physletb.2020.136036](https://doi.org/10.1016/j.physletb.2020.136036), arXiv:[2009.07065](https://arxiv.org/abs/2009.07065) [hep-ex]
- A.M. Sirunyan et al., **Development and validation of HERWIG 7 tunes from CMS underlying-event measurements**, *Eur. Phys. J. C* 81 (2021) 312, doi:[10.1140/epjc/s10052-021-08949-5](https://doi.org/10.1140/epjc/s10052-021-08949-5), arXiv:[2011.03422](https://arxiv.org/abs/2011.03422) [hep-ex]
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- A.M. Sirunyan et al., **Search for new physics in top quark production with additional leptons in proton-proton collisions at  $\sqrt{s} = 13$  TeV using effective field theory**, *JHEP*. 03 (2021) 095, doi:[10.1007/JHEP03\(2021\)095](https://doi.org/10.1007/JHEP03(2021)095), arXiv:[2012.04120](https://arxiv.org/abs/2012.04120) [hep-ex]
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- A.M. Sirunyan et al., **Search for top squark pair production using dilepton final states in  $pp$  collision data collected at  $\sqrt{s} = 13\text{TeV}$** , *Eur. Phys. J. C*81 (2021) 3, doi:[10.1140/epjc/s10052-020-08701-5](https://doi.org/10.1140/epjc/s10052-020-08701-5), arXiv:[2008.05936](https://arxiv.org/abs/2008.05936) [hep-ex]
- A.M. Sirunyan et al., **Measurement of the inclusive and differential Higgs boson production cross sections in the leptonic WW decay mode at  $\sqrt{s} = 13\text{ TeV}$** , *JHEP.* 03 (2021) 003, doi:[10.1007/JHEP03\(2021\)003](https://doi.org/10.1007/JHEP03(2021)003), arXiv:[2007.01984](https://arxiv.org/abs/2007.01984) [hep-ex]
- A.M. Sirunyan et al., **Measurement of the  $CP$ -violating phase  $\phi_s$  in the  $B_s^0 \rightarrow J/\psi \phi(1020) \rightarrow \mu^+ \mu^- K^+ K^-$  channel in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$** , *Phys. Lett. B*816 (2021) 136188, doi:[10.1016/j.physletb.2021.136188](https://doi.org/10.1016/j.physletb.2021.136188), arXiv:[2007.02434](https://arxiv.org/abs/2007.02434) [hep-ex]
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- A.M. Sirunyan et al., **Search for nonresonant Higgs boson pair production in final states with two bottom quarks and two photons in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$** , *JHEP.* 03 (2021) 257, doi:[10.1007/JHEP03\(2021\)257](https://doi.org/10.1007/JHEP03(2021)257), arXiv:[2011.12373](https://arxiv.org/abs/2011.12373) [hep-ex]
- A.M. Sirunyan et al., **Search for dark photons in Higgs boson production via vector boson fusion in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$** , *JHEP.* 03 (2021) 011, doi:[10.1007/JHEP03\(2021\)011](https://doi.org/10.1007/JHEP03(2021)011), arXiv:[2009.14009](https://arxiv.org/abs/2009.14009) [hep-ex]
- A.M. Sirunyan et al., **Measurements of the differential cross sections of the production of  $Z$ +jets and  $\gamma$ +jets and of  $Z$  boson emission collinear with a jet in  $pp$  collisions at  $\sqrt{s} = 13\text{ TeV}$** , (2021). <http://arxiv.org/abs/2102.02238>, arXiv:[2102.02238](https://arxiv.org/abs/2102.02238) [hep-ex]
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- A.M. Sirunyan et al., **Constraints on anomalous Higgs boson couplings to vector bosons and fermions in its production and decay using the four-lepton final state**, (2021). <http://arxiv.org/abs/2104.12152>, arXiv:[2104.12152](https://arxiv.org/abs/2104.12152) [hep-ex]
- A.M. Sirunyan et al., **Using  $Z$  boson events to study parton-medium interactions in PbPb collisions**, (2021). <http://arxiv.org/abs/2103.04377>, arXiv:[2103.04377](https://arxiv.org/abs/2103.04377) [hep-ex]
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- A.M. Sirunyan et al., **High precision measurements of Z boson production in PbPb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV**, (2021). <http://arxiv.org/abs/2103.14089>, arXiv:2103.14089 [hep-ex]
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