

# Publication List from all Collaborations and Experiments

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- 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](https://doi.org/10.1140/epjc/s10052-020-7739-7), arXiv:[1907.13179](https://arxiv.org/abs/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](https://doi.org/10.1007/JHEP03(2020)056), arXiv:[1907.11270](https://arxiv.org/abs/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](https://doi.org/10.1016/j.physletb.2019.135042), arXiv:[1812.10514](https://arxiv.org/abs/1812.10514) [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](https://doi.org/10.1007/JHEP01(2020)096), arXiv:[1908.09206](https://arxiv.org/abs/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](https://doi.org/10.1007/JHEP03(2020)051), arXiv:[1911.04968](https://arxiv.org/abs/1911.04968) [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](https://doi.org/10.1140/epjc/s10052-019-7499-4), arXiv:[1903.12179](https://arxiv.org/abs/1903.12179) [hep-ex]
- 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](https://doi.org/10.1016/j.physletb.2019.135048), arXiv:[1905.01486](https://arxiv.org/abs/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](https://doi.org/10.1016/j.physletb.2020.135203), arXiv:[1911.03789](https://arxiv.org/abs/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](https://doi.org/10.1140/epjc/s10052-019-7585-7), arXiv:[1903.04040](https://arxiv.org/abs/1903.04040) [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](https://doi.org/10.1016/j.physletb.2020.135328), arXiv:[1906.03322](https://arxiv.org/abs/1906.03322) [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]
- A.M. Sirunyan et al., **Measurement of the top quark pair production cross section in dilepton final states containing one  $\tau$  lepton in pp collisions at  $\sqrt{s} = 13$  TeV**, *JHEP*. 02 (2020) 191, doi:[10.1007/JHEP02\(2020\)191](https://doi.org/10.1007/JHEP02(2020)191), arXiv:[1911.13204](https://arxiv.org/abs/1911.13204) [hep-ex]
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- A.M. Sirunyan et al., **Running of the top quark mass from proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Phys. Lett. B* 803 (2020) 135263, doi:[10.1016/j.physletb.2020.135263](https://doi.org/10.1016/j.physletb.2020.135263), arXiv:[1909.09193](https://arxiv.org/abs/1909.09193) [hep-ex]
- 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]

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- 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]
- A.M. Sirunyan et al., **Combined search for supersymmetry with photons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Phys. Lett. B* 801 (2020) 135183, doi:[10.1016/j.physletb.2019.135183](https://doi.org/10.1016/j.physletb.2019.135183), arXiv:[1907.00857](https://arxiv.org/abs/1907.00857) [hep-ex]
- A.M. Sirunyan et al., **Search for lepton flavour violating decays of a neutral heavy Higgs boson to  $\mu\tau$  and  $e\tau$  in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP.* 03 (2020) 103, doi:[10.1007/JHEP03\(2020\)103](https://doi.org/10.1007/JHEP03(2020)103), arXiv:[1911.10267](https://arxiv.org/abs/1911.10267) [hep-ex]
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- A.M. Sirunyan et al., **Search for new neutral Higgs bosons through the  $H \rightarrow ZA \rightarrow \ell^+ \ell^- b\bar{b}$  process in pp collisions at  $\sqrt{s} = 13$  TeV**, *JHEP.* 03 (2020) 055, doi:[10.1007/JHEP03\(2020\)055](https://doi.org/10.1007/JHEP03(2020)055), arXiv:[1911.03781](https://arxiv.org/abs/1911.03781) [hep-ex]
- A.M. Sirunyan et al., **Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *Eur. Phys. J. C* 80 (2020) 75, doi:[10.1140/epjc/s10052-019-7593-7](https://doi.org/10.1140/epjc/s10052-019-7593-7), arXiv:[1908.06463](https://arxiv.org/abs/1908.06463) [hep-ex]
- A.M. Sirunyan et al., **Search for electroweak production of a vector-like T quark using fully hadronic final states**, *JHEP.* 01 (2020) 036, doi:[10.1007/JHEP01\(2020\)036](https://doi.org/10.1007/JHEP01(2020)036), arXiv:[1909.04721](https://arxiv.org/abs/1909.04721) [hep-ex]
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- A.M. Sirunyan et al., **Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, *JHEP.* 03 (2020) 025, doi:[10.1007/JHEP03\(2020\)025](https://doi.org/10.1007/JHEP03(2020)025), arXiv:[1908.01713](https://arxiv.org/abs/1908.01713) [hep-ex]
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