

Publication List from all Collaborations and Experiments

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- A. Tumasyan et al., **Measurement of the production cross section for a W boson in association with a charm quark in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2308.02285>, arXiv:2308.02285 [hep-ex]
- A. Hayrapetyan et al., **Search for scalar leptoquarks produced in lepton-quark collisions and coupled to τ leptons**, (2023). <http://arxiv.org/abs/2308.06143>, arXiv:2308.06143 [hep-ex]
- A. Hayrapetyan et al., **Measurement of the Higgs boson production via vector boson fusion and its decay into bottom quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2308.01253>, arXiv:2308.01253 [hep-ex]
- A. Tumasyan et al., **Study of charm hadronization with prompt Λ_c^+ baryons in proton-proton and lead-lead collisions at $\sqrt{s_{NN}} = 5.02$ TeV**, (2023). <http://arxiv.org/abs/2307.11186>, arXiv:2307.11186 [nucl-ex]
- A. Tumasyan et al., **Multiplicity and transverse momentum dependence of charge-balance functions in pPb and PbPb collisions at LHC energies**, (2023). <http://arxiv.org/abs/2307.11185>, arXiv:2307.11185 [nucl-ex]
- A. Tumasyan et al., **Performance of the local reconstruction algorithms for the CMS hadron calorimeter with Run 2 data**, (2023). <http://arxiv.org/abs/2306.10355>, arXiv:2306.10355 [hep-ex]
- A. Tumasyan et al., **Two-particle Bose-Einstein correlations and their Lévy parameters in PbPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV**, (2023). <http://arxiv.org/abs/2306.11574>, arXiv:2306.11574 [nucl-ex]
- A. Hayrapetyan et al., **Observation of four top quark production in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2305.13439>, arXiv:2305.13439 [hep-ex]
- A. Tumasyan et al., **Measurements of the azimuthal anisotropy of prompt and nonprompt charmonia in PbPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV**, (2023). <http://arxiv.org/abs/2305.16928>, arXiv:2305.16928 [hep-ex]
- A. Hayrapetyan et al., **Search for the lepton-flavor violating decay of the Higgs boson and additional Higgs bosons in the $e\mu$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2305.18106>, arXiv:2305.18106 [hep-ex]
- A. Tumasyan et al., **Search for resonances in events with photon and jet final states in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2305.07998>, arXiv:2305.07998 [hep-ex]
- A. Tumasyan et al., **First measurement of the top quark pair production cross section in proton-proton collisions at $\sqrt{s} = 13.6$ TeV**, (2023). <http://arxiv.org/abs/2303.10680>, arXiv:2303.10680 [hep-ex]
- V. Khachatryan et al., **Exclusive and semi-exclusive $\pi^+\pi^-$ production in proton-proton collisions at $\sqrt{s} = 7$ TeV**, (2017). <http://arxiv.org/abs/1706.08310>, arXiv:1706.08310 [hep-ex]
- G.L. Bayatian et al., **CMS expression of interest in the SLHC**, (2007)
- G. Aad et al., **Combination of inclusive top-quark pair production cross-section measurements using ATLAS and CMS data at $\sqrt{s} = 7$ and 8 TeV**, *JHEP.* 07 (2023) 213, doi:10.1007/JHEP07(2023)213, arXiv:2205.13830 [hep-ex]
- A. Tumasyan et al., **Observation of triple J/ψ meson production in proton-proton collisions**, *Nature Phys.* 19 (2023) 338–350, doi:10.1038/s41567-022-01838-y, arXiv:2111.05370 [hep-ex]
- A. Tumasyan et al., **Search for Higgs boson decays to a Z boson and a photon in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP.* 05 (2023) 233, doi:10.1007/JHEP05(2023)233, arXiv:2204.12945 [hep-ex]
- A. Tumasyan et al., **CMS pythia 8 colour reconnection tunes based on underlying-event data**, *Eur. Phys. J. C.* 83 (2023) 587, doi:10.1140/epjc/s10052-023-11630-8, arXiv:2205.02905 [hep-ex]

- A. Tumasyan et al., **Strange hadron collectivity in pPb and PbPb collisions**, *JHEP.* 05 (2023) 007, doi:[10.1007/JHEP05\(2023\)007](https://doi.org/10.1007/JHEP05(2023)007), arXiv:[2205.00080](https://arxiv.org/abs/2205.00080) [nucl-ex]
- A. Tumasyan et al., **Search for medium effects using jets from bottom quarks in PbPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV**, *Phys. Lett. B.* 844 (2023) 137849, doi:[10.1016/j.physletb.2023.137849](https://doi.org/10.1016/j.physletb.2023.137849), arXiv:[2210.08547](https://arxiv.org/abs/2210.08547) [hep-ex]
- A. Tumasyan et al., **Search for a heavy composite Majorana neutrino in events with dilepton signatures from proton-proton collisions at $\sqrt{s} = 13$ TeV**, *Phys. Lett. B.* 843 (2023) 137803, doi:[10.1016/j.physletb.2023.137803](https://doi.org/10.1016/j.physletb.2023.137803), arXiv:[2210.03082](https://arxiv.org/abs/2210.03082) [hep-ex]
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- A. Tumasyan et al., **Search for high-mass exclusive $\gamma\gamma \rightarrow WW$ and $\gamma\gamma \rightarrow ZZ$ production in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP.* 07 (2023) 229, doi:[10.1007/JHEP07\(2023\)229](https://doi.org/10.1007/JHEP07(2023)229), arXiv:[2211.16320](https://arxiv.org/abs/2211.16320) [hep-ex]
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- A. Tumasyan et al., **Measurements of jet multiplicity and jet transverse momentum in multijet events in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *Eur. Phys. J. C.* 83 (2023) 742, doi:[10.1140/epjc/s10052-023-11753-y](https://doi.org/10.1140/epjc/s10052-023-11753-y), arXiv:[2210.13557](https://arxiv.org/abs/2210.13557) [hep-ex]
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- A. Tumasyan et al., **Search for pair production of vector-like quarks in leptonic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP.* 07 (2023) 020, doi:[10.1007/JHEP07\(2023\)020](https://doi.org/10.1007/JHEP07(2023)020), arXiv:[2209.07327](https://arxiv.org/abs/2209.07327) [hep-ex]
- A. Tumasyan et al., **Search for heavy resonances and quantum black holes in $e\mu$, $e\tau$, and $\mu\tau$ final states in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP.* 05 (2023) 227, doi:[10.1007/JHEP05\(2023\)227](https://doi.org/10.1007/JHEP05(2023)227), arXiv:[2205.06709](https://arxiv.org/abs/2205.06709) [hep-ex]
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- A. Tumasyan et al., **Searches for additional Higgs bosons and for vector leptoquarks in $\tau\tau$ final states in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP.* 07 (2023) 073, doi:[10.1007/JHEP07\(2023\)073](https://doi.org/10.1007/JHEP07(2023)073), arXiv:[2208.02717](https://arxiv.org/abs/2208.02717) [hep-ex]
- A. Tumasyan et al., **Search for new physics using effective field theory in 13 TeV pp collision events that contain a top quark pair and a boosted Z or Higgs boson**, *Phys. Rev. D.* 108 (2023) 032008, doi:[10.1103/PhysRevD.108.032008](https://doi.org/10.1103/PhysRevD.108.032008), arXiv:[2208.12837](https://arxiv.org/abs/2208.12837) [hep-ex]
- A. Tumasyan et al., **Probing Heavy Majorana Neutrinos and the Weinberg Operator through Vector Boson Fusion Processes in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV**, *Phys. Rev. Lett.* 131 (2023) 011803, doi:[10.1103/PhysRevLett.131.011803](https://doi.org/10.1103/PhysRevLett.131.011803), arXiv:[2206.08956](https://arxiv.org/abs/2206.08956) [hep-ex]
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- A. Tumasyan et al., **Search for new heavy resonances decaying to WW, WZ, ZZ, WH, or ZH boson pairs in the all-jets final state in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *Phys. Lett. B.* 844 (2023) 137813, doi:[10.1016/j.physletb.2023.137813](https://doi.org/10.1016/j.physletb.2023.137813), arXiv:[2210.00043](https://arxiv.org/abs/2210.00043) [hep-ex]
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