

Publication List from all Collaborations and Experiments

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- A. Tumasyan et al., **Higher-order moments of the elliptic flow distribution in PbPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV**, (2023). <http://arxiv.org/abs/2311.11370>, arXiv:2311.11370 [nucl-ex]
- A. Tumasyan et al., **Search for high-mass exclusive diphoton production with tagged protons in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2311.02725>, arXiv:2311.02725 [hep-ex]
- A. Hayrapetyan et al., **Search for new Higgs bosons via same-sign top quark pair production in association with a jet in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2311.03261>, arXiv:2311.03261 [hep-ex]
- A. Tumasyan et al., **Search for a new resonance decaying into two spin-0 bosons in a final state with two photons and two bottom quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2310.01643>, arXiv:2310.01643 [hep-ex]
- A. Hayrapetyan et al., **Search for dark matter particles in W^+W^- events with transverse momentum imbalance in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2310.12229>, arXiv:2310.12229 [hep-ex]
- A. Tumasyan et al., **Study of azimuthal anisotropy of $\Upsilon(1S)$ mesons in pPb collisions at $\sqrt{s_{NN}} = 8.16$ TeV**, (2023). <http://arxiv.org/abs/2310.03233>, arXiv:2310.03233 [hep-ex]
- A. Hayrapetyan et al., **Search for an exotic decay of the Higgs boson into a Z boson and a pseudoscalar particle in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2311.00130>, arXiv:2311.00130 [hep-ex]
- A. Hayrapetyan et al., **Search for W' bosons decaying to a top and a bottom quark in leptonic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2310.19893>, arXiv:2310.19893 [hep-ex]
- A. Hayrapetyan et al., **Search for narrow trijet resonances in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2310.14023>, arXiv:2310.14023 [hep-ex]
- A. Hayrapetyan et al., **Search for stealth supersymmetry in final states with two photons, jets, and low missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2310.03154>, arXiv:2310.03154 [hep-ex]
- A. Hayrapetyan et al., **Development of the CMS detector for the CERN LHC Run 3**, (2023). <http://arxiv.org/abs/2309.05466>, arXiv:2309.05466 [physics.ins-det]
- A. Hayrapetyan et al., **Search for direct production of GeV-scale resonances decaying to a pair of muons in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2309.16003>, arXiv:2309.16003 [hep-ex]
- A. Hayrapetyan et al., **Measurement of the τ lepton polarization in Z boson decays in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2309.12408>, arXiv:2309.12408 [hep-ex]
- A. Hayrapetyan et al., **Luminosity determination using Z boson production at the CMS experiment**, (2023). <http://arxiv.org/abs/2309.01008>, arXiv:2309.01008 [hep-ex]
- A. Hayrapetyan et al., **Inclusive and differential cross section measurements of $t\bar{t}b\bar{b}$ production in the lepton+jets channel at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2309.14442>, arXiv:2309.14442 [hep-ex]
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- 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., **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]
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- 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]
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- 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, arXiv:2205.00080 [nucl-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, arXiv:2211.16320 [hep-ex]
- A. Tumasyan et al., **Two-particle azimuthal correlations in γp interactions using pPb collisions at $\sqrt{s_{NN}}=8.16$ TeV**, *Phys. Lett. B.* 844 (2023) 137905, doi:10.1016/j.physletb.2023.137905, arXiv:2204.13486 [nucl-ex]
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- A. Tumasyan et al., **Search for Higgs boson decays into Z and J/ ψ and for Higgs and Z boson decays into J/ ψ or Y pairs in pp collisions at s=13 TeV**, *Phys. Lett. B*. 842 (2023) 137534, doi:[10.1016/j.physletb.2022.137534](https://doi.org/10.1016/j.physletb.2022.137534), arXiv:[2206.03525](https://arxiv.org/abs/2206.03525) [hep-ex]
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- A. Tumasyan et al., **Probing Heavy Majorana Neutrinos and the Weinberg Operator through Vector Boson Fusion Processes in Proton-Proton Collisions at 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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