

Publication List from all Collaborations and Experiments

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- A. Hayrapetyan et al., **Search for long-lived heavy neutral leptons decaying in the CMS muon detectors in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2402.18658>, arXiv:2402.18658 [hep-ex]
- A. Hayrapetyan et al., **Search for pair production of scalar and vector leptoquarks decaying to muons and bottom quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2402.08668>, arXiv:2402.08668 [hep-ex]
- A. Hayrapetyan et al., **Search for long-lived particles decaying in the CMS muon detectors in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2402.01898>, arXiv:2402.01898 [hep-ex]
- A. Hayrapetyan et al., **Search for baryon number violation in top quark production and decay using proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2402.18461>, arXiv:2402.18461 [hep-ex]
- A. Hayrapetyan et al., **Search for fractionally charged particles in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2402.09932>, arXiv:2402.09932 [hep-ex]
- A. Hayrapetyan et al., **Measurement of energy correlators inside jets and determination of the strong coupling $\alpha_S(m_Z)$** , (2024). <http://arxiv.org/abs/2402.13864>, arXiv:2402.13864 [hep-ex]
- A. Hayrapetyan et al., **Observation of the $\Xi_b^- \rightarrow \psi(2S) \Xi^-$ decay and studies of the Ξ_b^{*0} baryon in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2402.17738>, arXiv:2402.17738 [hep-ex]
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- A. Hayrapetyan et al., **Portable acceleration of CMS computing workflows with coprocessors as a service**, (2024). <http://arxiv.org/abs/2402.15366>, arXiv:2402.15366 [physics.ins-det]
- A. Tumasyan et al., **Search for a scalar or pseudoscalar dilepton resonance produced in association with a massive vector boson or top quark-antiquark pair in multilepton events at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2402.11098>, arXiv:2402.11098 [hep-ex]
- A. Hayrapetyan et al., **Search for exotic decays of the Higgs boson to a pair of pseudoscalars in the $\mu\mu b\bar{b}$ and $\tau\tau b\bar{b}$ final states**, (2024). <http://arxiv.org/abs/2402.13358>, arXiv:2402.13358 [hep-ex]
- A. Hayrapetyan et al., **A search for bottom-type vector-like quark pair production in dileptonic and fully hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2402.13808>, arXiv:2402.13808 [hep-ex]
- A. Hayrapetyan et al., **Measurement of the double-differential inclusive jet cross section in proton-proton collisions at $\sqrt{s} = 5.02$ TeV**, (2024). <http://arxiv.org/abs/2401.11355>, arXiv:2401.11355 [hep-ex]
- A. Hayrapetyan et al., **Extracting the speed of sound in the strongly interacting matter created in ultrarelativistic lead-lead collisions at the LHC**, (2024). <http://arxiv.org/abs/2401.06896>, arXiv:2401.06896 [nucl-ex]
- A. Hayrapetyan et al., **Test of lepton flavor universality in $B^{\pm} \rightarrow K^{\pm} \mu^+ \mu^-$ and $B^{\pm} \rightarrow K^{\pm} e^+ e^-$ decays in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2401.07090>, arXiv:2401.07090 [hep-ex]
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- A. Hayrapetyan et al., **Measurement of multidifferential cross sections for dijet production in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2312.16669>, arXiv:2312.16669 [hep-ex]
- A. Hayrapetyan et al., **Observation of enhanced long-range elliptic anisotropies inside high-multiplicity jets in pp collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2312.17103>, arXiv:2312.17103 [hep-ex]
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- 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]
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- 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., **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 via τ -LeptonQuark Scattering in pp Collisions at $\sqrt{s}=13$ TeV**, *Phys. Rev. Lett.* 132 (2024) 061801, doi:[10.1103/PhysRevLett.132.061801](https://doi.org/10.1103/PhysRevLett.132.061801), arXiv:[2308.06143](https://arxiv.org/abs/2308.06143) [hep-ex]
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- 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**, *JHEP.* 01 (2024) 128, doi:[10.1007/JHEP01\(2024\)128](https://doi.org/10.1007/JHEP01(2024)128), arXiv:[2307.11186](https://arxiv.org/abs/2307.11186) [nucl-ex]
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