

Publication List from all Collaborations and Experiments

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- A. Hayrapetyan et al., **Constraints on anomalous Higgs boson couplings from its production and decay using the WW channel in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.00657>, arXiv:2403.00657 [hep-ex]
- A. Hayrapetyan et al., **Search for new physics with emerging jets in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.01556>, arXiv:2403.01556 [hep-ex]
- A. Hayrapetyan et al., **Review of top quark mass measurements in CMS**, (2024). <http://arxiv.org/abs/2403.01313>, arXiv:2403.01313 [hep-ex]
- A. Hayrapetyan et al., **Search for long-lived heavy neutrinos in the decays of B mesons produced in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.04584>, arXiv:2403.04584 [hep-ex]
- A. Hayrapetyan et al., **Measurement of the production cross section of a Higgs boson with large transverse momentum in its decays to a pair of τ leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.20201>, arXiv:2403.20201 [hep-ex]
- A. Hayrapetyan et al., **Search for soft unclustered energy patterns in proton-proton collisions at 13 TeV**, (2024). <http://arxiv.org/abs/2403.05311>, arXiv:2403.05311 [hep-ex]
- A. Hayrapetyan et al., **Searches for Higgs boson production through decays of heavy resonances**, (2024). <http://arxiv.org/abs/2403.16926>, arXiv:2403.16926 [hep-ex]
- A. Hayrapetyan et al., **Performance of the CMS electromagnetic calorimeter in pp collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.15518>, arXiv:2403.15518 [physics.ins-det]
- A. Hayrapetyan et al., **Search for Higgs boson pair production in the $b\bar{b}W\bar{W}$ decay mode in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.09430>, arXiv:2403.09430 [hep-ex]
- A. Hayrapetyan et al., **Search for ZZ and ZH production in the $b\bar{b}b\bar{b}$ final state using proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.20241>, arXiv:2403.20241 [hep-ex]
- A. Hayrapetyan et al., **Observation of the $J/\psi \rightarrow \mu^+\mu^-\mu^+\mu^-$ decay in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.11352>, arXiv:2403.11352 [hep-ex]
- A. Hayrapetyan et al., **Search for the decay of the Higgs boson to a pair of light pseudoscalar bosons in the final state with four bottom quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.10341>, arXiv:2403.10341 [hep-ex]
- A. Hayrapetyan et al., **Enriching the physics program of the CMS experiment via data scouting and data parking**, (2024). <http://arxiv.org/abs/2403.16134>, arXiv:2403.16134 [hep-ex]
- 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]
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- 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]

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- A. Hayrapetyan et al., **Combined search for electroweak production of winos, binos, higgsinos, and sleptons in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2402.01888>, arXiv:2402.01888 [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., **Search for long-lived particles decaying to final states with a pair of muons in proton-proton collisions at $\sqrt{s} = 13.6$ TeV**, (2024). <http://arxiv.org/abs/2402.14491>, arXiv:2402.14491 [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]
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- 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., **Search for heavy neutral leptons in final states with electrons, muons, and hadronically decaying tau leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2403.00100>, arXiv:2403.00100 [hep-ex]
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- A. Hayrapetyan et al., **Nonresonant central exclusive production of charged-hadron pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2024). <http://arxiv.org/abs/2401.14494>, arXiv:2401.14494 [hep-ex]
- A. Hayrapetyan et al., **Search for flavor changing neutral current interactions of the top quark in final states with a photon and additional jets in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2312.08229>, arXiv:2312.08229 [hep-ex]
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- 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., **Measurement of the primary Lund jet plane density in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2023). <http://arxiv.org/abs/2312.16343>, arXiv:2312.16343 [hep-ex]
- A. Hayrapetyan et al., **Elliptic anisotropy measurement of the $f_0(980)$ hadron in proton-lead collisions and evidence for its quark-antiquark composition**, (2023). <http://arxiv.org/abs/2312.17092>, arXiv:2312.17092 [nucl-ex]
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