

Publication List from all Collaborations and Experiments

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- A. Tumasyan et al., **Search for new physics in the τ lepton plus missing transverse momentum final state in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2022). <http://arxiv.org/abs/2212.12604>, arXiv:2212.12604 [hep-ex]
- A. Tumasyan et al., **Observation of triple J/ψ meson production in proton-proton collisions at $\sqrt{s} = 13$ TeV**, (2021). <http://arxiv.org/abs/2111.05370>, arXiv:2111.05370 [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)
- A. Tumasyan et al., **Search for electroweak production of charginos and neutralinos in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP.* 04 (2022) 147, doi:[10.1007/JHEP04\(2022\)147](https://doi.org/10.1007/JHEP04(2022)147), arXiv:2106.14246 [hep-ex]
- A. Tumasyan et al., **Measurement of $W^{\pm}\gamma$ differential cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV and effective field theory constraints**, *Phys. Rev. D.* 105 (2022) 052003, doi:[10.1103/PhysRevD.105.052003](https://doi.org/10.1103/PhysRevD.105.052003), arXiv:2111.13948 [hep-ex]
- A. Tumasyan et al., **Search for a right-handed W boson and a heavy neutrino in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP.* 04 (2022) 047, doi:[10.1007/JHEP04\(2022\)047](https://doi.org/10.1007/JHEP04(2022)047), arXiv:2112.03949 [hep-ex]
- A. Tumasyan et al., **Search for resonant production of strongly coupled dark matter in proton-proton collisions at 13 TeV**, *JHEP.* 06 (2022) 156, doi:[10.1007/JHEP06\(2022\)156](https://doi.org/10.1007/JHEP06(2022)156), arXiv:2112.11125 [hep-ex]
- A. Tumasyan et al., **Search for supersymmetry in final states with two or three soft leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP.* 04 (2022) 091, doi:[10.1007/JHEP04\(2022\)091](https://doi.org/10.1007/JHEP04(2022)091), arXiv:2111.06296 [hep-ex]
- A. Tumasyan et al., **Search for flavor-changing neutral current interactions of the top quark and the Higgs boson decaying to a bottom quark-antiquark pair at $\sqrt{s} = 13$ TeV**, *JHEP.* 02 (2022) 169, doi:[10.1007/JHEP02\(2022\)169](https://doi.org/10.1007/JHEP02(2022)169), arXiv:2112.09734 [hep-ex]
- A. Tumasyan et al., **Measurement of the inclusive $t\bar{t}$ production cross section in proton-proton collisions at $\sqrt{s} = 5.02$ TeV**, *JHEP.* 04 (2022) 144, doi:[10.1007/JHEP04\(2022\)144](https://doi.org/10.1007/JHEP04(2022)144), arXiv:2112.09114 [hep-ex]
- A. Tumasyan et al., **Measurement of the inclusive and differential Higgs boson production cross sections in the decay mode to a pair of τ leptons in pp collisions at $\sqrt{s} = 13$ TeV**, *Phys. Rev. Lett.* 128 (2022) 081805, doi:[10.1103/PhysRevLett.128.081805](https://doi.org/10.1103/PhysRevLett.128.081805), arXiv:2107.11486 [hep-ex]
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- A. Tumasyan et al., **Measurement of the inclusive and differential WZ production cross sections, polarization angles, and triple gauge couplings in pp collisions at $\sqrt{s} = 13$ TeV**, *JHEP.* 07 (2022) 032, doi:[10.1007/JHEP07\(2022\)032](https://doi.org/10.1007/JHEP07(2022)032), arXiv:2110.11231 [hep-ex]
- A. Tumasyan et al., **Strategies and performance of the CMS silicon tracker alignment during LHC Run 2**, *Nucl. Instrum. Meth. A.* 1037 (2022) 166795, doi:[10.1016/j.nima.2022.166795](https://doi.org/10.1016/j.nima.2022.166795), arXiv:2111.08757 [physics.ins-det]
- A. Tumasyan et al., **Search for heavy resonances decaying to $Z(\nu\bar{\nu})V(q\bar{q}')$ in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *Phys. Rev. D.* 106 (2022) 012004, doi:[10.1103/PhysRevD.106.012004](https://doi.org/10.1103/PhysRevD.106.012004), arXiv:2109.08268 [hep-ex]

- A. Tumasyan et al., **Study of quark and gluon jet substructure in Z+jet and dijet events from pp collisions**, *JHEP*. 01 (2022) 188, doi:[10.1007/JHEP01\(2022\)188](https://doi.org/10.1007/JHEP01(2022)188), arXiv:[2109.03340](https://arxiv.org/abs/2109.03340) [hep-ex]
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- A. Tumasyan et al., **Search for heavy resonances decaying to WW, WZ, or WH boson pairs in the lepton plus merged jet final state in proton-proton collisions at $\sqrt{s} = 13\text{ TeV}$** , *Phys. Rev. D*. 105 (2022) 032008, doi:[10.1103/PhysRevD.105.032008](https://doi.org/10.1103/PhysRevD.105.032008), arXiv:[2109.06055](https://arxiv.org/abs/2109.06055) [hep-ex]
- A. Tumasyan et al., **Measurement of double-parton scattering in inclusive production of four jets with low transverse momentum in proton-proton collisions at $\sqrt{s} = 13\text{ TeV}$** , *JHEP*. 01 (2022) 177, doi:[10.1007/JHEP01\(2022\)177](https://doi.org/10.1007/JHEP01(2022)177), arXiv:[2109.13822](https://arxiv.org/abs/2109.13822) [hep-ex]
- A. Tumasyan et al., **Study of dijet events with large rapidity separation in proton-proton collisions at $\sqrt{s} = 2.76\text{ TeV}$** , *JHEP*. 03 (2022) 189, doi:[10.1007/JHEP03\(2022\)189](https://doi.org/10.1007/JHEP03(2022)189), arXiv:[2111.04605](https://arxiv.org/abs/2111.04605) [hep-ex]
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- A.M. Sirunyan et al., **Using Z Boson Events to Study Parton-Medium Interactions in Pb-Pb Collisions**, *Phys. Rev. Lett.* 128 (2022) 122301, doi:[10.1103/PhysRevLett.128.122301](https://doi.org/10.1103/PhysRevLett.128.122301), arXiv:[2103.04377](https://arxiv.org/abs/2103.04377) [hep-ex]
- A. Tumasyan et al., **Measurements of the associated production of a W boson and a charm quark in protonproton collisions at $\sqrt{s} = 8\text{TeV}$** , *Eur. Phys. J. C*. 82 (2022) 1094, doi:[10.1140/epjc/s10052-022-10897-7](https://doi.org/10.1140/epjc/s10052-022-10897-7), arXiv:[2112.00895](https://arxiv.org/abs/2112.00895) [hep-ex]
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- A. Tumasyan et al., **Search for low-mass dilepton resonances in Higgs boson decays to four-lepton final states in protonproton collisions at $\sqrt{s} = 13\text{TeV}$** , *Eur. Phys. J. C*. 82 (2022) 290, doi:[10.1140/epjc/s10052-022-10127-0](https://doi.org/10.1140/epjc/s10052-022-10127-0), arXiv:[2111.01299](https://arxiv.org/abs/2111.01299) [hep-ex]
- A. Tumasyan et al., **Fragmentation of jets containing a prompt J / ψ meson in PbPb and pp collisions at $\sqrt{s_{NN}} = 5.02\text{ TeV}$** , *Phys. Lett. B*. 825 (2022) 136842, doi:[10.1016/j.physletb.2021.136842](https://doi.org/10.1016/j.physletb.2021.136842), arXiv:[2106.13235](https://arxiv.org/abs/2106.13235) [hep-ex]
- A. Tumasyan et al., **Probing Charm Quark Dynamics via Multiparticle Correlations in Pb-Pb Collisions at $\sqrt{s_{NN}} = 5.02\text{ TeV}$** , *Phys. Rev. Lett.* 129 (2022) 022001, doi:[10.1103/PhysRevLett.129.022001](https://doi.org/10.1103/PhysRevLett.129.022001), arXiv:[2112.12236](https://arxiv.org/abs/2112.12236) [hep-ex]
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- A. Tumasyan et al., **Search for heavy resonances decaying to ZZ or ZW and axion-like particles mediating non-resonant ZZ or ZH production at $\sqrt{s} = 13$ TeV**, *JHEP*. 04 (2022) 087, doi:[10.1007/JHEP04\(2022\)087](https://doi.org/10.1007/JHEP04(2022)087), arXiv:[2111.13669](https://arxiv.org/abs/2111.13669) [hep-ex]
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