

# Publication List

Oliver Gutsche

April 3, 2025

- A. Hayrapetyan et al., **Search for  $t$ -channel scalar and vector leptoquark exchange in the high-mass dimuon and dielectron spectra in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, (2025). <http://arxiv.org/abs/2503.20023>, arXiv:2503.20023 [hep-ex]
- V. Chekhovsky et al., **Search for dark matter production in association with a single top quark in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, (2025). <http://arxiv.org/abs/2503.20033>, arXiv:2503.20033 [hep-ex]
- A. Hayrapetyan et al., **Observation of a pseudoscalar excess at the top quark pair production threshold**, (2025). <http://arxiv.org/abs/2503.22382>, arXiv:2503.22382 [hep-ex]
- V. Chekhovsky et al., **Observation of WZ  $\gamma$  production and constraints on new physics scenarios in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, (2025). <http://arxiv.org/abs/2503.21977>, arXiv:2503.21977 [hep-ex]
- V. Chekhovsky et al., **Observation of the charged-particle multiplicity dependence of  $\sigma_{\psi(2S)}/\sigma_{J/\psi}$  in pPb collisions at 8.16 TeV**, (2025). <http://arxiv.org/abs/2503.02139>, arXiv:2503.02139 [nucl-ex]
- V. Chekhovsky et al., **Small- $x$  evolution of gluon fields from incoherent J/ $\psi$  photoproduction in ultraperipheral PbPb collisions**, (2025). <http://arxiv.org/abs/2503.08903>, arXiv:2503.08903 [nucl-ex]
- V. Chekhovsky et al., **Search for the associated production of a Higgs boson with a charm quark in the diphoton decay channel in pp collisions at  $\sqrt{s} = 13$  TeV**, (2025). <http://arxiv.org/abs/2503.08797>, arXiv:2503.08797 [hep-ex]
- V. Chekhovsky et al., **Luminosity measurement for lead-lead collisions at  $\sqrt{s_{NN}} = 5.02$  TeV in 2015 and 2018 at CMS**, (2025). <http://arxiv.org/abs/2503.03946>, arXiv:2503.03946 [hep-ex]
- V. Chekhovsky et al., **Measurements of the inclusive W and Z boson production cross sections and their ratios in proton-proton collisions at  $\sqrt{s} = 13.6$  TeV**, (2025). <http://arxiv.org/abs/2503.09742>, arXiv:2503.09742 [hep-ex]
- V. Chekhovsky et al., **Search for vector-like leptons with long-lived particle decays in the CMS muon system in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, (2025). <http://arxiv.org/abs/2503.16699>, arXiv:2503.16699 [hep-ex]
- A. Hayrapetyan et al., **Search for new physics in jet scaling patterns of multilepton events at  $\sqrt{s} = 13$  TeV**, (2025). <http://arxiv.org/abs/2503.06726>, arXiv:2503.06726 [hep-ex]
- V. Chekhovsky et al., **Observation of nuclear modification of energy-energy correlators inside jets in heavy ion collisions**, (2025). <http://arxiv.org/abs/2503.19993>, arXiv:2503.19993 [nucl-ex]
- V. Chekhovsky et al., **Development of systematic uncertainty-aware neural network trainings for binned-likelihood analyses at the LHC**, (2025). <http://arxiv.org/abs/2502.13047>, arXiv:2502.13047 [hep-ex]
- V. Chekhovsky et al., **Search for medium effects using jet axis decorrelation in inclusive jets from PbPb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV**, (2025). <http://arxiv.org/abs/2502.13020>, arXiv:2502.13020 [nucl-ex]
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- V. Chekhovsky et al., **Evidence for similar collectivity of high transverse momentum particles in pPb and PbPb collisions**, (2025). <http://arxiv.org/abs/2502.07525>, arXiv:2502.07525 [nucl-ex]
- A. Hayrapetyan et al., **Observation of  $\Lambda$  hyperon local polarization in pPb collisions at  $\sqrt{s_{NN}} = 8.16$  TeV**, (2025). <http://arxiv.org/abs/2502.07898>, arXiv:2502.07898 [nucl-ex]
- V. Chekhovsky et al., **Search for  $\gamma$ H production and constraints on the Yukawa couplings of light quarks to the Higgs boson**, (2025). <http://arxiv.org/abs/2502.05665>, arXiv:2502.05665 [hep-ex]

- V. Chekhovsky et al., **Search for a heavy pseudoscalar Higgs boson decaying to a 125 GeV Higgs boson and a Z boson in final states with two tau and two light leptons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, (2025). <http://arxiv.org/abs/2501.14825>, arXiv:2501.14825 [hep-ex]
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- V. Chekhovsky et al., **High-precision measurement of the W boson mass with the CMS experiment at the LHC**, (2024). <http://arxiv.org/abs/2412.13872>, arXiv:2412.13872 [hep-ex]
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- V. Chekhovsky et al., **Model-agnostic search for dijet resonances with anomalous jet substructure in proton-proton collisions at  $\sqrt{s} = 13$  TeV**, (2024). <http://arxiv.org/abs/2412.03747>, arXiv:2412.03747 [hep-ex]
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