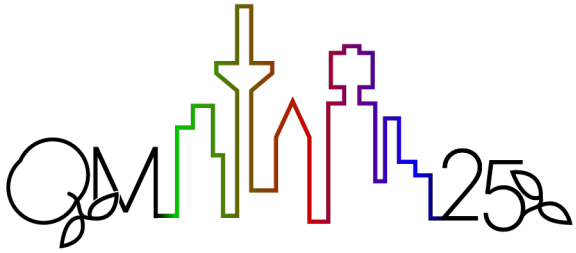

Contribution ID: **559** Type: **Poster**

Prompt photon measurements in small systems with ALICE

This talk presents new measurements of prompt photon production in pp and p–Pb collisions by ALICE. We present the first determination of the nuclear modification factor of isolated prompt photon production in p–Pb collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV. Together with a recent analysis at $\sqrt{s_{\mathrm{NN}}}$ of 8.16 TeV, this new measurement constrains the low-x structure of matter in a regime inaccessible to previous prompt photon measurements, where cold nuclear matter effects are expected to be sizeable. This talk also presents a new analysis of prompt photon production in pp collisions at $\sqrt{s_{\mathrm{NN}}}$ = 13.6 TeV, based on a novel statistical approach which measures inclusive prompt photon production as a continuous function of isolation energy. This statistical approach may provide new constraints on the theoretical description of fragmentation–photon production, which to date has relied primarily on $e^{+}e^{-}$ collider data.

Category

Experiment

Collaboration (if applicable)

ALICE

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