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# Probing the low-x structure of protons and nuclei with ALICE using isolated prompt photons

This talk presents new measurements of prompt-photon production in pp, p–Pb and Pb-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 $\sqrt{s_{\mathrm{NN}}}$ 8.16 TeV, this new measurement constrains the low-x structure of matter in a regime inaccessible to previous prompt-photon measurements, extending the previous low-x reach by a factor of two to a regime where cold nuclear matter effects are expected to be sizeable. We also present the first ALICE measurement of isolated prompt photon production in Pb-Pb collisions. The measurement is carried out for the first time using multiple isolation cone radii, which allows gauging the contribution of fragmentation photons to the total physical cross section.

## Secondary track

T04 - Ultra-relativistic Nuclear Collisions

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**Session Classification:** T04

**Track Classification:** T05 - QCD and Hadronic Physics