

Measurement of direct photons at forward rapidities in p-A collisions at LHC with ALICE

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on the behalf of the ALICE-FoCal Collaboration

Direct photon production at forward rapidity is a promising probe for the gluon content of protons and nuclei at small x .

In particular, the measurement of the nuclear modification factor for direct photons in p-A collisions at the LHC is a crucial test for gluon saturation.

A new forward calorimeter (FoCal) is proposed as an upgrade to the ALICE experiment.

The detector will cover the range $3.5 < \eta < 5$ which probes the gluon distributions at $x \sim 10^{-5}$ and $Q^2 > 4 \text{ GeV}$. Performance studies show that an extremely high-granularity calorimeter is required. Results from R&D for this project will be discussed.

Collaboration

ALICE

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