Contribution ID: **356** Type: **1a) Initial state (TALK)**

Probing the high-x content of the nuclei in the fixed-target mode at the LHC

Wednesday 3 October 2018 11:45 (20 minutes)

Using the LHCb and ALICE detectors in the fixed-target mode at the LHC offers unprecedented possibilities to study the quark, gluon and heavy-quark content of the nuclei in the poorly known region of the high-momentum fractions. We will review our projections for studies of Drell-Yan, W, charm, beauty and quarkonium production with both detector set-ups used with various nuclear targets and the LHC proton beams. Based on this, we will show the expected improvement in the determination of the quark, charm and gluon nuclear PDFs as well as discuss the implication for a better understanding of the cold-nuclear-matter effects in hard-probe production in proton-nucleus collisions.

Summary

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Session Classification: Parallel 1