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p-Pb collisions: particle production and centrality determination in ALICE.

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Proton-nucleus collisions are studied to disentangle initial state effects,
already present in cold nuclear matter, from final state effects, expected only
when a dense and hot medium is formed as in A-A collisions.
The collisions can be characterized through the number of binary collisions the nucleons undergo. In p-Pb collisions, the low particle multiplicities
and the large multiplicity fluctuations influence the way collisions are classified into different centrality classes
using a particle multiplicity distribution.
ALICE uses different estimators to measure event-by-event the number of
collisions through a Glauber approach.
ALICE results on particle production in p-Pb collisions at sqrt(s_NN) = 5.02 TeV
will be presented, including the pseudo-rapidity and transverse momentum
dependence. The centrality determination will be addressed and its implications will be discussed.

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