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Inelastic and diffractive cross section measurements with the CMS experiment

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The inelastic cross section has been measured in proton-proton and proton-lead collisions at centre-of-mass energies per nucleon up to 8 TeV at the LHC. Nuclear scaling effects play an important role in the simulation of cosmic ray interactions and are studied in collisions with lead nuclei. Furthermore, the probability of diffractive interactions influences the efficiency of the energy transport in extensive air showers and, thus, for example the depth of the shower maximum. We present an overview of the related results published by the CMS Collaboration.

Collaboration

– not specified –

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