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## Effect of Multiple Parton Interaction on photon production in pp collisions at forward rapidity at the LHC energies.

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The study of high multiplicity proton-proton collisions has revealed striking similarities with respect to the observations made for nucleus-nucleus collisions.

The understanding of underlying particle production mechanisms in pp collisions is therefore important. Multiplicity and pseudorapidity distributions of inclusive photons are one of the basic measurements to shed light on the physics processes involved in these collisions. The photon production is dominated by neutral pion decays and thus complementary to those of the charged particles.

In this work, we will present the measurements of inclusive photon multiplicity at forward rapidities using PYTHIA 8 simulation at LHC energies. The effect of Multiple Parton Interactions (MPIs) and colour reconnection (CR) mechanisms on photon production will be studied in detail.

### Session

Heavy Ions and QCD

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