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Multiple pion pair production in a Regge based model

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Central diffractive event topologies at the LHC energies can be identified by two different approaches. First, the forward scattered protons can be measured in Roman pots. Second, a veto on hadronic activity away from midrapidity can be imposed to define a double gap topology. Such a double gap trigger has been implemented by the ALICE collaboration in Run 1 and Run 2 of the LHC. The analysis of these events allows to determine the charged particle multiplicity within the acceptance. The excellent particle identification capabilities of ALICE allows to study two track events both in the pion and kaon sector. Events with measured charged particle multiplicity larger than two can arise from multiple pair production.

I will outline a Regge based approach for modeling such multiple pair production.

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