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Diffraction and central exclusive production at ATLAS

Diffractive physics program for the ATLAS experiment is discussed with emphasis on the Central Exclusive production. While making up a large part of the total proton-proton cross section, the experimental definition of diffractive processes is still under discussion. At low luminosities, a L1 trigger based on requiring rapidity gaps can be used, while at high luminosities, the use of proton taggers proposed to be placed at 220 m and 420 m from the interaction point is foreseen. Some first ATLAS results with candidates of diffractive events are presented and an outlook of other possible diffractive measurements is discussed.

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