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## Measurements of particle spectra in diffractive p+p collisions with the STAR detector at RHIC

We present the results of the diffractive measurement with the STAR Roman Pot detectors at RHIC. The measurement is focused on the spectra of identified charged particles as pions, kaons, protons and their antiparticle counterparts in Single Diffraction Dissociation ( $p + p \rightarrow p + X$ ) and Central Diffraction ( $p + p \rightarrow p + X + p$ ) processes. The spectra of inclusive charged particles are also measured.

The forward-scattered proton(s) were tagged in the STAR Roman Pot system while the charged particle tracks were reconstructed in the STAR Time Projection Chamber (TPC).

Ionization energy loss and time of flight of charged particles were used for particle identification. Moreover, the proton-antiproton production asymmetry as a function of rapidity is presented and allows one to study the baryon number transfer over a large space in rapidity in single diffraction. A similar effect has been studied in proton-proton and proton-photon interactions. In this talk we present the baryon number transfer in proton-Pomeron interactions.

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