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## Recent results on Central Exclusive Production with the STAR detector at RHIC

The STAR experiment at the Relativistic Heavy Ion Collider (RHIC) performs studies of diffractive processes with the focus on the exclusive production of particles in central range of rapidity. In 2015 STAR collected  $18 \text{ pb}^{-1}$  of data in polarized proton-proton collisions at  $\sqrt{s} = 200 \text{ GeV}$  to measure Central Exclusive Production (CEP) process  $pp \rightarrow pXp$  through Double Pomeron Exchange (DPE) mechanism, which is expected to be dominant at this center-of-mass energy.

The intact protons moving inside the RHIC beam pipe after the collision were measured in Roman Pot detectors. The CEP events were identified using transverse momentum balance of the central diffractive system measured in the Time Projection Chamber (TPC) and of the forward protons measured in the Roman Pots. With the use of ionization energy loss in the TPC,  $dE/dx$ , as well as velocity measured with the Time-Of-Flight detector (TOF), it was possible to identify various production channels in  $pp \rightarrow pXp$  reaction.

We shall present preliminary results on exclusive production of two opposite-charge particles ( $\pi^+\pi^-$ ,  $K^+K^-$ ,  $p\bar{p}$ ) in midrapidity region with small squared four-momentum transfer of forward protons,  $0.03 < |t_1|, |t_2| < 0.2 \text{ (GeV}/c)^2$ .

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