

Abstract Submitted
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Photoproduction at Relativistic Heavy Ion Collider with STAR

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— Relativistic heavy ions carry strong transverse electromagnetic fields which can be treated as sources of quasi-real virtual photons. The ions interact through photon-Pomeron and photon-photon collisions at impact parameter more than twice the nuclear radius, so hadronic interactions are suppressed. We present recent results of the STAR experiment at RHIC on $\rho^0(770)$ production in AuAu collisions at various energies. STAR is also sensitive to the interference between two production modes: either ion can be the photon emitter or the target. We observed the coherent photoproduction of $\pi^+\pi^-\pi+\pi^-$, which maybe attributed to one of the poorly known excited states of ρ^0 . As well in this talk we will present preliminary results based on data collected during run 10.

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