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Observation of the $\gamma\gamma \rightarrow \tau\tau$ production in PbPb collisions with the CMS experiment

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Ultrapерipheral nucleus-nucleus collisions produce very large photon fluxes such that fundamental quantum-mechanical processes can be observed and studied in a novel way. In this presentation, an observation of the τ lepton photoproduction at LHC is reported, using ultraperipheral lead-lead collision data collected by CMS. This measurement paves the way for a precise determination of the τ lepton anomalous magnetic moment which, contrary to the electron and muon counterparts, is poorly constrained.

Category

Experiment

Collaboration (if applicable)

CMS

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