

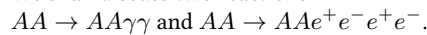
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New results for ultraperipheral heavy ion collisions

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We shall discuss two reactions:



In the first case we shall discuss connections with elastic $\gamma\gamma$ scattering. Several mechanisms are included: lepton and quark boxes, vector-dominance mechanism and two-gluon exchange mechanism. The calculations are done in the equivalent photon approximation in the impact parameter space (EPA-b). Several differential distributions are calculated.

Feasibility studies will be presented. Measurable counting rates are obtained. A special attention is devoted to searches for hints of the VDM-Regge mechanism as well as two-gluon exchange one. The studies show that first identification/measurement of elastic $\gamma\gamma$ scattering is accessible with present experimental infrastructure. The expected number of events will be given.

In the second case of four-lepton production we consider only double scattering $\gamma\gamma \rightarrow e^+e^-$ mechanism. As in the first case the calculation are done in the EPA-b. We present several differential distributions imposing experimental cuts on rapidities and transverse momenta relevant for different experiments at the LHC. Corresponding number of counts will be given. Our study show that corresponding measurements should be possible soon and would allow a first identification of the double scattering mechanism.

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