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## $e^+e^-$ pair production in peripheral collisions of ultrarelativistic heavy ions

Status of the theoretical predictions for the process of  $e^+e^-$  pair production in peripheral ultrarelativistic nuclear collisions is presented. Special emphasis is made on the Coulomb and unitarity corrections to the cross section of this process. We also discuss multiple pair production. New predictions based on the calculation of Coulomb corrections in the next-to-leading logarithmic approximation are presented. It is shown that the next-to-leading term changes significantly the magnitude of the Coulomb corrections even for LHC. The large magnitude of this term also naturally explains the results of the experiments at SPS.

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