

## Measurement of the electromagnetic dissociation cross-section of Pb nuclei at 2.76 A Tev with the ALICE ZDC

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Electromagnetic dissociation of heavy nuclei in ultra-peripheral interactions at high energies can be used to monitor the beam luminosity at colliders.

Neutrons emitted by the excited nuclei close to beam rapidity are detected by the ALICE Zero Degree Calorimeters (ZDC) with full acceptance, providing a precise measurement of the event rate.

During the 2010 Pb-Pb run, a dedicated data taking has been performed triggering on electromagnetic processes with the ZDC. These data, combined with the results from the Van der Meer scan, allow one to measure the dissociation cross-section of Pb nuclei at  $\sqrt{s}=2.76$  A TeV.

Experimental results on the cross-section for electromagnetic dissociation processes of Pb nuclei at the LHC will be presented together with a comparison to the available predictions.

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