

## Two-particle correlations with a neutral trigger in pp and Pb-Pb collisions with ALICE

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The two-particle azimuthal correlation is one of the promising probes for investigating the properties of the high-density medium formed in heavy-ion collisions at high energy. The  $\gamma$ +jet channel is considered the “golden channel” for studying jet fragmentation and parton energy loss due to the nature of the photon. The jet fragmentation can be estimated from the charged hadron and the photon  $\vec{p}_T$  via the imbalance parameter  $x_E \equiv \frac{\vec{p}_T^\gamma \cdot \vec{p}_T^{c,h}}{|\vec{p}_T^\gamma|^2}$ .

The two-particle correlations are measured in ALICE using statistical subtraction of the estimated meson decay photon contribution. We present the recent results extracted from  $\gamma$ -hadron and  $\pi^0$ -hadron correlations measured in pp collisions at  $\sqrt{s_{NN}} = 7$  TeV, triggered by the ALICE electromagnetic calorimeter, and the status of a similar analysis in Pb-Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV.

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