

## **Production of Neutral Mesons Identified by ALICE-PHOS in Pb-Pb collisions at $\sqrt{s_{NN}}=2.76\text{TeV}$**

The finely segmented structure and small Moliere radius of the ALICE-PHOS detector allows to separate two photons from a  $\pi^0$  decay at  $p_T=30\text{ GeV}/c$  with an efficiency of about 100%; at even higher  $p_T$  with smaller efficiency.

In this poster, we will present the  $\pi^0$  production yield measurement with the ALICE-PHOS detector in various centralities in Pb+Pb collisions at  $\sqrt{s_{NN}}=2.76\text{TeV}$ . By comparing the production yield in peripheral collisions to that in pp collisions, we will discuss possible cold nuclear matter effects. The RAA and RCP ratio of  $\pi^0$  will be presented to be compared with previous results at SPS and RHIC.

**Author:** Dr TORII, Hisayuki (University of Tokyo)

**Presenter:** Dr TORII, Hisayuki (University of Tokyo)

**Track Classification:** Jets