

Performance of the KOTO Sampling Calorimeter

Friday, July 6, 2018 8:15 PM (15 minutes)

The J-PARC KOTO experiment is searching for the $KL \rightarrow \pi^0 \nu \bar{\nu}$ decay which is sensitive to New Physics. A main feature the signal is that only two photons are observed in a hermetic detector system. Therefore, it is important to detect all decay particles from the KL decay. A 5.5-m long cylindrical Lead/Scintillator sandwich sampling calorimeter surrounds the fiducial KL decay region to detect photons exiting the region. The detection efficiency of the sampling calorimeter is designed to meet with the background elimination capability. We will present the performance of the sampling calorimeter using tagged photons by the $KL \rightarrow 3\pi^0$ decay. Especially, the performance of a new sampling calorimeter installed in 2016 will be reported.

Primary author: Mr KIM, Jun Lee (Chonbuk National University)

Presenter: Mr KIM, Jun Lee (Chonbuk National University)

Session Classification: POSTER