



# Photon study

Jet @ Cluster meeting

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Mohamed Reda Mekouar

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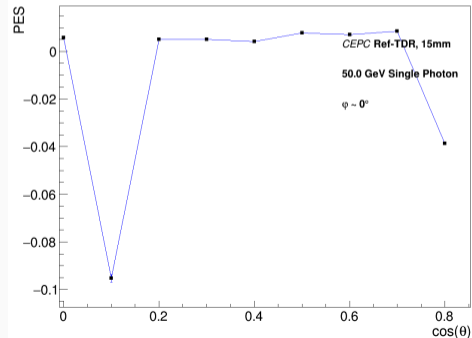
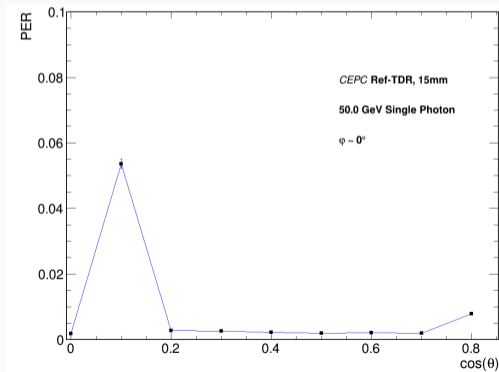
Institute of High Energy Physics, Chinese Academy of Sciences

## New geometry: 15mm granularity ( $\cos(\theta)$ scan)

Last week, there was an update for the simulation software as the granularity of ECAL modules changed from 10mm to 15mm

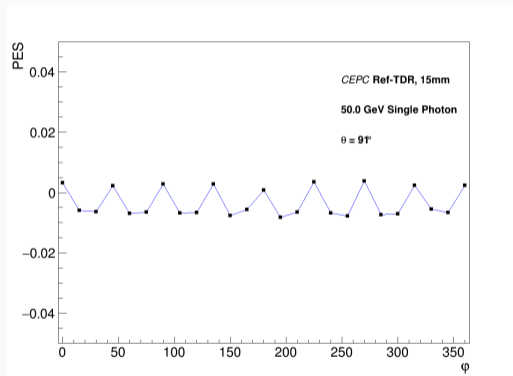
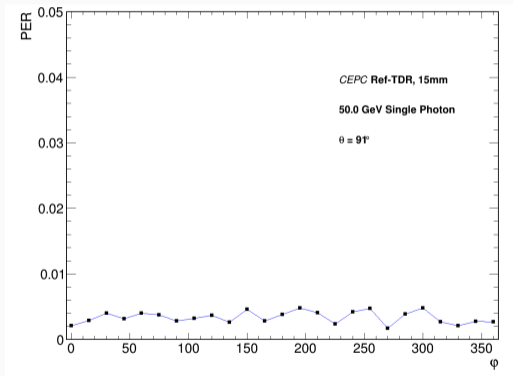
$\cos(\theta)$  scan and  $\varphi$  scan to check differential distributions (resolution & recalibration)

For  $\cos(\theta)$  scan (only in barrel for now), we found the following results:



$\cos(\theta) = 0.1, 0.8$  are in crack regions

For the  $\varphi$  scan, the results were the following

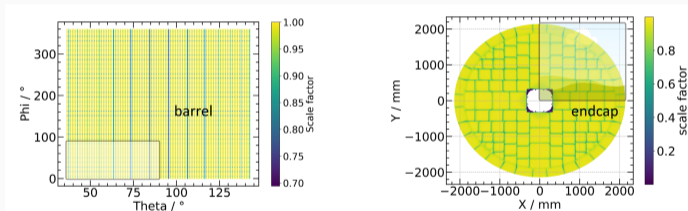


We can see a clear symmetry each 90°

# Perspectives

Calculating the integral impact of the crack region over our resolution and scale

2D scans for resolution ( $\varphi, \theta$ ) to mitigate effects/impact of different crack regions (within barrel, between barrel & endcap, within endcap, according to  $\varphi$  and those according to  $\theta$ )



Define zones for 2D scan to scale over rest of subdetectors according to symmetries  
( $0^\circ < \varphi < 90^\circ$ ,  $8^\circ < \theta < 89^\circ$ )?

Thank you

Back-up

