Contribution ID: **23**   Type: **not specified**

Background modeling for the COSINE-100 dark matter experiment

Thursday 25 April 2024 15:00 (20 minutes)

COSINE-100 is a dark matter search experiment with an array of NaI(Tl) crystals, aiming to confirm the annual modulation that DAMA/LIBRA claims to have detected. It is crucial to reduce the energy threshold, which will not only validate the DAMA/LIBRA experiment but also increase the sensitivity of COSINE-100 for detecting low-mass dark matter. Therefore, it is essential to have a precise and quantitative understanding of the backgrounds. We build a background model for the COSINE-100 experiment, conducting background simulations using the Geant4 toolkit. In this presentation, we will discuss the background modeling for COSINE-100.

Author: JEON, Eun Ju (Center for Underground Physics, IBS)

Presenter: JEON, Eun Ju (Center for Underground Physics, IBS)

Session Classification: Workshop