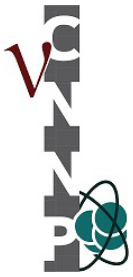

Contribution ID: **63** Type: **Invited Talk**

COSINE experiment - A WIMP dark matter search experiment with NaI(Tl) detectors

Tuesday, 25 February 2020 12:30 (30 minutes)

The COSINE experiment searches for interactions of Weakly Interacting Massive Particles (WIMPs) using an array of NaI(Tl) crystal detectors in the 700-m-deep Yangyang underground laboratory, Korea. The main goal is to check the annual modulation signal observed by DAMA/LIBRA with the same target material. The first phase of the experiment, COSINE-100 with 106 kg of NaI(Tl) crystals, has been running stably for more than 3 years. Several analyses in addition to the annual modulation have been actively ongoing, based on the 1 keV energy threshold and about 3 counts/day/kg/keV background rate in an energy region between 1 and 6 keV. In this talk, the detector performance, recent analysis results, and future prospects of the COSINE experiment will be presented.

Primary author: Dr LEE, Hyunsu (Institute for Basic Science)

Presenter: KIM, Yeongduk (Institute for Basic Science)

Session Classification: Invited Talks