

Recent progress in KIMS experiment

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KIMS experiment has obtained 2.5 years of data for annual modulation studies. From the limits of annual modulation amplitudes, we have calculated new limits of WIMP-nucleon cross sections for the WIMP mass ranges of 10-1000 GeV for spin (in)dependent scatterings. These will be compared with the parameter space of the DAMA annual modulation analysis. We have re-measured the quenching factor for CsI(Tl) crystals and will address the effect of new quenching factor to the analysis. We have also checked the particle discrimination power of CsI(Na) crystals with nuclear recoil measurements which doesn't support the recent claim on this crystal. Finally the progress towards new NaI(Tl) crystal development will be described with the perspective of this new experiment, which will be pursued by a new research center of Institute for Basic Science (IBS) in Korea.

Primary author: Prof. KIM, Yeongduk (Institute for Basic Science / Sejong University)

Presenter: Prof. KIM, Yeongduk (Institute for Basic Science / Sejong University)

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