

LNGS SEMINAR SERIES

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Underground laboratories and science projects in Korea

For the last several decades, experiments that require ultra-low background environment in nuclear, particle, and astroparticle physics have been developed and being operated in deep underground laboratories around the world. A large amount of rock overburden above the laboratories provides an efficient shield minimizing the interference from cosmic rays. Existing and future underground laboratories located in Korea are introduced together with on-going and future science projects. KIMS (Korea Invisible Mass Search) is an active experiment of WIMP search using CsI(Tl) detectors. AMoRE (Advanced Mo-based Rare process Experiment) project is a future experiment that uses scintillating crystals in milli-Kelvin cryogenic particle detection to search for neutrinoless double beta decay of Mo100. Recent progress on detector developments on the projects is also discussed.

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