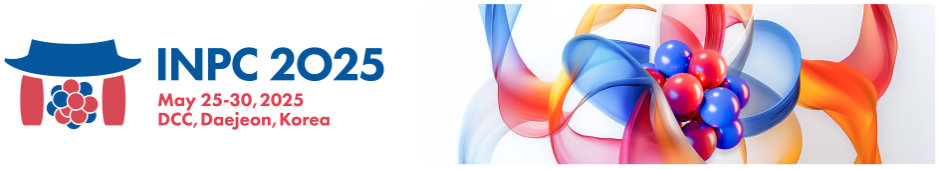

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Latest Results from the BeEST Phase-III

Thursday, 29 May 2025 17:00 (15 minutes)

The Beryllium Electron capture in Superconducting Tunnel junctions (BeEST) experiment searches for the signature of sub-MeV heavy neutrino mass eigenstates in the decay of ^{7}Be by precisely measuring the nuclear recoil energy of the ^{7}Li daughter nucleus using superconducting tunnel junction (STJ) cryogenic sensors. In Phase-III of the experiment, we utillized a 36-pixel array of the STJ sensors with ^{7}Be implantation ranging from 10 to 50 Bq. In this talk, we describe the refined experimental and analytical techniques developed for Phase-III and present the latest results achieved in the Phase-III of the BeEST experiment.

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