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Status of the Hyper-Kamiokande experiment

Friday, 1 September 2017 17:35 (25 minutes)

Hyper-Kamiokande is a next generation water Cherekov detector consisting of 2 tanks, each with 187 kton fiducial mass, to be built in a staged approach. Hyper-Kamiokande will detect neutrinos produced by the upgraded J-PARC accelerator complex, as well as atmospheric neutrinos. It will enable us to search for CP violation in the lepton sector with an order of magnitude more data than current long baseline experiments will collect. Hyper-Kamiokande will also make precision measurements of the phase delta_cp and the atmospheric mixing parameters by a combination of accelerator and atmospheric neutrinos. This talk will describe the Hyper-Kamiokande neutrino oscillation physics program. Recent studies of the option for building the second tank in Korea to probe mass hierarchy and the second oscillation maximum will also be presented.

Presenter: Prof. KUZE, Masahiro

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