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Hyper-Kamiokande

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Hyper-Kamiokande is a next generation large-scale water Cherenkov detector. Its fiducial mass will be about an order of magnitude larger than Super-Kamiokande and the detector performance is significantly improved with newly developed photo-sensors. Combination of the Hyper-Kamiokande detector with the upgraded J-PARC neutrino beam will provide unprecedented high statistics of the neutrino and antineutrino signals to measure the CP violation and reveal a full picture of neutrino mixing with high precision. Hyper-Kamiokande will provide the most sensitive searches for the nucleon decay, which would be a direct evidence for the grand unification. It will also contribute to neutrino astrophysics by detecting neutrinos from astrophysical sources such as supernova. The project was approved in Japan and the construction has been started in 2020. In this talk, the physics potential, status and prospect of the Hyper-Kamiokande project will be presented.

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