Hyper-Kamiokande : The Next Generation

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We propose the Hyper-Kamiokande (Hyper-K) detector as a next generation underground water Cherenkov detector. It will serve as a far detector of a long baseline neutrino oscillation experiment envisioned for the upgraded J-PARC, and as a detector capable of observing - far beyond the sensitivity of the Super-Kamiokande (Super-K) detector - proton decays, atmospheric neutrinos, and neutrinos from astronomical origins. The baseline design of Hyper-K is based on the highly successful Super-K, taking full advantage of a well-proven technology. We describe the scope of the Hyper-K project, a baseline design of the detector, and make a physics case for its construction. The prospects for neutrino geophysics using Hyper-K are also mentioned.