

The DAEdALUS at Hyper-K Experiment: Searching for CP Violation

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DAEdALUS is a phased program leading to a high-sensitivity search for CP violation. The experiment uses a set of high-intensity 800 MeV cyclotrons to produce pion decay-at-rest neutrino sources at several locations (with baselines of 1.5km, 8km, and 20km) going to the Hyper-K ultra-large, underground detector. The Hyper-K detector would be used to isolate and measure a very large sample of inverse-beta-decay events separately from each of the three sources. The DAEdALUS experiment will provide a high-statistics antineutrino data set with no matter effects that can be combined with the Hyper-K long-baseline data to provide greatly enhanced sensitivity for CP violation measurements.

Primary author: Prof. SHAEVITZ, Michael (Columbia University)

Presenter: Prof. SHAEVITZ, Michael (Columbia University)

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