APR11-2011-000713

Abstract for an Invited Paper for the APR11 Meeting of the American Physical Society

Measurements of Reactor Neutrinos at Long Baselines: KamLAND and Beyond BRIAN FUJIKAWA, Lawrence Berkeley National Laboratory

KamLAND is a one-kiloton liquid scintillator based neutrino detector that is located at an average distance of 180 km from Japanese commercial nuclear powers reactors. I will describe the KamLAND experiment, the results of its reactor neutrino measurements, and its impact in relation to solar, short baseline reactor, atmospheric, and long baseline accelerator neutrino data. I will conclude by discussing some opportunities and challenges for the next generation long baseline reactor neutrino experiments.