Inverse Beta Decay Reconstruction in the Double Chooz Monte Carlo

ANNE NORRICK, Barnard College, DOUBLE CHOOZ COLLABORATION — The Double Chooz Experiment will search for neutrino oscillations using the “Inverse Beta-Decay” (IBD) interactions of electron antineutrinos from a nuclear reactor in Chooz, France. The experiment needs to isolate IBD events by detecting and reconstructing the positions and deposited energies of the outgoing positron and neutron. Methods for isolating this process will be described. In addition, results of simulation studies of two different reconstruction algorithms will be presented and their performances compared.

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