



DoNuTS Technical Meeting

Time: 1600 Wednesday, 3 March 2010

Place: NE Conference Room, 1106 Etcheverry

Speaker: Hugh Lippincott, Yale University

Subject: DEAP/CLEAN: Detecting dark matter with liquid argon (and neon)

The DEAP/CLEAN collaboration has proposed to use liquid argon and neon as targets for dark matter and solar neutrinos. I will discuss measurements of scintillation of these liquids performed at Yale, in particular focusing on the use of pulse shape discrimination to reject electronic recoil backgrounds in liquid argon. I will also discuss studies of alpha and nuclear recoil backgrounds in a prototype detector currently operating at the underground facility at SNOLAB. If time permits, I will mention simulations of a large neon detector and their implications for detecting pp solar neutrinos.