

P25 seminar August 13, 2013 presented by Leonard Kisslinger

Title: Sterile Neutrinos, Pulsar Kicks, and Neutrino Oscillations

Abstract: I shall first discuss pulsar kicks that arise from sterile neutrino emission during the first 10 seconds after the gravitational collapse of a star, using the 2012 results of K.N. Abazajian et. al. Then I'll discuss the effective masses of neutrinos in the neutrinosphere during this period. Finally, new work will be discussed on neutrino oscillations with one sterile neutrino, with mass estimates from the 2013 MiniBooNe publication, using a 4x4 U-Matrix relating flavor to mass neutrinos. Results will be given for various parameters.