



Contribution ID: 49

Type: **not specified**

Double Chooz experiment

Tuesday, 7 December 2010 17:25 (25 minutes)

One of the fundamental open issues in neutrino oscillation physics is the measurement of the mixing angle θ_{13} , whose best upper limit to date is provided by the Chooz experiment.

The Double Chooz reactor neutrino experiment will be the next detector to search for a non vanishing θ_{13} mixing angle with unprecedented sensitivity, which might open the way to unveiling CP violation in the leptonic sector. The measurement of this angle will be based in a precise comparison of the antineutrino spectrum at two identical detectors located at different distances from the Chooz nuclear reactor cores in France.

Phase I of Double Chooz, starting in summer 2010 with only one detector, will be able to improve the current θ_{13} limit with only a few months of operation. In this talk, I will review the current status of the Double Chooz experiment and its physics potential.

Primary author: Mrs PALOMARES, Carmen (CIEMAT)

Presenter: Mrs PALOMARES, Carmen (CIEMAT)

Session Classification: Neutrino mass, mixing and discrete symmetries (3)

Track Classification: Neutrino mass and mixing