

HORIZONTAL MUONS IN SOUDAN 2 AND SEARCH FOR AGN NEUTRINOS

The Soudan 2 Collaboration

The Soudan 2 detector, as tracking calorimeter, can be used to determine the angle of incoming muons. Because of the overburden, muons detected beyond a certain zenith angle are guaranteed to be produced by neutrinos and not from pion decays in the atmosphere. This zenith angle cut is large and therefore the muons in this region are called horizontal muons. Results will be presented on the search for and study of these horizontal muons. Muon energy loss is used to determine whether any horizontal muons may come from AGN's.