

## **SEARCH FOR CORRELATIONS BETWEEN GAMMA RAY BURSTS AND MUON FLUX**

M.L.MARSHAK FOR THE SOUDAN 2 COLLABORATION  
UNIVERSITY OF MINNESOTA

Recent improvements in the ability to directionally locate gamma ray bursts and the high angular resolution of the Soudan 2 Detector, a deep underground tracking calorimeter, enable a very low background search for correlations between gamma ray bursts and muon flux. We report on such a search using bursts from 1991 to the present. Using reasonable assumptions for the neutrino energy spectrum, we present limits on the possible neutrino flux associated with gamma ray bursts.