

FINAL RESULTS ON THE LOW-ENERGY ν_μ -FLUX MEASUREMENT WITH MACRO

M. Spurio, for the MACRO Collaboration

Dipartimento di Fisica dell'Universita' di Bologna - Viale Berti Pichat 6/2,
40137 Bologna - Italy.

The MACRO experiment can study the flux of atmospheric muon neutrinos in the GeV-range through the detection of ν_μ interactions inside the apparatus, and also through the detection of upward-going, stopping muons. We present the analysis of the full data sample (from Spring 1994 up to the end of 2000). The measured flux in the two data sets show a deficit with respect to the Monte Carlo predictions. We interpret the deficit in terms of neutrino oscillations, allowing us to define an allowed region in the oscillation parameter space. The preferred values of oscillation parameters are in agreement with those obtained in the analysis of the higher energy data set of upward-throughgoing muons.