

EFFECTS OF ν_μ OSCILLATIONS IN MACRO

IF: $(\sin^2 2\theta \simeq 1 \quad ; \quad \Delta m^2 \sim 10^{-2} \div 10^{-3})$

\Rightarrow Variable flux reduction *vs.* $\cos(\text{zenith})$ for the Up Throughgoing events

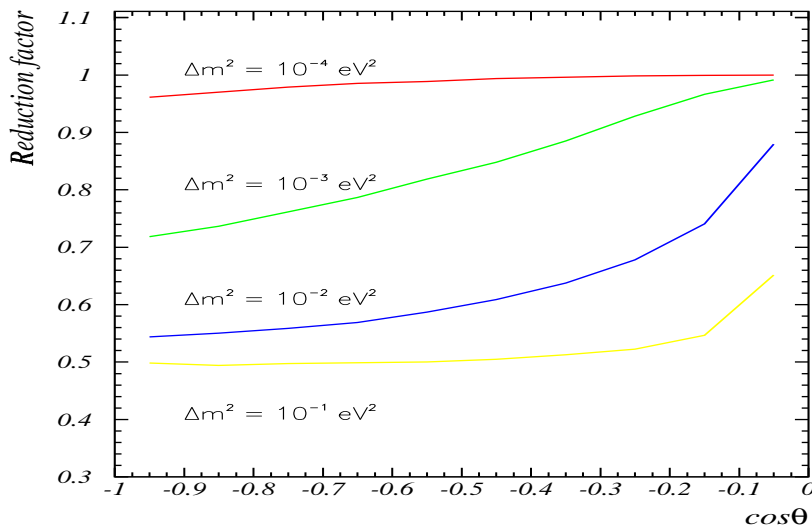


Figure 1: Reduction factor *vs.* $\cos\theta$ for throughgoing μ

\Rightarrow Constant flux reduction all over the $\cos(\text{zenith})$ for partially contained events,

BUT:

- Reduction for $\boxed{\text{IU} \sim 0.5}$ (all events from below, $L \sim 13000 \text{ km}$)
- Reduction for $\boxed{\text{ID+UGS} \sim 0.25}$ (only UGS events from below)