Oscillation Fit

$$\chi^2 = \Sigma_{e,\mu,\cos\Theta,P} (N_{DATA} - N_{osc})^2/\sigma^2 + \Sigma_j \varepsilon_j^2/\sigma_j^2$$

70 Bins = (e,μ) × 5 cosΘ × 7 log(P)

$\varepsilon_j = (\delta, \beta_s, \beta_m, \rho, \eta_s, \eta_m, \lambda)$

ν flux ≈ $(1\pm\alpha)E^{-2.7\pm\delta}$	**α, free (σ_α = 25%)** **δ, σ_δ = 0.05**
μ-like/e-like ratio	**β_s, σ_s = 8%** **β_m, σ_m = 12%**
FC/PC ratio	**ρ, σ_ρ=8%**
Zenith angle asymmetry	**η_s, σ_η^s = 2.4%** **η_m, σ_η^m = 2.7%**
$\langle L/E_\nu \rangle$ uncertainty	**λ, σ_λ = 15%**