Contribution ID: **20** Type: **not specified**

(*ν*1 ,*ν*2) oscillation parameters after first JUNO results

Monday 15 December 2025 12:24 (12 minutes)

We present an updated global determination of the neutrino oscillation parameters governing the (ν1 ,ν2) sector, including the latest SNO+ results and the first measurement from JUNO. In the three-neutrino framework, we focus on the solar mass splitting δm2 and the mixing parameter sin2θ12 , which drive solar and medium-baseline reactor oscillations.
The new constraints are incorporated into a recent global fit through external likelihoods in the (δm2,sin2θ12) plane. While SNO+ induces mild shifts, JUNO already dominates the precision.
We obtain δm2=(7.48±0.10)×10−5 eV2, sin2θ12 =0.3085±0.0073, with correlation ρ=−0.20, corresponding to 1.3% and 2.4% uncertainties.

Author: MARCONE, Francesco (Istituto Nazionale di Fisica Nucleare)

Presenter: MARCONE, Francesco (Istituto Nazionale di Fisica Nucleare)

Session Classification: Morning session 2