Friday 8 July, 16:00 – 16:25

Session 16: Global parameter estimation, statistics and detector development

Status and prospects of global analyses of neutrino mass-mixing parameters

A Marrone

INFN Sezione di Bari, Italy

The status of the neutrino mass-mixing parameters is reviewed, in terms of a global analysis of neutrino oscillations in the standard three-neutrino framework. The latest available data are used, including recent results from atmospheric, accelerator, solar and reactor neutrino experiments. Current constraints on the known mass-mixing parameters are presented, together with the emerging indications about the still unknown ones: the ordering and the absolute scale of the mass spectrum, the octant of the largest mixing angle, and the possible CP-violating phase. Results from recent independent analyses are reported for comparison. Prospects and challenges of global neutrino data analyses, within and beyond the three-neutrino framework, are also discussed.