Contribution ID: **49** Type: **Oral**

Sterile neutrino oscillations: the global picture

Wednesday, 11 September 2013 16:00 (20 minutes)

We investigate neutrino oscillations with more than three flavors in the context of global oscillation data, including short and long-baseline accelerator, reactor, and radioactive source experiments, as well as atmospheric and solar neutrinos. We discuss the possible experimental hints for sterile neutrinos and quantify their tension with null results from other experiments. We also address cosmological constraints on sterile neutrinos and discuss theoretical models in which eV-scale sterile neutrinos can be consistent with BBN, CMB and structure formation constraints.

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Session Classification: Neutrino Oscillations/ Neutrino Beams III

Track Classification: Neutrino Oscillations/ Neutrino Beam Physics