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## Neutrino Masses and Mixings: Status and Challenges

*Friday, 25 May 2018 14:30 (45 minutes)*

The status of neutrino masses and mixings within the standard three-neutrino framework is presented. The combination of current data coming from oscillation experiments provides interesting constraints on the known mass-mixing parameters, as well as intriguing hints on the unknown ones. Concerning the latter, particularly interesting indications are emerging in favor of nearly maximal leptonic CP violation and of normal (i.e., quark-like) mass spectrum ordering, while the octant of the largest mixing angle remains undetermined. The combination of oscillation and non-oscillation data (coming from neutrinoless double beta decay searches and from cosmological surveys) is shown to set bounds to the absolute neutrino mass scale in the sub-eV range. We also discuss some of the challenges posed by the completion of the standard three-neutrino framework and by the search for new physics beyond it.

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