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Status of sterile neutrinos and neutrino anomalies

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In this talk we will discuss neutrino oscillations involving eV-scale neutrino mass states, in the context of global neutrino oscillation data including short and long-baseline accelerator, reactor, and radioactive source experiments, as well as atmospheric and solar neutrinos. We consider sterile neutrino mass schemes involving one or two mass-squared differences at the eV^2 scale denoted by 3+1, 3+2, and 1+3+1. We discuss the hints for eV-scale neutrinos from ν_e disappearance (reactor and Gallium anomalies) and $\nu_\mu \rightarrow \nu_e$ appearance (LSND and MiniBooNE) searches, and we present constraints on sterile neutrino mixing from ν_μ and neutral-current disappearance data.

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Classification de Session: Neutrino experiments

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