



ID de Contribution: 153

Type: **Ordinary**

Status of the Reactor Antineutrino Anomaly

vendredi 16 mars 2018 11:15 (15 minutes)

The observed antineutrino flux from nuclear reactors is consistently lower than predicted. This anomaly could hint at oscillations of active neutrinos into a new sterile neutrino species, or it could simply be a reflection of underestimated systematic uncertainties in the theoretical flux prediction. We review the status of both hypothesis in view of recent developments. In particular, we scrutinize recent Daya Bay results, which aim to determine whether the deficit depends on the isotope from which neutrinos are produced (as would be likely if the problem is with the flux prediction), or is independent thereof (as would be expected if the sterile neutrino hypothesis is true). We also comment on new short-baseline data, and we discuss reactor data in the context of a global fit.

Summary

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Classification de Session: Friday morning: Neutrinos (ter)