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Double Chooz Single-Detector Physics Results

Monday 25 August 2025 14:00 (20 minutes)

The Double Chooz experiment, located near the Chooz Nuclear Power Plant (France), has provided precise measurements of the neutrino mixing angle θ13 through the detection of antineutrinos from reactor cores. This multi-detector experiment, comprising a far detector located approximately 1050 metres from the reactors and a near detector at about 400 metres, was designed to minimise systematic uncertainties by comparing the antineutrino flux and energy spectra at the two locations for high-precision neutrino oscillation characterisation. However, each detector can also work independently to measure the absolute reactor flux with leading precision too. This contribution will present the latest results released, referred to as DC-V, focusing on the Single Detector (or SD) analyses using the full dataset presented here for the first time. This is expected to be the last data release of the experiment.

Collaboration you are representing

Double Chooz

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