Poster session 2 – Tuesday 5 July

P2.066 **Double Chooz - detectors**

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on behalf of Double Chooz collaboration

The Double Chooz experiment measures the value of the neutrino oscillation parameter θ_{13}, taking advantage of the anti-neutrinos generated by a nuclear power plant in Chooz, France. The experiment relies on the neutrino flux measurement by two identical detectors at different locations: one far away from the reactors (1.05 km) to observe the neutrino disappearance, and one closer (400 m) to characterise the reactor neutrino flux, prior to any significant oscillation. Data taking started in 2010 with only the far detector (single detector mode) and by early 2015, both near and far detectors were running (two detector mode). The poster will describe the performance and stability of the two detectors, providing details on calibration, energy reconstruction etc., showing the similarity of their response. This similarity is a necessary condition to reduce the systematic uncertainties on the measurement of $\sin^2(2\theta_{13})$, aiming to reach a 10 % precision.