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Latest results from the Double Chooz experiment.

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The Double Chooz experiment has obtained its most precise measurement of the neutrino mixing angle θ13 so far exploiting for the first time its multi-detector (far and near) configuration. The improvement of this value relies on the increase of statistics as well as a major reduction of reactor and detection systematics thanks to the iso-flux configuration and a novel detection technique, called "Total neutron Capture". This new method enhances neutrino detection by exploiting the neutron captures on all available nuclei (Gd-n, H-n C-n) resulting in the increase of the detection volume by the factor of 3 and reduction of some major systematics. The main analysis carried out to perform the latest measurements will be presented, as detailed in latest publication in Nature Physics 2020: "First Double Chooz Measurement via Total Neutron Capture Detection"

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