

Status of the Veto System of JUNO

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The JUNO experiment is under construction in China. Its main goal is to determine the neutrino mass ordering via the precise measurement of the energy spectrum of anti-neutrinos from nuclear reactors 53 km away.

For JUNO's measurements, it is essential to suppress and control the background rate that mimic the signal from anti-neutrinos in the Central Detector (CD). The backgrounds that are hardest to identify are the cosmogenic isotopes produced by atmospheric muons crossing the detector.

To suppress this background, a veto will be applied along the muon track. The Veto System will be employed to provide precise information about passing muons. The Veto System of JUNO consists of the Water Cherenkov Detector (WCD), an instrumented ultra-pure water buffer surrounding the CD, and the Top Tracker, a 3-layers plastic scintillator detector covering $\sim 1/3$ of the area above the WCD.

This poster will discuss JUNO's Veto System design, status and expected performance.

Secondary track (number)

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