

Atmospheric neutrino oscillations in JUNO

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The Jiangmen Underground Neutrino Observatory (JUNO) is a multi-purpose experiment currently under construction in southern China. It consists of a 20 kton liquid scintillator detector, whose main physics goal is to determine the neutrino mass ordering (NMO). While its main sensitivity is from reactor neutrino oscillations in vacuum, atmospheric neutrino oscillations in JUNO, via matter effects, can potentially provide an independent sensitivity to NMO, and increase JUNO's total sensitivity in a combined analysis. This talk reports the recent progress made by JUNO towards this goal, including the reconstruction of atmospheric neutrino's energy and directionality, flavor and neutrino/anti-neutrino identification, and background rejection. A preliminary discussion on sensitivity is also presented.

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