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Atmospheric neutrino oscillation sensitivities with the IceCube Upgrade

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The IceCube Upgrade is an extension of the IceCube neutrino telescope aiming to better detect atmospheric neutrinos down to a few GeV. It will consist of 7 additional strings instrumented with more than 100 newly developed optical modules each. More than 600 of these additional optical sensors will be embedded in almost 3 Mt of the most transparent ice. The denser module spacing in combination with the multi-pmt instrumentation of the new modules is expected to improve the energy as well as the directional resolution of the detector. In addition, the new instrumentation will increase the detection efficiency for GeV-scale neutrino interactions. In this talk, we present the IceCube Upgrade sensitivities to atmospheric neutrino oscillations as well as the neutrino mass ordering.

Submitted on behalf of a Collaboration?

Yes

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