



**38th INTERNATIONAL CONFERENCE
ON HIGH ENERGY PHYSICS**

AUGUST 3 - 10, 2016
CHICAGO

Contribution ID: 394

Type: **Oral Presentation**

**Search for dark matter neutrino interaction with
IceCube cosmic neutrinos ($15' + 2'$)**

Saturday, 6 August 2016 12:09 (17 minutes)

IceCube has been observing cosmic neutrinos continuously since their discovery. The origin of these cosmic neutrinos is still unknown and their distribution is compatible with an isotropic diffuse flux. Dedicated studies show that a large fraction of the observed high energy neutrinos originate somewhere outside our galaxy. Regardless of the extragalactic source, the neutrino flux and distribution would be influenced if they interact with dark matter during their propagation. We perform a likelihood analysis of neutrino energy, flavor, and arrival direction of observed high energy events to investigate the strength of dark matter interaction with high energy neutrinos during propagation and confront our results with IceCube's most recent data.

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Session Classification: Neutrino Physics

Track Classification: Neutrino Physics