



Contribution ID: 93

Type: **Presentation**

Searching for annihilating dark matter in nearby galaxies and galaxy clusters with IceCube

Tuesday, June 24, 2014 5:00 PM (10 minutes)

In many models, the self-annihilation of dark matter particles will create neutrinos which can be detected on Earth. An excess flux of these neutrinos is expected from regions of increased dark matter density, for example galaxies and galaxy clusters. The IceCube neutrino observatory, a cubic-kilometer neutrino detector at the South Pole, is capable of detecting neutrinos down to energies of the order of 10 GeV. Therefore it is able to constrain the self-annihilation cross section in a mass range where many models predict the WIMP mass to be. We will present the first search for neutrinos from dark matter annihilations in (dwarf) galaxies and clusters with the full IceCube detector.

Primary author: DE WITH, Meike (Humboldt University, Berlin)

Co-authors: KAPPES, Alexander (Friedrich-Alexander-Univ. Erlangen (DE)); Dr BERNARDINI, Elisa (DESY, Zeuthen)

Presenter: DE WITH, Meike (Humboldt University, Berlin)

Session Classification: Dark Matter: Indirect Detection

Track Classification: Dark Matter Indirect Detection