



Contribution ID: 320

Type: **Oral contribution**

Search for Dark Matter annihilations in the Sun using the completed IceCube neutrino telescope.

Thursday, 30 July 2015 15:00 (15 minutes)

If Dark Matter consists of Weakly Interacting Massive Particles (WIMPs), these might be gravitationally captured in the Sun where they could self-annihilate into standard model particles. Terrestrial neutrino detectors such as IceCube can observe this as an enhanced neutrino flux in the direction of the Sun. Sensitivity has improved with respect to previous searches due to better analysis methods and reconstructions. In addition, improved veto techniques using the outer layers of the cubic kilometre array have been used to reduce the atmospheric muon background and thus improve sensitivity during the Austral Summer. We will present results from an analysis of 341 days of livetime of IceCube-DeepCore in the 86 string configuration.

Collaboration

IceCube

Registration number following "ICRC2015-I"

159

Primary author: RAMEEZ, Mohamed (Universite de Geneve (CH))**Co-authors:** Dr VALLECORSA, Sofia (Universite de Geneve (CH)); MONTARULI, Teresa (Universite de Geneve (CH))**Presenter:** RAMEEZ, Mohamed (Universite de Geneve (CH))**Session Classification:** Parallel DM 01**Track Classification:** DM-EX