

## 4th Uppsala workshop on Particle Physics with Neutrino Telescopes (PPNT19)



Contribution ID: 4

Type: **not specified**

### **Indirect searches for dark matter with IceCube**

*Monday, 7 October 2019 14:10 (25 minutes)*

The nature of dark matter is one of the long-standing open questions in modern cosmology. While many different experimental methods are being explored, a clear signature for particle dark matter is yet to be found. In indirect searches, the final state particles of decaying or self-annihilating dark matter could be observed with existing astro-particle experiments. Due to their small cross-section, neutrinos are able to escape from dense environments such as the Sun or the Earth which makes them unique messengers for dark matter searches. The IceCube neutrino telescope has a diverse program on dark matter searches exploring different source regions and possible mass-ranges. Furthermore, various different models such as decaying, annihilating or secluded dark matter are studied. In this talk I will review the latest results and ongoing efforts of IceCube on indirect searches of dark matter with neutrinos.

#### **Summary**

**Primary author:** BAUR, SEBASTIAN (Université Libre de Bruxelles)

**Presenter:** BAUR, SEBASTIAN (Université Libre de Bruxelles)