

The Smith Cloud and its potential for indirect Dark Matter detection using radio waves

Wednesday, September 14, 2016 5:45 PM (15 minutes)

One of the key predictions of the “WIMP” paradigm for Dark Matter (DM) is that DM particles can annihilate into charged particles. These annihilations will proceed in e.g. Galactic subhalos such as dwarf Galaxies or, as recently pointed out, high velocity clouds such as the “Smith” cloud. In this talk I will argue that among the several messengers of the DM annihilations occurring in the Smith cloud, radio signals stand out. I will also discuss the applicability and the prospects of these ideas in big data radio surveys such as LOFAR.

Summary

Primary author: Dr VOLLMANN, Martin (TU Munich)

Presenter: Dr VOLLMANN, Martin (TU Munich)

Session Classification: Poster Session (coffee at 15:00) & CERN Visit

Track Classification: Dark matter (indirect detection)