Contribution ID : **580** Type : **Poster**

# Using astronomical data to derive flux predictions for the annihilation of Dark Matter in the Local Group

*Monday, 9 July 2007 14:45 (0:00)*

## Abstract content

The issue of the Dark Matter distribution inside the halos is a very complicated one. N-body simulations data, which are usually assumed to represent the dark matter shape inside the halos, suffer from the bug of flattening the model to all types of Galaxy, without taking into account the peculiar properties of each Galaxy. In this work we extract informations on the Dark Matter distribution in some of the dwarf galaxies of the Local Group as well as in M31, deriving from the available catalogues of rotation curves, and we shape the dark matter profile according to the available data. We then study the prediction for the flux of photons from the annihilation of Dark Matter in these structures, as well as the experimental sensitivity of a GLAST-like satellite to these sources.

## If this papers is presented for a collaboration, please specify the collaboration

## Summary

## Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 4 (HE part 1), pages 725-728

**Primary author(s) :** Dr. PIERI, Lidia (INAF-Osservatorio Astronomico di Padova & INFN–Padova); Prof. PIZZELLA, Alessandro (University of Padova)

**Co-author(s) :** Prof. BUSON, Lucio (INAF-Osservatorio Astronomico di Padova); Dr. COLAFRANCESCO, Sergio (INAF-Osservatorio Astronomico di Roma); Dr. CORSINI, Enrico Maria (University of Padova); Dr. DALLA BONTA', Elena (University of Padova); Prof. BERTOLA, Francesco (University of Padova)

**Presenter(s) :** Dr. PIERI, Lidia (INAF-Osservatorio Astronomico di Padova & INFN-Padova)

**Session Classification :** Posters 3 + Coffee

**Track Classification :** HE.3.3