



Contribution ID: 270

Type: **Presentation**

Cosmic ray propagation in molecular clouds

We solve the transport equations of cosmic rays inside a molecular cloud assuming an arbitrary energy and space dependent diffusion coefficient. Cosmic rays penetrating the cloud produce gamma-ray emission through pp collisions with the ambient gas. We study the influence of the gas density profile on the gamma-ray emission and we present predictions for present and future telescopes to observe gamma-ray emission from molecular clouds and from their dense cores.

Primary author: CASANOVA, Sabrina (Max Planck fuer Kernphysik)

Presenter: CASANOVA, Sabrina (Max Planck fuer Kernphysik)

Track Classification: Cosmic Rays