



Contribution ID: 25

Type: Oral

Search for Galactic Dark Matter from Gamma-ray Spectral Lines with Fermi-LAT Data

Thursday 25 May 2017 07:45 (15 minutes)

Most of the matter in the universe is invisible and is known as dark matter (DM). Weakly Interacting Massive Particles (WIMPs) are possible theoretical candidates to explain DM. Hypothetically, WIMPs can be detected indirectly by their annihilation or decay products. A possible product is gamma ray. Many DM profile models predict higher density of WIMPs near the Galactic center. In this work, we consider monochromatic gamma-ray emission from the Galactic center region measured by the Large Area Telescope (LAT), the main instrument onboard the *Fermi* Gamma-ray Space Telescope. We present preliminary results of the analysis of gamma-ray spectral lines to search for DM annihilation or decay signals using the latest version of the LAT data.

Primary author: Ms THANAPREECHANAN, Natthakan

Co-authors: MITTHUMSIRI, Warit; RUFFOLO, David (Mahidol University)

Presenter: Ms THANAPREECHANAN, Natthakan

Session Classification: A7: Astronomy I

Track Classification: Astronomy, Astrophysics, and Cosmology