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## Fingerprints of Dark Matter in the gamma-ray sky (?)

*Monday, June 23, 2014 5:10 PM (25 minutes)*

The quest for Dark Matter signals in the gamma-ray sky is one of the most intriguing and exciting challenges in astrophysics. In this talk I will discuss the energy spectrum of the Fermi bubbles at different latitudes, making use of the gamma-ray data collected by the Fermi Large Area Telescope. At high latitude,  $|b| = 20^\circ - 50^\circ$ , the Fermi bubbles energy spectrum can be reproduced by gamma-ray photons generated by inverse Compton scattering processes, assuming the existence of a population of high-energy electrons. At low latitude,  $|b| = 10^\circ - 20^\circ$ , the presence of a bump at  $E_\gamma \sim 1 - 4$  GeV, reveals the existence of an extra component compatible with Dark Matter annihilation.

**Primary author:** Dr URBANO, Alfredo (SISSA)

**Co-authors:** Dr XUE, Wei (SISSA); Dr HUANG, Wei-Chih (UCL)

**Presenter:** Dr URBANO, Alfredo (SISSA)

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