



HIGH ENERGY PHENOMENOLOGY, EXPERIMENT
AND COSMOLOGY SEMINAR SERIES

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The Potential Dark Matter Signal in GeV Gamma-Rays from the Central Milky Way

Studies have identified a spatially extended excess of $\sim 1-3$ GeV gamma rays from the Galactic Center and inner Galaxy, consistent with the emission expected from annihilating thermal relic dark matter. Dr. Slatyer will describe improvements in the characterization of this signal, which demonstrate that it is spherically symmetric, centered on the Galactic Center, detectable out to 10 degrees from the Galactic Center, and with a spatial profile consistent with annihilation from a cusped NFW profile. Dr. Slatyer will discuss the pros and cons of possible explanations in terms of conventional astrophysics, and some implications of a dark matter interpretation.



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