

## Title: Multiwavelength Dark Matter Searches

Abstract: Astronomical observations across the electromagnetic spectrum have the potential to reveal or constrain a signal from dark matter. The expected products of WIMP annihilation or decay include photons, typically in the gamma-ray regime. Dark matter annihilation/decay is also expected to produce energetic electrons and positrons which would diffuse, lose energy and give a broad spectrum of secondary radiation, including synchrotron emission in the presence of magnetic fields and Inverse Compton up-scattering of CMB photons and other background light to X-ray or gamma-ray frequencies. In addition, keV scale dark matter candidates such as the sterile neutrino may decay to give an X-ray line. I will discuss current constraints on dark matter models utilizing gamma-ray, radio, and X-ray observations with a particular focus on observations of clusters of galaxies, the Galactic Center and dwarf galaxies.