

High-energy particle attenuation within dark matter spikes

Tuesday, 13 June 2023 17:10 (20 minutes)

In this talk, I will discuss the attenuation of high-energy particles in Active Galactic Nuclei (AGN), when they propagate through the dark matter spike around the central black hole and the halo of the host galaxy. First, based on 2209.06339, I will discuss new constraints on the dark matter-neutrino and dark matter-photon scattering cross sections obtained from the observation by IceCube of a few high-energy neutrino events from TXS 0506+056, and their coincident gamma-ray events. Finally, I will discuss new constraints on the dark matter-proton and dark matter-electron scattering cross section obtained with high-energy neutrino and gamma-ray observations from NGC 1068.

Secondary category for the parallel session (optional)

Astroparticle Physics

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