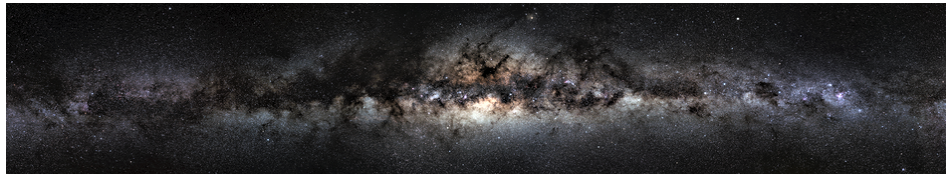


Dark Sectors of Astroparticle Physics (AstroDark-2021): Axions, Neutrinos, Black Holes and Gravitational Waves



Contribution ID: 48

Type: Oral

Terrestrial Upscattering and Heavy Neutral Leptons

Tuesday, 7 December 2021 11:56 (18 minutes)

Neutrinos passing through the Earth can scatter off nuclei and produce heavy neutral leptons (HNLs). For HNL decay lengths on the order of, or shorter than, the radius of the Earth these HNLs can be efficiently detected by searching for their decay products in large volume detectors. I will discuss prospects for discovery of HNLs produced from solar and atmospheric neutrinos in large volume detectors.

Primary authors: SHOEMAKER, Ian; GUSTAFSON, R. Andrew; PLESTID, Ryan (University Of Kentucky)

Presenter: PLESTID, Ryan (University Of Kentucky)

Session Classification: Parallel 2: Neutrinos