

Astro seminar: Long-term TeV spectra of blazars Mrk 421 and Mrk 501

Wednesday, 3 March 2021 10:30 (1 hour)

The High Altitude Water Cherenkov (HAWC) Gamma-Ray Observatory surveys the very high energy sky in the 300 GeV to 100 TeV energy range and it has detected two blazars, Markarian 421 (Mrk 421) and Markarian 501 (Mrk 501). The observations comprises the period between June 2015 and July 2018, resulting in a ~ 1038 days of effective exposure. In this talk I will show the time averaged spectral analysis for both sources above 0.5 TeV. Since the observation of gamma radiation from blazars provides information about the physical processes that take place in their relativistic jets, it is important to study the broad-band spectral energy distribution (SED) of these objects. To this purpose, contemporaneous data from the Large Area Telescope on board the Fermi satellite and literature data, in the radio to X-ray range, were used to build time averaged SEDs that were modeled within a synchrotron self-Compton leptonic scenario to derive the physical parameters that describe the nature of the respective jets.

Presenter: Dr COUTIÑO DE LEÓN, Sara (INAOE)