Contribution ID: **49** Type: **not specified**

The first miniTrasgo Cosmic Ray detector

Monday 2 October 2023 16:45 (15 minutes)

The study of cosmic rays, originating from various sources including the Sun and beyond, remains a field with unanswered questions. To probe these high-energy particles, Extensive Air Showers (EAS) generated by cosmic ray interactions with Earth's atmosphere are analyzed. This paper introduces the miniTRASGO cosmic ray telescope, a portable detector employing Resistive Plate Chambers (RPCs) for data acquisition and analysis, and the new member of the TRASGO family. The telescope measures both muons and electrons, offering potential insights into cosmic ray behavior. Challenges and possibilities of Ultra-High Energy Cosmic Rays (UHECRs) detection are discussed. The telescope's design, RPC structure, and measurement techniques are detailed, including intrinsic efficiency and charge spectra analysis. Future work includes implementing a query system, refining interstrip measurements, exploring higher-order multiplicities, and calculating angular distributions.

Presenter: NOT SUPPLIED, Cayetano Soneira Landín

Session Classification: CPAN - Red Temática de Física Nuclear (FNUC)

Track Classification: CPAN - Red Temática de Física Nuclear (FNUC)