MEETING OF THE AMERICAN PHYSICAL SOCIETY DIVISION OF PARTICLES AND FIELDS

Contribution ID: **481** Type: **Poster**

A uniform magnetic field generator system and a Cu hybrid cosmic ray detector of 4 channels

Monday, 31 July 2017 19:15 (1 minute)

In the universe, there are several sources that produce very energetic cosmic rays that interact with the Earth's atmosphere and create new low energy particles. These particles can be electrically charged and neutral. There are different methods to detect them, according to its interaction with a medium such as the ionization of a material and Cerenkov radiation, among others. An obtained signal can be validated with another detection method, as in a Cu hybrid detector, or with a specific array of detectors.
Knowing some points where a particle has passed through, inside a magnetic field, its trajectory and electric charge can be determined.
This work presents the design, construction and characterization of a uniform magnetic field generator system and a Cu hybrid cosmic ray detector of 4 channels. Details and some preliminary results will be presented.

Primary authors: Mr ROSAS-TORRES, Francisco (Universidad de Guanajuato); Prof. FELIX, Julian (Universidad de Guanajuato); Ms HERRERA GUZMAN, Karla Natalia (Universidad de Guanajuato); Mr GUTIERREZ SANCHEZ, Raul Alejandro (Universidad de Guanajuato)

Presenters: Mr ROSAS-TORRES, Francisco (Universidad de Guanajuato); Prof. FELIX, Julian (Universidad de Guanajuato); Ms HERRERA GUZMAN, Karla Natalia (Universidad de Guanajuato); Mr GUTIERREZ SANCHEZ, Raul Alejandro (Universidad de Guanajuato)

Session Classification: Poster Session and Reception

Track Classification: Particle Detectors