Contribution ID: **9** Type: **not specified**

TRASGOS: Towards a new standard of measuring cosmic rays.

Friday 26 April 2019 16:12 (18 minutes)

Research in cosmic-rays is of interest in many fields of science; from Astrophysics to Solar Physics, to Forecasting of Geomagnetic storms, to Vulcanology, and much more. For such purposes, many detectors and tools that use different techniques have been designed and are operative all over the world. Of special interest are 'neutron monitors' and 'directional muon telescopes', which perform background surveys of low-energy galactic cosmic-rays.

TRASGO is the acronym of "TRAck reconStructinG bOx"and the name corresponds to a project aiming to the development of a new generation of cosmic-ray tracking detectors. All based on tRPC technology ('timing Resistive Plate Chamber') under which they share their operational capabilities at all levels: acquisition, monitoring, tracking, event reconstruction, and analysis. All these features allow both: the design of Trasgos with a 'broad field of applications', and 'compatibility' (such that any new tool developed for any of them can be used in the rest of stations).

So far three Trasgos have been developed: TRAGALDABAS, MuTT and TRISTAN. These systems have been collecting data for different purposes and at various locations. The program started only a few years ago, therefore, some tools are still under development. Yet, preliminary analyses of the data provided by the different Trasgos has started to show some interesting features, thus proving their research power.

Author: Prof. JUAN A., Garzon (Univ. Santiago de Compostela)

Presenter: Prof. JUAN A., Garzon (Univ. Santiago de Compostela)

Session Classification: Contributed talks II