



Contribution ID: 59

Type: **Oral**

Muon tomography with resistive plate chambers for geological characterization

Wednesday 28 September 2022 14:25 (25 minutes)

Muon tomography is one of several fields of applied physics that have witnessed the successful use of particle detection based on Resistive Plate Chambers (RPC). In this work, we will report on an innovative project concerning transmission muography for geological characterization. For this purpose, a muon telescope built of four RPC planes was mounted on an adjustable structure and the telescope's response to atmospheric muons was studied. Data acquisition campaigns took place at different locations for producing muographic images of the building of the Physics Department of the University of Coimbra, in Portugal. Recently, the detector was moved to an underground gallery of an old mine, where it is taking data to be assessed in combination with the results from conventional geophysics techniques.

Author: SARMENTO, Raul

Presenter: SARMENTO, Raul

Session Classification: New detector applications