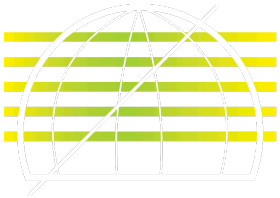

Contribution ID: **65** Type: **Oral**

# Outdoor systems performance and upgrade

*Friday, 30 September 2022 11:20 (20 minutes)*

In the last two decades, the possibility of using RPCs in systems that work outdoors has increased considerably. Our group has been involved in this effort having several systems in operation, continuing to work on their optimization, studying and developing new approaches that can contribute for the use of RPCs in outdoor applications.

A few detectors were deployed in the field at the Pierre Auger Observatory in 2019 but were idle, pending commissioning of support systems. The pandemic force us to leave the RPC modules without any gas flow during more than 2 years. The commissioning of these detectors restarted recently. The monitoring of those detectors will be presented.

The LouMu project combines particle physics and geophysics in order to map large geologic structures, using the Muon Tomography. The development of the RPC system and the data of the last two years will be presented.

Due to pandemic our R&D efforts in the last two years were not concentrated in this important objective. Nevertheless recent advances in large area (1 m2) double gap sealed RPC will be presented.

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**Session Classification:** Detector R&D