

Contribution ID : **74** Type : **Short Talk**

Front-End Electronics based on PETIROC2A Characterization and Implementation in an RPC Muon Telescope

Friday, 23 October 2026 17:35 (0:10)

Abstract

The Front-End based on the PETIROC2A ASIC has 32 independent channels and was originally designed for the readout of SiPM detectors. Its use is being considered as a proposal for the data acquisition electronics of the Muon ID subsystem in ALICE 3. Each channel incorporates fast preamplifiers, programmable discriminators, as well as circuits that allow both charge and time measurements with a temporal resolution of 37 ps. To characterize and evaluate its performance with different types of detectors, it was implemented in a muon telescope based on two RPC detectors and two PMT detectors coupled to plastic scintillators, used as a trigger signal.

Primary author(s) : Mr. GUTIERREZ RUIZ, Juan Manuel (BUAP)

Co-author(s) : Dr. TEJEDA MUÑOZ, GUILLERMO (BUAP); Dr. FERNANDEZ TELLEZ, ARTURO (BUAP)

Presenter(s) : Mr. GUTIERREZ RUIZ, Juan Manuel (BUAP)

Session Classification : Short Talks