

Autonomous Environmental and Scientific SWGO site Characterization Instrument

Friday 16 July 2021 19:18 (12 minutes)

The project Southern Wide-field Gamma-ray Observatory (SWGO) aims to build an array of air-shower detectors in the Southern hemisphere. Preliminary site searches identified suitable sites in Argentina, Bolivia, Chile and Peru. Site environment (including weather, seismic activity and also the electric field) is one of the key aspects to be considered in the site selection and should be based on reliable and comparable measurements. We describe an environmental monitoring device to equip several candidate sites proposed for the SWGO. The individual monitoring sensors, control unit and the data storage together with the power system and data transfer concepts are specified. We present also the results of a long term cross-calibration campaign and a climate chamber evaluation of the proposed devices.

Keywords

SWGO; Aerosite; environmental characterization

Collaboration

SWGO

other Collaboration

Subcategory

Experimental Methods & Instrumentation

Authors: CHYTKA, Ladislav (Institute of Physics, CAS); MANDAT, Dusan (Institute of Physics of the Czech Academy of Sciences); PECH, Miroslav; Mr DANIEL, Staník (Palacky University Olomouc); VÍCHA, Jakub (FZU - Institute of Physics of Czech Academy of Sciences); TRAVNICEK, Petr; Dr BOHÁČOVÁ, Martina (Institute of Physics, CAS); Dr TOBIŠKA, Petr (Institute of Physics, CAS); FOR THE SWGO COLLABORATION

Presenter: CHYTKA, Ladislav (Institute of Physics, CAS)

Session Classification: Discussion

Track Classification: Scientific Field: GAI | Gamma Ray Indirect