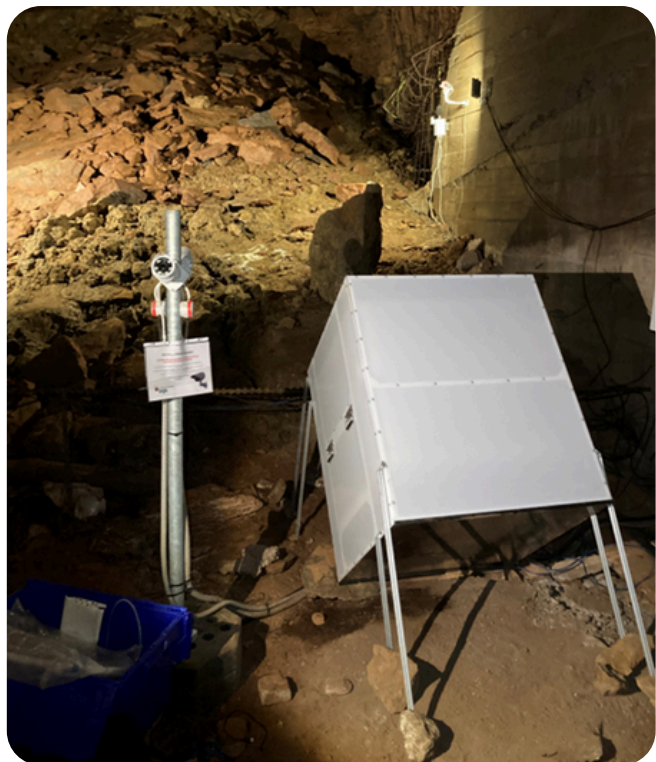


# SCINTILLATOR MUON TELESCOPE

## COSMIC RAYS TO IMAGE THE WORLD

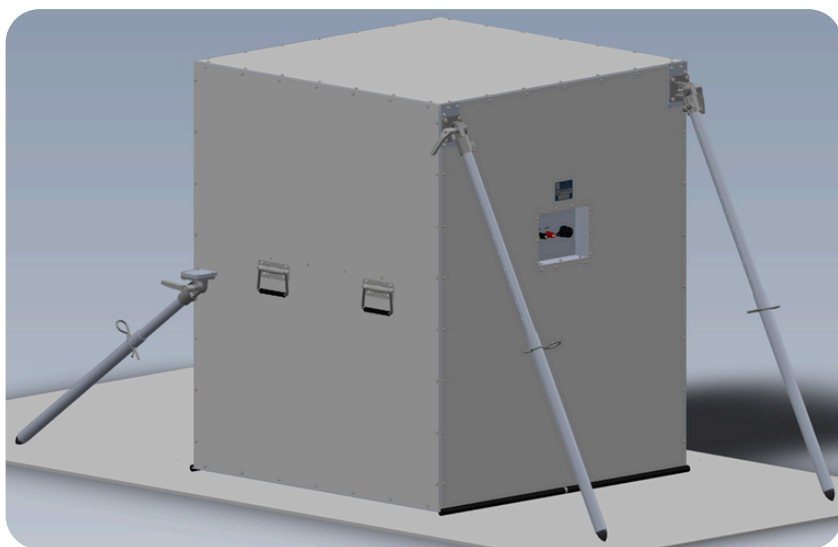


### FROM THE VOLCANOS TO THE SUBSURFACE

Started as a research project to better understand the phreatic system of La Soufriere volcano. The scintillator muon telescope technology is brought to you by Iris Instruments to take advantage of the unmatched efficiency and collection surface for muon reconstruction. It allows to collect a maximum of muons during its acquisition time. Already deployed in many different environments (archeological sites, tunnel boring machines, mine tunnels, quarries, border control points, nuclear industry,...), it will suit many different applications. It provides a timestamped muon trajectory parameter list to allow for an in-depth analysis either in static imaging or in temporal variations.

### STATE OF THE ART PARTICLE DETECTORS IN A FIELD READY INSTRUMENT

The instrument is compact and sturdy : it will handle many deployment environment. From confined places to rough transport winced up into a helicopter, the instrument can be brought to nearly any site. With its modular strut legs, it can be easily aimed at any direction above the horizon. When in place, a simple 12V supply will bring it to life either from grid power or a battery backed solar power array, the instrument will tolerate voltage variations from the battery. It will operate autonomously but it can be monitored remotely using its network port.



# SCINTILLATOR MUON TELESCOPE

CHARACTERISTIC	VALUE
Dimensions (L x l x h in mm)	1000 x 1000 x 1200
Weight (kg)	90kg without shielding
Possible inclination	Continuous from zenith to horizon
Low energy shielding	Optional, up to 50mm thick
Power supply	9-18VDC (12VDC nominal) Battery compatible
Power consumption	< 50 W
Spatial resolution	< 15 mm
Active area	800x800mm <sup>2</sup>
Field of view	72° to 111°
Angular resolution	Up to 22mrad @ 72°FoV Up to 45mrad @ 111°FoV
Communication	Ethernet (SSH/HTTP)
Data produced	Timestamped muon position and direction in telescope reference frame in ROOT tree