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All sky camera, Lidar, and Electric Field Meter for the ASTRI SST-2M prototype for CTA

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ASTRI, Astrofisica con Specchi a Tecnologia Replicante Italiana, is a flagship project of the Italian Ministry of Education, University and Research, entirely supported and led by the Italian National Institute of Astrophysics, INAF. The project is developed in the framework of the International Cherenkov Telescope Array, CTA. The primary goal of the ASTRI project is the realization of a wide field of view end-to-end prototype of a Small Size Telescope (SST-2M) for the CTA devoted to the investigation of the energy range from a few TeV up to hundreds of TeV.

The ASTRI SST-2M end-to-end prototype, currently under construction, will be installed and operated in Italy at the INAF observing station located at Serra La Nave on Mount Etna during next autumn 2014. In the framework of the environmental monitoring studies, a set of auxiliary instrumentation has been configured on site and in particular an all-sky camera, an Electric Field Meter and a Raman Lidar.

In this contribution we present our progress in detecting clouds in color all-sky images taken during the day and the night, the results in monitoring the volcanic ash with our Lidar system, and the first results coming from the Electric Field Meter, mainly acting as lightning detector.

Summary

The talk will focus on the progress on data taking and analysis of three instruments, all-sky camera, an Electric Field Meter and a Raman Lidar, that are being set for the monitoring of the sky conditions at the INAF ASTRI SST-2M test site of Serra La Nave.

Primary author: Dr LETO, Giuseppe (INAF-Osservatorio Astrofisico di Catania)

Co-authors: Mr MARTINETTI, Eugenio (INAF-Osservatorio Astrofisico di Catania); Mr BELLASSAI, Giancarlo (INAF-Osservatorio Astrofisico di Catania); Dr MACCARONE, Maria Concetta (INAF-IASF Palermo); Mr BRUNO, Pietro (INAF-Osservatorio Astrofisico di Catania); Dr ZANMAR SANCHEZ, Ricardo (INAF-Osservatorio Astrofisico di Catania)

Presenter: Dr LETO, Giuseppe (INAF-Osservatorio Astrofisico di Catania)

Session Classification: Overview of Experiments