

The SST-1M telescope proposed for Cherenkov Telescope Array and its calibration strategy

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¹<https://www.cta-observatory.org/>

ABSTRACT

There is a strong liaison between neutrino and gamma-ray astronomy, which have in common the sources, as well sources of cosmic rays in hadronic acceleration scenarios. Gamma-rays are detected with high statistics and can help identify the sources of which IceCube is seeing a diffuse flux.

In this poster I introduce one of the proposed small sized telescopes of the future generation of gamma-ray Observatory, Cherenkov Telescope Array.

CTA will comprise a sub-array of up to 70 small sized telescopes (SSTs) in the southern array. The SST-1M project, a 4 m-diameter Davies Cotton telescope with 9 degrees FoV and a 1296 pixels SiPM camera, is designed to meet the requirements of in the energy range above 3 TeV.

This innovative camera and its construction are described, as well as its calibration strategy for operation. The calibration tests are presented in order to extract signal charge, time and background level.