



Contribution ID: 1345

Type: **Talk**

## Stereo observations of CTA 1 with SST-1M

*Friday 18 July 2025 16:20 (15 minutes)*

CTA 1 is a composite supernova remnant featuring a shell structure and an inner Pulsar Wind Nebula. The shell is visible in the radio band, while Fermi has detected the radio-quiet pulsar PSR J0007+7303 at its core. Gamma-ray detectors such as LHAASO and VERITAS have detected TeV emission in the vicinity of the pulsar. However, the derived SEDs from LHAASO WCDA and VERITAS show significant discrepancies, which could be due to a complicated energy-dependent morphology not accounted for in the spectral analysis, and different angular resolution of the two experiments.

CTA 1 has been a target for dedicated observations by the SST-1M telescopes, a pair of small-sized Imaging Atmospheric Cherenkov Telescopes (IACTs) capable of operating in both mono and stereo modes. Located at the Ondřejov Observatory in Czechia, these telescopes are sensitive to the high energy range of the gamma-ray spectrum, spanning from 1 to 300 TeV. To investigate the very high-energy emission of CTA 1, the SST-1Ms have accumulated approximately 20 hours of observations, aiming to further constrain the characteristics of the source's high energy emission, and to shed some light into the discrepancy between different experiments.

### Collaboration(s)

**Author:** LACAVE, Bastien

**Presenter:** LACAVE, Bastien

**Session Classification:** GA

**Track Classification:** Gamma-Ray Astrophysics