

The ASTRI mini-array at Teide Observatory

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The ASTRI MINI-ARRAY is an international project led by the Italian National Institute of Astrophysics (INAF) with the participation of the Instituto de Astrofísica de Canarias, Brazil and South Africa to be installed at the Teide Observatory, in Tenerife, to observe the Very High Energy sky in the range of a few TeV up to 100 TeV and beyond. The ASTRI MINI-ARRAY technology is based on the ASTRI-Horn prototype, a small-sized Cherenkov telescope (SST) developed by INAF within the Cherenkov Telescope Array (CTA) Project and located in Italy at the INAF “M.C. Fracastoro” observing station (Mt. Etna, Sicily). The telescope is characterized by a dual-mirror optical system and curved focal surface covered by a SiPM sensors camera managed by a fast front-end electronics. The ASTRI MINI-ARRAY is composed of nine ASTRI-Horn-like telescopes. It is going to be developed by the ASTRI Collaboration in all aspects from the design, construction and implementation of the entire hardware and software system, including a dedicated off-site Data Center, to the final scientific products. The ASTRI MINI-ARRAY will be operated as an observation facility led by INAF and thanks to its sensitivity, especially at energies greater than 1 TeV, represents the key instrument to perform very soon a ground breaking achievement in the field of extreme gamma rays, up to 100 TeV and beyond. In this contribution, after a short description of the major results obtained by the prototype in Serra La Nave, I will review about the MINI-ARRAY status and expected performance.

Keywords

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Collaboration

other (fill field below)

other Collaboration

ASTRI

Subcategory

Future projects

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