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## Renewed performance of the ASTRI Mini-Array at the Observatorio del Teide

The ASTRI Mini-Array is an international project, led by the Italian "Istituto Nazionale di Astrofisica" (INAF), with the aim to build and operate a facility sensitive to very high-energy gamma-rays in the 1-200 TeV energy range. It consists of an array of nine small-sized (4-m diameter) and large field of view (~10°) Imaging Atmospheric Cherenkov Telescopes under deployment at the "Observatorio del Teide" (Tenerife, Spain). The full array is expected to be operational within a couple of years and will guarantee a coverage for the Galactic and extragalactic gamma-ray sources of the northern sky, in synergy with other ground-based gamma-ray facilities, like MAGIC, HAWC, LHAASO, LST and, in the next future, CTAO. ASTRI-1, the first telescope of the array, was completed in mid-2024 and is currently fully operative.

We generated detailed high-statistic Monte Carlo (MC) simulations for the whole ASTRI Mini-Array, tuned on the most updated configuration of the ASTRI-1 telescope. These were reprocessed by the official ASTRI Scientific Software (A-SciSoft), in order to assess the updated performance of the array and to generate suitable Instrument Response Functions (IRFs) for scientific analyses.

In this contribution we present the latest performance of the ASTRI Mini-Array. We also describe two novel tools that were fully implemented in the scientific pipeline which allows us to derive the instrument performance and to generate IRFs from MC simulations.

## **Collaboration(s)**

ASTRI

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