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The ASTRI project

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The ASTRI program was initiated a decade ago with the objective of developing small-sized dual-mirror aplanatic wide-field IACT telescopes. These telescopes would serve as precursors to the array of small-sized telescopes (SSTs) for the Cherenkov Telescope Array (CTA) observatory's southern site. Initially, the program received support from INAF and MUR (the Italian Ministry for Universities and Research), and later gained support from international partners such as the University of Sao Paulo/FAPESP, North-West University/South Africa, IAC, FGG, and Université de Geneve at various stages of the project. The program's first significant achievement was the development of the end-to-end ASTRI-Horn prototype, which was installed at the INAF site of Serra La Nave. The prototype featured an innovative compact camera based on SiPM sensors and proved the dual-mirror Schwarzschild-Couder optical configuration as an aplanatic system while detecting the Crab Nebula in gamma rays. Now, the ASTRI mini-array is under implementation in Tenerife at the Observatorio del Teide to analyze the gamma-ray sky in the 1-100 TeV energy band with unprecedented angular resolution (3 arcmin), complementing LHAAZO perfectly. This presentation provides an overview of the project's status and scientific goals.

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