THE 1st LHAASO SYMPOSIUM



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ASTRI Optical design

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ASTRI is a 4 m class Imaging Atmospheric Cherenkov Telescope (IACT) devoted to the observation of gamma sources in the TeV emission band. The telescope implements an innovative optical design based on the dual-mirror Schwartzchild –Couder (SC) configuration. The SC configuration was proposed at the beginning of 1900 as an aplanatic configuration capable of reducing off-axis angular resolution degradation and hence enhancing the field of view. ASTRI was inaugurated in 2014 and is the first telescope realized in SC configuration. The optical performance of ASTRI is perfectly matching the TeV band IACT requirements with an angular resolution <0.2° across the field of view of about ~10°.

ASTRI was then adopted as a baseline for the Cherenkov Telescope Array Small Size telescopes and is going to be implemented in 9 replicas at the ASTRI Mini Array, a TeV band Cherenkov Observatory realized by the Italian Institute for Astrophysics at the Tenerife site.

Summary

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