

# Effective pointing of the ASTRI-Horn telescope using the Cherenkov camera with the Variance method

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## *Executive Summary*

In this contribution we present in detail the strategy to assess the alignment of the Cherenkov camera with the optical axis of the ASTRI-Horn telescope, developed in the context of the ASTRI project. Our method exploits sky images taken directly from the Cherenkov camera (“Variance” data) and the effect of the field of view (FOV) rotation. Thanks to a deep investigation of the PSF convolution over the pixels, we evaluated the position of the stars in the FOV and then we fitted their trajectories with a multi-ellipse function. In this way, we obtained a measure of the camera offset with respect to the optical axis of the telescope with sub-pixel accuracy. This method will be exploited in the assembly integration verification and the calibration phase of the ASTRI Mini-Array.