

Abstract Submitted
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The TALE Fluorescence Detectors CHARLES JUI¹, University of Utah, TELESCOPE ARRAY (TA) COLLABORATION² — The TALE fluorescence detectors are designed to extend the threshold for fluorescence observation by TA down to 3×10^{16} eV. It will comprise two main components. The first is a set of 24 telescopes working in stereo, with an existing TA FD station at ~ 6 km separation. These will cover between 3-31 degrees in elevation and have azimuthal coverage maximizing the stereo aperture in the 10^{18} - 10^{19} eV energy range. The second component consists of 15 telescopes equipped with 4m diameter mirrors and covering the sky between 31 and 73 degrees in elevation. The larger mirror size pushes the physics threshold down to 3×10^{16} eV, and provides view of the shower maximum for the lower energy events. The Tower detector will cover one quadrant in azimuth and operate in hybrid mode with the TALE infill array to provide redundant composition measurements from both shower maximum information and muon-to-electron ratio.

¹for the TA/TALE Collaboration

²TALE: TA Low Energy Extension

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