

Monocular Energy Spectrum using the TAx4 Fluorescence Detector

The Telescope Array (TA) Experiment is the largest cosmic ray detector in the northern hemisphere located in Utah, USA. Following the evidence for a hotspot in the arrival directions of the highest energy cosmic rays, TA expanded the area of the Surface Detectors (SDs) by a factor of four and added new Fluorescence Detectors (FDs) to view over the new SD arrays. Currently, TAx4 consists of 12 FDs and 257 SDs, of a planned 500, at a spacing of 2.08 km spread over two sites. TAx4 North (4 FDs), completed in 2018, views over the northern wing of the new SDs, and TAx4 South (8 FDs), completed in 2019, views over the southern wing of new SDs. Both FD sites are in routine observation, with data being taken remotely at the TAx4 South site. In this presentation, we show the performance of the TAx4 FDs, data/MC comparisons, and the TAx4 monocular energy spectrum as measured by the FDs.

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