

Current status and prospects of surface detector of the TAx4 experiment

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Telescope Array (TA) is the largest ultrahigh energy cosmic-ray (UHECR) observatory in the Northern Hemisphere. A surface detector (SD) array covers approximately 700 km^2 , and the SD array is surrounded by three fluorescence detector (FD) stations. TA has found evidence for a cluster of cosmic rays with energies greater than 57 EeV from the TA SD data. In order to confirm this evidence with more data, we started the TAx4 experiment which expands the detection area using new SDs and FDs. We started construction of new SDs which are arranged in a square grid with 2.08 km spacing at the north east and south east of the TA SD array. More than half of the new SDs are already deployed and running. In this talk, we present the current status of the TAx4 SD and the data that have already been collected.

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Subcategory

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