

Status and prospects of the CRAFFT project for the next generation UHECR observation

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Recent observations by TA and Auger have advanced our understanding of ultra-high energy cosmic rays, but their origin is still unclear. As a future approach, it will be effective to obtain the directional energy spectra and compositional distributions by observing even larger statistics, and there are active discussions on future large-scale experiments. In order to realize such a huge observation area, the Cosmic Ray Air Fluorescence Fresnel lens Telescope (CRAFFT) project has started to develop a cost-effective fluorescence telescope with Fresnel lenses. We have succeeded in observing cosmic ray induced air showers by simultaneous observations with TA using prototype telescope, and the cost has reached 1/10 of the existing fluorescence telescopes. The progress of the development of autonomous observation system and improved telescope, the performance of event reconstruction, the configuration and analysis results of the test observation, and future prospects will be discussed.

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