

Executive Summary

Progress in optimizing the detection surface structure of CRAFFT

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1. What is this contribution about?

For the future large-scale UHECR observations, we are developing an event reconstruction method and improving a detector configuration for the CRAFFT detector.

2. Why is it relevant / interesting?

CRAFFT, a fluorescence telescope consisting of small number of pixels and Fresnel lens, which is cost-effective and has sufficient accuracy, will be a means to realize a large-scale observation with sensitivity to mass composition.

3. What have we done?

We developed a reconstruction method based on waveform fitting and estimated the resolution of reconstructed shower geometry for two different detector configurations.

4. What is the result?

The resolution for both detector configurations is found to be about 2 degrees in the arrival direction and 500 m in the core position, respectively.

