

Executive summary

1. What is this contribution about?

The TAx4 experiment is an extension of the TA experiment to accelerate the data collection speed of high energy cosmic rays and reveal its origin. This contribution demonstrates the performance of TAx4 surface detectors (SD) and comparison the real data with the MC simulation.

2. Why is it relevant / interesting?

The TAx4 SD array has been running for over one year. This is the first preliminary result of the TAx4 SD.

3. What have we done?

We calculate the energy resolution and angular resolution, and compare the real data and the simulation.

4. What is the result?

The real data and simulation agree within statistical error. The energy resolution is 27% and the angular resolution is 2.4° for cosmic rays with $E > 57 \text{ EeV}$.