

executive summary

Observing Ultra-High Energy Cosmic Rays using Camera Image Sensors

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What is this contribution about?

We propose a new approach for observing UHECR by detecting charged particles in the core region of EAS using a cost-effective and compact detector with a CMOS camera image sensor.

Why is it relevant / interesting?

Since only the core is the observation target, a large effective area can extend while reducing required sensors.

What have we done?

We have done simulations to show the possibility of detecting charged particles in the core region of EAS using a CMOS camera image sensor.

What is the result?

The CMOS image sensor array proves effective for observing UHE cosmic rays.