



The Cosmic ray energy spectrum in the 2nd knee region measured by the TALE-SD array

Summary Slide

- **What is this contribution about?**

This is about the TALE-SD array performance.

- **Why is it relevant / interesting?**

In the energy region observed by TALE SD array,
the origin of cosmic rays is expected to be in transition from intra-
galactic to extra-galactic.

- **What have we done?**

We performed MC simulations to evaluate the performance of our TALE-SD array.

- **What is the result?**

We evaluate the energy resolutions $\sim 20\%$, @ $10^{16.7}$ eV to $10^{18.5}$ eV,
and the resolution of the arrival direction = $1.5^\circ \sim 3^\circ$ @ $10^{16.7}$ eV to $10^{18.5}$ eV,
also, the aperture saturates at $10^{18.3}$ eV with $\sim 20\text{km}^2\text{sr}$.