



Contribution ID: 79

Type: **Oral presentation**

## The HERD space mission

*Friday, 16 September 2022 09:45 (20 minutes)*

HERD (High Energy Radiation Detector) is a future experiment for space-based detection of cosmic rays and gamma ray astronomy onboard the Chinese Space Station. Its most innovative feature will be the events collection from 5 sides, hence having a one order of magnitude jump in acceptance with respect to current largest calorimetric experiments. This will make it possible to investigate cosmic rays spectra for each species up to the so-called knee region at PeV energies. The all-electron spectrum will also be measured up to about 10TeV (depending on the actual flux) and the gamma sky will be studied with a large effective area from a few hundreds MeV up to few TeV, also allowing the search for possible signatures from dark matter particles in our galaxy.

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**Session Classification:** Cosmic Rays