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# The next step of ALTO: The Cosmic Multiperspective Event Tracker (COMET)

*Wednesday 25 November 2020 10:30 (10 minutes)*

The ground-based ALTO array is being developed for observation of atmospheric air showers induced by very-high-energy (VHE) gamma-rays at energies above ˜200 GeV, thus covering emission spectra of soft-spectrum sources. Its particle detector array, consisting of water Cherenkov detectors and scintillation detectors, overlooks a large portion of the sky and enables detection of VHE gamma-rays regardless of weather conditions. During darkness, the addition of atmospheric Cherenkov light HiSCORE-type detectors will improve the reconstruction of arrival direction, energy and shower maximum for gamma-ray induced showers in the atmosphere, all crucial elements for the reduction of background contamination from cosmic rays. When coupling particle detection with atmospheric Cherenkov light detection, the instrument becomes a Cosmic Multiperspective Event Tracker (COMET). Using its full observational capacity ALTO/COMET will be able to search for new VHE gamma-ray sources and investigate exotic physical phenomena.
The status of ALTO/COMET R&D activities will be presented, including the construction and operation of its atmospheric Cherenkov light detector prototypes.

## Abstract Track

Flash talk, Astroparticle physics

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