

Vulcano Workshop 2022 - Frontier Objects in Astrophysics and Particle Physics



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The Cherenkov Telescope Array: Status and perspectives

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The Cherenkov Telescope Array (CTA) will be five to ten times more sensitive depending on energy with respect to current generation Imaging Cherenkov Telescopes and will have unprecedented accuracy in its detection of very-high-energy gamma rays in the energy range from 20 GeV to 300 TeV. CTA is designed to detect gamma rays over a larger area with dozens of telescopes located on the Canary island of La Palma and in the Paranal desert in Chile, in the northern and southern hemispheres respectively.

Together, the northern and southern CTA arrays will constitute the CTA Observatory (CTAO), which will be the first ground-based gamma-ray observatory open to the worldwide astronomical and particle physics communities as a resource for data from unique, high-energy astronomical observations.

The talk will present the current status of the development of the telescopes, of the Observatory and the perspectives for its scientific observations.

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