

CTA: design of and science with the next generation ground-based gamma-ray observatory

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The Cherenkov Telescope Array CTA, a proposed open observatory for very high energy gamma-ray astronomy, is approaching the end of its preparatory phase. CTA channels the experience obtained with instruments like H.E.S.S., MAGIC and Veritas into a world-wide effort to further boost the physics potential of the successful imaging atmospheric Cherenkov technique. I will discuss the design concepts of the two foreseen CTA arrays and highlight some of the many science topics of the observatory which range from cosmic ray physics and astrophysics to particle physics and cosmology.