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## Central Acceptance Testing for Camera Technologies for the Cherenkov Telescope Array

*Saturday 1 August 2015 15:30 (1 hour)*

The Cherenkov Telescope Array (CTA) is an international initiative to build the next generation ground based very-high energy gamma-ray observatory. It will consist of telescopes of three different sizes with several different technologies for the cameras that detect the Cherenkov light from the observed air showers. In order to ensure the compliance of each camera technology with CTA requirements, CTA will perform central acceptance testing of each camera technology. To assist with this, the Camera Test Facilities (CTF) work package is developing a detailed test program covering the most important performance, stability and durability requirements and is setting up the necessary equipment. Two different setups for performance tests on camera subunits are being built, which may provide an early feedback for camera development. When fully integrated cameras are available, their performance may be tested with a portable setup at their construction site. Performance testing will include a wide range of tests like signal amplitude, time resolution, dead-time determination, trigger efficiency, performance testing under temperature and humidity variations and several others. Stability and durability tests will include the long-term functionality of movable parts, water tightness of the camera housing, temperature and humidity cycling, resistance to vibrations during transport or due to possible earthquakes, UV-resistance of materials and several others. Some durability tests will need to be contracted out because they will need dedicated equipment not currently available within CTA. The planned test procedures and the current status of the test facilities will be presented.

### Collaboration

CTA

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84

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