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Performance of the SST-1M telescope of the Cherenkov Telescope Array observatory

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The single mirror small-size telescope (SST-1M) is one of the telescope projects being proposed for the Cherenkov Telescope Array (CTA) observatory by a sub-consortium of Polish and Swiss institutions. The SST-1M prototype structure is currently being constructed at the Institute of Nuclear Physics in Cracow, Poland, while the camera will be assembled at the University of Geneva, Switzerland. This prototype enables measurements of parameters having a decisive influence on the telescope performance. We present results of numerical simulations of the SST-1M performance based on such measurements. The telescope effective area, the expected trigger rates and the optical point spread function are calculated together with an estimate of the performance of an array of SST-1M telescopes.

Collaboration

CTA

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