



Contribution ID: 842

Type: **Poster contribution**

Study on the large dimensional refractive lens for the future large field-of-view IACT

Thursday, July 30, 2015 3:30 PM (1 hour)

Sub-100GeV to TeV is a crucial energy window in gamma ray astronomy because of its important role connecting the space experiments and the ground-based observations. The observations in this energy range are expected to provide rich information about the high energy emission from GRBs and AGNs, with which EBL can be measured, and knowledge about the galaxy formation and the evolution of the early universe can be obtained. One pursuit of the next generation Imaging Atmospheric Cherenkov Telescopes (IACT) is to achieve larger field of view by using a refractive optics system as light collector. In this work, preliminary test results on the optical properties (transmittance, angular resolution, etc.) of a prototype 0.9m diameter water lens are presented and discussed.

Collaboration

– not specified –

Registration number following "ICRC2015-I/"

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Session Classification: Poster 1 GA

Track Classification: GA-IN