Construction of prototype two-mirror Schwartzchild-Couder Imaging Air Cherenkov Telescope (IACT) for VHE gamma-ray astronomy

DAVID KIEDA, Univ of Utah, CTA-US COLLABORATION COLLABORATION — Next generation ground-based VHE gamma-ray observatories such as the Cherenkov Telescope Array (CTA) will employ an array of different sized IACTs distributed across square kilometer areas. During 2015-2016, the CTA-US collaboration is constructing a prototype 9.6 m primary diameter Schwartzchild-Couder IACT (SCT) at the FL Whipple Observatory, Amado, AZ USA. The two-mirror SCT design provides 8 degree field of view with 0.067 degree pixel size. The SCT uses a high resolution (11,328 pixel) Silicon PhotoMultiplier (SiPM) camera to record atmospheric Cherenkov light images generated by gamma-ray and cosmic ray primaries. Incorporation of SCT telescopes into a CTA-type observatory can provide superior angular resolution (30

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