Contribution ID: **1232** Type: **Poster**

Development of wide-field stereoscopic water Cherenkov detector for 100GeV-10TeV energy range at high altitude

The Stereoscopic Water Cherenkov Detection Array (SWCDA) project is a next generation ground-based array experiment for high energy gamma-ray astronomy observation in the 100GeV-10TeV range. It is an innovative three-dimensional water Cherenkov detection array. Its main scientific objective is to observe blazars, active galactic nuclei (AGN or AGN flare), gamma-ray bursts, etc., in the 100 GeV-10 TeV energy region. Its prototype has been built inside the Tibet ASgamma air-shower array in Tibet at the end of 2024, with an area of 100 mˆ2, and data taking will start in 2025. This paper will introduce the development and design of the SWCDA and its future application in detail.

Collaboration(s)

Author: Prof. CHEN, D. (National Astronomical Observatories)

Co-authors: Prof. HUANG, J. (IHEP, CAS); Dr ZHAI, L.M. (NAO, CAS); Dr CHEN, Xu (NAO, CAS); Dr ZHANG, Y. (IHEP, CAS); Dr MENG, Y. (IHEP, CAS); Dr HU, K.Y. (IHEP, CAS); Dr ZOU, Y.H. (IHEP, CAS); Dr YU, Y.L. (IHEP, CAS); Dr LI, Y.Y. (IHEP, CAS); Dr HUANG, S.Y. (IHEP, CAS)

Presenter: Prof. CHEN, D. (National Astronomical Observatories)

Session Classification: PO-2

Track Classification: Gamma-Ray Astrophysics