

SWGO: The Southern Wide-field of view Gamma-ray Observatory

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Abstract:

The Southern Wide-field Gamma-ray Observatory (SWGO) will be a new extensive air shower array in South America for the observation of VHE (very high energy) to UHE (ultra high energy) gamma rays. The SWGO Collaboration is currently engaged in the design work and the site selection towards the construction of this future facility. SWGO will use an array of water Cherenkov-based particle detectors to provide a wide field and high duty cycle view of the southern sky in Gamma Rays, complementing CTA and the existing particle arrays of the Northern Hemisphere, such as HAWC and LHAASO. In this talk, we will give an overview of the status of the project, which has a strong contingent of Latin American participation, with candidate sites in Argentina, Chile, Peru and Bolivia. We will also talk about performance expectations and the science goals of the Observatory.

Author: Dr DIB, Claudio (Federico Santa Maria Technical University (CL))

Presenter: Dr DIB, Claudio (Federico Santa Maria Technical University (CL))

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