

# The search for high altitude sites in South America for the SWGO detector

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The Southern Wide-field Gamma-ray Observatory (SWGO) is a project for a new generation of extensive air shower detectors, based on the water Cherenkov technique, to be located in the Southern Hemisphere, where no other instruments of that kind is currently operating in the TeV energy range. The reference configuration of SWGO foresees an array of about 6,000 water Cherenkov tanks deployed over a circle of 320 m diameter, about 80,000 square meter area. In order to reach a sensitivity at energies around and below 1 TeV competitive with current and future detectors, SWGO will be placed at altitude above 4,400 m a.s.l. Preliminary site searches have found several candidate sites in Argentina, Bolivia, Chile and Peru. The major challenge will be the water provision, considering more than 100 kt of water are possibly required. This poster will present the challenges and status of the SWGO site search in South America.

## Keywords

EAS; detector; PeV

## Collaboration

SWGO

## other Collaboration

## Subcategory

Experimental Methods & Instrumentation

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