



UNIVERSITÉ  
DE GENÈVE

FACULTÉ DES SCIENCES

Département de physique  
nucléaire et corpusculaire

## SÉMINAIRE DE PHYSIQUE CORPUSCULAIRE

**SUJET:** Recent Results from the HAWC – High Altitude Water Cherenkov – Gamma Ray Observatory

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Boulevard d'Yvoy, 1211 Genève 4

### RÉSUMÉ:

The High Altitude Water Cherenkov (HAWC) observatory, under construction in Central Mexico at an altitude of 4,100m, consist of 300 large light-tight water tanks instrumented with 4 photomultiplier tubes each. Ground level particles from showers produced by gamma rays and cosmic rays that collide with the upper atmosphere are detected with these tanks. HAWC differentiates gamma-ray and cosmic-ray primaries by their topology in the 100 GeV - 100 TeV energy range with 2 sr instantaneous field of view and >95% duty cycle. Since August of this year HAWC entered continuous operation with 1/3 of the array. I will discuss construction and operation status and the preliminary results. I will also summarize prospects for detections of supernovae remnants, diffuse galactic sources, active galactic nuclei, gamma-ray bursts, etc.

INFORMATION : <http://dpnc.unige.ch/seminaire/annonce.html>

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