

Abstract Submitted
for the APR05 Meeting of
The American Physical Society

Status and Physics Objectives of the Pierre Auger Observatory

MATTHIAS LEUTHOLD, Ohio State University, PIERRE AUGER COLLABORATION — The Pierre Auger Observatory is designed to explore the upper end of cosmic ray energy spectrum, particles with energies exceeding 10^{19} eV. The detector consists of two complementary components: an air shower array of 1600 water Cherenkov detectors, and a fluorescence detector consisting of 24 wide-angle Schmidt telescopes. The surface detectors are distributed across an area of 3000 km^2 , sampling the air shower particles that reach the ground. The telescopes are positioned at four sites around the ground array and observe the fluorescence light emitted by the air shower as it develops in the atmosphere. The simultaneous observation with two independent sub-detectors allows for a reduction of the systematic uncertainties. In this talk the status of construction and the main physics goals of the Pierre Auger Observatory will be reviewed.

James Beatty
Ohio State University

Date submitted: 14 Jan 2005

Electronic form version 1.4