

FIRST MEASUREMENTS WITH THE AUGER FLUORESCENCE DETECTOR DATA ACQUISITION SYSTEM

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The international Pierre Auger collaboration will investigate the highest energy cosmic rays ($E > 10^{19}$ eV) with respect to the primary particle origin, the energy spectrum and the chemical composition. The experiment will be built up as hybrid design in the Pampa Amarilla in the province of Mendoza, Argentina. It consists of 1600 water Čerenkov stations to measure the lateral shower distribution and 4 fluorescence stations with a total of 30 optical telescopes to view the longitudinal shower development.

During summer 2000 the collaboration has started to install an engineering array consisting of 40 Čerenkov tanks and 2 optical telescopes. We report on the development and test of the digital front-end electronics, the multi-level trigger system and the DAQ. First results of the electronics and trigger performance gained with the engineering array are presented.