

Status of the AugerPrime upgrade of the Pierre Auger Observatory

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The Pierre Auger Observatory consists of a detector system to study ultra-high-energy cosmic rays. These cosmic rays can be detected only through the observation of extensive air showers, i.e. cascades of secondary particles induced in the atmosphere. The hybrid detection of air showers at the Observatory is based on the Surface Detector (SD) - an array of about 1660 water-Cherenkov detectors, and the Fluorescence Detector with 27 telescopes, overlooking SD. Recently, an upgrade of the Observatory was initiated, called AugerPrime. The main purpose of the upgrade is to improve the mass composition sensitivity of SD through precise measurements of the muonic and electromagnetic components of extensive air showers. For this purpose, additional scintillator and radio detectors are being installed on top of SD stations. The upgrade also includes updated SD electronics, and underground muon detectors. In this talk the motivation for the upgrade and the current status will be reviewed.

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