

Title: The Pierre Auger Observatory status and the AugerPrime upgrade program

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Abstract

The nature and the origin of ultra-high energy cosmic rays (UHECRs), above 10^{17} eV, is still unknown. The Pierre Auger Observatory with its huge exposure provides us with a large set of high quality data. The analysis of these data has led to major breakthroughs in the last decade, but a coherent interpretation is still missing.

To answer the open questions the Observatory has started a major upgrade, with an emphasis on improved mass composition determination using the surface detectors. The latest results and the planned detector upgrade will be presented. The expected performance and the improved physics sensitivity of the Observatory will be discussed.