

Abstract Submitted  
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**AugerPrime: the Upgrade of the Pierre Auger Observatory<sup>1</sup>**

FREDERIC SARAZIN, Colorado School of Mines, PIERRE AUGER COLLABORATION — The nature and origin of ultra-high energy cosmic-rays (UHECRs) remain largely a mystery despite a wealth of new information obtained in recent years at the Pierre Auger Observatory (Auger) and elsewhere. In order to answer those open questions, the Auger collaboration has embarked in an upgrade of the Observatory (“AugerPrime”). It will employ a combination of new scintillator and radio detectors to make the surface detector more sensitive to primary composition, a key to unlock the UHECR conundrum. In this presentation, the science case for the upgrade, its technical realization and initial results from the AugerPrime engineering array will be discussed.

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