

Abstract for an Invited Paper  
for the TS4CF08 Meeting of  
The American Physical Society

**Latest results from the Pierre Auger Observatory**

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Since the first detection of a cosmic ray with energy above  $10^{20}$  eV in 1962, their nature and origin remain unknown. At these energies, it is expected that the cosmic ray flux undergo a strong suppression. Due to the extreme rarity of these ultra high energy cosmic rays, they must be observed indirectly through the observation of extensive air showers, and the lack of knowledge of hadronic interactions at these energies leads to inherent difficulties in characterizing the properties of the primary particle. A new generation cosmic ray detector, the Pierre Auger Observatory, has been designed to study cosmic rays with energy above  $10^{18}$  eV and answer the crucial questions of ultra high energy cosmic ray physics. The Southern Observatory in Argentina has been collecting data since 2004 and its exposure is already larger than that of any previous experiment. After three years of operation, we found strong indications that ultra high energy cosmic rays come from nearby, extragalactic sources, opening a window for charged particle astronomy. In this talk, I will describe the Observatory, our most recent results, and the exciting prospects for the near future.

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