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Recent results from the Pierre Auger Observatory

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The objectives of the Pierre Auger Observatory are to probe the origin and characteristics of cosmic rays above 10^{17} eV and to study the interactions of these, the most energetic particles observed in nature. The Observatory design features an array of water Cherenkov stations deployed over a surface of 3000 km² overlooked by fluorescence telescopes. This design and a sophisticated data analysis pipeline provide us with a large set of high quality data, which has led to major breakthroughs in the last decade.

The Observatory has recorded data from an exposure exceeding 60,000 km² sr yr since its beginning in 2004. The latest results together with systematic uncertainties are discussed in this talk. A major upgrade, known as AugerPrime, with an emphasis on improved mass composition determination using the surface detector is also presented.

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