

The depth of the shower maximum of air showers measured with AERA

Executive Summary



Bjarni Pont^a for the Pierre Auger Collaboration^b

^a Department of Astrophysics/IMAPP, Radboud University, P.O. Box 9010, NL-6500 GL Nijmegen, The Netherlands

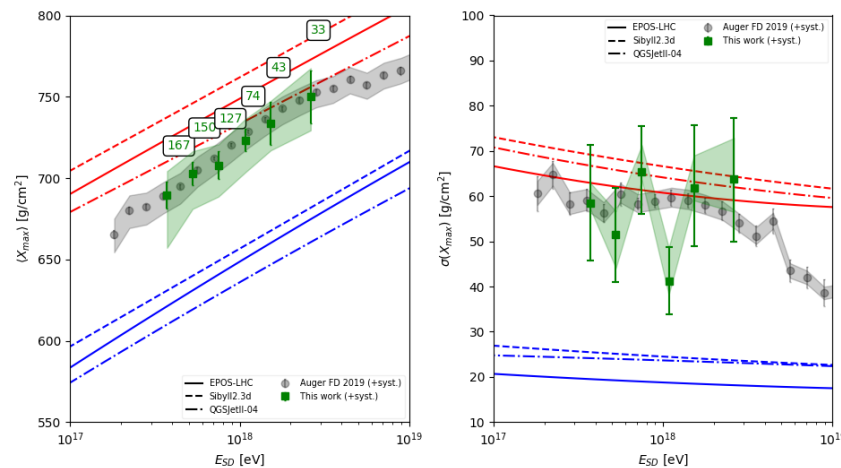
^b Observatorio Pierre Auger, Av. San Martín Norte 304, 5613 Malargüe, Argentina

What is this contribution about?

Results on the cosmic ray mass composition as measured by the AERA detector at the Pierre Auger Observatory.

Why is it relevant/interesting?

It supplies additional knowledge on cosmic-ray sources in the transition region (around energies between 10^{17} and 10^{18} eV).



What has been done?

The depth of the shower maximum (X_{\max}) has been reconstructed for air showers measured with AERA using CORSIKA/CoREAS simulations.

What is the result?

The AERA radio X_{\max} measurements show a (mixed) light composition compatible with fluorescence measurements at Auger.