

# The mass composition of ultra-high energy cosmic rays measured by new fluorescence detectors in Telescope Array experiment

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The longitudinal development of an extensive air shower reaches its maximum at a depth,  $X_{\text{max}}$ , that depends on the species of the primary cosmic ray.

Using a technique based on  $X_{\text{max}}$ , we measure the cosmic-ray mass composition from analyses of 3.7 years of monocular-mode operation of the newly constructed fluorescence detectors of the Telescope Array experiment.

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