

MUON ASTRONOMY AND COSMIC RAY PHYSICS WITH
THE MACRO DETECTOR

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Muon Astronomy and Cosmic Ray Physics with the MACRO detector

There have been persistent reports of the observation of astrophysical point sources of cosmic rays, as observed using muons seen deep underground. These muons are produced by interactions between the primary cosmic rays and the atmosphere. The MACRO (Monopole, Astrophysics, and Cosmic Ray Observatory) experiment is well suited to search for such sources. While the accuracy and sensitivity of MACRO have been demonstrated by the observations of both the shadow of the moon cast in the muon distribution and the small seasonal changes in the total muon flux, MACRO does not see significant evidence for point sources of cosmic ray muons.

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