

Design and construction of a straw chamber telescope for muography of the steppe kurgans

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High energy cosmic ray muons have highly penetration capability which allows them to cross kilometers of rocks. Due to the reasonable rate of cosmic muons at the Earth's surface and their high penetration capability they are of great use in fields beyond the particle physics, such as geology, archaeology, speleology and industrial construction.

The above mentioned features of cosmic muons have founded the development of such applied technique as muonography, which can be used for non-invasive inspection of large inaccessible volumes to determine their density distribution, as well as for reconstruction a three-dimensional image of the examined volume. The novel technique of muography has motivated to build a muon telescope based on straw drift tubes to monitor and explore steppe kurgans in Kazakhstan.

Primary authors: KAMBAR, Ysmaiyl (JINR); ENIK, Temur (Jinr)

Presenter: KAMBAR, Ysmaiyl (JINR)

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