

The 4th International Symposium on Cosmic Rays and Astrophysics
(ISCRA-2023)

Contribution ID: 2

Type: **Poster**

Development of 10 sq.m hodoscope made of drift tubes for cosmic ray muon registration

Tuesday, 27 June 2023 16:40 (20 minutes)

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The 10 sq.m muon hodoscope made of drift tubes with length 3.7 m and diameter 52 mm is under development and construction in NRC “Kurchatov institute” – IHEP. Totally 768 drift tubes are grouped into 6 identical multilayers, each consisting of two tube layers with parallelly placed tubes. Tube orientation in neighbouring multilayers is orthogonal, thus the hodoscope has six X and six Y tube layers. Detailed mechanical structure, on-chamber electronic and data acquisition systems are described. Expected technical characteristics and some test results are presented.

Keywords: Muon hodoscope, Track chamber, Drift tube, On-chamber electronics, Data acquisition system.

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Session Classification: Poster Session

Track Classification: Cosmo- and geophysical aspects of cosmic rays at the ground level