



New coordinate-tracking detector on drift chambers for registration of muons in near-vertical EAS

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Executive summary

- **What is this contribution about?**

The new detector on multi-wire drift chambers ProtoTREK.

- **Why is it relevant/interesting?**

The installation allows to investigate cosmic ray muons flux in wide range of particle density and zenith angles.

- **What has been done?**

The two-plane setup of 13 m² was installed in MEPhI.

The new time-to-digital converter was designed for the detector.

The new approach based on deep learning techniques was developed for multiparticle event reconstructions.

- **What is the result?**

The first measurements of all charged particle tracks multiplicity, parallel tracks multiplicity and angular distributions.

