

Investigation of muon bundles generated by UHECR by means of the new coordinate-tracking detector

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The new coordinate-tracking detector based on drift chambers (CTUDC) is developed in MEPH. The detector represents two planes with total area of 30 m² placed on opposite sides of Cherenkov water detector of 2000 m³ volume. Each plane consists of 8 large multiwire drift chambers (4000x508x112 mm³). The key advantages of these chambers are a large effective area (1.85 m²) and a good coordinate and angular resolution with a small number of measuring channels. From the beginning of 2017, CTUDC operates as a part of the experimental complex NEVOD. The detector is designed for measuring of high density muon bundles (up to 10 particles per m²) at zenith angles in the range from 30° to 90°. The results of the operation of the CTUDC at the last year are given, the first distributions of the events in zenith angle and muon multiplicity obtained from the detector data are discussed.

Primary author(s): Dr. BORISOV, Anatoly (MEPH/IHEP); Dr. KOZHIN, Anatoly (MEPH/IHEP); PETRUKHIN, Anatoly (National Research Nuclear University MEPhI); Dr. ZADEBA, Egor (MEPhI); YASHIN, Igor (National Research Nuclear University MEPhI); Dr. KOMPANIETS, Konstantin (MEPhI); Dr. FAKHRUTDINOV, Rinat (MEPhI); KOKOULIN, Rostislav (National Research Nuclear University MEPhI); Mr. IVANOV, Stanislav (MEPhI); VOROBYEV, Vladislav (MEPhI)

Presenter(s): Dr. ZADEBA, Egor (MEPhI)

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