

## **HIGH-RESOLUTION LARGE AREA COORDINATE DETECTOR FOR INVESTIGATIONS OF HIGH ENERGY COSMIC RAY PHENOMENA AT THE GROUND LEVEL**

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Coordinate detector DECOR is deployed around the Cherenkov water calorimeter NEVOD and is intended for detailed studies of angular, lateral and energy characteristics of multi-particle cosmic ray events (muon bundles, air showers, etc.) in a whole interval of zenith angles. The purpose of these investigations is the search of new processes and new features in high energy cosmic ray interactions. The detector consists of two parts. The side detector includes 8 supermodules (each of 8.4 sq. m area) with vertical planes of limited streamer tube chambers, and is located in the galleries of the NEVOD building. The top coordinate detector (4 supermodules with horizontal chamber planes, 12 sq. m each) is arranged on the roof of the water tank. Every supermodule consists of eight planes of chambers equipped with an external two-coordinate readout strip system. Such detector structure ensures spatial and angular accuracy of particle track reconstruction better than 1 cm and 1 degree, respectively. In 2000, the first test runs of the side coordinate detector both in autonomic mode of operation and in coincidence with Cherenkov calorimeter were conducted. Preliminary results concerning coordinate detector performance and event classification will be presented.