**INVESTIGATION OF HIGH-ENERGY MUON INTERACTIONS IN EXTENSIVE AIR SHOWERS USING SCINTILLATION HODOSCOPES**

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At the Tien-Shan High Altitude Scientific Station (TSHASS), experiments on registering the muon component of extensive air showers (EAS) in various energy ranges have always remained one of the main research directions. The station possesses the necessary infrastructure for these purposes: an underground tunnel and several large underground rooms designed to house muon detectors with various energy thresholds.

Currently, a muon hodoscope has been created in the underground facility of TSHASS—a system of synchronously operating large-area scintillation detectors covering an available area of 50-60 square meters, designed for the direct measurement of the spatial distribution of high-energy muon flux density in the cores of powerful EAS. This paper presents the characteristics of the muon hodoscope, as well as the current state of the detectors and the initial data on the muon distribution obtained.