

## **Sidereal Wave in Cosmic Ray Intensity as Measured by Underground and Surface Detectors and the Problem of True Anisotropy of Cosmic Rays**

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The anisotropy of cosmic rays in the energy range where solar modulation effects stop acting is estimated from the sidereal wave of intensity measured with large muon underground detectors and small air shower arrays. The experimental data available at the moment show a slight decrease of the amplitude of the first harmonic of the mean sidereal wave with a simultaneous small rotation of its phase in the energy range 1-100 TeV. This tendency is especially well seen in the data obtained at the Baksan Neutrino Observatory with three independent instruments: Baksan Underground Scintillation Telescope (BUST), the Carpet air shower array, and the Andyrchi air shower array (the energy thresholds correspond to primary energies of 2.5 TeV, 10 TeV, and 100 TeV, respectively). This is a unique case when the first harmonic of the sidereal wave is measured at three different energies at one and the same place. However, as far as cosmic ray anisotropy is concerned, the results of measurements include an important indeterminacy related to unknown declination of the true anisotropy. We discuss the problem of measurement of this true anisotropy and suggest a hypothetical experiment to be specially made for this purpose.

**Keywords:** Anisotropy of cosmic rays; sidereal wave; high energy muons; extensive air showers.