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A new 1 km2 EAS Cherenkov Array in the Tunka Valley**

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A new EAS Cherenkov array has recently been put into the full operation in the Tunka Valley in Siberia, Russia. The main goal of the new detector is to study primary cosmic rays energy spectrum and mass composition in the energy range of 1015 eV -1018 eV. The array consists of 133 optical modules covering 1 km² area. **The optical modules (OMs) are assembled in 19 clusters with 7 OMs in each cluster. The distance between OMs in a cluster is 85 m. The optical module is based on 8 in. hemispherical PMT. The array will locate EAS core with an accuracy of better than 6 m. The energy resolution of the array is ~15%. The detector will allow to measure EAS Cherenkov light lateral distribution and waveforms with high precision allowing to measure EAS maximum depth with an accuracy of ~25 g/cm² which is in turn very important for primary cosmic rays mass composition studies. The array's smooth operation for several years will provide new important information on the primary cosmic rays in the energy range where, it is thought, there exists a transition between Galactic and extragalactic cosmic rays.**

Please indicate "poster" or "plenary" session. Final decision will be made by session coordinators.

plenary

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Classification de Session: Cherenkov detectors in astroparticle physics

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