12th Cosmic Ray International Seminar



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Baikal-GVD Neutrino Telescope

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Baikal-GVD (Gigaton Volume Detector) is a neutrino telescope aimed to observe high energy (TeV–PeV) neutrino, as well as to identify and explore their sources. It has been deployed in Lake Baikal in the south-eastern part of Russia and taking data since 2015 when the first cluster of 288 optical modules was built. The Baikal-GVD optical modules equipped with 10-inch photo-multiplier tubes are immersed in water at the depths spanning from 750 m to 1300 m below the surface and register Cherenkov light emitted by secondary particles produced in neutrino interactions in vicinity of the telescope. As of 2022, the detector consists of ten clusters, making it the largest neutrino telescope in the Northern Hemisphere. It is planned to continue deploying new clusters. The talk will cover the telescope design and recent physical results.

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