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Baikal Underwater Neutrino Telescope NT-200 --- an Underwater Laboratory for Astroparticle Physics and Environmental Studies

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A natural substance – the water or the ice is used as a target and as a medium in which Cherenkov radiation is spread in the large high energy neutrino detectors. A number of the methods and the instruments were designed to study different characteristics of the Baikal water as a working medium of the Baikal Underwater Neutrino Telescope NT-200. Now the hundreds of sensors included in the Neutrino Telescope NT-200 allow one to realize the long-term monitoring of the various processes in the Lake Baikal, which is the largest reservoir of fresh water in the world. We review the present status of the Baikal Neutrino project and the recent data of the search for high energy neutrinos and some other subjects concerning astroparticle physics. The most interesting limnology results, which were got in the framework of the project, are described as well.

Keywords: Underwater neutrino telescopes; deep-water environmental studies.