

# Positioning for Baikal-GVD

Executive summary

Alexander Avorin

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We discuss the hydroacoustic positioning system for Baikal-GVD. The positioning system restricts timing uncertainty produced by the uncertainty in the geometry of the detector, and is therefore of utmost importance for the accuracy of the reconstruction. We demonstrate an upper bound on the positioning precision, an improvement in the polling algorithm as well as long term and short term behaviour of the acoustic beacons. The results demonstrate that the current approach can position optical modules with an error below 20 cm regardless of Lake Baikal currents.