

## 4th Uppsala workshop on Particle Physics with Neutrino Telescopes (PPNT19)



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### **BSM searches with Baikal**

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The Baikal Collaboration continue to examine sensitivity of the new generation neutrino telescope Baikal-GVD to neutrino signal from self-annihilations or decays of the dark matter particles WIMP from the Galactic Center, the Sun and other promising DM sources like dwarf spheroidal satellite galaxies of the Milky Way. The telescope of cubic kilometer scale Baikal-GVD is currently under construction in lake Baikal and is specially designed for search for high energies neutrinos. Since April 2019 the telescope has been successfully operated in complex of five functionally independent sub-arrays of optical modules (clusters) where now are hosted 1440 OMs on 40 vertical strings. The effective volume of the detector for neutrino initiated cascades of relativistic particles with energy above 100 TeV has been increased up to about 0.25 km<sup>3</sup>. Preliminary results in the GVD data analysis are discussed. Also summary results on DM searches is reviewed for five years observation with low energy threshold telescope NT200, which has been operated in lake Baikal earlier.

#### **Summary**

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