

The Baikal-GVD neutrino telescope as an instrument for studying Baikal water luminescence

Rastislav Dvornický

Baikal-GVD Collaboration

JINR, Dubna, Russia & Comenius University, Bratislava, Slovakia

Poster:

- The contribution is about the ambient light field, which constitutes an unavoidable optical background of the Baikal-GVD neutrino telescope and is mainly associated with the luminescence of Baikal water.
- Annual optical activity shows periods of increases on a relatively stable plateau. By comparing the increase in the noise rates of optical modules for different depths, we obtain a velocity profile of the highly luminescent layer propagation.
- For the first time, our observations found a unique event of luminescent layer moving upwards in January 2021 with estimated speed reaching its maximal value of about 28 m/day.