

Baikal Project.

1) Goals of the experiment

The goals of the experiment are clearly expressed. GVD aims at the detection of high-energy galactic and extragalactic neutrino induced events, as a diffused flux or as generated by specific sources. The special features of Baikal compared to other running (IceCube) or planned (KM3NeT) international projects is the complementarity of the experimental set up, the ability in looking at a different portion of the sky, and the contribution to the Global Neutrino Network by adding valuable statistics to the other project as far as rare events are concerned. What is missing is a comparison of the expected statistics with the one gathered by the other projects at the time GVD will be running.

2) Contribution of the JINR group

GVD is a flagship JINR project with large involvement and level of commitment. Many hardware aspects are under the leadership of the JINR group. One can mention in particular the work on the optical modules, and the readout and synchronization systems. This is reflected by several notable responsibilities on construction and operation sub-projects.

3) Plans

The future plans are governed by the collaboration with the other strong player, INR. In particular the JINR group is aiming at the realization of a test facility aimed at the optimization of the optical module construction. This is a well justified effort.

4) Publications

The relatively low number of publications reflects the present phase of the experiment. However, the report does not answer to the question of the specific contributions from JINR members.

5) PhD theses

For the same reasons of the above point, the two theses (one completed and one in progress) are a reasonable outcome. More should be expected when physics data will be available.

6) Talks

The list of talks is adequate. However, one person has given almost 3/7 of the total conference score of the JINR group. For the future, one should expect a more visible participation with talks given at major international conferences, *e.g.* in representation of the Global Neutrino Network.

7) Group size, composition and budget

The ratio between group members and FTEs is excellent, with several fully dedicated scientists. A core group of 6 JINR scientists with a strong involvement guarantees that the experiment will remain a flagship project of JINR. The proponents should make any effort to attract more internal person-power resources and mostly new young and motivated students, given the long-term nature of the research.

As far as the financial support to the project is concerned, the present profile looks very reasonable both from the quantitative and qualitative points of view, with clear contributions on the construction side. However, one should aim at a further effort from JINR to make sure that the project could be really competitive, on the long term, with the other international initiatives. For projects like GVD it is essential that the financial plan be ambitious enough to stay well above the threshold to have a meaningful and rewarding contribution from the JINR group.

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