

Title: SuperNEMO project

The description about the goals of the experiment is very brief and doesn't provide many details but all the essential points are mentioned.

A comprehensive list is presented of the contributions made by the JINR to the project. In view of this it is puzzling why the SuperNEMO website <http://supernemo.org/about.html> mentions several international contributions, amongst others the Russian Foundation for Basic Research, but does not acknowledge the numerous contributions of the JINR.

The webpage <http://supernemo.org/collaboration.html> does acknowledge the JINR but there are discrepancies between the collaborators listed there (9) and those listed here in this proposal (17), also some of the collaborators are not mentioned here. The role of the JINR collaborators is not clearly spelled out. The collaboration management is not presented.

The future plans are clearly spelled out.

A list of publications in international, refereed journals is presented. The list is good.

There is only one PhD thesis listed. This is clearly insufficient and it gives the impression that students are not sufficiently involved.

A talk was presented at a major International Conference on Neutrino Physics and Astrophysics in Heidelberg last year. However, the name of the presenter is not listed amongst the participants of the conference? Please provide more information, e.g. was this a plenary talk or a parallel talk?

The number of presentations is vastly insufficient. No parallel talks are being listed.

The group is very large, 17 participants. The list doesn't match the collaborators mentioned on the SuperNEMO webpage. Please clarify this.

In summary this project is part of a large international collaboration in the Fréjus tunnel near Modane in France. It is a continuation and extension of previous efforts to measure neutrinoless double beta decay. This is fundamental physics and attempts to clarify the validity of the basic standard model. Observation of neutrinoless double beta decay would be a major breakthrough in our current understanding of the laws of physics. It is therefore a very worthwhile undertaking and deserves to be supported strongly. The presence and visibility of the JINR in this project must be made clearer. Also the output in the form of talks at international conferences (only 1 talk) and PhD degrees (only 1 degree awarded) is insufficient and not up to standards.

Emeritus Professor Jean Cleymans

Physics Department
University of Cape Town
South Africa