

# Instrumentation for Radioactive Nuclear beam facilities

## Work Plan

Progress in research using Radioactive Nuclear Beams (RNB) is closely linked with continuous European collaborative efforts and innovations in instrumentation to be placed near the RNB facilities. The activities towards these goals within the network will be in the following directions:

- high efficiency detector systems of various types for gamma-ray and particle detection in combination with ion traps, isotope- and recoil separators. New types of signal processing and data acquisition systems will also be needed;
- RNB manipulation techniques: the ion traps and storage rings;
- production and investigation of exotic nuclei from projectile fragmentation.

The objective is to enhance co-operation between the existing European RTD projects (IHP/ARI/RTD and also others) involving aforementioned activities on instrumentation by organizing workshops and meetings.

The deliverables will be reports on the various activities possibly with plans for future RTD projects.

The expected users of the results will be the European scientific Community studying exotic nuclei and working with RNB facilities.

## Organization

This FINUPHY activity will be coordinated by the Accelerator Laboratory, University of Jyväskylä (JYFL), Finland. It will continue the work similar to that on instrumentation within the Concerted Action FINA running until March 31, 2001.

About three workshops or working-group meetings per year will be organised in collaboration with the RTD projects involving activities on instrumentation for RNB. For this purpose, the project managers of the running RTD projects form a coordination group. The relevant RTD projects are the new EU/IHP projects EURISOL, EXOTAG and R3B as well as the running EU/TMR projects EXOTRAPS, EUROTRAPS and Gamma-ray tracking. Also instrumentation projects based on national funding, like HENS, EXOGAM, VAMOS and GREAT, will be involved.

The research teams involved in particular will be from JYFL, Finland; GSI, Germany; FZJ-Juelich; Germany, GANIL, France; CEA-Saclay; France; IReS, France; IPN-Orsay, France; LNL, Italy; UK- Universities, UK; RAL-Daresbury, UK; CRC, Belgium.

The financing of the activity will include: the salary of a scientific coordinator during part of the expected duration of the contract; exchange and mobility costs for the visits and workshops; and overheads. The corresponding amounts are all included in the Instrumentation budget under the responsibility of JYFL.