

Report on TransNational Activities at GANIL

TNA01 – WP14

Description of the publicity concerning the new opportunities for access

A dedicated Users Guide on the GANIL Web-site exists to publicise the opportunities for access: <http://pro.ganil-spiral2.eu/users-guide>

This Web-site details the facilities available, the laboratory infrastructure and services, the selection process and a call for proposals.

In a subsidiary Web-site, <http://pro.ganil-spiral2.eu/users-guide/ensar-tna> , the application for financial assistance for Transnational Access is described, i.e.:

- Financial support available
- Who can apply
- How to apply
- The Application Form

Description of the selection procedure

The selection of users by the PAC (Programme Advisory Committee) is made only on the scientific merit of the proposals submitted. The proposals are reviewed independently of their country of origin. Experiments are evaluated and awarded a number of 8-hour shifts of beam time, according to the number requested and the number deemed suitable by the PAC. Once the list of approved experiments has been determined by the PAC, the external (i.e. non-GANIL) members of the PAC are asked to choose, from the approved experiments, those which are entitled to financial support through the TA activity.

During the reporting period, two PAC for nuclear physics were held at GANIL, on 2/3 December 2010 and on 7/8 November 2011. 32 Proposals were submitted on which 21 were eligible to financial support, but only 15 proposals were accepted on which 11 were eligible.

For interdisciplinary research, a PAC meeting was held on February 18th 2011.

In Annex 1, there is the list of the Selection Panel members for the reporting period as well as the number of eligible user-projects submitted to the panel during the reporting period and the number of the selected ones.

Half of the Selection Panel was renewed in May 2011.

- Nicolas ALAMANOS
- Alexandra GADE
- Jean-Antoine SCARPACI
- Mathias SCHÄDEL
- Olivier SORLIN

Have replaced

- Navin Alahari
- Faical AZAIEZ
- William G. LYNCH

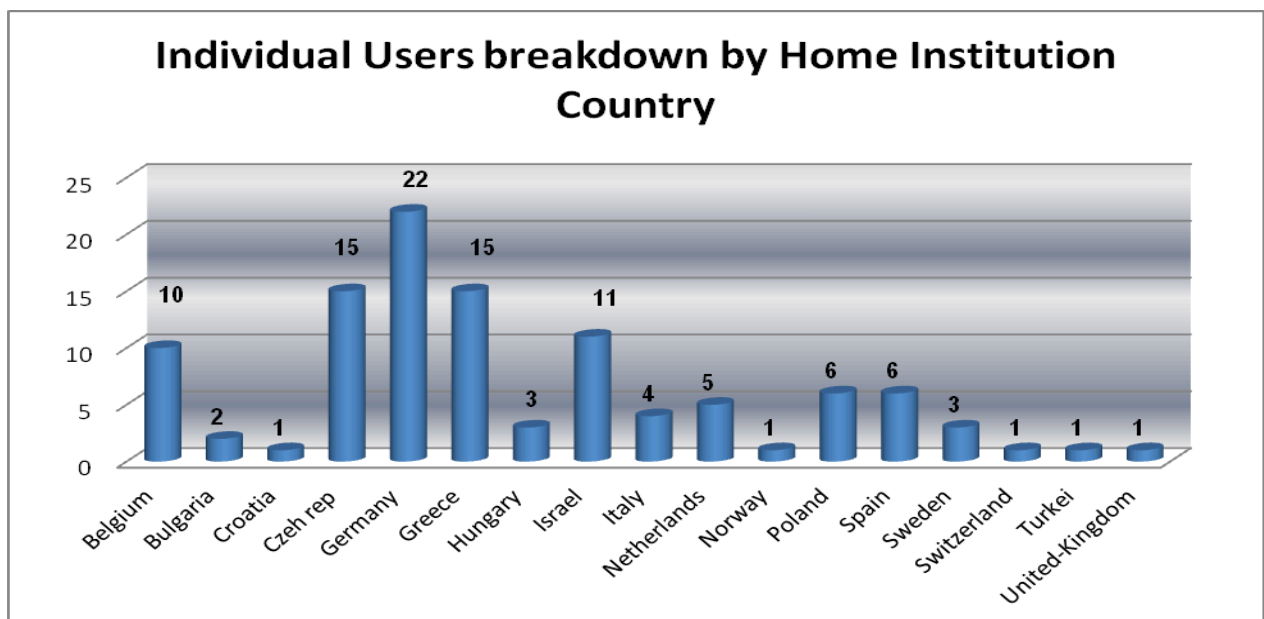
- Christoph Scheidenberger
- Christophe Theisen

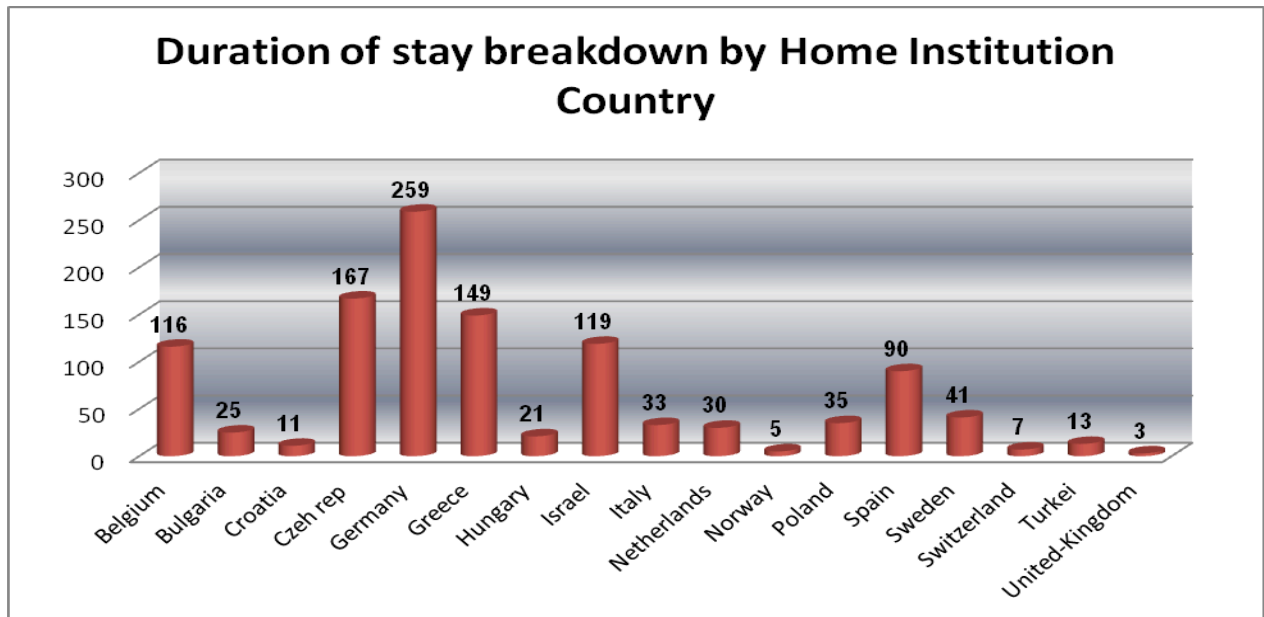
Transnational Access activity

During the reporting period

- 2.156.96 experimental hours were delivered
- 107 different individual users have visited the facility
- They spent 1124 person-days at GANIL
- 27% were women
- There were 47 experienced researchers, 21 Post-Doc researchers, 29 Post-Graduate, 7 Undergraduate and 3 technicians
- 69% were new users

The scientific areas of the experiments performed at GANIL are as follows: nuclear structure and spectroscopy of exotic nuclei; fusion, fission of heavy nuclei; dense and hot nuclei; nuclear astrophysics; and test of fundamental interactions. Among others, the goals are to understand the structures of the nuclei, their shape and shell evolutions from stable to drip line nuclei, to measure the properties of nuclear matter and to evaluate the possible astrophysical implications. GANIL - together with European and/or international collaborations and several French partners - is engaged in all these fields of research, which are also the major scientific motivations justifying the SPIRAL2 project.





Scientific output of the users at the facilities

Obviously not many publications have yet been published from the complex experiments performed at GANIL during the reporting period (see Annex 4 of the Data Base). Please find in attachment to the ENSAR report the list of peer-reviewed publications based on experiments supported by the previous TNA (FP6-EURONS) at GANIL and not yet reported to EC. They are 22 in total.

In 2010-2011, some unique results have been obtained. We mention some highlights from the user-projects supported under the grant agreement:

- Measurement of ground state nuclear moment in Aluminium isotopes,
- Spectroscopy of Z=28 nuclei,
- Investigation of resonances in ^{28}Mg having an alpha-cluster structure,
- Isotopic distribution of fission fragment yields,
- Study of proton rich exotic nuclei: isospin mirror transitions,
- Lifetime measurements of excited states in fission fragments,
- Investigation of the dipole compression mode (to reduce the present uncertainties on the asymmetric nuclear matter incompressibility),
- Precise study of the 7H resonance. How many neutrons can a single proton hold?
- Atomic and molecular physics: ionisation of Helium by highly charged fast ions.

More details can be found in the Annexe 2.

User meetings

- A meeting of the users – “Colloque GANIL”- was held in Belgodère, Corsica, France, September 25th -30th 2011 (148 participants). The purpose of this conference was to

review and discuss the research carried out at GANIL and the related activities carried out at similar facilities around the world.

Traditionally the Colloque has covered the range of topics addressed at GANIL

- Nuclear structure
- Reaction mechanism
- Nuclear astrophysics
- Weak interaction
- Interdisciplinary research

A particular emphasis has been put on “low energy physics with stable and radioactive beams @GANIL today and tomorrow; interplay between theory and experiment”.

- The SPIRAL2 Weeks 2011 and 2012 were held in Caen during 4 days, end of January (400 participants for each edition). The main goal of the meeting is to present and discuss the current status of the SPIRAL2 project in front of a large community of scientists and engineers. The major part of scientific program of the SPIRAL2 Week is dedicated to presentations of the main advances in physics, instrumentation and construction of the SPIRAL2 and other RIB facilities.

Furthermore, in order to improve feedback between the users and GANIL staff, there is a short meeting (~30 min) every week during the running period of the facility, to discuss problems which might appear during the previous, current and next week. Users with experiments during these weeks do participate or send a representative.

Annexes

Annex 1 – Composition of the Users Selection Panel

See “Selection Panel” in MS Access Database

Annex 2 – List of User-Projects

See “List of User-Projects” in MS Access Database

Annex 3 – List of Users

See “List of Users” in MS Access Database

Annex 4 – List of Publications (from work carried out under the Transnational Access activity).

See “List of publications “ in MS Access Database and List of EURONS publications in attachment