



## Final Report of the Training Activities

Two Training Workshops were foreseen in the EGAN proposal. However, due to the success of the first two editions, a Third course was organized in Padova.

1) The First EGAN Training course took place in University of Liverpool, on 5-9 December 2011

There was a series of Lectures covering the AGATA array, pulse shape analysis with germanium detectors and analysis of data from AGATA.

The lectures were delivered by a group of international experts including Dino Bazzacco (Padua), Franco Crespi (Milan), Olivier Steckowski (Lyon), Bart Bruyneel (Saclay, Paris), John Simpson (Daresbury), Helen Boston (Liverpool), Andrew Boston (Liverpool).

In addition to the lectures there was a series of hands-on practical sessions using the facilities at the University of Liverpool. These cover both computer-based sessions covering the use of data analysis codes and sessions with detectors and pulse shape characterisation techniques. In addition to those listed above these practical sessions were also delivered by research staff from the University of Liverpool.

Maryike Keters from Canberra also delivered an interesting lecture on the methods used to fabricate specialist germanium detectors.

The workshop was attended by 30 doctoral research students from a wide range of European laboratories and institutes.

2) A second Training Course was organized in GSI on December 3-7th 2012 due to the success of the first one in Liverpool. More than 25 young researchers participated in the course on data analysis of AGATA experimental results.

The programme included:

Data Analysis by Andy Boston (Liverpool), Olivier Stezowski (IPN Lyon), Aila Gengelbach (Uppsala University) and Katarzyna Hadynska-Klek (University of Warsaw).

Production and identification of RIB at relativistic energies by Plamen Boutachkov (TU Darmstadt). Coupling and triggering in Prespec/AGATA by Stephane Pietri (GSI).

PreSPEC library, a tool for online/offline analysis by Frederic Ameil (GSI).

And the Workshop session instructions by Olivier Stezowski (IPN Lyon)

Data Analysis on the GRID GRID HowTo, AGATA data processing on the GRID by M. Kaci (IFIC Valencia).

All the non-local students (14) and one lecturer were offered the financial support from EGAN funds.

3) The Third EGAN Training Course took place in Padova on October 1-3 2014

In continuity with the two past editions the school was arranged for young (MS, PhD) students, post-docs and researchers aiming at analysing AGATA data, collected in the LNL, GSI and the forthcoming GANIL campaign. A large number of more than 30



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participants was eventually gathered. The school was organized within the EGAN network of ENSAR and a large fraction of the younger participants was supported throughout the available network funds.

The goal of the school was to provide the participants with the principles of the AGATA operations and to train the users for an independent data analysis.

The topics covered by the lectures were: data analysis with HPGe segmented detectors (PSA preprocessing, timing, double hits, etc.), tracking at high multiplicity and high energy, gamma-ray polarization with a position-sensitive HPGe detector, the AGATA data analysis from GSI campaign and training for the upcoming GANIL campaign with AGATA coupled to VAMOS.

The lectures were given by a group of international experts, respectively: D. Bazzacco (INFN-Padova), PG. Bizzeti (University of Firenze), A. Lemasson (GANIL-Caen), A. Lopez-Martens (CSNSM-Orsay), M.L. Cortes Sua (TU-Darmstadt).

Many hand-on sessions have been arranged to train the participants in the starting and advance use of the AGATA analysis codes. Data have been provided via mass memories and/or wireless access to a local server.

Final remarks have been given by the participants concerning the organization of the practical sessions and the duration of the school. There was a common agreement about the focusing of the school on the practical sessions, also via a possible extension of the school duration in future initiatives.

All the presentations are available at the School web site:

<https://agenda.infn.it/conferenceDisplay.py?ovw=True&confId=8442>