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WP05 - NA05 - EGAN

Final Report on the activity of the Scientific Committee

The Scientific Committee of EGAN has met four times just after the EGAN Workshops: 1) On 1st July 2011 the first SC meeting took place in Padova. Main points arising from the discussion:

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GAMMAPOOL:

Coordination of big gamma arrays with GAMMAPOOL resources will be an important role of this group.

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MINIBALL: new campaigns for transfer reactions using the TREX detector. Future workshop by the beginning of 2012 in Cologne

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EXOGAM detectors to be used at ILL for two reactor cycles (80 days) and later possibly at ORSAY.

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JUROGAM has a high level of outputs over the past few years. For the future it will be coupled to SAGE, LISA, beta tagging, new plunger etc. New proposals welcomed.

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GSI will use PRESPEC (Clusters, with investment in preamplifiers) and AGATA over the next few years.

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ORGAM is planning a series of arrays using resources from the GAMMAPOOL with new BGO shields and electronics.

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EAGLE will use detectors from the GAMMAPOOL for a germanium array. The Polish funding would benefit from a longer term international agreement with for example GAMMAPOOL.

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GALILEO will request resources from GAMMAPOOL, with only crystal capsules needed (from the clusters) as new triple cryostats will be developed by them. Preamplifiers will also be developed. Possibility of used BGO from old CERN experiments being considered.

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A small array of 5 or $6 \sim 70\%$ detectors, would have many uses in a small laboratory, for example for nuclear astrophysics experiments.

The proposal prepared many years ago for Ge production will be updated. The steering committees for the various arrays should consider how they can support this.

2) On June 28^{th} 2012 the SC meeting took place in Orsay. The main points arising from the discussion are:



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WP05 - NA05 - EGAN

Presentations of European Campaigns/ Detector systems including GAMMAPOOL, UK-France Loan pool, Galileo, JUROGAM (with RITU-GREAT-TDR), EXOGAM, EAGLE, Bucharest, Miniball, AGATA and AGATA-PRESPEC were made.

The aim of EGAN is to exchange information and to encourage collaboration and cooperation. It is clear from the presentations that this is occurring widely.

The campaigns presented their timescales for the near future concerning numbers and types of detectors and lengths of campaigns.

Results of the recent PRESPEC campaign are available as a book and may be online.

The presentations will be available on the EGAN website.

The results of the survey concerning germanium detector repair capabilities (and related topics) were presented. The results tables were updated during the meeting.

A discussion took place about the potential for future collaboration concerning detectors repairs with the aim of getting repair costs lower.

Eberth expressed the view that the only viable possibility was to have one centre with at least three full time skilled persons.

Napoli said that at LNL an interdisciplinary group has acquired the know-how to produce planar HPGe detectors and is starting now to produce coaxial HPGe. They are also developing new technologies for surface treatments on HPGe and have already obtained a method to substitute encapsulation. This method could be applicable not only to new detectors but also to any running HPGe detector. This team of experts could be a starting point for a European facility on HPGe detectors.

As the underlying problems are common to a number of campaigns it was thought that one proposal is needed to establish the repair capability to cover many campaigns which details the costs and the benefits to nuclear physics across Europe.

The existing technical proposal (prepared for AGATA) will be updated. The structure of a new facility will be defined (Eberth/Napoli) by end of July. Bids will be sought to house such a facility, Orsay and Saclay believe they have a possible route (Azaiez). The document, once finished, will then be used for discussions with funding agencies in order to obtain funding.

- 3) On the 28th June 2013, the SC meeting took place in Liverpool. The main points of the discussion are:
- S. Lenzi referred that the EGAN activities were presented at the ENSAR Town meeting and were very well received.



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WP05 - NA05 - EGAN

Presentation of status and perspectives of the different gamma-spectroscopy collaborations and campaigns: the presentations were discussed and distributed among the participants.

Some discussion of the GAMMAPOOL. Deadline 1st July for allocations in 2015. There was a need to clarify the RIKEN situation and if an extension is required.

Perspectives for Detector repair and development: Paper by J. Eberth and D. Napoli. Presentation by D. Napoli to be circulated to those present, email with these minutes.

4) On the 25th June 2014 the Scientific Committee met at Darmstadt (GSI). The status and perspectives of the different collaborations and arrays was presented and discussed.

The activity of the EGAN network in the 4 years was discussed and very positively evaluated in terms of new collaborations and sharing of resources. The EGAN workshops have been a very important occasion for the meeting and discussion of the status and perspectives of the gamma-spectroscopy research. The activities accrued out by the Working groups was also very positively considered.

The extension of the network activities and the enlargement to other complementary communities in the network NUSPIN for ENSAR2 have been discussed and the proposal approved by the committee, in the hope of a success of ENSAR2 in passing the approval process in the EU. This network will be the natural extension of EGAn in order to extend the collaboration and the transfer of knowledge to new users communities.