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MIDTERM REPORT ON THE COLLABORATION WORKSHOPS AND TRAINING
ACTIVITIES

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LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|-----|----------------------|
| ScC | Scientific Committee |
| StC | Steering Committee |
| WGs | Working Groups |

EXECUTIVE SUMMARY

INTRODUCTION

NUSPIN is the network in ENSAR2 for the Nuclear Spectroscopy and Complementary Equipment community involved in frontline research on nuclear structure, reaction dynamics and applications. The main goals are the promotion and coordination of scientific and technological activities, the exchange of knowledge and transfer of expertise between the working groups including training of young researchers, and the optimisation of the use, construction and maintenance of the resources.

NUSPIN WORKSHOPS

The Steering Committee organises annually the NUSPIN Workshop where the most important achievements in gamma-spectroscopy research will be presented and discussed. These workshops serve not only to exchange information but also to strengthen the community, to start new ventures, to discuss the perspectives with theoreticians and with colleagues involved in nuclear-structure research outside Europe. They host the annual AGATA Collaboration Open meeting.

The First NUSPIN Workshop took place at the Venice International University, in San Servolo, Venice on June 27th – July 1st, 2016. During the same week, the Scientific Committee and Working groups met. The Workshop hosted the AGATA Physics Workshop and AGATA Collaboration Council. About 85 scientists from 17 countries participated to the Workshop. Some young participants giving oral presentations received financial support for travel expenses.

The slides of the presentations are published in the website of the workshop: <https://agenda.infn.it/conferenceDisplay.py?confid=10503> (also accessible from the NUSPIN website)

The Second NUSPIN Workshop of the Nuclear Spectroscopy Instrumentation Network of ENSAR2, NUSPIN 2017, took place at GSI Darmstadt on June 26th – 29th, 2017, and hosted the AGATA Collaboration Meeting.

The aim of the NUSPIN 2017 Workshop was to present the status of the instrumentation for nuclear structure research at the European facilities and to discuss the perspectives. Sessions were dedicated to the presentation of recent nuclear structure experimental as well as theoretical studies, the latest results obtained with gamma-ray arrays at the experimental research facilities in Europe and the preparation status of the RIB facilities. Furthermore, the challenges of future research were discussed and the development of new instrumentation and technical developments with gamma-ray techniques and particle detectors was highlighted.

Review talks were followed by shorter contributions selected from the submitted abstracts. The Workshop had about 94 participants from 15 countries: <https://indico.gsi.de/event/5649/user/register/success?userId=5782>

Financial support was available upon request to all invited speakers, with special priority to young researchers. The travel and participation of 25 scientists was supported by the German NUSPIN funds.

Training of new users and exchange of experts

IPHC staff training on encapsulated germanium detector

Michel FILLIGER and Marie-Hélène SIGWARD were trained at IKP Cologne from March 13 to 16, 2017 on encapsulated germanium detectors. This included training in:

- preparing germanium capsules and electrical tests of inner parts of test cryostats,
- mounting the capsules in the test cryostats,
- testing the performances of the capsules.

CONCLUSIONS

The Workshops have been organised as foreseen in the project. The response of the community has been enormous and very positive. The first workshop was devoted to show the scientific results obtained at the different facilities and institutions together with some technical developments in detection systems. The second workshop put more accent on the detection systems and applications together with the developments at the different facilities and theoretical research in nuclear structure. Both workshops were appreciated by the community.

The training activities were modest in the first period. In 2018, there will be a School on germanium detectors and related techniques in Liverpool and a hands-on workshop for technicians, physicists and engineers dealing with Ge detectors in Cologne.