



Coordination and synergy-building in the European Complementary Detectors community

2nd Working Groups meeting

EGAN meeting Orsay 25th - 28th June 2012



Purpose:

- ensure the maximum compatibility and versatility
- minimizing the impact of ancillary detectors on the performances of large Ge arrays
- coordination in the construction and upgrade of ancillary devices will allow:
 - the integration of the data acquisition and electronics,
 - the integration of the mechanics (mechanical design compatibility)
 - collaboration on the Monte-Carlo simulations of the physics cases.

EGAN (ENSAR) TASK 2:

Coordination on Ancillary Instrumentation

Subtasks as activity of Working Groups

- ***Subtask 1: Activity of WG1:*** Co-operation on the use, design and construction of ancillary detectors to improve the performance and compatibility of the devices.
- ***Subtask 2: Activity of WG2:*** Co-operation on designing and building the electronics and data acquisition and on the mechanical integration.
- ***Subtask 3: Activity of WG3:*** Exchange of information on the development of simulation tools.

Idea behind the subtasks:

- 1) exchange of information between the groups involved in the design and construction of ancillary detectors: to optimize the use of present resources and to improve the performance and compatibility of devices presently in the R&D phase.
- 2) exchange of information between groups responsible of the electronics, data acquisition coordination for the construction of common component. Exchange of information for mechanical integration and mechanical compatibility.
- 3) exchange of information between groups working on the development of simulation tools for the optimization of the detector design.

Deliverables:

- *M- NA05-1.1 Setup of Working Groups 9 months: OK!*
- *M- NA05-1.2 Setup of website 15 months*
 - *Webpage for each task*
 - *document server?*
- *M- NA05-2.3 Meetings of Working Group 2*
9,15,27,40 months
 - *Election of the Task conveners*
 - *The deliverable are the minutes*

Subtask 1: Activity of WG1: Co-operation on the use, design and construction of detectors aiming to improve the performance and compatibility of the devices.

Ancillary / Complementary
Instrumentation
Development
for
Large Ge Arrays

Detectors for new generation RIB facilities

Subtask 1: Conclusion of the Padova, 1st July 2011, meeting:

- The goal is to Disseminate Information on:
- Detector availability and capabilities
- R&D on New materials (e.g. solid Scintillators with g-n discrimination capability)
- R&D on new Solid State or Scintillator detector design (e.g. PAD Si detectors, DSSSD design, etc...).
- R&D on light readout for scintillator detectors

- Discussion on the Subtask 1 was done. General agreement on the goals of the W.G.
- Requested the inclusion of Spectrometers as Complementary Instrumentation

- Nominated Convener of this W.G.: Daniele Mengoni (INFN and University of Padova)

Subtask 2: Activity of WG2: Co-operation on designing and building the electronics and data acquisition and on the mechanical integration.

- Interfacing analogue electronics with the Digital electronics arrays
- Development of digital electronics
- High analogue/digital channel densities (ASICs)
- Participation in the trigger decision trees

Subtask 2: Conclusion of the Padova, 1st July 2011, meeting:

- Discussion on the Subtask 2 was performed and there was a general agreement on the goals of the W.G.
- Nominated Convener of this W.G.: Sergio Brambilla (INFN and University of Milano)

Subtask 3: Activity of WG3: Exchange of information on the development of simulation tools.

- New Tools for MC simulation.
- Full Ge array + complementary instrumentation → full simulation of performance figures
- Realistic simulations including physical processes in experimental conditions.

Subtask 3: Conclusion of the Padova, 1st July 2011, meeting:

- Discussion on the Subtask 3 was performed and there is a general agreement on the goals of the W.G.
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- Nominated Convener of this W.G.: Marcin Palacz (HIL, Univ. Warsaw)

meeting room A015 - IPN (ground floor of building 100)

Ancillary WG (Chair D.Mengoni):

09.15-09.20 (5) D.Mengoni - Intro

09.20-09.35 (12+3) J.Duenas - Digital PSA with HYDE det.

09.35-09.50 (12+3) M.Assie - PSA on GASPARD segmented det.

09.50-10.05 (12+3) T.Kroell - PSA in micro-strips silicon detectors for EXL

10.05-10.20 (12+3) G.Jaworski - The innovative neutron-detector tests of NEDA

10.20-10.40 Coffee break

Electronics WG (Chair S.Brambilla):

10.40-10.45 (5) S.Brambilla - Intro

10.45-11.00 (12+3) I.Lazarus – EDAQ for AIDA and LYCCA

11.00-11.15 (12+3) E.Pollacco – GET: General Electronics for TPCs

11.15-11.30 (12+3) A.Triossi – Prototype of TRACE digitizers and GTS upgrade

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Simulations WG (Chair M.Palacz):

11.30-11.35 (5) M.Palacz - Intro

11.35-11.50 (12+3) O.Stezowski - PARIS simulations

11.50-12.05 (12+3) M.Krzysiek - RFD simulations

12.05-12.20 (12+3) G.Jaworski - NEDA simulations

12.20-12.35 (12+3) D.Bloor - LYCCA simulations