

# EGAN



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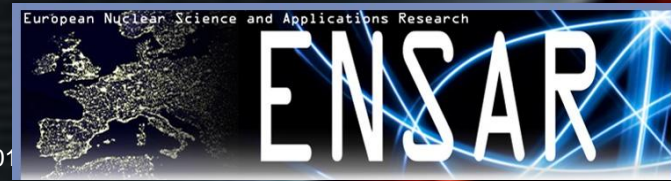
EGAN 2014 WORKSHOP

GSI, June 23-26, 2014

# European Gamma and Ancillary detectors Network EGAN

The logo for the European Gamma and Ancillary detectors Network (EGAN). It features the acronym 'EGAN' in a large, stylized, yellow font. Below the acronym, the full name 'European Gamma and Ancillary detectors Network' is written in a smaller, white font. The background of the logo is dark with a glowing, curved line in shades of red and orange.

a common forum for the high-resolution  
gamma-ray spectroscopy  
and ancillary instrumentation community



# Steering Committee and funds distribution

Silvia Lenzi (U. Padova and INFN) (coordinator)  
Andres Gadea (IFIC-Valencia) (deputy coordinator)  
Magdalena Gorska (GSI)  
Araceli Lopez Martens (IN2P3-Orsay)  
Daniel Napoli (INFN-LNL)  
Paul Nolan (U-Liverpool)

Total funds (4 years) ~ 120 k€

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graph LR; A[Total funds (4 years) ~ 120 k€] --> B[Darmstadt]; A --> C[Liverpool]; A --> D[Orsay]; A --> E[Padova];
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4 workshops  
2 training courses  
exchange personnel  
meetings of the Sci Com  
meetings of the WG  
Coord. AGATA-Host. Labs

# milestones 2014

## Task 1      Coordination of Scientific Activities and Dissemination

**Meeting of the Scientific Committee 2014.** The fourth meeting of the EGAN Scientific Committee will take place in GSI, on June 25<sup>th</sup> 2014

**Coordination with hosting infrastructures:** Fourth meeting in GANIL, 19<sup>th</sup> May 2014, with the participation of the AGATA management and the Directors of GANIL, GSI and LNL.

## Task 2      Coordination on Ancillary Instrumentation

**Meeting of the Working Groups 1,2,3.** The fourth meeting of the WG3 will take place in GSI, on June 25<sup>th</sup> 2014.

# milestones 2014

## Task 3 Collaboration Workshops

**EGAN 2014 Workshop:** Forth and last Workshop

## Task 4 Transfer of knowledge

**Training courses for new users:** A third Training Course will be organized in Padova on 1-3 October for training on data analysis for the AGATA + VAMOS campaign in GANIL.

**Exchange of personnel:** visit of personnel from Saclay to Cologne (2013)

# A new network in ENSAR2



ENSAR ends by the end of 2014.

A follow up initiative for Infrastructures ENSAR2 will be submitted to the EU by the beginning of September this year.

The need of a gamma-spectroscopy network has been pointed out by the gamma spectroscopy community and its importance recognized by the ENSAR collaboration.

A proposal of a new network was presented in the ENSAR Town Meeting in Warsaw on June 2013.

The new network will involve collaborations on neutron detectors, detectors for high-energy and fast timing, TAS and devices for nuclear moments.

# motivation

The collaborations in nuclear structure are **investing much effort and resources** in developing new instrumentation, experimental methods and techniques for frontline research at the different infrastructures.

Most of these techniques are of **common interest** and the **exchange** of information as well as the **development of synergies** will be of great benefit to the whole research community.

# NUSPIN Network

## Nuclear SPectroscopy INstrumentation

the network for the **gamma spectroscopy**  
and **complementary instrumentation** community

### Promotion and Coordination

of scientific and technological activities for frontline research

### Exchange of knowledge and transfer of expertise

between the working groups and towards young researchers

### Optimization

of the use, construction and maintenance of the resources



# The network

**High-resolution gamma-ray spectroscopy** is the principal tool for investigations in nuclear structure as it allows to study the excited nuclear states and their properties with high precision.

The **sensitivity** of gamma-ray devices **increases** significantly if combined with **ancillary detectors** for charged particles, heavy ions and neutrons.

**High-efficiency gamma-ray** detectors and **calorimeters** based on **scintillator materials**, devices for lifetime and nuclear moments measurements are essential tools to study weak processes and nuclear dynamics and structure far from stability.

**High-complexity experiments require the association of different types of detectors**

# specific actions

- To ensure the efficient and innovative use** of the valuable European gamma-ray spectroscopy resources at the different infrastructures, each with its specificity in beam species and energy ranges
- To promote the collaboration and sharing of expertise** between different research and technical domains
- To promote the coordination of the experimental campaigns** at the different infrastructures providing and exchanging information on their potential opportunities

# specific actions (2)

- To encourage and organize the pooling of distributed equipment** in order to enhance synergies between complementary resources for common large-scale projects;
- To explore new applications of well-established gamma detection techniques in other fields**, as for example the extension of the total absorption technique to in-beam studies of astrophysical interest.
- To build bridges** between the scientific developments and the applications for the society.

# The tasks

# task 1

## Coordination, promotion and dissemination

**Steering Committee:** coordinates and organizes the different activities and tasks

**Scientific Committee:** promotes collaborative ventures, encourages pooling of resources, promote the research on new detection methods ...

## Coordination between the infrastructures

# task 2

## Working groups

to cooperate on the use, research and development of the detectors and to improve the performance and compatibility of the devices.

**WG1:** High-resolution gamma-ray spectroscopy

**WG2:** Particle detectors

**WG3:** High efficiency – fast timing detectors

**WG4:** Devices for nuclear moments and transition probabilities

# task 3

## Collaboration Workshops

organized **on an annual basis** in different countries, will allow the whole community to meet together, to present scientific results, to discuss on common problems, to strengthen collaborations and to start new ventures.

## WG Workshops

# task 4

## Transfer of knowledge

### **training courses for new users**

*for a new generation of researchers, ready to exploit in the best way all the essential tools needed for their research*

### **exchange of key personnel**

*to ensure common knowledge base*

**Total budget: 170 kEuro**



# Participants

- Croatia:** Ruder Boskovic Institute (Zagreb), U-Zagreb.
- Finland:** JYFL
- France:** IN2P3, CNRS, CEA, GANIL, CSNSM-Orsay, IPN-Orsay, IPHC  
Strasbourg, Subatech-Nantes
- Germany:** GSI, IKP, U-Koln, TU-Darmstadt
- Greece:** NCSR-Demokritos
- Hungary:** ATOMKI-Debrecen
- Italy:** INFN: LNL, Padova, Milano, Firenze, Napoli
- Poland:** HIL-Warsaw, U-Warsaw, IFJ-PAN Krakow
- Romania:** NIPNE Bucharest, ELI-NP/IFIN-HH Bucharest
- Spain:** IFIC-Valencia, U-Huelva, UAM-Madrid, U-Huelva, U-S. de  
Compostela, GFN-U-Complutense-Madrid, CIEMAT-Madrid,  
U-Salamanca, IEM-CSIC
- Sweden:** KTH, U-Lund, U-Uppsala
- Turkey:** U-Ankara, U-Istanbul
- UK:** STFC Daresbury, U-Liverpool, U-Manchester, U-Birmingham, U-  
Surrey, U-York, U-West Scotland

Thank you

Enjoy the Workshop!