

Atomic nuclei make up most of the visible matter in the universe, including ourselves. Therefore, the study of their structure is of paramount importance to understand how the forces of nature work and how the elements were created.

The detection of gamma rays emitted by the atomic nucleus has played a pivotal role in discovering and elucidating the wide range of phenomena manifested by nuclear matter. Each major advance in gamma-ray detection techniques has resulted in significant new insights into the structure of nuclei.

The ultimate generation of gamma-ray detectors is represented by the advanced gamma tracking array AGATA, which is a joint project of the European nuclear structure community to design and construct a spectrometer with unprecedented efficiency and spectral resolution.



The concept of gamma-ray tracking relies upon the possibility of operating bulk germanium crystals in position-sensitive mode, so as to be able to locate the individual interaction points and determine the path taken by the gamma rays inside the spectrometer. The development phase of this detection technique is close to completion and the first gamma-ray tracking modules are already part of the AGATA Demonstrator array at INFN, Laboratori Nazionali di Legnaro.

The AGATA spectrometer will be completed over the next years and will have an enormous impact on the understanding of the atomic nucleus at the very extremes of proton and neutron number, temperature and spin. The technical advances driven by AGATA are suitable for a wide range of applications, e.g. in nuclear waste management, homeland security and medical imaging.

April 9, 2010  
 INFN, Laboratori Nazionali di Legnaro

## Inauguration of the AGATA Demonstrator

### Program

14.30 Welcome and Opening Remarks  
 Sala Villi

Welcome of the LNL Director

*Prof. G. Fiorentini*

Welcome of the INFN President

*Prof. R. Petronzio*

The AGATA Project

*Prof. P.J. Nolan*

*Presidente dell'AGATA Steering Committee*

15.30 Inauguration and Visit  
 Experimental Room of Tandem-Alpi

The AGATA Demonstrator

*Dr. E. Farnea*

16.30 Refreshment  
 LNL Coffee Room

Lunch for participants will be available  
 at 13.00 at the LNL Canteen

Additional information:  
<http://agata.lnl.infn.it>

We kindly ask you  
 to confirm your participation  
 within March 26th, 2010  
 to the Secretariat

Paola Carraretto  
 Elena Borin

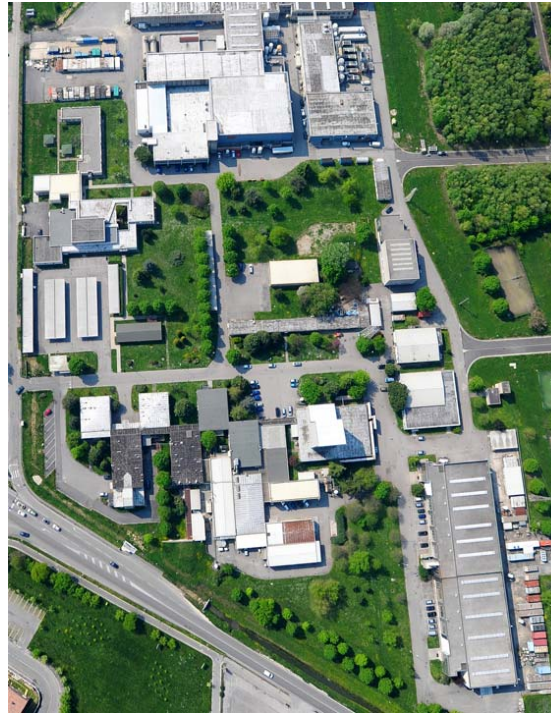
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# The AGATA Collaboration

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NBI, Copenhagen	Denmark
University of Jyväskylä	Finland
CEA/DSM/IRFU, Saclay	France
CSNSM, Orsay	France
GANIL, Caen	France
IPHC, Strasbourg	France
IPN, Lyon	France
IPN, Orsay	France
LPSC, Grenoble	France
GSI, Darmstadt	Germany
TU, Darmstadt	Germany
TU, München	Germany
University of Köln	Germany
ATOMKI, Debrecen	Hungary
INFN of Genova	Italy
INFN of Perugia	Italy
INFN, LNL, Legnaro	Italy
University of Camerino	Italy
Univ. and INFN of Firenze	Italy
Univ. and INFN of Milano	Italy
Univ. and INFN of Napoli	Italy
Univ. and INFN of Padova	Italy
IFJ PAN, Cracow	Poland
IPJ, Swierk	Poland
University of Cracow	Poland
University of Warsaw	Poland
IFIN/HH, Bucharest	Romania
IEM, CSIC, Madrid	Spain
IFIC, CSIC, Valencia	Spain
University of Salamanca	Spain
KTH, Stockholm	Sweden
University of Göteborg	Sweden
University of Lund	Sweden
University of Uppsala	Sweden
Technical Univ. of Istanbul	Turkey
University of Ankara	Turkey
University of Istanbul	Turkey
STFC, Daresbury	United Kingdom
University of Brighton	United Kingdom
University of Liverpool	United Kingdom
University of Manchester	United Kingdom
University of West of Scotland	United Kingdom
University of Surrey	United Kingdom
University of York	United Kingdom



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Laboratori Nazionali di Legnaro

Italy

