



## LNLBEYONDY2K

**Project reference:** HPRI-CT-1999-00083

**Funded under:** FP5-HUMAN POTENTIAL

### Laboratori nazionali di legnaro del 'inf

From 2000-11-01 to 2003-10-31 | [LNLBEYONDY2K Website](#)

#### Project details

**Total cost:**

EUR 450 000

**EU contribution:**

EUR 450 000

**Coordinated in:**

Italy

**Topic(s):**

1.4.1.-2. - Access to Research Infrastructures

**Funding scheme:**

LFC - Access to Research Infrastructures

#### Objective

**Description:**

The activities of Laboratori Nazionali di Legnaro of INFN are centred around three particle accelerators. LNL are also structured in a large number of dedicated laboratories. The heavy ion accelerator complex (XTU-Tandem-ALPI superconducting linac - 40 MV equiv.) is devoted to Nuclear Structure and Dynamics research. The following advanced experimental facilities are available: the gamma-ray spectrometer GASP (40 GeHP  
- ISIS Light Particle Silicon Ball  
- Neutron Ring) coupled with RMS high resolution recoil mass spectrometer, 4p spectrometers for light charged particles and complex fragments (8pLP and GARFIELD) and magnetic spectrometers RMS, PRISMA and PISOLO. The project of coupling PRISMA with a gamma detectors array is in its early stage of development. Two Van de Graaf accelerators (2.5 and 7.5 MV) are devoted to Applied Research (radiation damage, radiobiology, microdosymetry), Solid State, Medical and Environmental Physics.

Other available facilities include: calibrated neutron beam, cell and material irradiation stations, hydrogen profiling system, high resolution RBS and a "micro-beam" line for high spatial resolution multielemental analysis. The Material Laboratory is equipped for thin film deposition, ion implantation, electron microscopy, mechanical and electrical characterisation. The ultra-cryogenic gravitational wave observatory AURIGA is fully operative in the international network of similar detectors. The LNL Accelerator Technology division is currently focused on the installation of an ECR-superconducting RFQ injector (PIAVE), on the project of an High Intensity proton accelerator for RIBs (SPES) and on nuclear waste burning (TRASCO). Neutron and Gamma Sources Irradiation Facilities are also available for radiation damage research and humanitarian studies (land-mine detection).

**Application:**

Call for proposals, normally twice a year in May-June and in January-February, are usually published in "Nuclear Physics News International", in "Material Research Society" and in the LNL web-page:  
[http://www.lnl.infn.it/~lsf\\_secr/LSF\\_home.html](http://www.lnl.infn.it/~lsf_secr/LSF_home.html).

Eligible for participation in the programme are research teams from E.U. Member States or Associated Countries. Requests of access, addressed to the Director of LNL, are evaluated and selected on the basis of scientific merit by a User Selection Panel. The evaluation of requests for Nuclear Physics Facilities is preceded by an independent peer review procedure, the LNL-PAC (Program Advisory Committee). Communication of the evaluation is sent to each Group Leader, after the approval of the European Commission. For research groups with accepted proposals, infrastructures,

including accelerators and experimental instrumentation, are provided by LNL free of charge; costs for travel and subsistence (60 Euro per day) are refunded following INFN Administrative Rules. More information and application forms can be downloaded from LNL web page ([http://www.lnl.infn.it/~lsf\\_secr/Main\\_news\\_page.htm](http://www.lnl.infn.it/~lsf_secr/Main_news_page.htm)) or requested e-mailing to: [lsf\\_secr@lnl.infn.it](mailto:lsf_secr@lnl.infn.it).

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## Coordinator

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## Subjects

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[Scientific Research - Social Aspects](#)

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