

EUROSCHOOL on EXOTIC BEAMS

Padova, Italy, September 7th – 13th, 2014

FIRST CIRCULAR

The production and use of energetic radioactive beams is a rapidly developing new field in nuclear physics. Pioneering experiments are taking place, dedicated facilities are being commissioned and new facilities are planned. The EUROSCHOOL ON EXOTIC BEAMS is devised so that PhD students and young post-docs are introduced to this area and receive basic and detailed information. It consists of several lecture courses given by specialists in the field, starting from a basic level.

The Euroschool is an annual event initially funded by the EU and now supported by several funding agencies and large research facilities in Europe. The school started off based at Leuven, Belgium in 1993; since 2000 it has travelled around and was organized in various European cities (Jyväskylä - 2001, Les Houches – 2002, Valencia - 2003, Surrey - 2004, Mainz - 2005, Trento - 2006, Houlgate – 2007, Piaski – 2008, Leuven 2009, Santiago de Compostela – 2010, Jyväskylä – 20011, Athens – 2012 and Dubna - 2013). This year it is organized by the University of Padova and INFN and takes place in Padova, Italy.

The 2014 edition of the EUROSCHOOL ON EXOTIC BEAMS will cover general topics on the physics of exotic nuclei, the study of Nuclear Structure and Reaction Dynamics from both the experimental and theoretical sides, Nuclear Astrophysics and nuclear applications to medicine and Cultural Heritage.

Students are invited to contribute to the Euroschool by presenting a poster. The program includes a practical session and a visit to the Legnaro National Laboratory. A guided tour to Padova is scheduled as well.

LECTURES AND TOPICS

- *Nuclear structure physics with modern gamma spectrometers.* S. Lunardi (Univ. Padova)
- *The atomic nucleus: from single-particle motion to collective excitations.* K. Heyde (Univ. Gent)
- *The symmetry energy in nuclear dynamics.* G. Verde (INFN Catania)
- *Alpha decay and beta-delayed fission studies in the lead region.* P. Van Duppen (KU Leuven)
- *Reaction dynamics: applications to nuclear astrophysics and rare nuclear isotopes.* C. A. Bertulani (Texas A&M University)
- *Hydrogen and helium burning under Gran Sasso.* C. Brogini (INFN Padova)
- *Applications of nuclear techniques to art and archaeology and environmental problems.* P. Mando' (Univ. Firenze)
- *Production of radionuclides for medicine.* A. Duatti (Univ. Ferrara)

VENUE

The EUROSCHOOL ON EXOTIC BEAMS will be held in the Department of Physics and Astronomy of the University of Padova, Italy, from September 7th-13th, 2014.

Padova is situated in northern Italy, about 30 km west of Venice. Padova is an ancient city and the legend goes that it was founded more than a thousand years before Christ, when Antenor escaping from the destruction of Troy sought refuge here. The roman city of "Patavium" was a cultural and economic centre throughout the whole period of the Roman Empire. Padova hosts one of the oldest universities in Europe, founded in 1222, where Galileo Galilei was teaching from 1592 to 1610.

The Physics and Astronomy Department is situated in the city centre at walking distance from the major monuments of the city and from the Residenza Belzoni where the students will be hosted.

To reach Padova, the nearest airport is the international airport "Marco Polo" in Venice and "A. Canova" in Treviso (both lie about 40 km from Padova). Padova can then be reached easily from there by bus.

REGISTRATION

A link to an online registration is available at the Euroschool website www.euroschoolonexoticbeams.be.

The deadline for the registration is May 15th, 2014. A fee of 170 Euro will be charged which covers the registration, accommodation (including breakfast and lunch), excursion, welcome reception and the social dinner. The rest of the dinners and travel expenses are not covered by the School.

The total number of participants is limited to 60, and will be selected from the pool of applicants.

A limited number of travel grants are available upon motivated request. The application form is available on the website.

The email address for the School is: euroschool@kuleuven.be

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SPONSORS

The School is supported by several Italian and European institutions: Dipartimento di Fisica e Astronomia, Università di Padova, INFN - Sezione di Padova, INFN - Laboratori Nazionali di Legnaro, KU LEUVEN, GANIL, GSI, CERN, University of Jyväskylä, JINR, CPAN, NCSR Demokritos, KVI.

WEBSITE AND EMAIL ADDRESS

The Euroschool website is: www.euroschoolonexoticbeams.be.

The email address is: euroschool@kuleuven.be.

Looking forward to seeing you in Padova,

The Local Organizing Committee