

Sixth European Summer School On Experimental Nuclear Astrophysics

**Sep. 18- 27, 2011
Santa Tecla, Sicily, Italy**

First Announcement

Nuclear astrophysics plays a key role for understanding energy production in stars, stellar evolution and the concurrent synthesis of the chemical elements and their isotopes. It is also a fundamental tool to explain the ashes of the early universe, to determine the age of the universe through the cosmo-chronometry, to predict the neutrino luminosity, e.g. for Sun and Supernovae.

The “bone structure” for the above aspects is based on nuclear reactions, whose rates need to be determined in laboratories. Although impressive progress has been made over the past decades, which was rewarded by Nobel prizes, several open questions are still unsolved, which challenge the basis of the present understanding.

We have the pleasure to announce a sixth European summer school on experimental nuclear astrophysics, devoted to the education of young researchers. This edition will also be the tenth year's one and will be a special one.

The school will deal with various aspects of primordial and stellar nucleosynthesis, including novel experimental approaches, indirect methods, and radioactive ion beams. Furthermore, we plan to have lectures on complementary subjects of astrophysics such as gamma ray astronomy, dark matter and cosmic rays.

The sixth edition, marking the tenth year's anniversary should be seen in the intention of the organizers as a cornerstone for young scientists formation in the field of nuclear astrophysics as well as the climax of the research activity in this decade. The previous editions of the school took place in 2001, 2003, 2005, 2007, 2009. In each edition and, of course, in the sixth one, particular attention will be devoted to the participation of young students of less favoured countries especially to the ones coming from the southern coast of the Mediterranean Sea.

The 10 days of the school include one day for arrival (18.09.11) and one day for departure (27.9.11). In the remaining days, there will be lectures every morning, while the afternoon will be scheduled both for lectures and seminars as well as young researcher contributions.

We expect that the participants arrive in Santa Tecla on 18.09.11, where a registration desk will be set-up.

The school takes place at the Santa Tecla Hotel, about 15 km north-east of Catania. Catania has an international airport with connections to Rome and other European airports. Santa Tecla is located directly on the Mediterranean sea, in a comfortable and spectacular environment. The hotel has a large lecture hall and many smaller sites for discussions and informal meetings. At the time of the school the weather is ideal in Sicily (around 25° C).

The organizers encourage the participation of young researchers from Europe and from non-European countries. The number of participants will be limited to 100. Applicants are welcome to contact the organizing committee by email at astro2011@lns.infn.it for pre-registration (see below). We ask for a registration fee of 300 € (which will cover the school expenses as well the social activities and shuttle service from/to airport) and that should be paid upon arrival. Lodging expenses in full board are 85 € per day in a double room (120 € for a single room). The school is supported by the INFN-LNS, GSI, EMMI, University of Catania (PHD course in Nuclear and Particle Astrophysics), INAF, Provincia di Catania.

Next announcement will appear in May 2011 with details about lecturers, subject of lectures and final registration procedures. Updated information will be posted at the school web-site www.lns.infn.it/astro2011/
Registration Deadline: 30.06.2011

Scientific committee: C. Rolf (Director, Bochum), C. Spitaleri (Director, Catania), M. Aliotta, (Edinburgh), M. Busso (Perugia), A. Coc (Orsay), M. El Eid (Beirut), T. Kajino (Tokyo), K.L. Kratz (Mainz), S. Kubono (Tokyo), K. Langanke (GSI), J. Josè (Barcelona), T. Motobayashi (Riken), A. Mukhamedzhanov (TAMU), O. Straniero (Teramo), Rogachev (FSU), R. Tribble (TAMU), M. Wiescher (Notre Dame).

Local committee: G. Agnello, S. Cherubini, M. La Cognata, L. Lamia, R.G. Pizzone, S. Romano, A. Tumino

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