

The 12th European Summer School on Experimental Nuclear Astrophysics

Catania, Italy
16-22 June 2024

1st Announcement

We have the pleasure to announce the “12th European Summer School on Experimental Nuclear Astrophysics (ESSENA)”, devoted to the education of young Ph.D. students and young researchers.

The school belongs to the European Network of Nuclear Astrophysics Schools (ENNAS), a network made by the European schools on nuclear astrophysics and related areas (together with the Carpathian and the Russbach schools), having the common effort of preparing and educating young physicists in nuclear physics, astrophysics and their mutual relationship in the nuclear astrophysics field.

The school will deal with both various astrophysical issues - ranging from primordial nucleosynthesis to stellar evolution - and nuclear topics, including novel experimental approaches, radioactive ion beams, indirect methods, and plasma physics (in stars and in the laboratory).

The lectures of the school will be given by high-quality level scientists, selected for their didactical skills. In the spirit of the school, large room will be given to young researcher oral contributions. Specific sessions will be allocated to allow them to present their latest scientific results.

ENNAS

The European Network of Nuclear Astrophysics Schools (ENNAS) is a project that aims to correlate the topics of the three European schools, to correlate their activities and serve better the community of science and students, and to correlate the efforts to obtain funds for these schools, from national and international agencies (i.e. EPS, EC...).

SCHOOL WEBPAGE AND CONTACT

Updated information about the school, the program, the registration form, the fee payment will be given at the following:

-website: <https://agenda.infn.it/event/38453/>

-email: astro2024@lns.infn.it

VENUE

The school will be held in Acitrezza (Catania) at the “Grand Hotel Faraglioni” <https://www.grandhotelfaraglioni.com/> a four star hotel in front of the Ionian sea.

TIMING

The school will be held from Sunday, 16th June, to Saturday 22th June. The six school days include one day for arrivals (16.06.24) and one day for departures (22.06.24). During the whole period of the school, morning and afternoon lecture sessions will be given.

HISTORY

The school is internationally renowned as a cornerstone for young-scientist formation in the field of nuclear astrophysics as well as a “melting-pot” for the discussion of the up-to-date research activity. The previous editions of the school took place in 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, 2019 and 2022. Traditionally, particular attention is devoted to the participation of young students of less-favoured countries, especially from the southern coast of the Mediterranean Sea as well as for students coming from other countries of the world.

PRELIMINARY SCIENTIFIC PROGRAM

Primordial Nucleosynthesis
Stellar Evolution
Stellar Abundances
Hydrostatic and Explosive Nucleosynthesis
Plasmas in stars and the laboratory, EOS and Opacities
Detectors and Facilities for Nuclear Astrophysics
Experiments with rare and radioactive isotopes
Indirect Methods for Nuclear Astrophysics
nuclear weak response and interactions
s/r/p processes

SOCIAL ACTIVITIES

Social activities will be planned. Further information will be provided in the next announcements.

TRAVEL INFORMATIONS

Catania has an international airport with connections to Rome and other European airports. Catania is located on the banks of the Mediterranean Sea, in a comfortable and spectacular environment. The venue of the school is located in “Grand Hotel Faraglioni” a four star hotel in front of the Ionian sea with a suitable lecture hall. At the time of the school the weather is ideal in Sicily (around 25° C). We refer for entering Italy from foreign countries to the Italian Foreign Affairs page <https://www.esteri.it/mae/en/>.

Bus shuttles will be organized for school participants on 16.06 and 22.06. Acitrezza is also reachable from Catania by public transport (<https://www.amts.ct.it/mappa-delle-linee?percorso=534>).

SPONSORS

The school is jointly organized by the INFN – Laboratori Nazionali del Sud (Catania) and Dipartimento di Fisica e Astronomia “E. Majorana”, University of Catania. The school is actively supported by European Project ChETEC-INFRA, the Centro Siciliano di Fisica Nucleare e Struttura della Materia and Nupecc.

SCIENTIFIC COMMITTEE

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SCIENTIFIC SECRETARY

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NEXT ANNOUNCEMENTS

Next announcement will appear in February 2024 with details about lecturers, subject of lectures and registration procedures.