

**The 12th European Summer School
on Experimental Nuclear Astrophysics
Catania, Italy
16-21 June 2024**

2nd Announcement

We have the pleasure to announce the “12th European Summer School on Experimental Nuclear Astrophysics (Santa Tecla School)”, 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 (the Santa Tecla, the Sinaia, 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) aims to correlate the topics of the four European schools, to correlate their activities to better serve 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 seven 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
Neutrino driven nucleosynthesis

- **LIST OF CONFIRMED SPEAKERS**

M. Aliotta, T. Ahn, W. Bang, C. Bertulani, C. Brune, R. Buompane, G. Cosentino, B. Fields (TBC), C. Frohlich, F. Gulminelli, T. Kajino (TBC), T. Kawabata, A. Korn, K.L. Kratz, Y. Litvinov, D. Mascalì, M. Mazzocco, S. Pisano, R. Reifarh (TBC), G. Rogachev, H. Schatz (TBC), A. Spyrou, O. Straniero, M. Wiescher (TBC)

- **CONTRIBUTIONS BY YOUNG RESEARCHERS**

A number of oral contributions from young researchers will be selected by the SOC. Please send your abstract to astro2024@lns.infn.it by May 10th 2024. Selected speakers will be granted the possibility to give a short talk in special sessions.

- **ACCOMODATION & PAYMENTS**

The organizers encourage the participation of young researchers from Europe and from non-European countries. The number of participants will be strictly limited to 80. Students who may need a grant are welcome to contact the organizing committee by email at astro2024@lns.infn.it.

The registration fee is 300 € (which will cover the school expenses as well social activities as well as the proceedings).

The venue of the school is the “Grand Hotel Faraglioni” <https://www.grandhotelfaraglioni.com/> a four star hotel in front of the Ionian sea. Rooms were booked at a special rate by the school secretary. The cost is 72 € for a double room (breakfast & lunch included) and 97€ for a single one. The special prices are due only if it is booked via the school organization.

A large number of restaurants, full price range and taste, is present in Acitrezza within walking distances from the hotel.

Fee for accompanying persons is 100 € which will cover school trip, welcome cocktail and social dinner.

The hotel booking “at a special rate” has to be paid in advance by using the hotel booking system at the email address hotel@grandhotelfaraglioni.com with the subject ESSENA24.

Students with financial difficulties are welcome to contact the organizing committee by email at astro2024@lns.infn.it.

TRAVEL INFORMATION

Catania is connected to many Italian and international airports by frequent flights operated by several airlines. Acitrezza can be reached from the airport using the ALIBUS (http://www.amt.ct.it/?page_id=2610) and then by public transport (<https://www.amts.ct.it/mappa-delle-linee?percorso=534>) or by taxi (<http://www.radiotaxicatania.org/it/>) at a fixed rate, around 45 euro. On 16th and 22nd June, devoted shuttle bus will connect Catania airport and the conference hotel.

- **SOCIAL ACTIVITIES**

Social activities will be organized during the school. It will also be possible to arrange a school trip in an Unesco world heritage site as well as a social dinner. A travel agency desk will be present at the hotel to arrange the trip. Further information will be given in the final announcement of the school.

- **IMPORTANT DEADLINES**

Invitation letter for VISA application: 30th April 2024

Registration: 10th May 2024

Abstract submission: 10th May 2024

Hotel booking: 15th May 2024.

- **HOSTING INSTITUTIONS AND 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 the European Project “ChETEC-INFRA”, by the “Centro Siciliano di Fisica Nucleare e Struttura della Materia, CSFNSM” and by the NUPECC.

- **SCIENTIFIC COMMITTEE**

M. Aliotta, D. Balabanski, C. Bertulani, M. Busso, E. Chavez, A. Coc, M. El Eid, F. Hammache, T. Kajino, K.L. Kratz, S. Kubono, K. Langanke, J. Josè, T. Motobayashi, O. Straniero, G. Rogachev, S. Romano, C. Spitaleri, L. Trache, R.E. Tribble, Weiping Liu, M. Wiescher, H. Yamaguchi.

- **LOCAL COMMITTEE**

R.G. Pizzone (Chair), L. Lamia (co-Chair), G. L. Guardo, M. La Cognata, D. Lattuada, A. Oliva, G.G. Rapisarda, M. L. Sergi, R. Sparta, A. Tumino.

- **SCIENTIFIC SECRETARY**

G.L. Guardo & R. Sparta astro2024@lns.infn.it

- **NEXT ANNOUNCEMENTS**

Final announcement will appear 2 weeks before the school beginning with details about lecturers, subject and program of lectures and final information.