

# **The 11<sup>th</sup> European Summer School on Experimental Nuclear Astrophysics**

**Catania, Italy**  
**12-19 June 2022**

## Final Announcement

We have the pleasure to announce the “11<sup>th</sup> 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. All lecture notes as well as accepted contributions from young researchers will be published in EPJ Web of conferences.

- **ENNAS**

The European Network of Nuclear Astrophysics Schools (ENNAS) is a project that 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/28073>

-email: [astro2022@lns.infn.it](mailto:astro2022@lns.infn.it).

- **VENUE**

The school will be held in Catania, at the Laboratori Nazionali del Sud (INFN-LNS) ([www.lns.infn.it](http://www.lns.infn.it)).

- **TIMING**

The school will be held from Sunday, 12<sup>th</sup> June, to Sunday 19<sup>th</sup> June. The seven school days include one day for arrivals (12.06.22) and one day for departures (19.06.22). During the whole period of the school, morning and afternoon lecture sessions will be given, together with young scientists' talk sessions.

- **HISTORY**

The school is internationally re-known 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 and 2019. Traditionally, particular attention is devoted to the participation of young students of less-favoured countries.

## **PRELIMINARY SCIENTIFIC PROGRAM**

Primordial Nucleosynthesis  
Stellar Evolution  
Hydrostatic and Explosive Nucleosynthesis  
Plasmas in stars and the laboratory  
Detectors and Facilities for Nuclear Astrophysics  
Experiments with rare and radioactive isotopes  
Indirect Methods for Nuclear Astrophysics

- **LIST OF CONFIRMED SPEAKERS**

P. Adsley, D. Balabanski, B. Bastin, D. Bemmerer, R. deBoer, C. Bertulani, A. Bonasera, R. Buompane, M. Busso, S. Cristallo, A. Cvetinovic, G. D'Agata, C. Iliadis, G. Imbriani, J. Josè, K.L. Kratz, C. Massimi, M. Mazzocco, D. Mengoni, G. Meynet, S. Palmerini, G. Petringa, S. Romano, D. Santonocito, L. Trache, S. Typel, M. Williams, H. Yamaguchi.

The final version of the program is available on the school webpage.

- **CONTRIBUTIONS BY YOUNG RESEARCHERS**

About 30 abstracts from young researchers have been selected for oral contributions. The detailed program can be found at the school webpage.

- **PUBLIC LECTURE**

A public lecture will be held by one most influent scientists and renown in the last decades, prof. Jocelyn Bell (Mansfield College, University of Oxford) whose discoveries led the world scientific community to a new era. The lecture is confirmed for June 15<sup>th</sup>.

- **ACCOMODATION & PAYMENTS**

Granted students and lectures will be lodged at Hotel BORG VERDE, close to the LNS (+39095 7141693 <http://hotelborgoverde.it/>). Other solutions are on charge of the participants according to his/her needs.

The registration fee is 300 € (which will cover the school expenses as well social activities as well as the proceedings). Hotel booking and fee payment can be fixed with Mr. Alfio Romeo (Shogun Travel Agency, [a.romeo@shougun.it](mailto:a.romeo@shougun.it)).

The venue of the school is the Laboratori Nazionali del SUD (INFN-LNS), directly located in Catania. School buses will daily pick up school participants at the NETTUNO Hotel (<https://www.hotel-nettuno.it/>) about 8:20 each morning before the start of the morning session and drive back at the end of the afternoon session.

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

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

The registration fee and the hotel booking "at a special rate" have to be paid in advance via the school travel agent, Mr. Alfio Romeo at the following email: [a.romeo@shougun.it](mailto:a.romeo@shougun.it).

- **TRAVEL INFORMATIONS**

Catania is connected to many Italian and international airports by frequent flights operated by several airlines. Nettuno hotel can be reached from the airport using the ALIBUS ([http://www.amt.ct.it/?page\\_id=2610](http://www.amt.ct.it/?page_id=2610)) or by taxi (<http://www.radiotaxicatania.org/it/>) at a fixed rate, around 20 euro. On 12<sup>th</sup> and 19<sup>th</sup> June, shuttle bus will connect Catania airport and Nettuno/Borgo Verde hotels hotel are scheduled in the school web page. Please, consult the section “**How to reach hotels**” in the school webpage for detailed info about how to reach school hotels and LNS.

Please, notice that no school transfer (from/to the airport) is available on days different than 12 and 19 June.

- **SOCIAL ACTIVITIES**

Social activities will be organized during the school. Depending on the Covid-19 conditions, it will also be possible to arrange a school trip in Piazza Armerina (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 are given in the school webpage.

- **HOSTING INSTITUTIONS AND SPONSORS**

The school is supported by INFN-LNS, Dipartimento di Fisica e Astronomia “E. Majorana” DFA-UniCT, Università degli Studi di Catania, ChETEC-INFRA, and Centro Siciliano di Fisica Nucleare e Struttura della Materia (CSFNSM). School sponsors are Fratelli Russo and Frantoio Scalia.

- **SAFETY INSTRUCTIONS:**

The organisers ask all participants to:

- keep at least 1 m distance to other persons
- wear an FFP2 when inside the conference venue
- clean or sanitize hands when entering the conference venue

No test or vaccination is required to enter in Italy

The official guidelines can be found (in Italian and English) at

[www.travellers.salute.gov.it](http://www.travellers.salute.gov.it)

[www.salute.gov.it](http://www.salute.gov.it)

- **SCIENTIFIC COMMITTEE**

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

- **LOCAL COMMITTEE**

R.G. Pizzone (Chair), L. Lamia (co-Chair), G.F. D’Agata, G.L. Guardo, M. La Cognata, D. Lattuada, A.A. Oliva (webmaster), G.G. Rapisarda, M. L. Sergi, R. Spartà, A. Tumino.

- **SCIENTIFIC SECRETARY**

G.G. Rapisarda & M.L. Sergi [astro2022@lns.infn.it](mailto:astro2022@lns.infn.it)