

**The 12<sup>th</sup> European Summer School on  
Experimental Nuclear Astrophysics  
Catania  
16-22/06/2024**

**Sunday, 16/06/2024**

08:00-18:00 Arrivals

**Monday, 17/06/2024** SESSION AT INFN LNS - CATANIA

09:00-09:30 Welcome from authorities

**-Chairman: C. Spitaleri**

09:30-10:20 **M. Wiescher** “The Physics of low energy reaction rates”

10:20-11:10 **T. Kajino** “Primordial Nucleosynthesis after Planck”

11:10-11:40 Coffee Break

11:40-12:25 **Young Researchers Session**

13:00 Lunch

**-Chairman: S. Romano**

14:00-14:50 **O. Straniero** “Stellar Evolution and standard solar models”

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15:40-16:30 **F. Gulminelli** “Compact Object Equation of State”

16:30-17:00 **Young Researchers Session**

17:00-17:30 Coffee Break

17:30-18:15 **M. Wiescher** “The impact of the Manhattan program on nuclear astrophysics”

18:15 **Tour at the LNS Visitor Center**

19:30 **Welcome Cocktail at INFN-LNS terrace**

**Tuesday, 18/06/2024.** SESSION AT GRAND HOTEL FARAGLIONI

**-Chairman: O. Straniero**

09:00-09:50 **T. Kajino** “Neutrino induced nucleosynthesis”

09:50-10:40 **A. Korn** “Stellar chemical compositions and open questions”

10:40-11:00 Coffee Break

11:00-11:50 **D. Romano** “Galactic chemical evolution”

11:50-12:40 **G. Rogachev** “Nuclear Clusters and their Role in Nucleosyntheses”

13:00-14:30 Lunch

**-Chairman: T. Kajino**

14:30-15:15 **M. Mazzocco** “RIB: production and experiments”

15:15-16:00 **H. Yamaguchi** “Nuclear Astrophysics with RIBs at CRIB”

16:00-16:30 Coffee Break

16:30-17:15 **T. Litvinov** “Storage rings for nuclear astrophysics”

17:15-18:00 **T. Kawabata** “Update of the triple alpha reaction rate”

18:00-19:00 **Young Researchers Session**

**Wednesday, 19/06/2024** SESSION AT GRAND HOTEL FARAGLIONI

**-Chairman: M. Aliotta**

09:00-10:10 **C. Bertulani** “Indirect methods”

10:10-10:40 **R. Sparta** “Guidelines to THM applications”

10:40-11:00 Coffee Break

11:00-11:50 **C. Frohlich** “Supernova Nucleosynthesis”

11:50-12:40 **T. Ahn** “Experimental studies for explosive nucleosynthesis”

12:40-13:30 **R. Buompane** “The ERNA facility”

13:30-14:30 Lunch

15:00-20:00 **Social Excursion and dinner**

**Thursday, 20/06/2024** SESSION AT GRAND HOTEL FARAGLIONI

**-Chairman: A. Tumino**

09:00-09:50 **M. Aliotta** “Nuclear astrophysics at LUNA”

09:50-10:40 **D. Mascalì** “ The PANDORA project: an experimental setup for measuring in-plasma  $\beta$ -decays of astrophysical interest”

10:40-11:00 Coffee Break

11:00-11:50 **C. Brune** “Nuclear astrophysics with R-matrix”

11:50-12:40 **A. Spyrou** “r-process nucleosynthesis: an experimental approach”

12:40-13:40 **Young Researchers Session**

13:40-14:40 Lunch

**-Chairman: A. Spyrou**

16:00-16:50 **C. Matei** “Nuclear Astrophysics at ELI-NP”

16:50-17:40 **S. Pisano** “To be(t) or not to be(t): a Bayesian approach to statistical data analysis”

17:40-18:10 **Young Researchers Session**

20:00-22:00 **Social Dinner at Faraglioni Restaurant**

**Friday, 21/06/2024** SESSION AT GRAND HOTEL FARAGLIONI

**-Chairman: G. Rogachev**

09:00-09:50 **G. Cosentino** “The n<sub>2</sub>ToF facility for nuclear astrophysics”

09:50-10:40 **V. Goldberg** “Resonant Scattering and its recent applications”

10:40-11:00 Coffee Break

11:00-11:50 **D. Lattuada** “Laser induced reactions for nuclear astrophysics”

11:50-12:40 **A. Banu** “Exploring the origin of the rarest stable isotopes naturally occurring on Earth with photon beams”

12:40-13:10 **G.L. Guardo** “Developing system arrays for new experimental approaches in nuclear astrophysics”

13:10-14:30 Lunch

**-Chairman: M. Wiescher**

16:00-18:00 **Young Researchers Session**

**18:00 Final remarks**

**Saturday, 22/06/2024**

**DEPARTURES**