

NIC 2018 Satellite School - Caserta June 17th-22nd 2018

Preliminary program

June 18th

8:30 Registration

9:00 Welcome

9:30 Nuclei in the cosmos (processes and messengers)

11:30 break

12:00 Nuclear physics in astrophysics: nucleosynthesis and stellar evolution

13:30

lunch

14:30 Particle physics in astrophysics

16:00

16:30 Discussions/exercises

June 19th

9:00 Experimental Nuclear Astrophysics: direct methods

11:30 break

12:00 Experimental Nuclear Astrophysics: indirect methods

13:30 lunch

lunch

14:30 Isotopic ratios in astrophysics

Wed.-Th.-Fr 20th to 22nd

Students will be split in 5 different stages:

1. 3MV tandem laboratory: nuclear reaction cross sections using a recoil mass separator.
2. ICP-MS laboratory: measurements of isotopic ratios in meteorites.
3. Multi-messenger astronomy: detection of high energy neutrinos.
4. Stellar evolution and Nucleosynthesis: model calculations, nuclear cross sections and comparison to observations
5. Indirect methods: Trojan Horse Method from the raw data to the cross section

NOTE: Lecturers will be announced soon