NUCLEAR AND PARTICLE PHYSICS ASPECTS OF EXPLOSIVE ASTROPHYSICS AND MULTIMESSENGER ASTRONOMY

3 CFU

Teaching staff

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Program of the course:

1) Introduction to Nuclear Astrophysics.
2) Measurements of nuclear reactions cross sections important for nuclear astrophysics: experimental techniques and indirect methods.
3) Short introduction to particle physics.
4) Explosive phenomena as a link between nuclear and particle astrophysics.
5) Novae, Super Novae and other violent events in the cosmos: multi-messenger astrophysics.
6) Big Bang nucleosynthesis.

Bibliography:

4) Selected papers in the field and slides provided by the Lecturers.