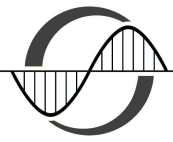




UNIVERSITÀ  
degli STUDI  
di CATANIA



DIPARTIMENTO DI FISICA E ASTRONOMIA  
“ETTORE MAJORANA”

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DOTTORATO DI RICERCA IN FISICA  
ANNO ACCADEMICO 2019/2020

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## TITLE

Advanced topics in nuclear astrophysics

2 CFU

### Teaching staff

**Nome Cognome: Marco La Cognata**

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**Telephone:** +39 095 542 590

**Reception hours:** upon student request

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### Program of the course:

1. The R-matrix method in nuclear astrophysics
  - a. Basic theory
  - b. Applications to nuclear astrophysics
  - c. Hands-on session
2. Fusion reactions in plasmas produced by laser interaction with matter
3. Photodissociation reactions in nuclear astrophysics

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### Bibliography:

Iliadis C., Nuclear Physics of Stars, Wiley (2015)