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## TITLE

Monte Carlo method for particles transport

2 CFU

### Teaching staff

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### Program of the course:

1. Basis of the Monte Carlo method
  2. Use of Monte Carlo to solve particles equations and transport in the matter
  3. Basis of the use of the Geant4 Monte Carlo code
    - a. Installation
    - b. Description of the main Geant4 functionalities
    - c. How to retrieve information from a simulation
    - d. Realization of a simple Geant4 application: a particle beam interacting with a calorimeter detector
  4. Hands-on sessions
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## **Bibliography:**

A Aghighat, Monte Carlo methods for particle transport, CRC.  
press, Taylor and Francis

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