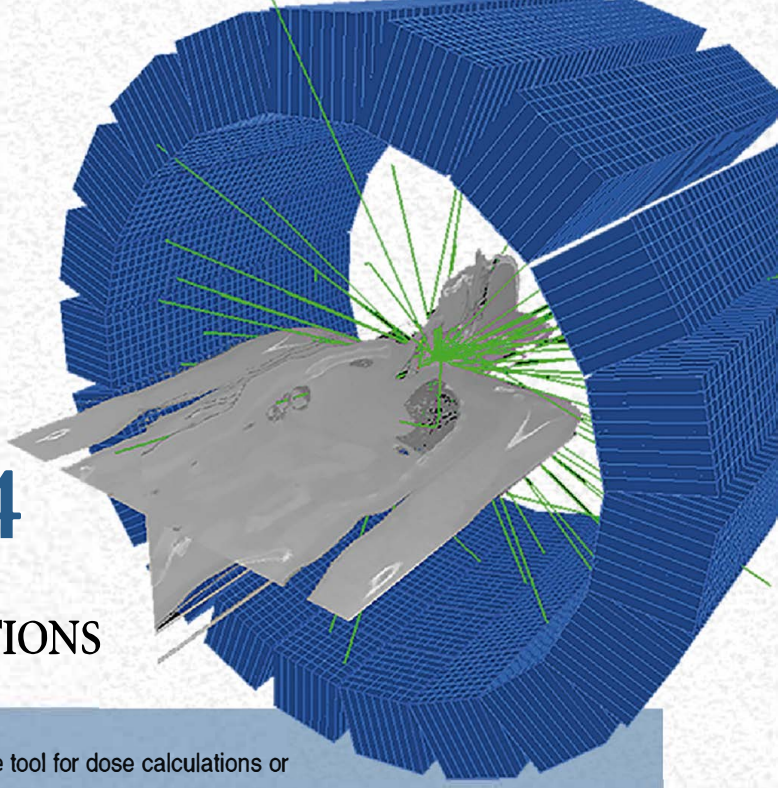
Language

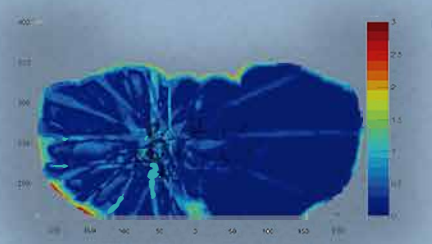
English or Spanish

(communication is also possible in French, Italian or German)



COURSE ON
GAMOS/GEANT4
FOR MEDICAL PHYSICS AND RADIATION PROTECTION SIMULATIONS

- Monte Carlo simulation codes have proven to be the most accurate tool for dose calculations or for the detailed description of the behaviour of radiation detectors. Among these codes, **GEANT4** stands out thanks to its flexibility and wide functionality in different fields of physics. The **GAMOS** tool, which includes a Graphical User Interface for Windows and Linux, has been designed to make easy the use of GEANT4; its usefulness and robustness are endorsed by over 3,000 registered users.



TPS-MC difference (2%/3mm γ index)

- The objective of the course is to provide the student with the necessary knowledge to be able to do by him/herself Monte Carlo simulations of realistic problems in one of the fields of **Radiotherapy, Radiation Protection, Nuclear Medicine or Protontherapy**, including complete management and visualization of DICOM data (CT and NM images, structures, doses, RTPlan and RTIonPlan)
- The duration of the course is three weeks and two more weeks to catch up.

TEACHING METHODOLOGY

- **Online course.**
- Multimedia theoretical material.
- Tutored practical exercises, choosing a field:
  - **Radiotherapy,**
  - **Radiation Protection**
  - **Nuclear Medicine detectors**
  - **Protontherapy**
  - **Or user-customized exercises**
- From a first exercise to a realistic simulation with a patient.
- Personalized tracking.

February 19th - March 22th, 2024

60 h duration

(10 h theoretical + 50 h practical)

ADRESSED TO

- Graduates in science, technology, engineering & math fields.
- Medical Physic Experts and Clinical trainees.
- Last year of university degree.

MINIMUM REQUISITES

Operating System: Linux OS (<5 years)
Windows 7, 8 or 10
RAM: 4 GB
Free disk space: 5 GB

RECOMMENDED REQUISITES

Operating System: Ubuntu 22.04
Windows 10
RAM: 4 GB
Free disk space: 20 GB

INFORMATION & REGISTRATION

CIEMAT | Virtual Classroom

- http://www.ciemat.es/training
  - English: http://gamos-geant4/course2024eng
  - Spanish: http://gamos-geant4/course2024spa
- aulavirtual@ciemat.es
- +34 913 460 893

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Ciemat Training Unit Aula Virtual

GAMOS Geant4-based Architecture for Medicine-Oriented Simulations