## X International Geant4 School



# **Report of Contributions**

Contribution ID: 1 Type: not specified

#### **Geant4 introduction**

Session Classification: Lecture

Contribution ID: 2 Type: not specified

#### Introduction to the Monte Carlo method and Geant4

Monday, 16 January 2023 10:00 (1 hour)

**Presenter:** Dr CIRRONE, Pablo (Istituto Nazionale di Fisica Nucleare and University of Catania (Italy))

Contribution ID: 3 Type: not specified

## Installation and application build

Monday, 16 January 2023 11:30 (1h 45m)

**Presenter:** SCIUTO, Alberto (Istituto Nazionale di Fisica Nucleare)

Lunch

Contribution ID: 4 Type: **not specified** 

#### Lunch

Contribution ID: 5 Type: **not specified** 

## Material and geometry

Monday, 16 January 2023 16:15 (1 hour)

**Presenter:** CHIAPPARA, Davide (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 6 Type: not specified

Hands on: Materials and Geometry

Hands on: Materials and Geometry

Contribution ID: 7 Type: **not specified** 

Hands on: Materials and Geometry

Hands on: Materials and Geometry

Contribution ID: 8 Type: not specified

### **Lecture: Documentation and Examples**

Lecture: Documentation and Exam ...

Contribution ID: 9 Type: not specified

### **Lecture: Documentation and Examples**

Tuesday, 17 January 2023 12:30 (30 minutes)

Lecture: Documentation and Exam ...

**Presenter:** CHIAPPARA, Davide (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 10 Type: not specified

### Lecture: Generation of a primary event

Tuesday, 17 January 2023 14:00 (1h 45m)

Lecture: Generation of a primary ...

**Presenter:** Dr CIRRONE, Pablo (Istituto Nazionale di Fisica Nucleare and University of Catania (Italy))

Contribution ID: 11 Type: not specified

### Lecture: Physics, Models and Cuts

Wednesday, 18 January 2023 09:00 (1h 45m)

Lecture: Physics, Models and Cuts

**Presenter:** SCIUTO, Alberto (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 12 Type: not specified

#### **Lecture: Interaction with Kernel 1**

Wednesday, 18 January 2023 14:00 (1h 45m)

Lecture: Interaction with Kernel 1

**Presenter:** CHIAPPARA, Davide (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 13 Type: not specified

## Lecture: Physical models for track structure Monte Carlo codes with emphasis on Geant4-DNA

Friday, 20 January 2023 09:00 (45 minutes)

Lecture: Physical models for track...

**Presenter:** Dr KYRIAKOU, Ioanna (Medical Physics Lab University of Ioannina)

Contribution ID: 14 Type: not specified

## Lecture: Chemical stage and early DNA damage model in Geant4-DNA

Friday, 20 January 2023 09:45 (45 minutes)

Lecture: Chemical stage and early  $\dots$ 

**Presenter:** Dr TRAN, Hoang (IRiBio)

Contribution ID: 15 Type: not specified

#### **Lecture: Interaction with Kernel 3**

Friday, 20 January 2023 11:15 (1h 45m)

Lecture: Interaction with Kernel 3

**Presenter:** CHIAPPARA, Davide (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 16 Type: not specified

#### **Lecture: Interaction with Kernel 2**

Thursday, 19 January 2023 09:00 (1h 45m)

Lecture: Interaction with Kernel 2

**Presenter:** CHIAPPARA, Davide (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 17 Type: not specified

#### Lecture: introduction to Geant4DNA

Thursday, 19 January 2023 14:00 (1 hour)

Lecture: introduction to Geant4DNA

**Presenter:** SCIUTO, Alberto (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 18 Type: not specified

#### Overview on the User Interface

Tuesday, 17 January 2023 17:00 (30 minutes)

**Presenter:** Dr CIRRONE, Pablo (Istituto Nazionale di Fisica Nucleare and University of Catania (Italy))

Contribution ID: 19 Type: not specified

#### Overview on the MRADSIM CAD converter

Tuesday, 17 January 2023 17:30 (30 minutes)

MRADSIM-Converter is a software designed to perform a conversion between the files written in STEP format, prepared by CAD software, into the GDML format, accepted as input in Geant4. The user can easily interact with the 3D visualization of the imported geometry and assign the material to the components before generating the GDML."

"MRADSIM-Space is a software that combines the power of the Geant4 toolkit with a modern and intuitive user interface, to allow any user to easily simulate the effects of space-environment radiation on electromagnetic devices, as well as any other CAD-based geometry

**Presenter:** Dr CIRRONE, Pablo (Istituto Nazionale di Fisica Nucleare and University of Catania (Italy))