

# Geant4 Tutorial 23-27 November 2020

## Session 3 - 4

<https://groups.lal.in2p3.fr/ED-geant4/2020-session-3/>

<https://groups.lal.in2p3.fr/ED-geant4/2020-session-4/>

These “live notes” are used to collect questions and comments during presentations for discussion after presentation

If you have questions or comments, please add them below, prefixing with your name so we know who to come back to!

Presence sheets

ED: [Geant4 Tutorial 23-27 November 2020 - Presence Sheet - PHENIICS](#)

ANF:

<https://docs.google.com/spreadsheets/d/1KReQTxyMSmj79mFLifAsa7jdkhXqSk4AepNo-B3hCy4/edit?usp=sharing>

## Primary Particles

- Questions, comments
- Please type your name when adding a question

Pierre Forestier: What is the best way to simulate multiple particles : using `/run/beamOn 10` for example and adding 10 particles in the vertex generation ?

Pierre: What could be the use of time parameters in generation particles?

Rudolph: 1/ In “`SetParticleMomentum(G4RandomDirection())`” (slide 25), the unit of the momentum is not specified. Is there a default unit assumed? 2/ In

“`fParticleGun->SetParticleMomentumDirection(randomDirection);`” (slide 26), has the “`randomDirection`” vector to be normalized ?

Damien : Can we set a given logical volume as a source for the GPS ?

Damien : For radioactive source, is it possible to set the decay time to 0 ?

Emilia: I have more general question, I see that in the macro file we should give the commands for GPS particle after **`/run/initialize`**

What is the general rule in order to know which commands we should give before `/run/initialize` and which one after.

Emil: Can the stopping positions of primary beam particles be used to define the starting positions of decay products?

What is the easiest way to implement?

Claudia: what if we have different vertex (at different positions) for an event?

## Random number generators

- Questions, comments

## Visualization

- Questions, comments

## Physics - 0

- Questions, comments

## Physics - 1

- Questions, comments

## Physics - 2

- Questions, comments
- Sung: Can we set the threshold to 0 or without any threshold? Is it equivalent to a “default” threshold? What is the default value?
- Claudia: if i don't select a production cut in the `detector.cc` file but only in the macro, the production cut is working in any case?
- Pierre : Is the Region can separate a logical volume in 2?

## User Interface

- Questions, comments

