Session 4 : Exercise

Code for download: session4_start.tar.gz

Exercise 4a:

- Explore processes defined for `proton`, `e-`, `e+`, `gamma` particles via UI commands and add these commands in `run.mac`.
  - Hint: See the commands `/particle/select` and `/particle/process/*`
- Add a command line option to select any Geant4 physics list using `G4PhysListFactory` class when starting the example application, for example:
  - `./exampleED -p FTFP_BERT_EMV`
  - *The command line options were already added in the `main()` function. See the documentation for the basic example B4, where use of a similar code is described in the section « How to run ».*
  - Check availability of the physics list via

    ```
    G4bool IsReferencePhysList(const G4String& physListName);
    ```

Exercise 4b:

- Set particles production thresholds (cuts) via Geant4 command in `run.mac`.
  - *Use Help in Qt session to find out needed commands.*
  - *See `setCut*` commands in `/run` directory.*
- Define a region in EM calorimeter with production thresholds different from the default ones.

Solution: session4_solution.tar.gz