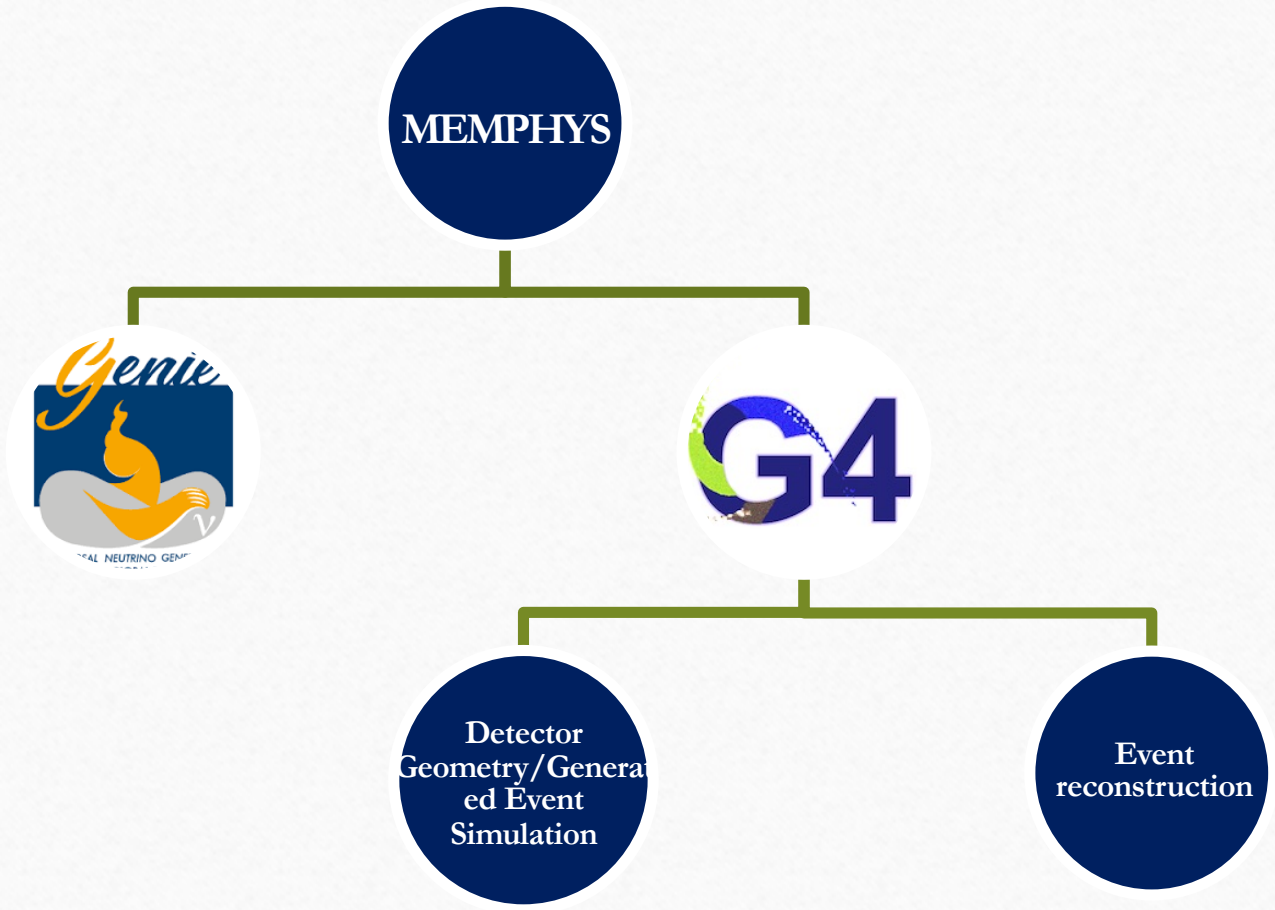
Far Detector Study

Implementation of the MEMPHYS Code and First Experience

So far…

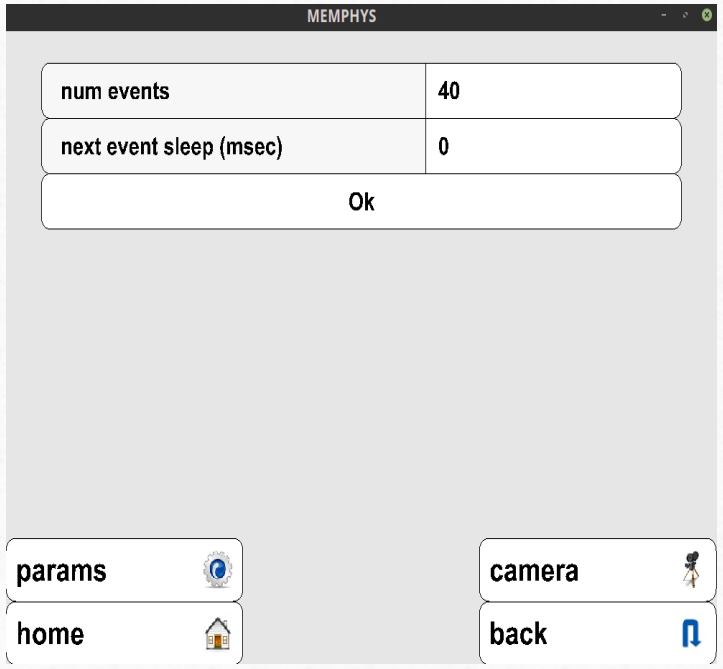
- Installed Oracle's Virtual Box program for virtual machine environment.
- Ran Linux Mint VM image which has all the software necessities preinstalled.

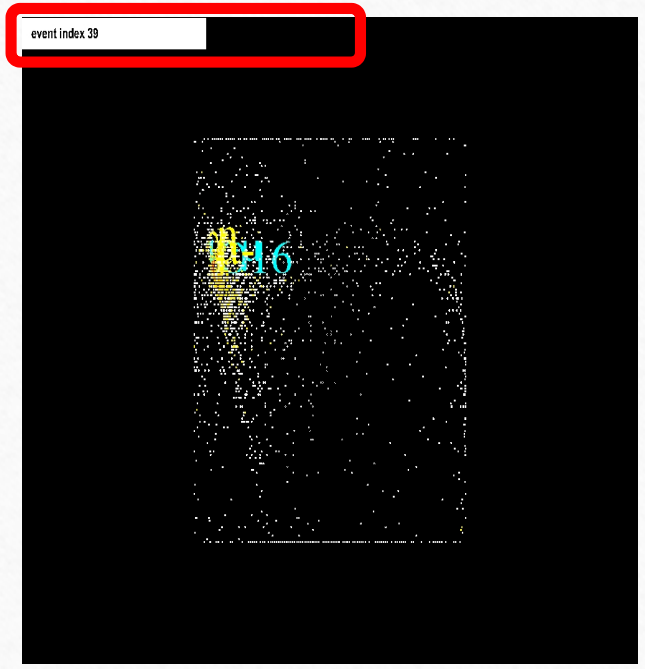

MEMPHYS
Genie
G4
Detector Geometry/Generated Event Simulation
Event reconstruction

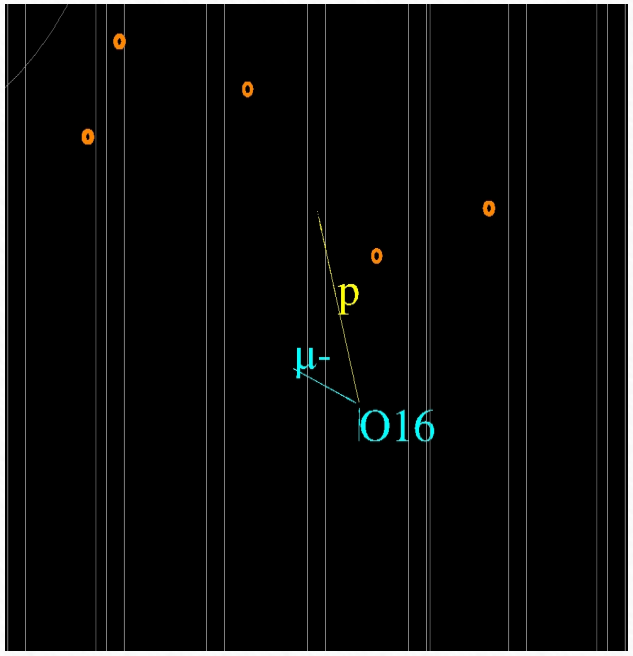
MEMPHYS_vis

- MEMPHYS_sim + Guy's GUI
- Built on the same core code with MEMPHYS_sim and linked to Geant4 libraries.

MEMPHYS_vis GUI







Questions

- How could we obtain the run spectrum which has all the events in?
- Where exactly is the source detector code to play with?
- After creating a new basic code how can we point MEMPHYS package to use it as a detector?
- Documentation? Previous experiences ? Anyone who can help?

Guy's Suggestions

- Possibility 1: play with DetectorConstruction.cc and rebuild MEMPHYS_vis (?)
  - For geometry
  - For material
- Possibility 2: an ASCII file which has detector parameters in it.
- Possibility 3: use /usr/local/MEMPHYS_vis/10.1.0/res/jobOptions.mac to read Geant4 commands. This command file is read by MEMPHYS_vis **before the detector construction**, it may be used to customize the geometry for both MEMPHYS_vis and MEMPHYS_sim. No rebuilding needed.

Thank you!