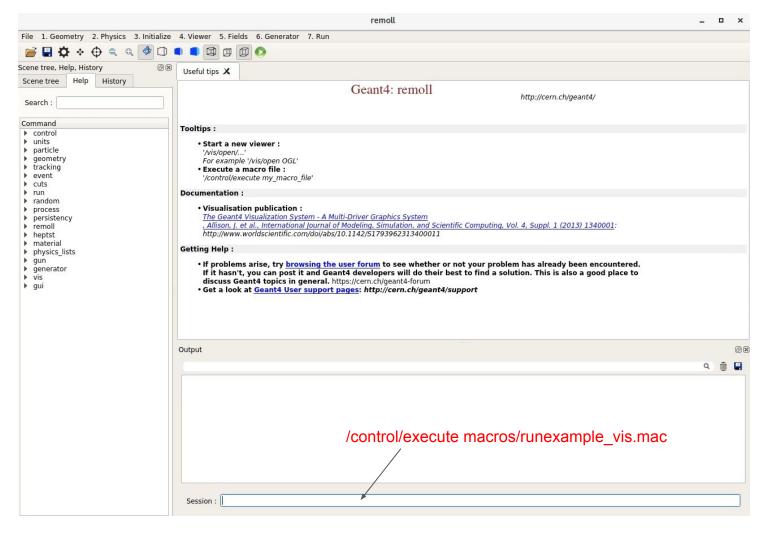# MOLLER Simulations

Vassu Doomra

- You would need to obtain a JLab computing account.
- I personally find working with the VMWare Horizon Client pretty easy provided by the IT Division at JLab. You can find all the information here: https://cc.jlab.org/vdi
- Within the virtual machine open a terminal and use the command *ssh ifarm* to enter one of the nodes. You will be prompted to enter the password.
- In your work area, you can download the remoll package (available publicly on GitHub) using "git clone https://github.com/JeffersonLab/remoll" and switch to any desired branch.
- To see the list of all available branches you can use "git branch -a".
- Then follow the steps: cd remoll, mkdir build, cd build, cmake ../ and finally make.
- This is create an executable "remoll" within the build directory.

remoll

File 1. Geometry 2. Physics 3. Initialize 4. Viewer 5. Fields 6. Generator 7. Run

Scene tree, Help, History

Scene tree | Help | History

Search :

Command
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- generator
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Useful tips

Geant4: remoll

http://cern.ch/geant4/

Tooltips :

- **Start a new viewer :**
  '/vis/open/...'
  For example '/vis/open OGL'
- **Execute a macro file :**
  '/control/execute my_macro_file'

Documentation :

- **Visualisation publication :**
  The Geant4 Visualization System - A Multi-Driver Graphics System
  , Allison, J. et al., International Journal of Modeling, Simulation, and Scientific Computing, Vol. 4, Suppl. 1 (2013) 1340001:
  http://www.worldscientific.com/doi/abs/10.1142/S1793962313400011

Getting Help :

- **If problems arise, try browsing the user forum to see whether or not your problem has already been encountered. If it hasn't, you can post it and Geant4 developers will do their best to find a solution. This is also a good place to discuss Geant4 topics in general.** https://cern.ch/geant4-forum
- **Get a look at Geant4 User support pages:** _http://cern.ch/geant4/support_

Output

/control/execute macros/runexample_vis.mac

Session :

There are 4 particle generators in the remoll package:

- Beam Generator
- Moller Generator
- Ep elastic generator
- Ep inelastic generator

There is another generator called the "external" generator.