Geant4 Workshop

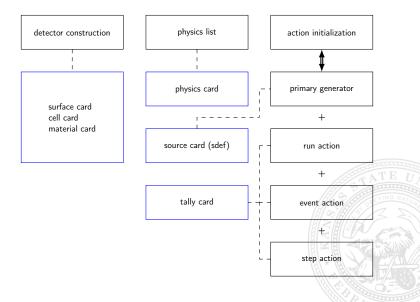
Wenkai Fu Prof. Jeremy A. Roberts

Mechanical and Nuclear Engineering Kansas State University

> CORPS Workshop Feb. 8, 2019



Overview of Geant4 and MCNP Inputs



Wenkai Fu CORPS, 2/8/2019 Geant4 vs MCNP 2 / 5

Install Geant4 10.3

Geant4 10.3 requires cmake 3.3+ and GNU compiler 4.8.2+

- Install Anaconda: https://docs.anaconda.com/anaconda/install/linux/ conda install -c anaconda cmake
- ② mkdir \$HOME/opt/geant4_10_3_p03 ← build, src, install
- 3 copy Geant4 source to src, set.cmake to build
- 4 In build, cmake -C set.cmake ../src, make -jN, make install
- © copy data to \$HOME/opt/geant4_10_3_p03/install/share/Geant4-10.3.3/
- 6 add to .bashrc . \$HOME/opt/geant4_10_3_p03/install/bin/geant4.sh export CMAKE_PREFIX_PATH=\$HOME/opt/geant4_10_3_p03/install

Wenkai Fu CORPS, 2/8/2019 Geant4 vs MCNP 3 / 5

Installation on Eigendoit

MCNP

```
export DATAPATH=/share/apps/mcnp/MCNP DATA
export PATH=$PATH:/share/apps/mcnp/MCNP CODE/bin
```

Geant4

```
export CMAKE PREFIX PATH=
/home/wenkaifu/opt/geant4/geant4.10.03.p01/install
. /home/wenkaifu/opt/geant4/geant4.10.03.p01/install/bin/geant4.sh
alias cmake="/home/wenkaifu/opt/cmake/bin/cmake"
export CC=/home/wenkaifu/opt/gcc/install/bin/gcc
export CXX=/home/wenkaifu/opt/gcc/install/bin/g++
export LD LIBRARY PATH=
/home/wenkaifu/opt/gcc/install/lib64:$LD LIBRARY PATH
alias g++="/home/wenkaifu/opt/gcc/install/bin/g++"
alias gcc="/home/wenkaifu/opt/gcc/install/bin/gcc"
```

Wenkai Fu CORPS, 2/8/2019 Geant4 vs MCNP