



Philosophy, Principle, and Method for the CombLayer: Day Four

Stuart Ansell

European Spallation Source, Lund, Sweden.

December 11, 2015

Source System

Sources are the worst part of MCNP.

- Source are pre-code and then done by keyname type
- Main area is in SourceSelector
- There are a FEW generic sources

Example:

```
1 | ./ess -r --sdefType help AA  
2 | ./ess -r --sdefType Beam Mybox back AA  
3 |
```

Source : Beam source

- Other items are by variable
- Radius :: Radius of beam size
- ASread :: Angular spread
- particleType :: particle

Energy is slightly more complex

Source : Beam source

- Energy can be a list or a value
- If a list an EProb card can be given

Example:

```
5      ./ess -r --sdefType Beam Mybox back \
6          -v Energy '1e-9 50log 1e9'
7          -v EProb '0.1 50i 0.9' \
8              AA
9
10     ./ess -r --sdefType Beam Mybox back \
11         -v EFile 'InputSpectrum.txt'
12     AA
```