



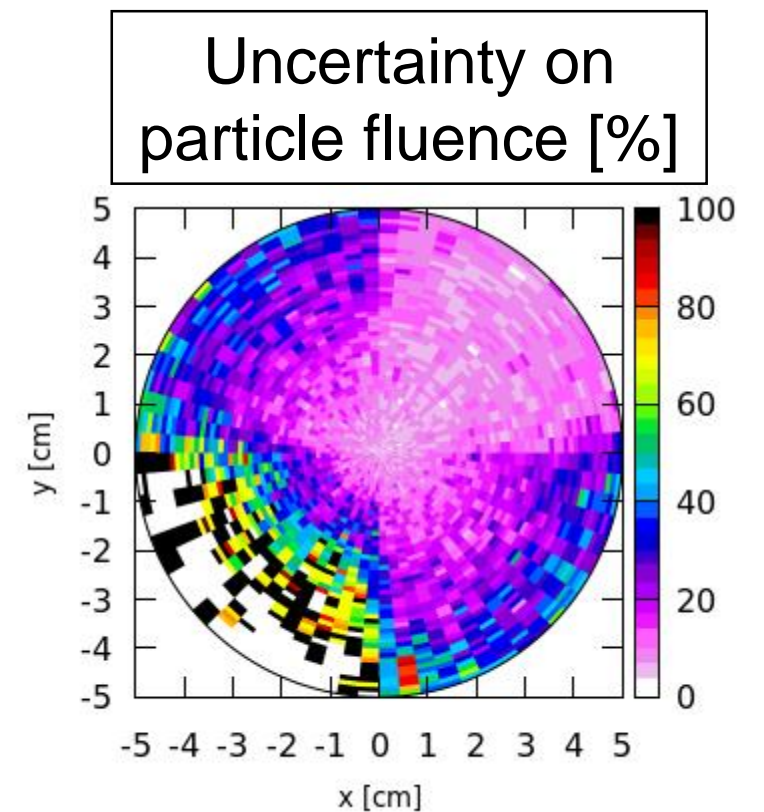
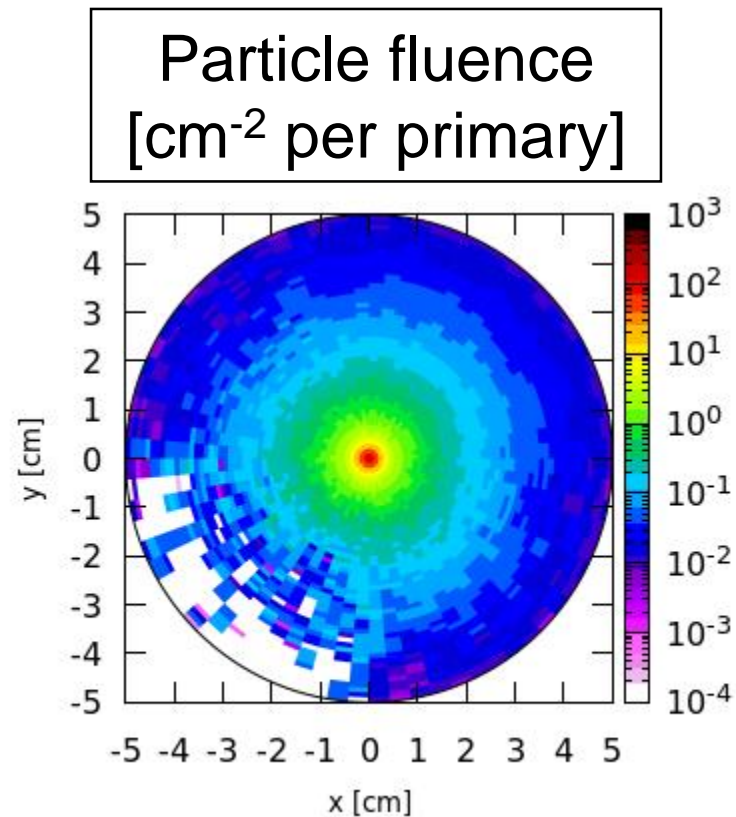
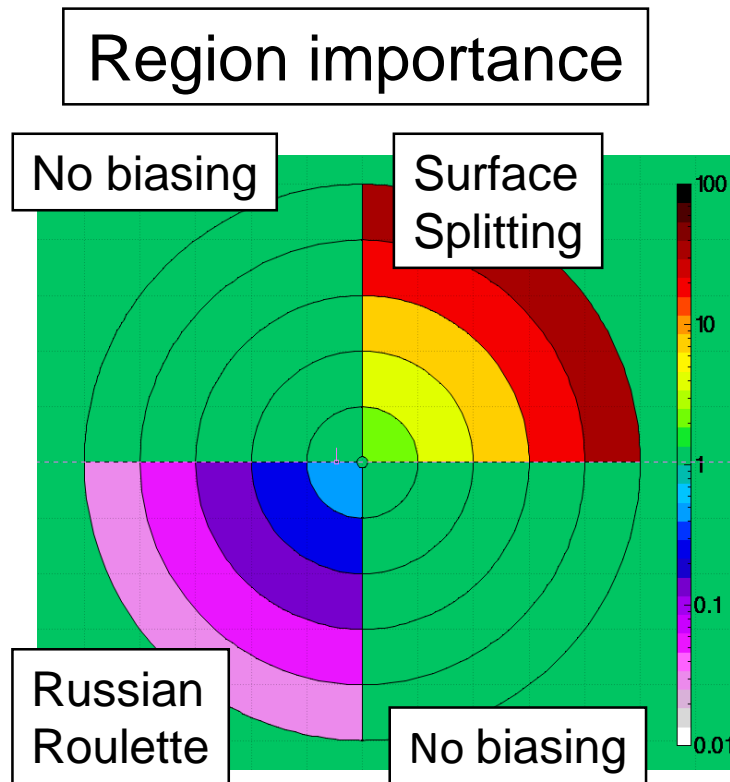
Biasing exercise

Region importance biasing

Biassing exercise

Region importance biasing

- Try to replicate the plots shown in the lecture



Biasing exercise – Region importance biasing

Input preparation and running

- Start from the input file provided
- No need to change the geometry
- Leave importance of the innermost cylinder as 1
- In one quarter, *increase* region importance in steps of 2^n (add **BIASING** cards)
- In one quarter, *decrease* region importance in steps of 2^n (add **BIASING** cards)
- Spawn in 2 jobs, run 5 cycles of 500 primaries each (total 5000 primaries)
- Do not forget to merge the results

Biasing exercise – Region importance biasing

Plotting results

- In flair Geometry tab
 - Create a new layer showing “*Importance*” in the color scale
 - Create a new layer to show “**allpart**” fluence and add a USRBIN
 - Select the proper *usrbin* file and the proper detector
 - Select a transversal and a longitudinal view to see the biasing effect
- In flair Plot tab
 - Create two new USRBIN plots
 - Select for both plots the proper *usrbin* file and detector
 - Select for both plots a transversal view with: $1.6 \text{ cm} < z < 2.0 \text{ cm}$
 - Select for both plots “*aspect ratio*” equal to 1
 - On the first plot show the “**allpart**” fluence
 - On the second plot show the uncertainty on the “**allpart**” fluence

