



Exercise 13: More about geometry

Beginners' FLUKA Course

Exercise: More about geometry

Create a folder called ex13 and start there a new flair project based on the course template (as before)

Save the input as ex13.inp and the flair project as ex13.flair

- ❑ Add a ROT-DEFI composed by 3 cards which allow you to :
 1. Move the target geometrical center in the origin;
 2. Rotate the target by 15 degrees around Y;
 3. Move the target geometrical center in $(X,Y,Z)=(10,0,10)$;
- ❑ Enclose the definition of the target's bodies in between **\$start_transform/\$end_transform** statements.
- ❑ Score the energy deposition in the resulting target regions with a global XYZ scoring in the area and a local ad hoc mesh (R-Phi-Z) on the target.
 - ❑ Associate the defined **ROT-DEFI** to the (R-Phi-Z) scoring on the target using the **ROTPRBIN** card.
- ❑ Modify the **BEAMPOS** card to move the beam on the target ($y=10$);

NOTE: Both the direct and inverse transformation matrix can be used with the **\$start_transform** and **lattice** cards. The **ROTPRBIN** card accepts instead the direct matrix only. For this reason you must define the **ROT-DEFI** as the "inverse" of the transformation which you would normally use to performed the requested transformation.