



# Exercise 11: More about geometry

Beginners' FLUKA Course

# Exercise: More about geometry

Create a folder called ex11 and start there a new flair project based on the course template (as before)

Save the input as ex11.inp and the flair project as ex11.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.