



Exercise 12: Geometry 2
More about geometry

Beginners' FLUKA Course

Exercise: More about geometry

- Start from the solution of **ex4** (Copy both .inp and .flair files).:

```
mkdir ex12 ; cp ex4/ex.* ex12 ; cd ex12
```

- 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 ($x=10$);

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.