Exercise 2

7th FLUKA Course

NEA Paris, Sept.29-Oct.3, 2008

Ex #2

$mkdir ~/work/ex2

$cd ~/work/ex2

download the previous ex1.inp from the website and rename it to ex2.inp

$mv ex1.inp ex2.inp

- add two compound materials (water and air) and assign them to the target and the region around it (respectively)

$emacs [or any editor] ex2.inp &

use as components the materials pre-defined in FLUKA

air composition (MASS content):

NITROGEN (0.9256), OXYGEN (0.2837), ARGON (0.01572)

calculate the density of air for standard conditions (22.4l/mol)

run your new ex2.inp in the ex2 dir

$$FLUPRO/flutil/rfluka –N0 –M3 ex2 &

- compare the energy deposited into the target and the region around it, now and in the previous case (ex1 directory)

  Do the same for the probability that a primary proton undergoes an inelastic collision (BEAMPART Star Density in the .out file)