



**100000  $\alpha$  particles flown 180 times**

**$\alpha$  initial position distribution:**

$$N_x(0.00, 5.85) \times N_y(-0.00, 6.69) \times N_z(94.31, 7.96) \text{ [mm]}$$

**$\alpha$  average direction:**

$$(-0.00, 0.00, 0.00) \text{ (normalized)}$$

**$0.066 \pm 0.001$  % of them reached the Si detector.**

**Based on calculated solid angle = 0.105931 %**