

Description of sepicsfile

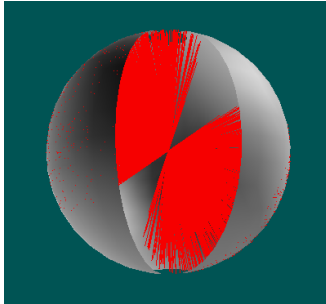
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1 Some definition

- Normal vector: This is different from the usual definition in mathematics.
 - For an incident point on a spherical surface, it is a vector directed to the center.
 - For InputP='u+z', 'g-z', 'u+x' etc which is normally used to specify the incident particle position on the surface of a box, the normal vector is directed to +z, -z, +x etc, i.e, to the inner side of the detector. This is applied even if the position is not on the surface.
- CosNormal. This is the cosine angle range between the particle direction and the normal vector. It will be referred when InputA!='fix' and primary file dose not contain incident direction cosines.

2 usph

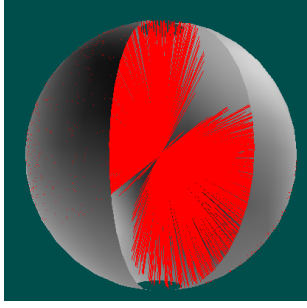
- InputA='cos 1', InputP='usph', CosNormal=(1., 1.), Xinp=120, Yinp=45, Zinp=60:



Particles are entering from right hand side.

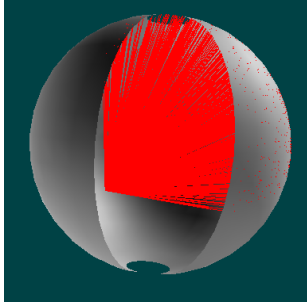
- InputA='fix', InputP='usph', DCInp.x=DCInp.y=0, DCInp.z=1, Xinp=120, Yinp=45, Zinp=60.

Note that DCInp is regarded as the direction cosines in a coordinate whose z-axis is the normal vector. (not recommended to use)

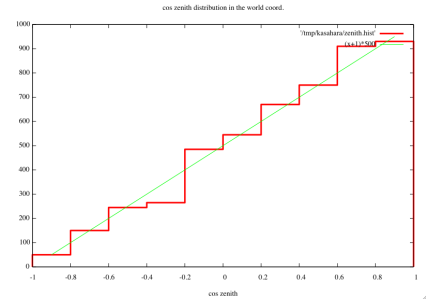
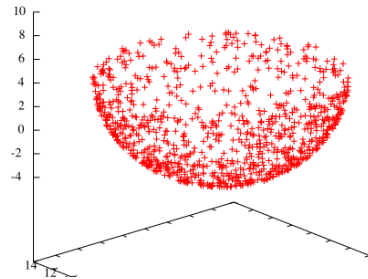
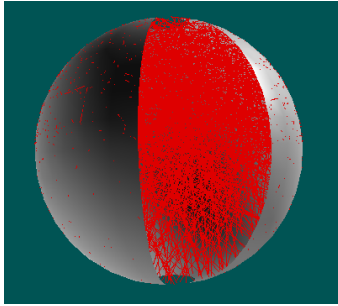


As a result, this is the same as the previous one.

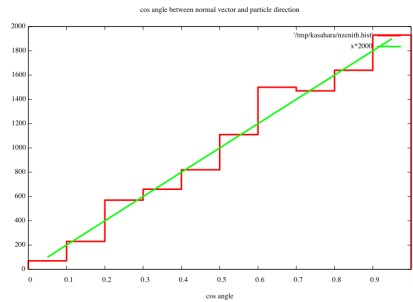
- InputA='cos 1', InputP='usph', CosNormal=(0.9,1.0), Xinp=120, Yinp=135, Zinp=0:



- InputA='cos 1', InputP='usph', CosNormal=(0.,1.0), Xinp=180, Yinp=0, Zinp=90:



The 3rd component of the direction cosines of the incident particles is distributed like $\cos\theta d\cos\theta$ in the world coordinate.

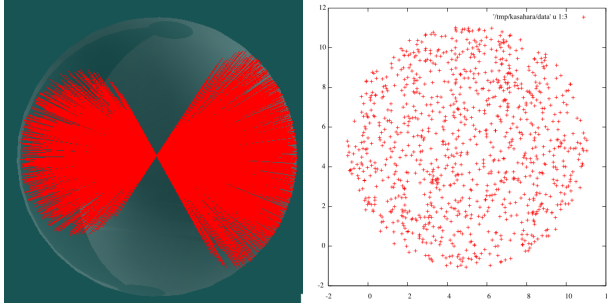


Angle between the normal vector and incident.

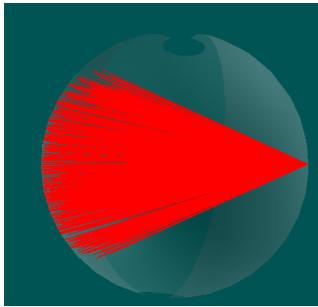
Input is confirmed.

3 u->sph

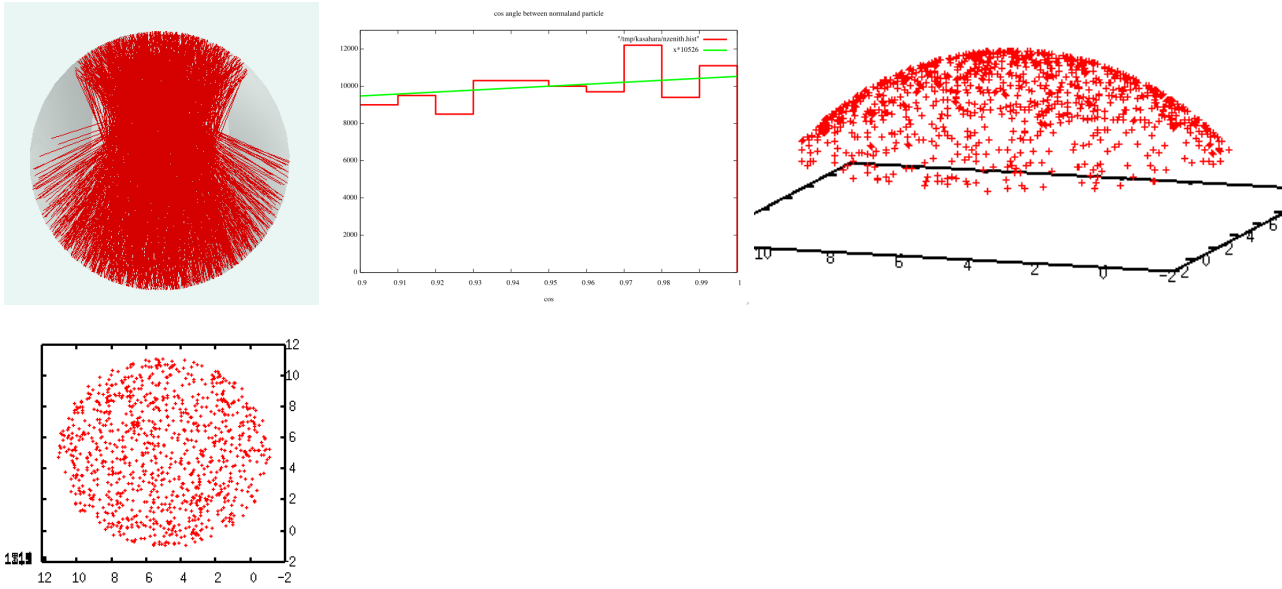
- InputA='cos 1', InputP='u->sph', CosNormal=(1., 1.), Xinp=90, Yinp=90, Zinp=45:



- InputA='cos 1', InputP='u->sph', CosNormal=(0.9, 1.), Xinp=90, Yinp=0, Zinp=0.:

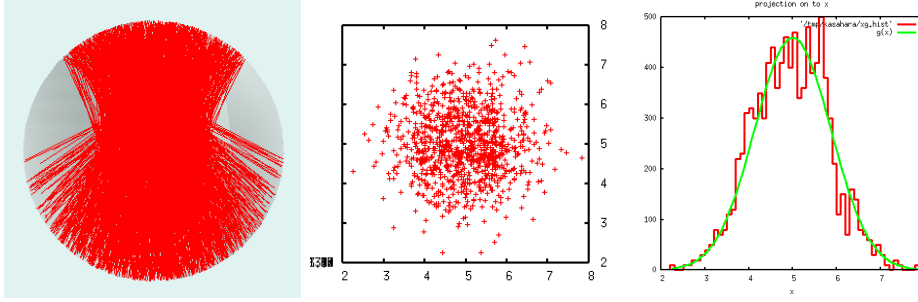


- InputA='cos 1', InputP='u->sph', CosNormal=(0.9, 1.), Xinp=0, Yinp=0, Zinp=45.:



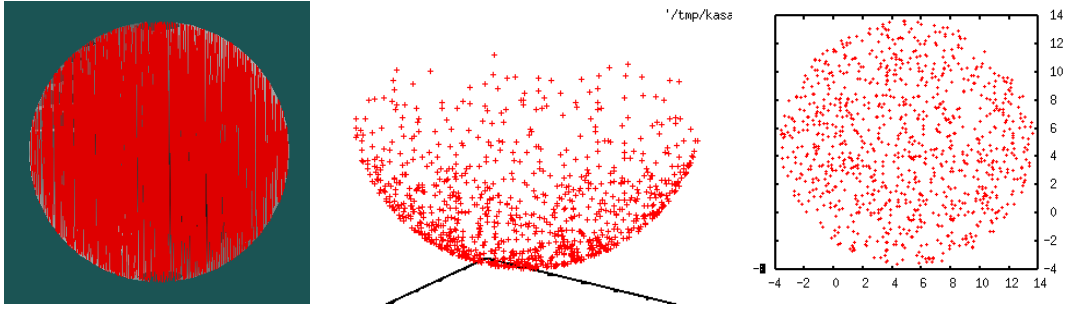
4 g->sph

- InputA='cos 1', InputP='g->sph', CosNormal=(0.9, 1.), Xinp=0, Yinp=0, Zinp=45.:

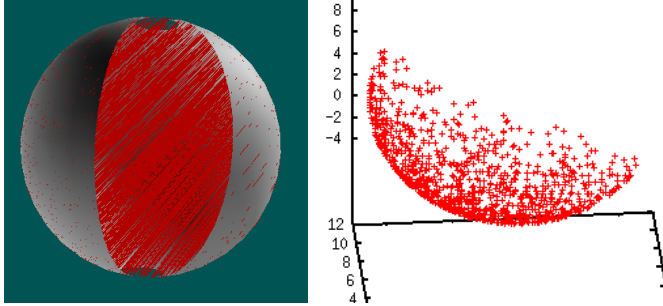


5 u->sph2

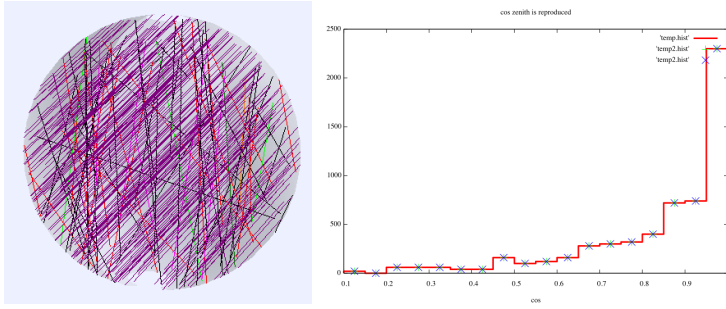
- InputA='fix', InputP='u->sph2', DCInp.x=0., DCInp.y=0., DCInp.z=1



- InputA='fix', InputP='u->sph2', DCInp.x=0.5, DCInp.y=0.5, DCInp.z=0.70710678;

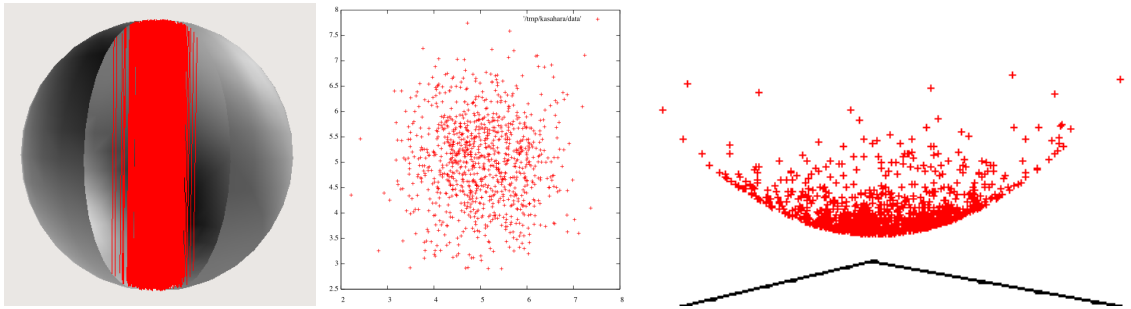


- InputP='u->sph2', primary="+demoprimary",



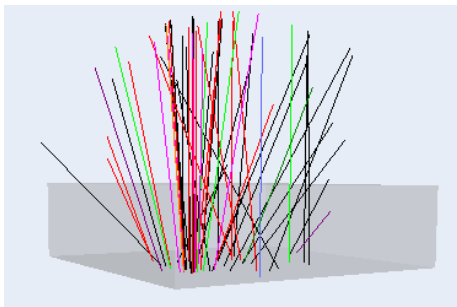
6 g->sph2

- InputA='fix', InputP='u->sph2', DCInp.x=0., DCInp.y=0., DCInp.z=1



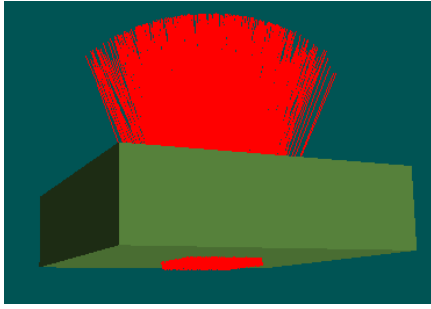
7 All from file

- +demo2 and config2 are used. The only meaningful specification in the sepicsfile is primary = "+demo2".



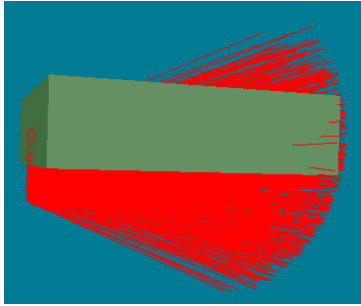
8 u+z

- InputP='u+z', Xrange=(-5,5), Yrange=(-5,5), Zrange=(0,0) InputA='cos 1', Cos-Normal=(0.9, 1.0); config2



9 $u+x$

- InputP='u+x', Xrange=(-18,-18), Yrange=(-5,5), Zrange=(-5, 5) InputA='cos 1', CosNormal=(0.9, 1.0); config2



10 $g+z$

- InputP='g+z', HwHm=1, ProfR=3, Xinp=0, Yinp=0, Zinp=-1, InputA='cos 1', CosNormal=(0.9, 1.0); config2

