

Start

- photon position and direction
- hole-ice cylinders
- number of scattering lengths left to next scattering point
- number of absorption lengths left to absorption

Declare list of media

Each list item has:

- geometrical distance along the photon trajectory from the current photon position to the medium
- geometrical scattering length within the medium
- geometrical absorption length within the medium

Add start medium
at current photon position
from ice-layer-properties table
to list of media

Add ice layers in range
from ice-layer-properties table
to list of media

Add hole-ice cylinders in range
to list of media

May overwrite the start medium
if the photon starts within the cylinder.

Sort list of media
by distance from current photon position

Loop over list of media and
calculate geometrical distances
to the next scattering point
and to absorption

Return

- geometrical distance to next scattering point
- geometrical distance to absorption