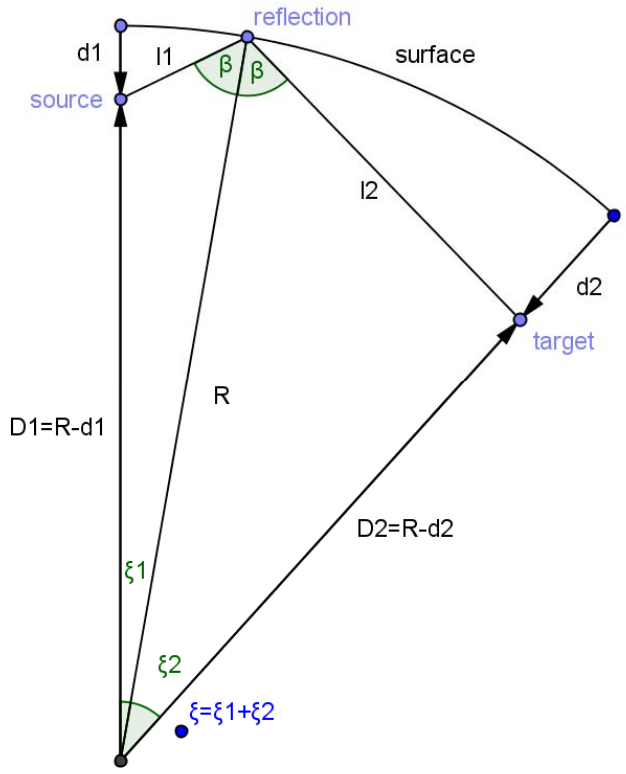

Surface Reflection Geometry

R = earth radius
d_1 = source depth
d_2 = target depth
l_1 = distance from source to reflection
l_2 = distance from reflection to target
ξ = target angle
ξ_1 = angle from source to reflection
ξ_2 = angle from reflection to target

For a given R, d_1, d_2, and ξ,
ξ_1 is found by searching for the roots of:

$$\frac{R}{R-d_2}\sin(\xi_1)-\frac{R}{R-d_1}\sin(\xi-\xi_1)+\sin(\xi-2\xi_1)=0$$

All of the other angles and distances in the surface reflection path can be found from ξ_1.