

InterPlanePhases PROBLEM:

One way to define a plane is by its normal vector.

Since vectors can be moved anywhere as long as orientation is preserved, that same normal can describe a stack of parallel planes.

If this vector is the scattering vector \vec{s} for a particular direction where the scattering is detected, SHOW that if the origin is taken as a point on plane 1, then any atom on the next plane will scatter with the same relative phase with respect to scattering from that origin point.

(BEWARE: This is a general case, the scattered ray can be in any direction, the planes are NOT in general Bragg planes as they are defined for crystallography, and the spacing between the planes shown here is arbitrary and NOT necessarily inversely related to the length of the scattering vector.)

