# For Bragg reflection

Here

In this line, I have used the fact that the polarization factor in incorporated in to the definition of , obtained from the x-server.

We now have almost everything we need to calculate the electric field. Now, the missing part is the phase. According to Yuri’s book, for an incident pulse amplitude , the output electric field amplitude is:

One should notice that there is an extra phase term associated with the reflectivity.

# For Laue reflection

According to Yuri’s paper, the reflectivity for two pulses is respectively: