- This is a simulation (assuming ballistic propagation)+ code for reconstruction& tomogrpahic mapping with radonq/ diffraction+ a lot of functions needed for it to run (sim1 is the main, calling all other functions).

- Explanation for all the sub files is located inside the files

- There are papers showing good reconstruction from an angular coverage of only a 100 degrees, but we can't seem to make it work as you can see by running the simulation – This was fix made in the fixed files

- experimental data: The folder T\_cell that I'm attaching a link to consists of interferograms of T cells taken over a 180 degrees, and the script REALDATA\_A reads and analyzes it (enter the location on your computer to the string variable loc). Link for data:  
<https://www.dropbox.com/sh/msp123opl3eja6q/AAA15DTDVX3hLp7xPuFx1tECa?dl=0>

Useful remarks:

- The "regular" angular range in an experiment is usually -70->70 degrees.

- The simulation assumes straight line propagation so the Radon algorithm gives better reconstruction than the ODT considering diffraction, but in real life the ODT is supposed to be better **so we'd rather put our focus there.**

- For radon -90->90 gives full angular coverage since it assumes radial planes, **but for ODT you need -180->180 since it assumes Ewald spheres.**