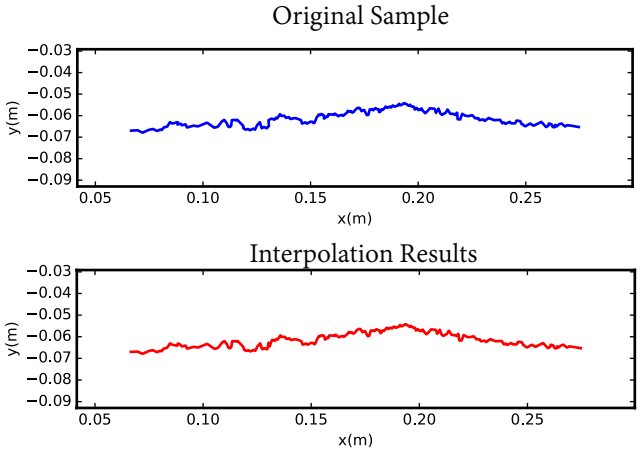
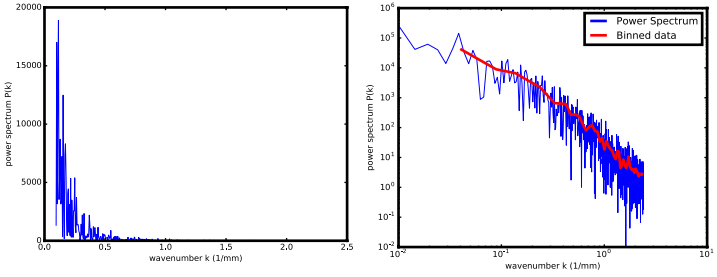
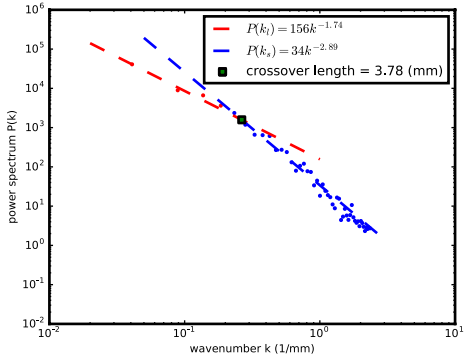
a) Read and interpolate the interpreted stylolite data



b) Apply Fourier spectrum analysis and bin the dataset



c) Sort the binned data in to long and short wavelengths and apply a curve fit analysis, assuming a power law function. Calculate Cross over length for the two functions



d) Estimate the pressure and depth of formation using equations (2) to (4). Write all the results and input parameters to a .csv file

```
Sample,Styolite_2_PointsV2
binsize,10
Skipped elements,2
Small wave number cut off,0.22
large wave number cut off,2.5
Crossover wavenumber (1/mm),0.26449564533638442
Crossover wave length (mm),3.7807805823351242
surface tension (J m-2),0.27
Youngs modulus (GPa),30.0
Poissons ratio,0.25
rock density (kg m-3),2500
Sigma zz (MPa),12.057397660715251
depth (m),491.63700961122333
```