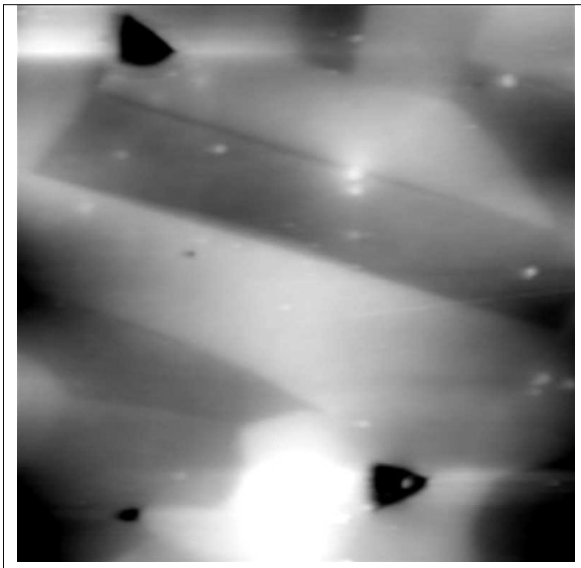
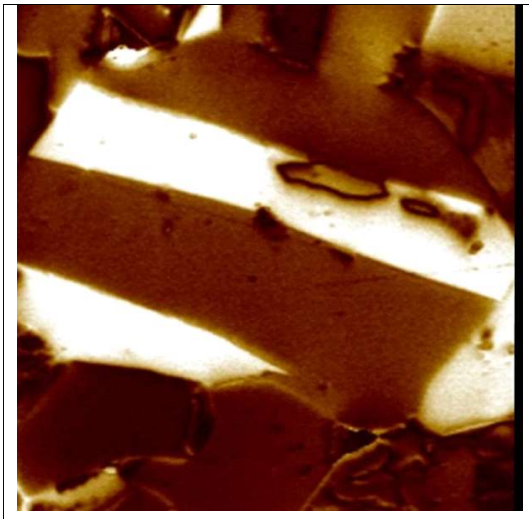
VectorPFM project

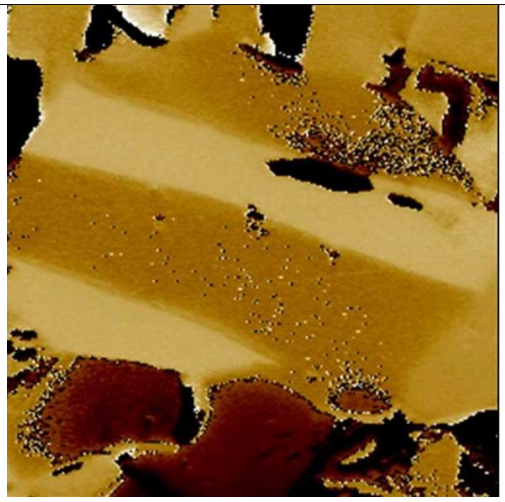
Tasks

- Creating mesh based on HeightMap image (DONE)
  - Scalling in X and Y dimensions – to get um
- Exract images from raw data – now is manually
  - Input image – get row data without scale (is this poosible?)
  - Extract images from the scanner file (is this possible?)

 Height map- from this we create 3D mesh	



X_AMP, Y_AMP, Z_AMP

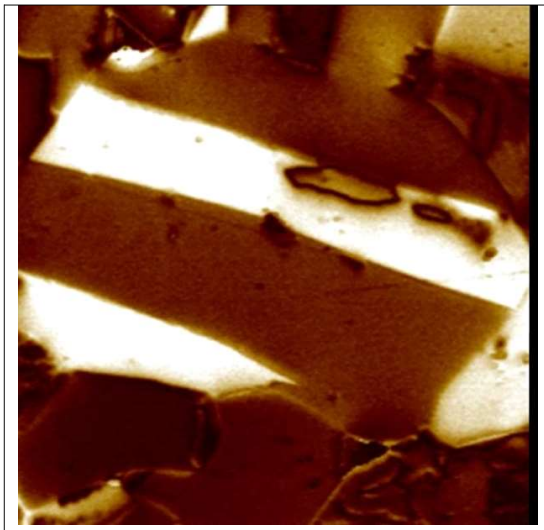


X_PHASE, Y_PAHESE,Z_PHASE

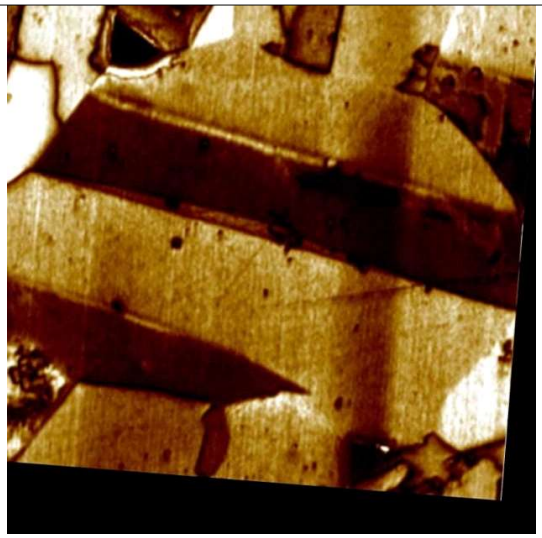
The vector is created based on image pixels in X,Y and Z direction. In addition, the phase is inverting it.

- Alignment the Y_AMP – position and rotation

  Y_AMP after rotation needs to be aligned based on features. At the moment this is done manually.



X amp



Y amp

- Phase images – what is up and what is down ?? (white pixel is up (+Z), darker is down (-Z)). Add checkbutton to invert this. We need to define this for all three directions.

- Drawing raster of vector on the initial mesh

    - Changing the raster as needed
    - Place the custom vector on the surface
    - Vector length (calculated based on XYZ_AMP and phase) - normalized. We can define the longest vector.
    - Vector angle (based on calculated vector angle)
    - Show information for the vector length and the angle
    - Coloring vector based on angle and length
    - Vector raster

- Interaction with each vector – get angle and length (Only OPENGL). Angle is measured towards the XY plane.

- Coloring mesh based on the X_AMP, Y_AMP, Z_AMP (Done)

- Case1 – when the pixel on topography is black (<20) then the vector length is zero –add some slider for this