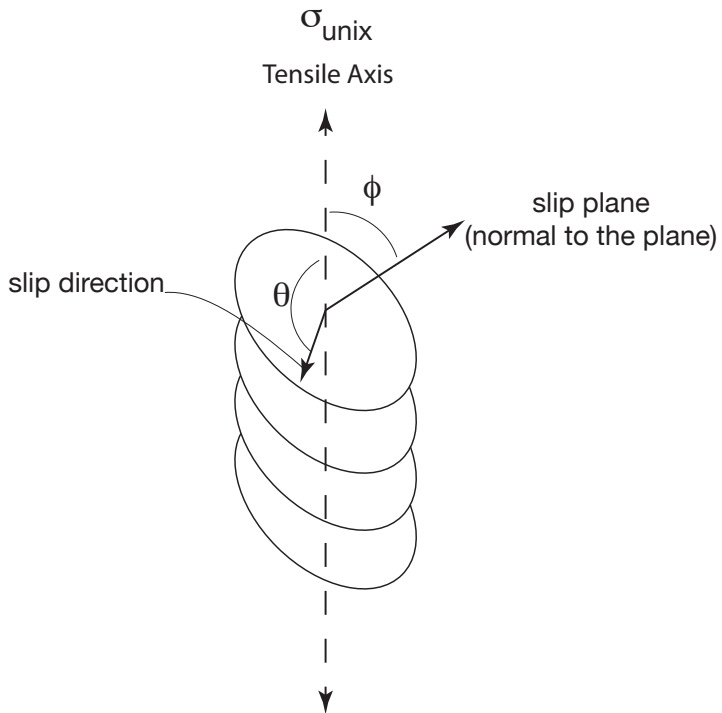


## HW08: Question related to Slip Plane and Slip Direction



In the above schematic the normal to the slip plane is at an angle  $\theta$  with respect to the tensile axis, while the slip direction is at an angle  $\phi$  to the tensile axis.

Show that the shear stress in the slip plane in the slip direction is given by

$$\sigma_{\text{unix}} \cos \theta \cos \phi$$

This shear stress is also called the Critical Resolved Shear Stress or CRSS.