1. **Preliminary steps, generating DAH and TPI grids:**
2. Estimate diurnal anisotropic index DAH from the high resolution DEM using Equation2 in the manuscript using the software of your choice. Alternatively, use the open source GIS software SAGA GIS (<http://www.saga-gis.org/en/index.html>).
3. Derive the topographic position index TPI grid from the high resolution DEM. Add the Arc GIS extension Topography Tools (<http://www.arcgis.com/home/item.html?id=b13b3b40fa3c43d4a23a1a09c5fe96b9>) to your Arc GIS project to accomplish this task. Click on Topographic Position Index (Jenness) and enter your options. A TPI raster is then generated.
4. **Running the downscaling script:**

Explore run\_downscale.m that will:

* 1. Upload the TPI and DAH grids into Matlab workspace. Use the Matlab *geotiffread.m* function to accomplish this if your TPI and DAH grids are in *tiff* format.
  2. Downscale and compute matching statistics *Precision, Recall* and *F score*