This script has no time loop. It just imports the Chestatee DEM; takes values of E (given as the mean catchment erosion rate), m\_sp (0.503) and n\_sp (1.224); and calculates an empirical value of K0 using the equation:

(5)

Where j is the number of grid nodes. I calculate values of K0 using the recalculated mean catchment erosion rate of Reusser et al (7.96 E -6) as well as the mean value plus / minus the standard deviation (1.77).

**K0 Values**

* **K0\_mean = 8.2912443616803223e-07**
* **K0\_min = 6.4475882661810545e-07**
* **K0\_max = 1.013490045717959e-06**

Some thoughts:

* The implication of the equation above is that given a measured mean catchment erosion rate and reasonably constrained values of m and m, you can calculate an effective fluvial erodibility of a watershed.