STAT 425

Computing exercise and homework 3

The global mean temperature is an average of many observations, and should therefore by the central limit theorem be normally distributed. However, over time this normal distribution may be changing. In todays exercise you pick one of the annual global mean temperature series, and look into this issue. You work in groups of two, and try to determine if a normal distribution (or several different ones) are good descriptions of stretches of mean temperatures over several decades.

You may need to remove a temporal mean in order to have the residuals be normal. And this mean may not be linear in time.

Your homwork is to write up your analysis in no more than three pages, including supporting pictures and code. If you cannot get it done by Thursday, let me know and I can give you an extension of a couple of days.