Fire data exploration

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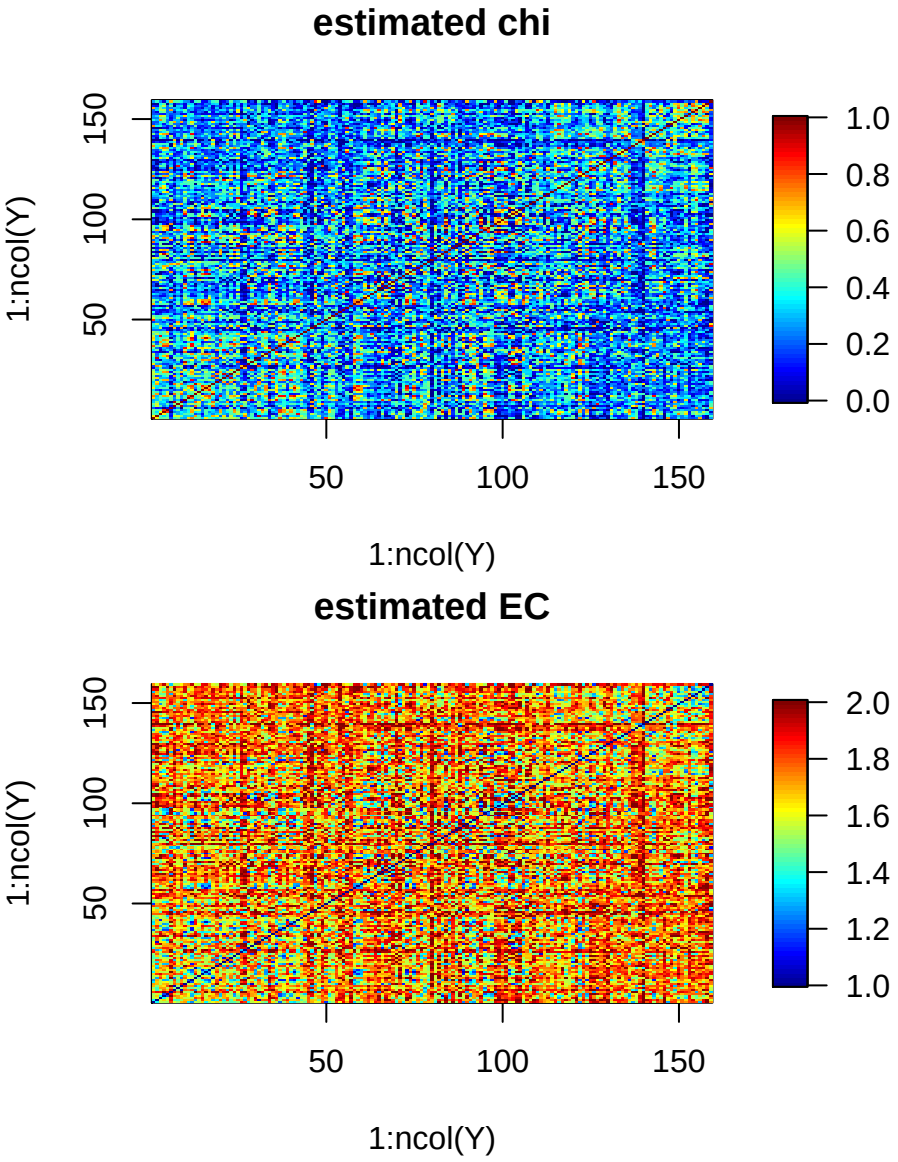
EDA for Georgia fire data

Dependence

I used the `chiplot` function in `evd` to estimate the pairwise χ for all pairs of counties. The value we're using is the average of $\chi(u)$ for $u = 0.909, 0.917, 0.925, 0.933, 0.940, 0.948$. Then to get the estimate for θ, I'm using $2 - \chi$. Currently, I am estimating θ only using the annual forest fire burn amount, but I will be changing this to work with the daily time series. This plot is an estimate of $\widehat{\theta}$ and not $\widetilde{\theta}$. I plan to implement the method described in the draft manuscript as the next step to get $\widehat{\theta}$ and $\widetilde{\theta}$.



How best to sort the sites?

I did use the adjacency matrix to try to rearrange the counties in the plots so neighboring counties are near each other, but this still needs to be refined some more. I tried to figure out how to identify the latitude and longitude of the centroids of the counties, but I could not find anything. Do you have any code that takes the information from the `maps` package and can calculate the centroids?