Is Florida getting warmer?

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1   Introduction

This Practical assumes you have at least a basic understanding of correlation coefficients and p-values.
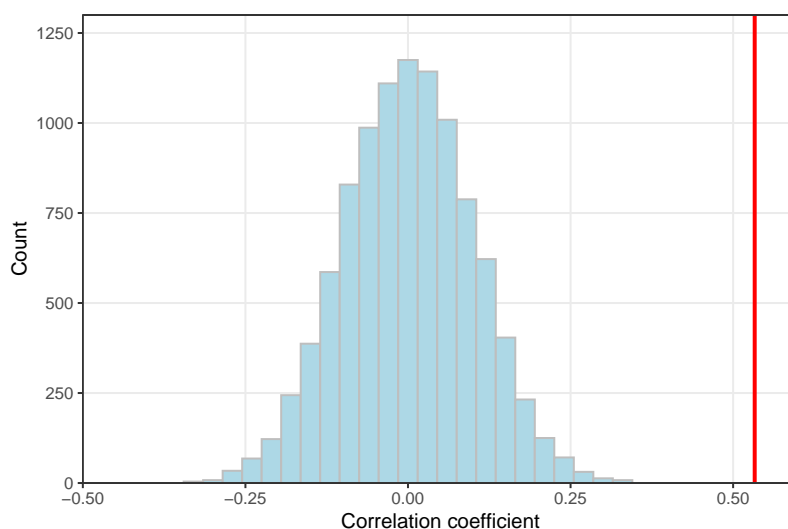

Figure 1: Histogram of correlation coefficients.

Your goal is to write an R script that will help answer the question: Is Florida getting warmer? Call this script Florida.R.

To answer the question, you need to calculate the correlation coefficients between temperature and time. However, you can't use the standard p-value calculated for a correlation coefficient, because measurements of climatic variables in successive time-points in a time series (successive seconds, minutes, hours, months, years, etc.) are not independent. Therefore you will use a permutation analysis instead, by generating a distribution of random correlation coefficients and compare your observed coefficient with this random distribution.