SIOC 221A Homework 1 **Julia Dohner**
Prof. Sarah Gille Due Date: October 5th, 2017

Statistics of sea surface temperature.

1. From the plot there appears to be a steady upward trend of SST , notably from March until the present, with a large peak in values at the end of July. There also seem to be some temperature swings in the months prior. The temperature appears to be steadiest between January and March.

2. The mean for 2017 SST is 18.1999, while the standard deviation is 2.9977. These statistics tell us what value we should expect if we took the SST many times at the pier (mean) and whether a deviation from this value is typical (indicated by whether a measurement falls within one (or however many) standard deviations from the mean). They can tell us what the average SST was in 2017, which may be useful when compared to the average SST from other years at the pier.

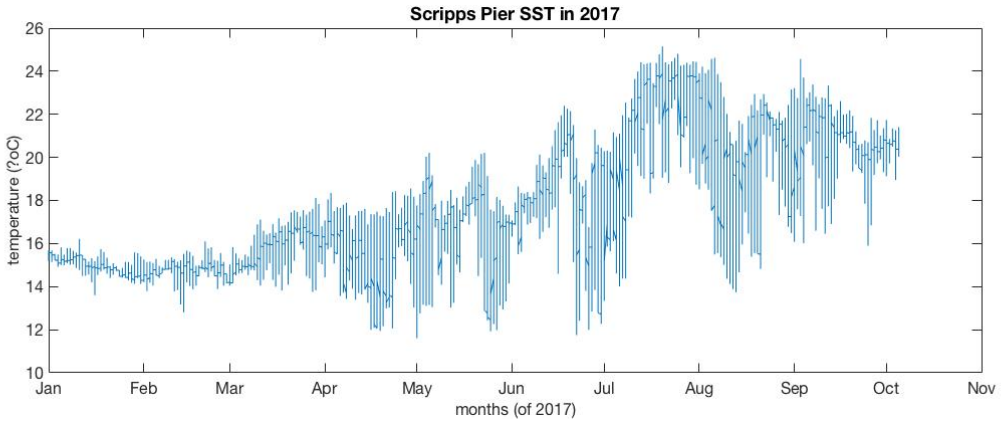
3. The plot does not look like any of the distributions we discussed in class.

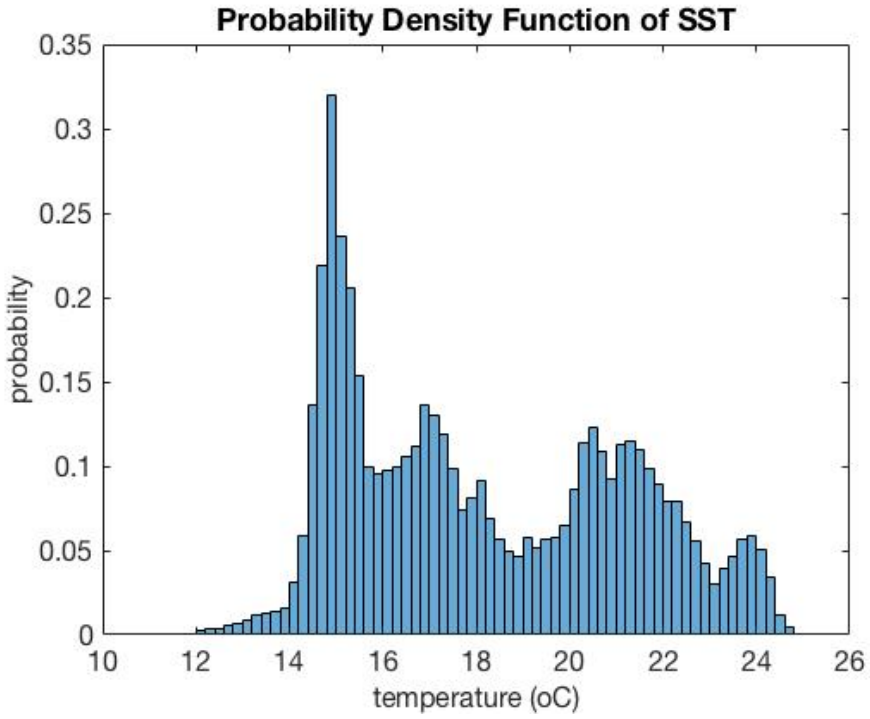
Extending the record.

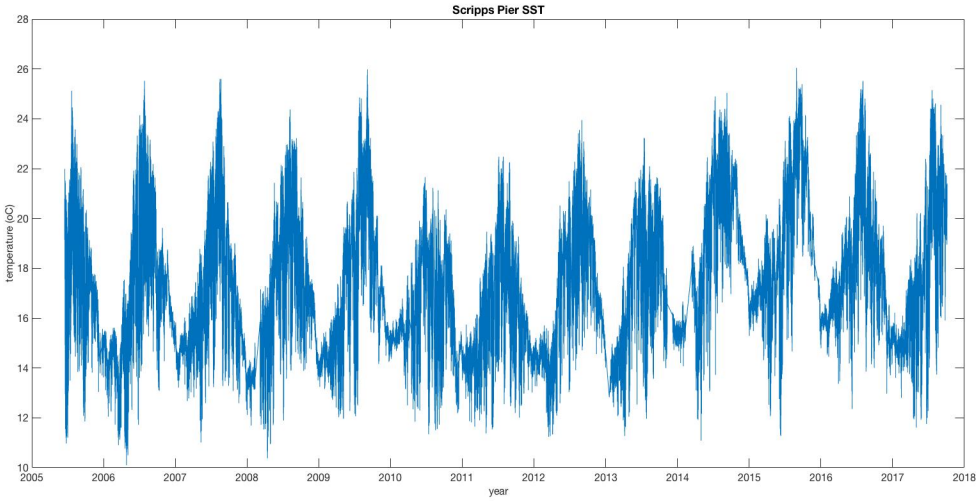
The extended time series seems to reveal a relatively consistent SST record at the pier. There are some colder years than others, but between 2005 and 2017 there appears to be no notable trend. The 2017 SST data seem to indicate that 2017 is a year of relatively high SST values. The sharp temperature change in August 2016 does not seem to be unusual; a similar drop appears at around a similar time in 2012.

Commit to something new.

My goals for this class include improving my MATLAB skills as well as learning to use Latex to format my homework assignments.


Scripps Pier SST in 2017
temperature (?oC)
months (of 2017)
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov


Probability Density Function of SST
probability
temperature (oC)


Scripps Pier SST
temperature (oC)
year