

A Brief Look at the NAO

Data Analysis: HW1

THE DATA

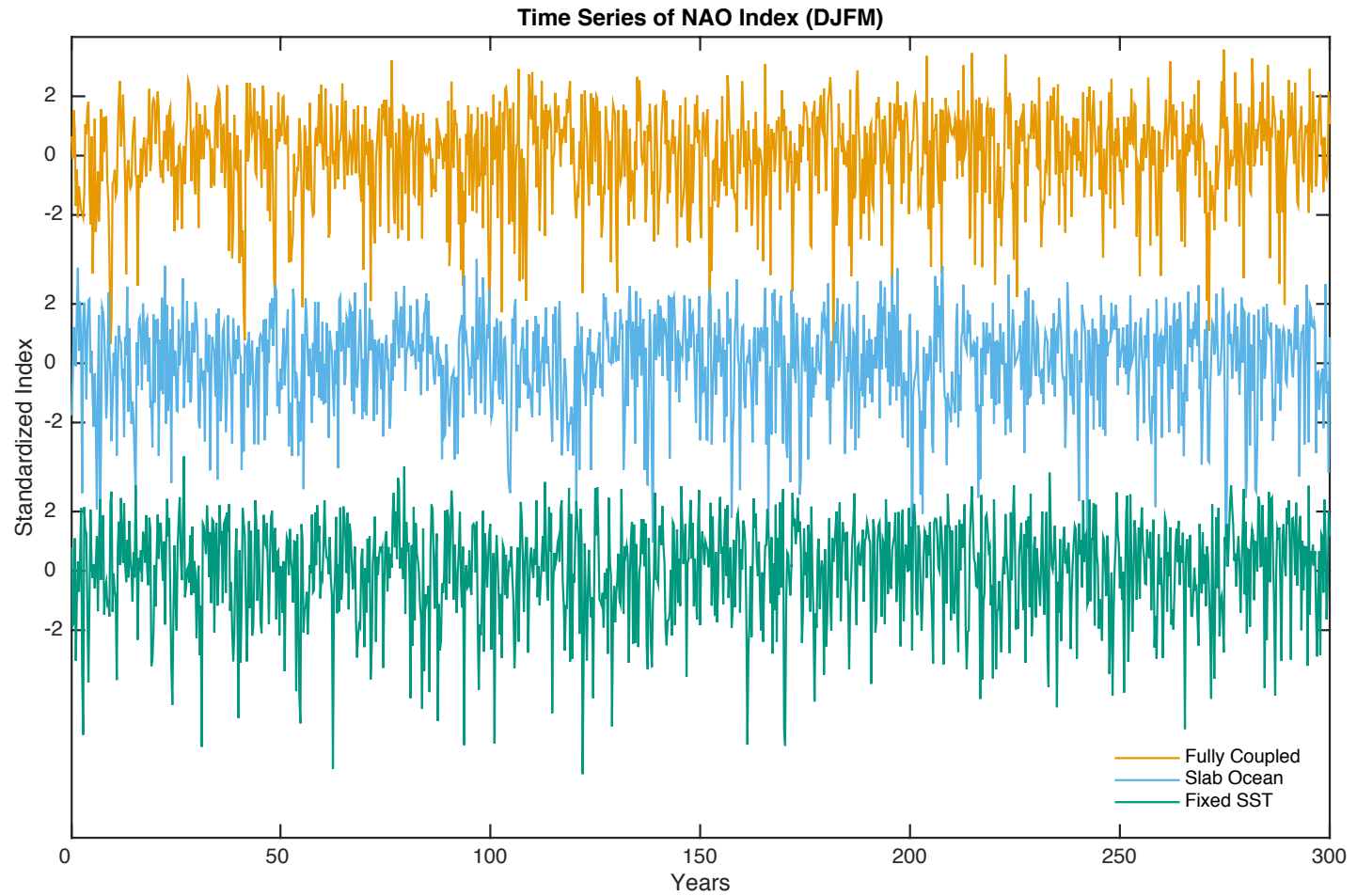
Model Hierarchy

- Output from three model runs
 - CAM4 – fixed SST
 - CAM4 – slab ocean
 - CCSM4 – dynamic ocean
- Structure:
 - Gridded (288 longitude x 192 latitude x 3600 months)
 - Many physical variables (today, sea-level pressure(SLP))

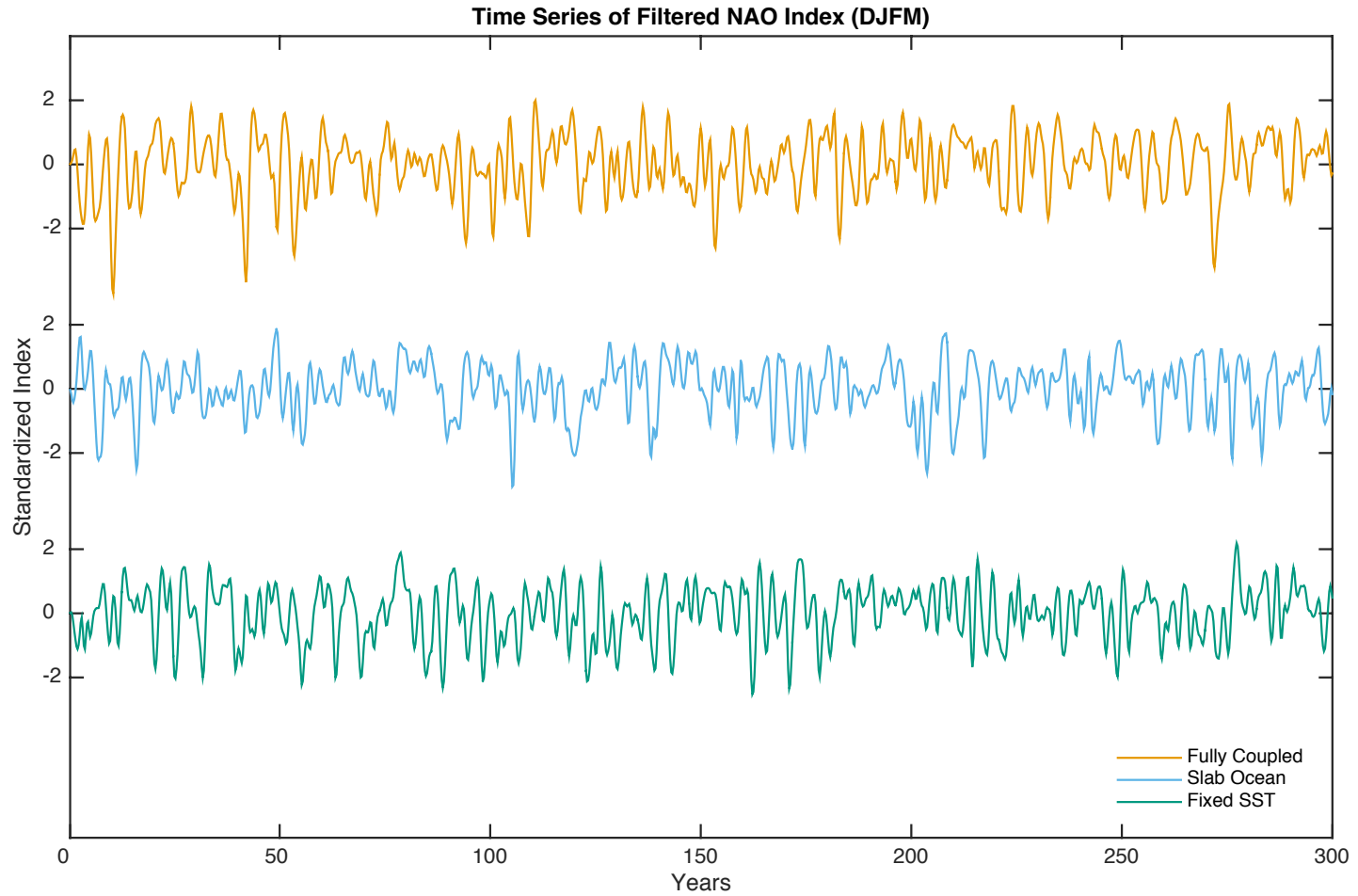
Processing

- Detrend and deseason data
 - Detrending will also remove the mean from the data
- NAO Index
 - For simplicity, we'll use the difference in standardized SLP between the Azores and Iceland

NAO Index



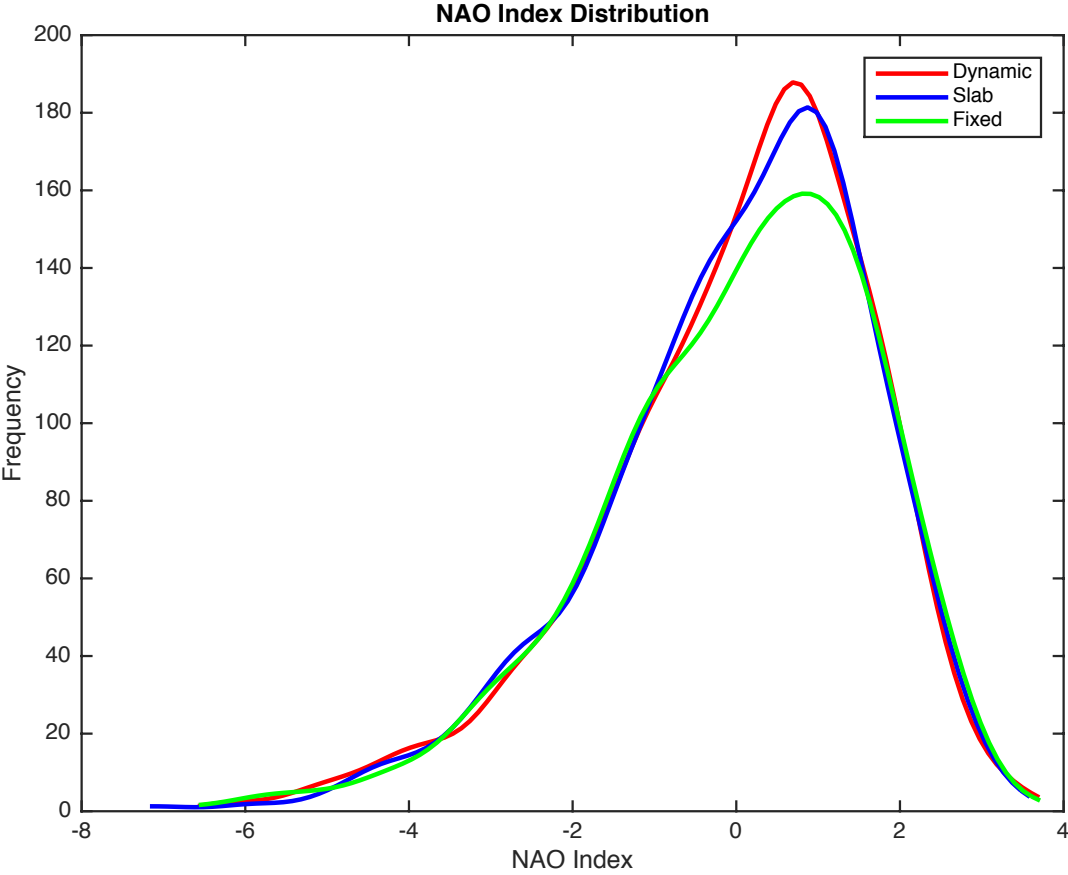
Filtered NAO Index



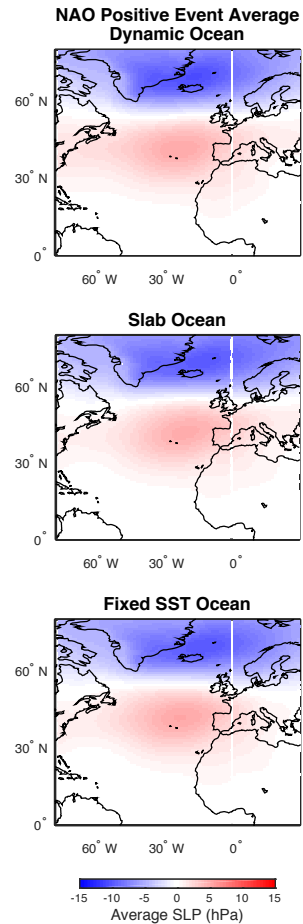
Some NAO Index Statistics

- All three, mean = 0
- Variance
 - Dynamic and Slab = ~ 2.7
 - Fixed = ~ 2.8
 - Distribution of the fixed SST a little wider
 - Let's look at the distribution

NAO Index Distribution



Positive NAO Composite



Negative NAO Composite

