Topics:

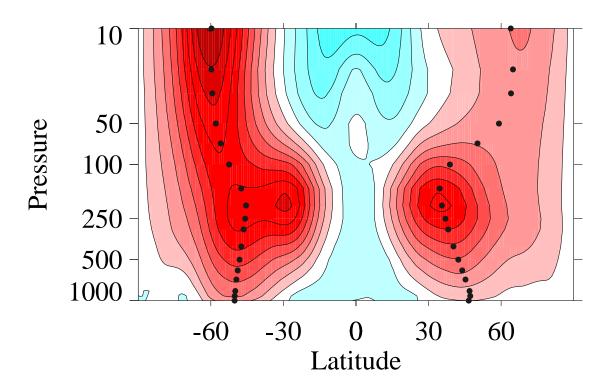
S/T origins for NAM

Controls over SAM response

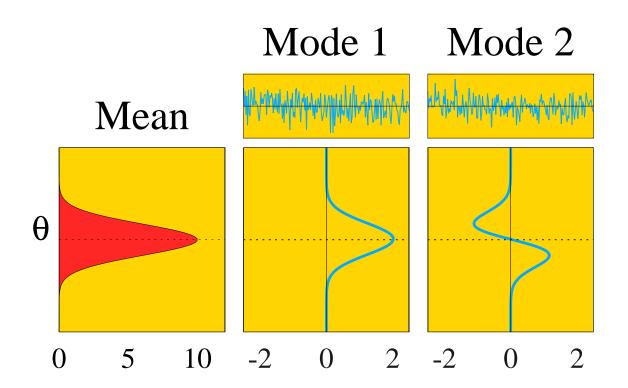
Stationarity and linearity



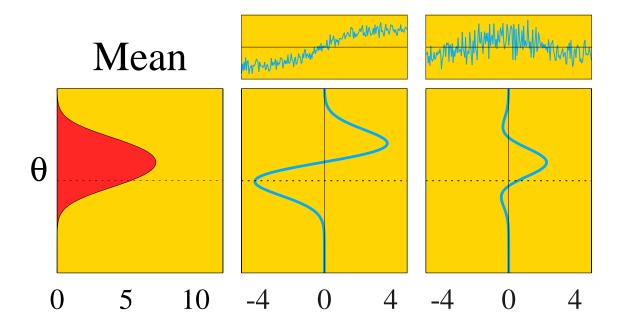
S/T origins for NAM



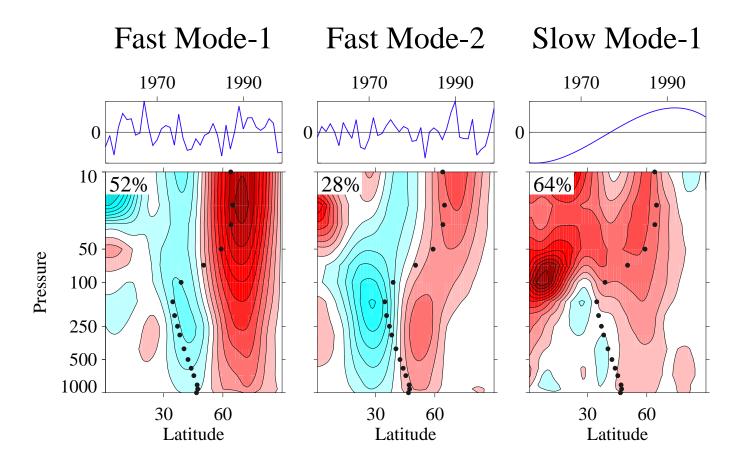
Does non-stationarity matter?



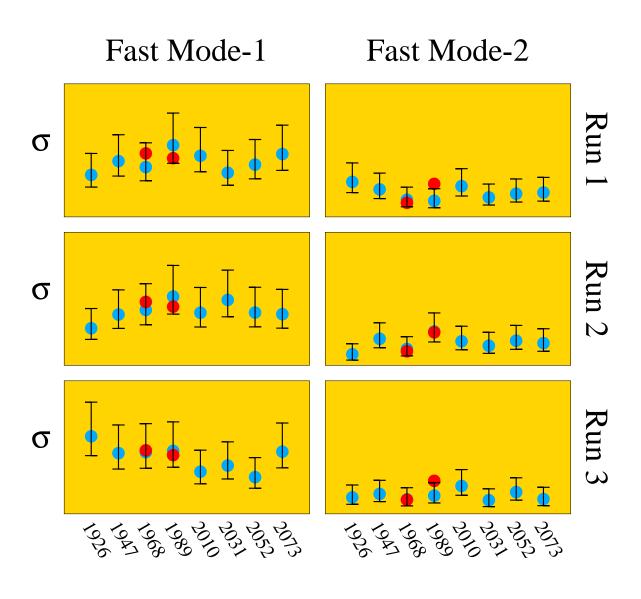
Does non-stationarity matter?



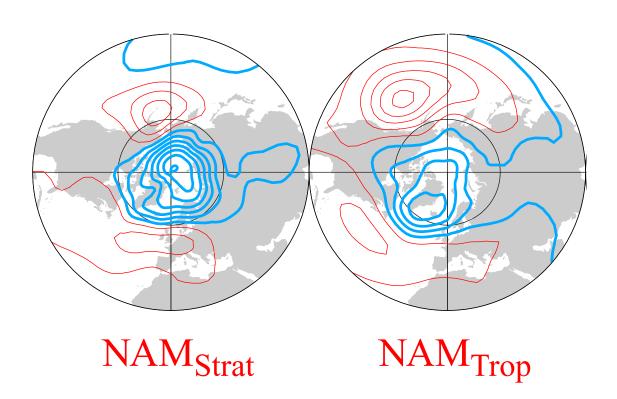
Modes of annual mean [U]

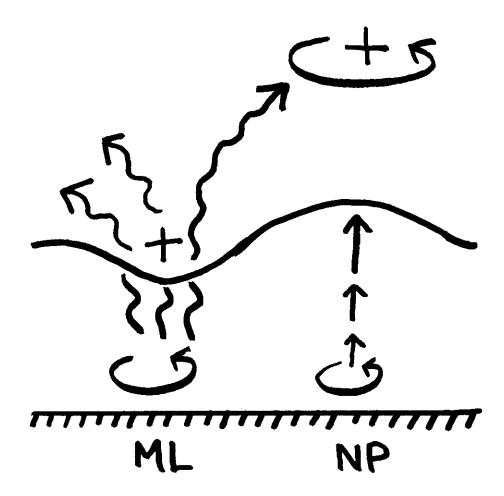


Are the fast modes changing?



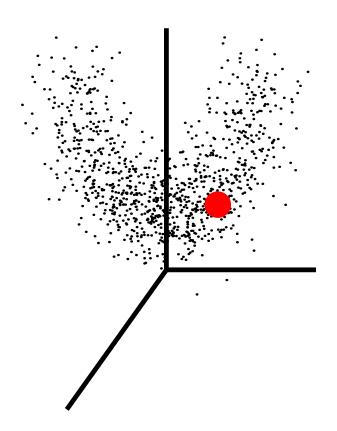
Separate S/T origins



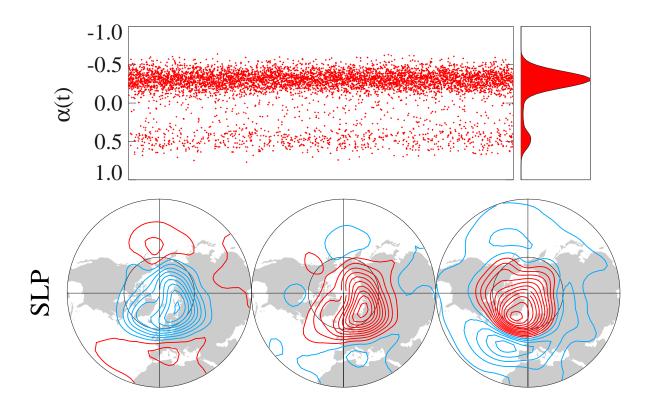


Adapted from Ambaum and Hoskins (2002)

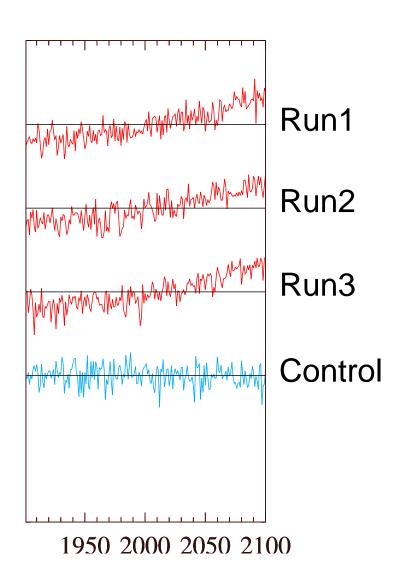
Does non-linearity matter?

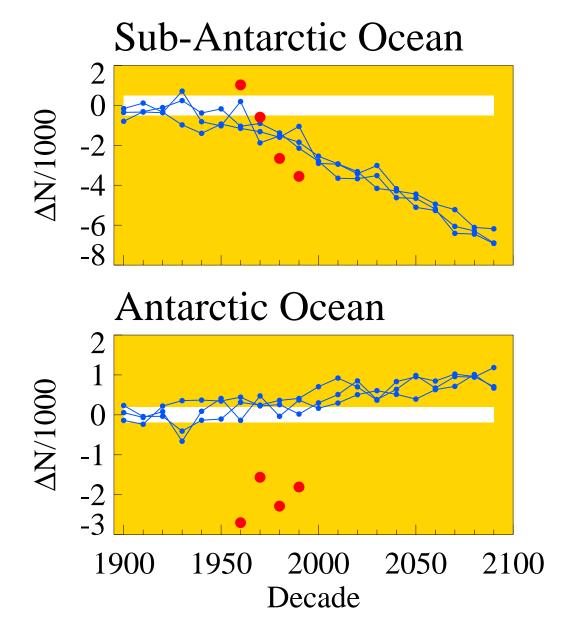


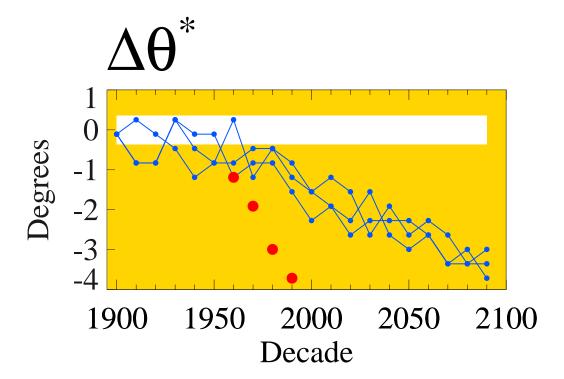
Leading nonlinear mode



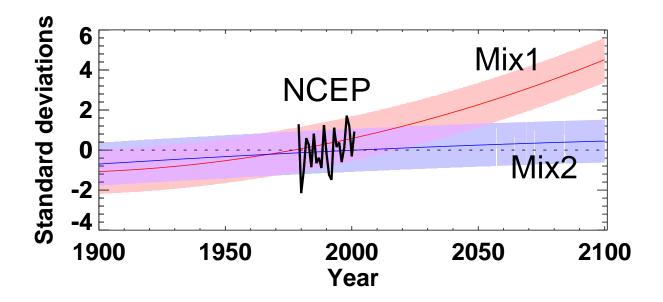
Controls over SAM response



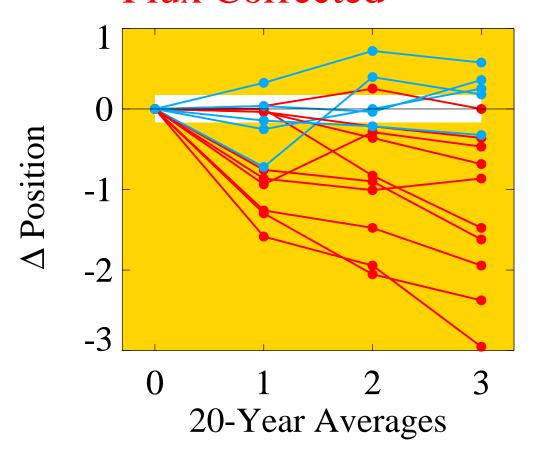




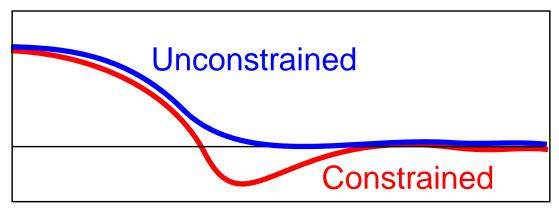
Southern Ocean controls

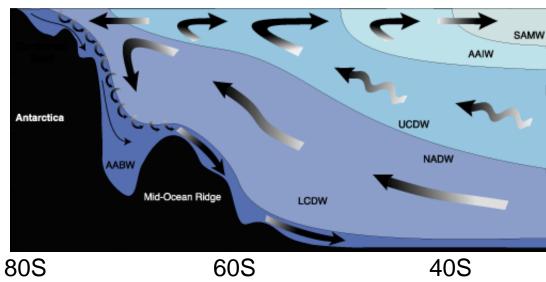


Not Flux Corrected Flux Corrected



Temperature change





Latitude

Review:

Separate S/T origins for NAM
SO control over SAM response
Stationarity and linearity matter

Reprints:

Modes and mean change:

Fyfe, *J. Climate*, **16**, 863 (2003)

SH response

Fyfe, Boer, Flato, *GRL*, **26**, 1601 (1999) Fyfe, *J. Climate (letters)*, in press Stone, Fyfe, *GRL*, submitted

Nonlinear PCA

Monahan, Fyfe, Flato, *GRL*, **27**, 1139 (2000) Monahan, Pandolfo, Fyfe, *GRL*, **28**, 1019 (2001) Monahan, Fyfe, Pandolfo, *J. Climate*, in press Statistically speaking, there is an 85% chance that 4 out of 5 statisticians alter their data by at least 26%.

