Example 2: climate data - end of Younger Dryas

Early Warning Signals Toolbox

A

Generic Early–Warnings: Autocorrelation – Variance

data

residuals

autocorrelation   trend 0.702

variance   trend −0.188

time

pre-transition period

transition

time (years BP)

system state
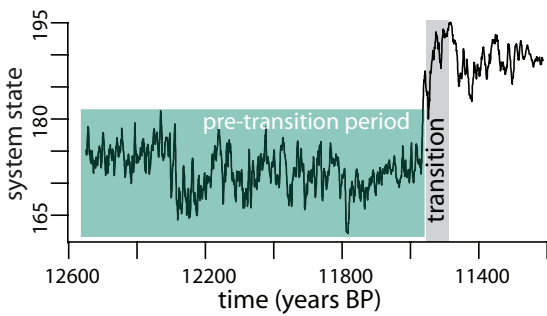
A. Indicator trend analysis
- interpolate data? ☐
- log-transform data? ☐
- choose filtering method:
gaussian
- rolling window size (in %)
50
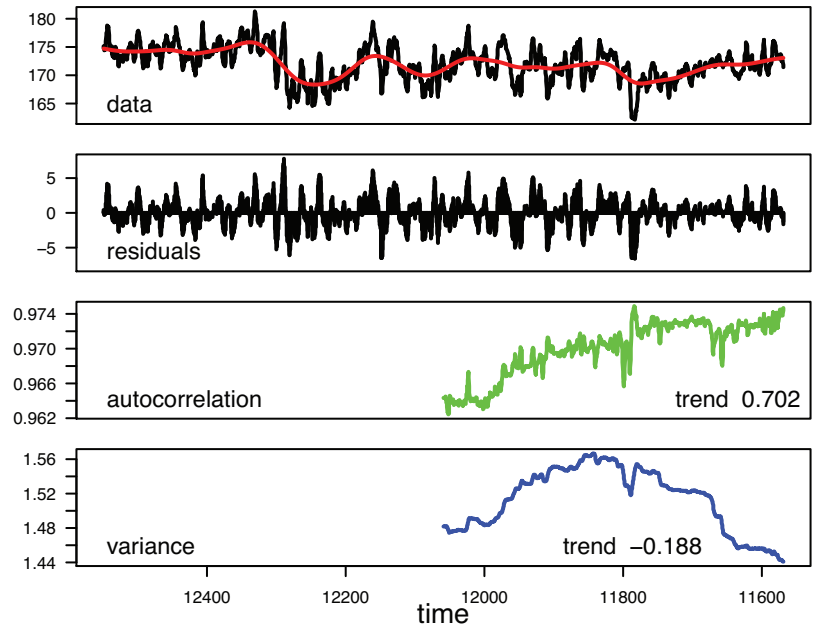
B**. Trend sensitivity analysis:**
- choose rolling window size increment
50
- bandwidth increment
[only for gaussian filtering]
25

C

Moving Average Potential

state variable

parameter

potential

1.2
1.1
1.0
0.9
0.8

C. Potential analysis
- cutoff level 0.5