

I attach the input nc-file and list how I processed the data:

- (1) read 700-mbar geopotential height field from NCAR/NCEP reanalysis dataset from 1948-2015,
- (2) select the domain, 20N-90N & 0-360E (i.e. the Northern Hemisphere),
- (3) remove monthly climatology values,
- (4) weight it by latitude with square cosine (i.e. $\sqrt{\cos(\text{lat})}$)
- (5) output file and use NCL script to perform the REOF analysis

I also attached the R between the Pacific blob index and the TNH index determined by the PC of 9th REOF mode. You can see detrend or non-detrend does not affect results too much.