
Subject: EOF Arctic Oscillation for beginner
Posted by [siumtesfai](#) on Fri, 06 Mar 2015 22:03:41 GMT
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Hello All,

I have difficulty in reproducing AO regression map
(http://www.cpc.ncep.noaa.gov/products/precip/CWlink/daily_ao_index/ao.loading.shtml)

I am working with the code (http://www.idlcoyote.com/code_tips/eof_analysis.html)

According the website it says

Note that my latitude values go from 47.5 to 90.0 degrees of latitude, in 2.5 degree increments. I am going to subtract 1.75 degrees from each of these latitude values, in order to locate the latitudes in the center of the grid, and to avoid multiplying by zero for all the latitudes at 90 degrees.

so dlat/2. should be 1.75

```
dims = Size(air_temp, /Dimensions)
nlon = dims[0] & nlat = dims[1] & ntime = dims[2]
lon = Reform(lon_ncep[*,0]) & dlon = Abs(lon[1]-lon[0])
lat = Reform(lat_ncep[0,*]) & dlat = Abs(lat[1]-lat[0])
weights = Sqrt(Cos((lat_ncep - dlat/2.) * !DtoR))
FOR j=0,ntime-1 DO air_temp[*,*,j] = air_temp[*,*,j] * weights
```

any suggestion

Best regards
