一、这是一个用 function_cmip_all.ncl 的示意，文件名为 test.ncl

```
load "/*/function_cmip_3D.ncl"
begin
;       Define parameters,You must set this part to run the program
;       including interpolation year, range, method, accuracy
;-----------------------------------------------------------------
;       set interpolation year
;-----------------------------------------------------------------
    yrStrt      = 1950
    yrLast      = 1961
;-----------------------------------------------------------------
;       set interpolation scope
;-----------------------------------------------------------------
    latS    = 5
    latN    = 42
    lonW    = 102
    lonE    = 130
;-----------------------------------------------------------------
;       set interpolation method
;       and accuracy
;   InterpMethods = (/"bilinear","patch","conserve","neareststod"/)
;   "1x1", "2x3", "0.25x0.25", etc
;   "1deg", "0.25deg" "0.25 deg" "0.25" (which means "0.25deg")
;   "G64", "G128" (gaussian)
;-----------------------------------------------------------------
    Method = "bilinear"
    GridType = 0.5(这里暂时用阿拉伯数字表示)
;-----------------------------------------------------------------
;       Sets the file read/write location and name
;-----------------------------------------------------------------
    path = "/*/test/"
    pathout = "/*/regrid/"
    outputname = "alltest.nc"
    nclcmip(path,pathout,outputname,yrStrt,yrLast,latS,latN,lonW,lonE,Method,GridType)
end
```

需要输出参数如下

给出插值年份

给出插值范围

Conserve（守恒插值）在 CDO 中没有提供，但是对于降水、碳通量的插值可能需要用到。

给出插值方式和插值格网

给出文件所在位置，输出位置及文件名字

调用插值函数

二、Path 路径下的文件可以是相同气象要素（只有 ps），也可以是不同气象要素(ps,tas,tos…)
但是一个路径下 Frequency 要一致(mon/day/6hr/3hr)

```
ps_Amon_CanESM5_historical_r10i1p2f1_gn_185001-201412.nc
ps_Amon_CanESM5_historical_r24i1p2f1_gn_185001-201412.nc
ps_Amon_CanESM5_historical_r7i1p2f1_gn_185001-201412.nc
ps_Amon_CanESM5_historical_r8i1p2f1_gn_185001-201412.nc
ps_Amon_CanESM5_historical_r9i1p2f1_gn_185001-201412.nc
ps_Amon_CESM2-FV2_historical_r1i1p1f1_gn_185001-189912.nc
ps_Amon_CESM2-FV2_historical_r1i1p1f1_gn_190001-194912.nc
ps_Amon_CESM2-FV2_historical_r1i1p1f1_gn_195001-199912.nc
ps_Amon_CESM2-FV2_historical_r1i1p1f1_gn_200001-201412.nc
ps_Amon_CESM2-WACCM-FV2_historical_r1i1p1f1_gn_185001-189912.nc
ps_Amon_CESM2-WACCM-FV2_historical_r1i1p1f1_gn_190001-194912.nc
ps_Amon_CESM2-WACCM-FV2_historical_r1i1p1f1_gn_195001-199912.nc
ps_Amon_CESM2-WACCM-FV2_historical_r1i1p1f1_gn_200001-201412.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_185001-185912.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_186001-186912.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_187001-187912.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_188001-188912.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_189001-189912.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_190001-190912.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_191001-191912.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_192001-192912.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_193001-193912.nc
ps_Amon_FGOALS-g3_historical_r1i1p1f1_gn_194001-194912.nc
```

二、对于四维变量插值，出现如下界面：

```
( 0)      ***************There are 3 models in the path***************
( 0)      ***************This is a 4D interpolation task***************
( 0)      ***************The following layers to choose***************
( 0)      100000
( 1)      92500
( 2)      85000
( 3)      70000
( 4)      60000
( 5)      50000
( 6)      40000
( 7)      30000
( 8)      25000
( 9)      20000
( 10)     15000
( 11)     10000
( 12)     7000
( 13)     5000
( 14)     3000
( 15)     2000
( 16)     1000
( 17)      500
( 18)      100
please choose a range of plev,enter go to begin
```

输入方式：

```
please choose a range of plev,enter go to begin
10000
500
15000
70000
go
```

以上层数可以打乱顺序全部输入或部分输入，最后输入 go，进入插值。