

# Assessment of atmospheric circulation indices over Greenland in an ensemble of CMIP6 models

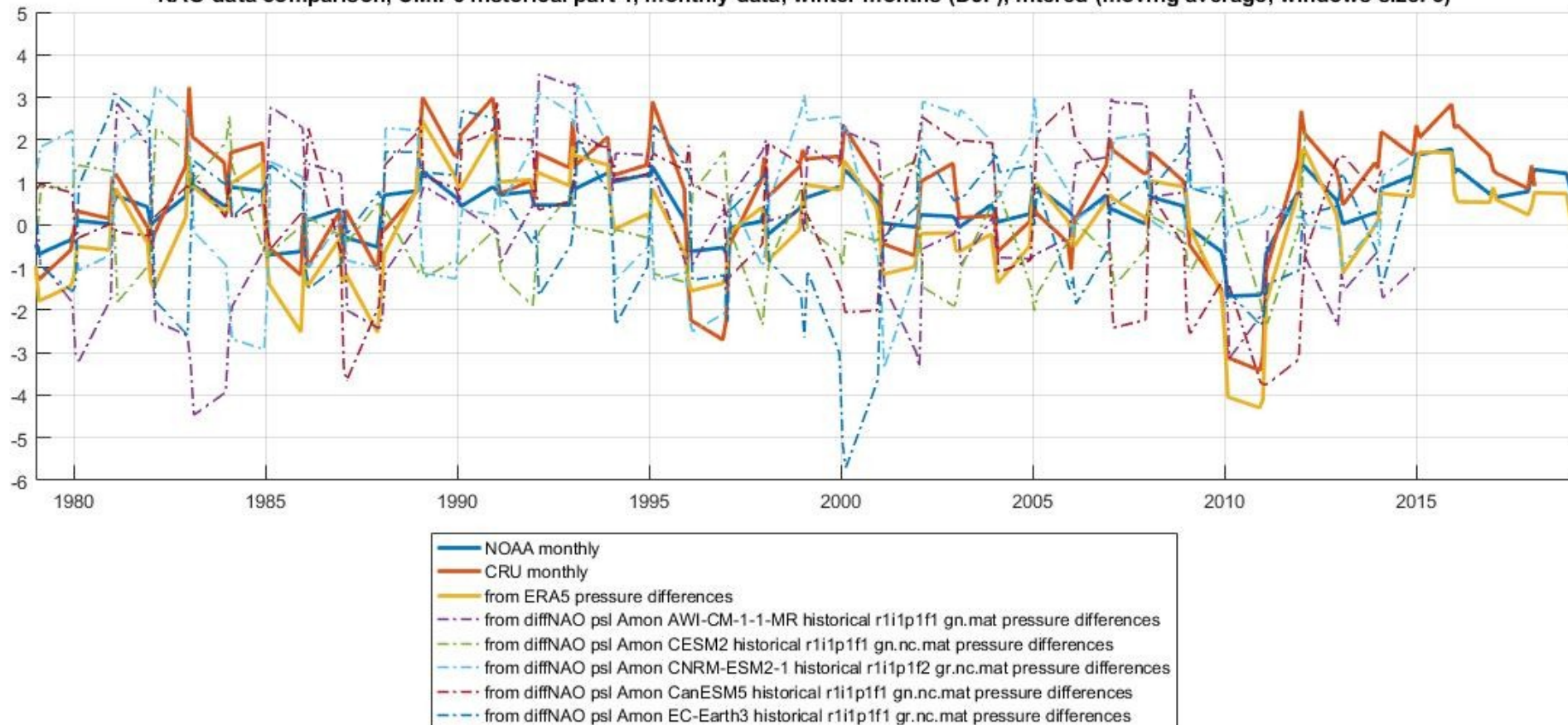
vi hedder: Florian & Susann

- North Atlantic Oscillation (NAO)
- Greenland Blocking Index (GBI)

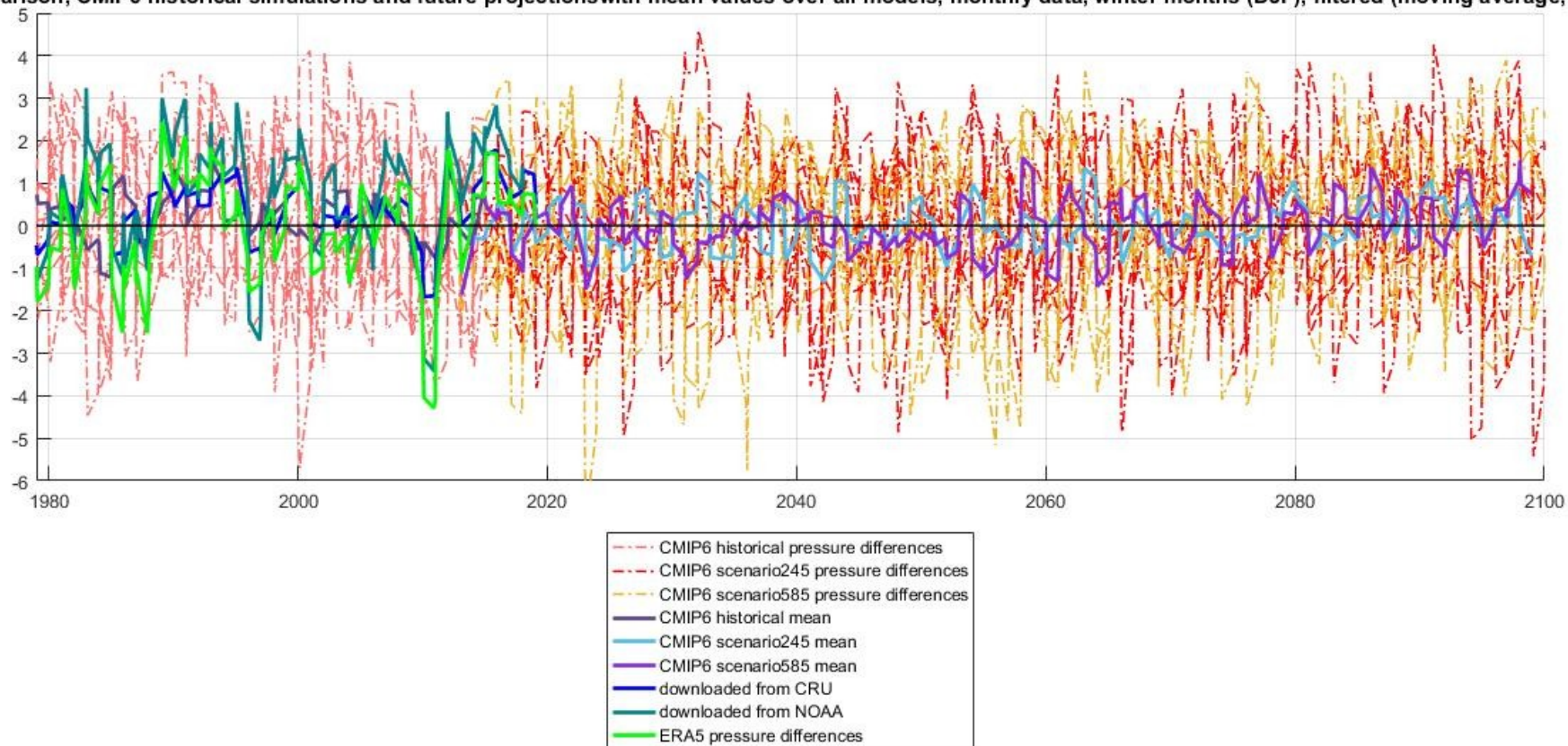
--> effects on Surface Mass Balances of Greenland Ice Sheet



NAO data comparison, CMIP6 historical part 1, monthly data, winter months (DJF), filtered (moving average, windows size: 3)



NAO data comparison, CMIP6 historical simulations and future projections with mean values over all models, monthly data, winter months (DJF), filtered (moving average, windows size: 3)



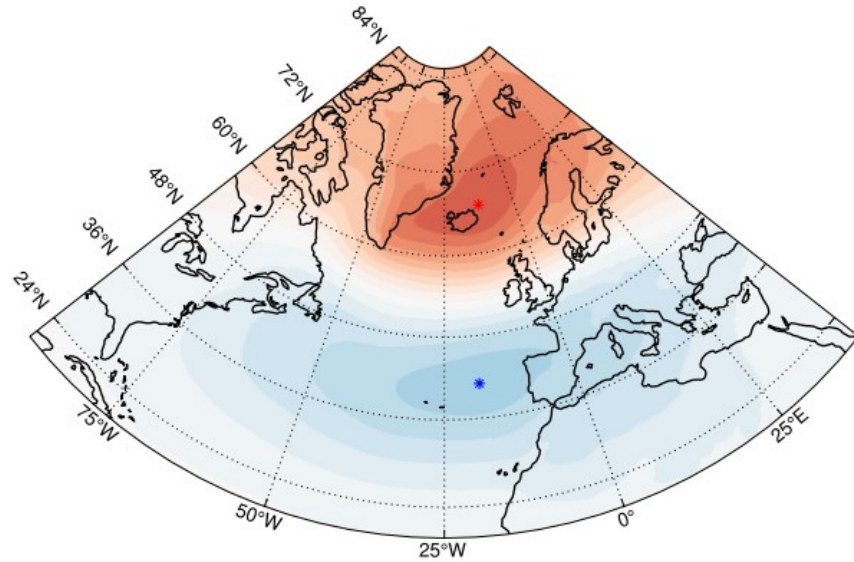


years 1979 - 2015

ERA5

EC-Earth

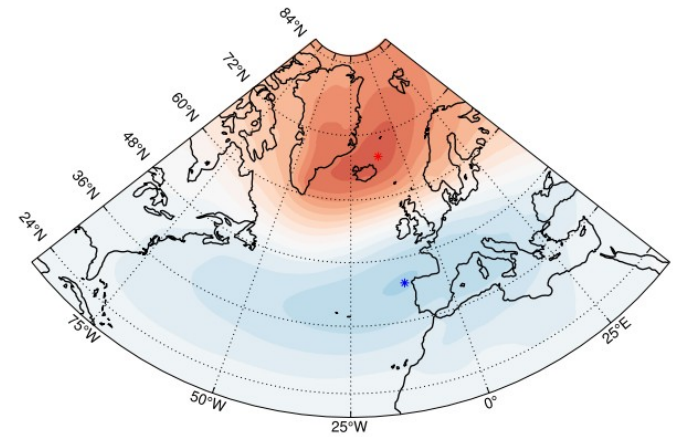
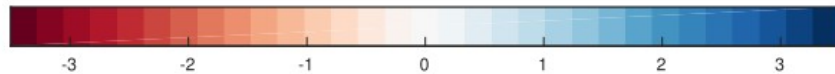
UKESM



adaptor.mars.internal-1565608912.895368-18802-19-8d36d923-f2b1-484d-85a0-be67f1649d8d.nc.mat

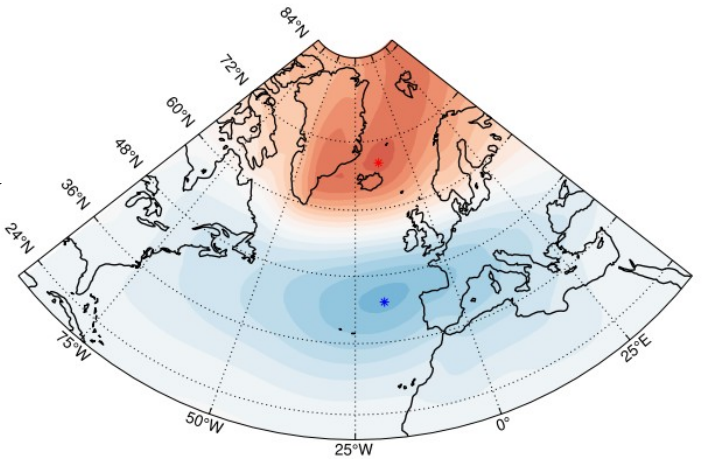
EOF-1; Months: 1 1 0 0 0 0 0 0 0 0 1

Variance: 48%



psl\_Amon\_EC-Earth3\_historical\_r1i1p1f1\_gr.mat

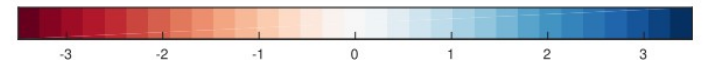
EOF-1; Months: 1 1 0 0 0 0 0 0 0 0 1



psl\_Amon\_UKESM1-0-LL\_historical\_r1i1p1f2\_gn.mat

EOF-1; Months: 1 1 0 0 0 0 0 0 0 0 1

Variance: 45.2%

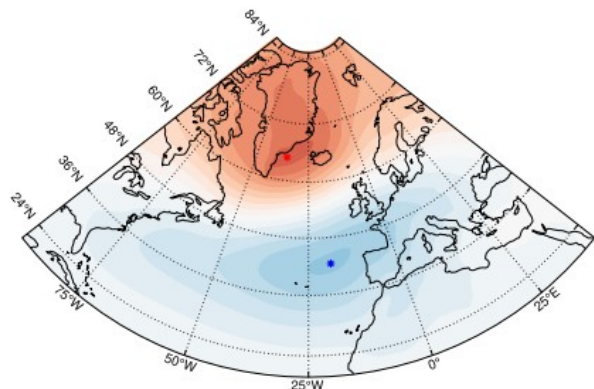


# SSP 245

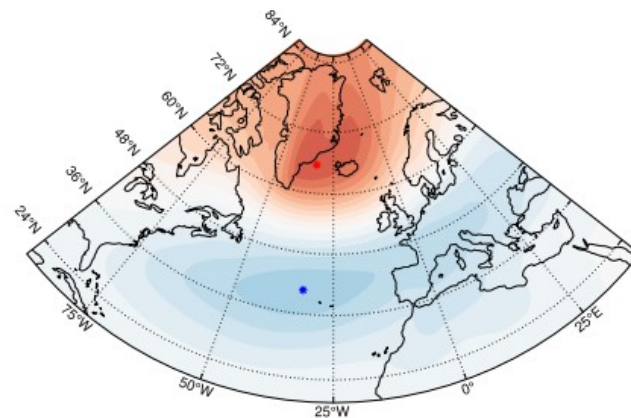
years 2080 - 2100

# SSP 585

## EC-Earth

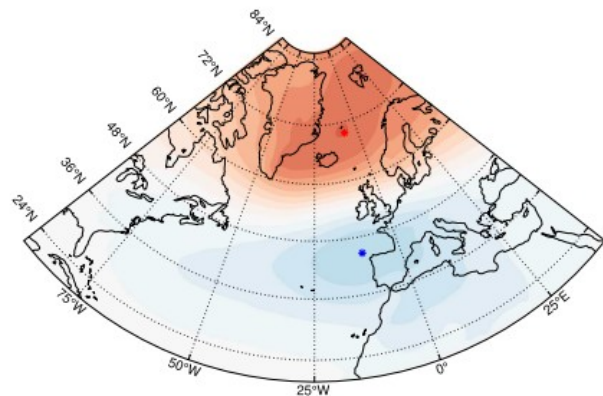


psl\_Amon\_EC-Earth3\_ssp245\_r1i1p1f1.mat  
EOF-1; Months: 1 1 0 0 0 0 0 0 0 0 1  
Variance: 48.8%

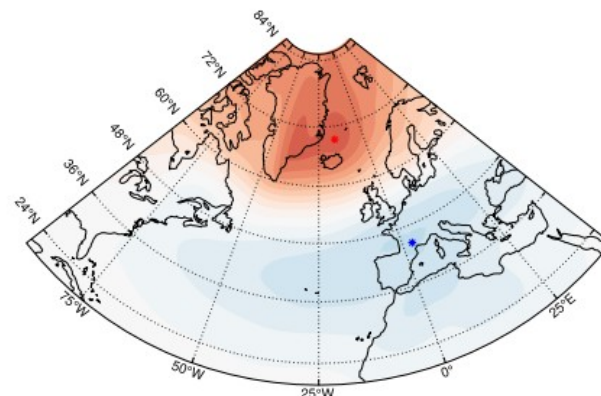
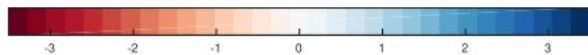


psl\_Amon\_UKESM1-0-LL\_ssp245\_r1i1p1f2.mat  
EOF-1; Months: 1 1 0 0 0 0 0 0 0 0 1  
Variance: 52.6%

## UKESM



psl\_Amon\_EC-Earth3\_ssp585\_r1i1p1f1.mat  
EOF-1; Months: 1 1 0 0 0 0 0 0 0 0 1  
Variance: 39%



psl\_Amon\_UKESM1-0-LL\_ssp585\_r1i1p1f2.mat  
EOF-1; Months: 1 1 0 0 0 0 0 0 0 0 1  
Variance: 45.8%



GBI as a weighted mean of the geopotential height at 500hPa pressure level part 1

