Workshop on predictability of climate in the North Atlantic Sector

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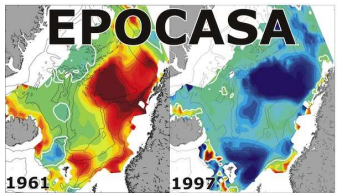
PRACTICE



Impacts of Sea-Ice and Snow-Cover Changes on Climate, Green Growth and Society

The Research Council of Norway

NordForsk

Initialization provides prediction skill in the North Atlantic

What are the mechanisms of the predictability?

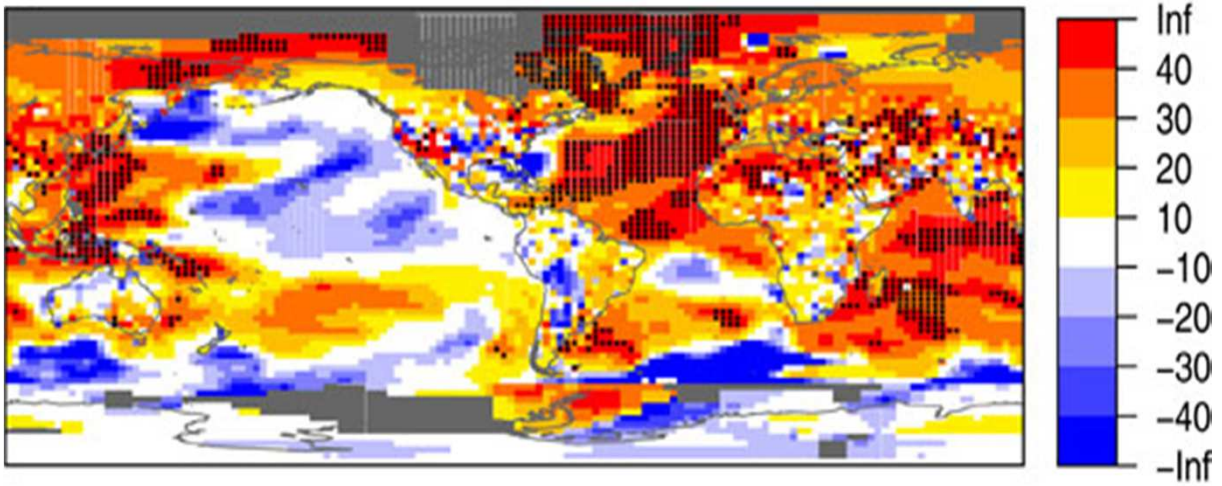
Can better initialisation techniques and models enhance skill?

Can prediction skill be extended to the North?

What is the impact of SST changes on the atmosphere?

Multi-model prediction, surface temperature, year 2-5

Root mean square skill score



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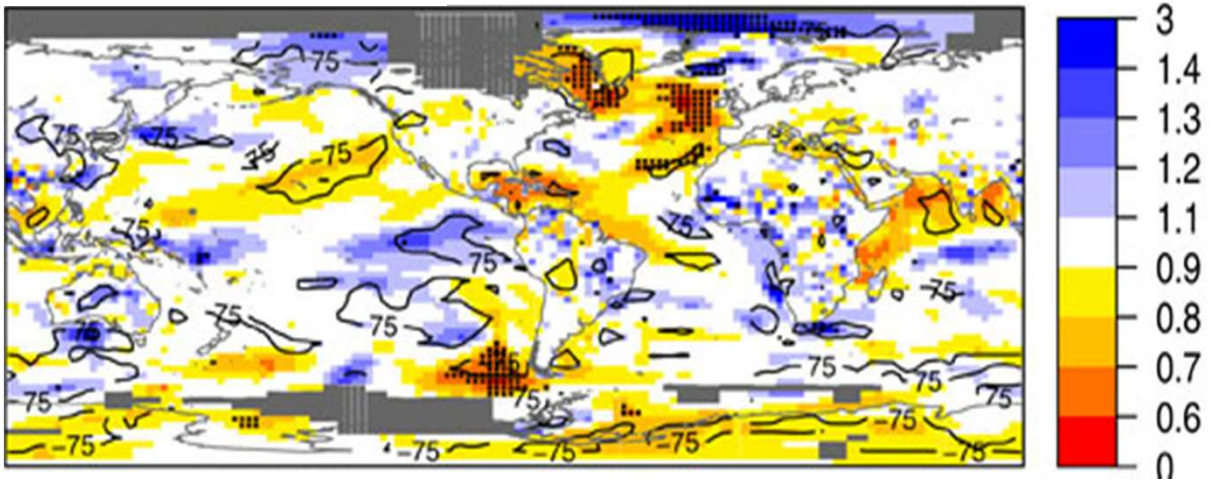
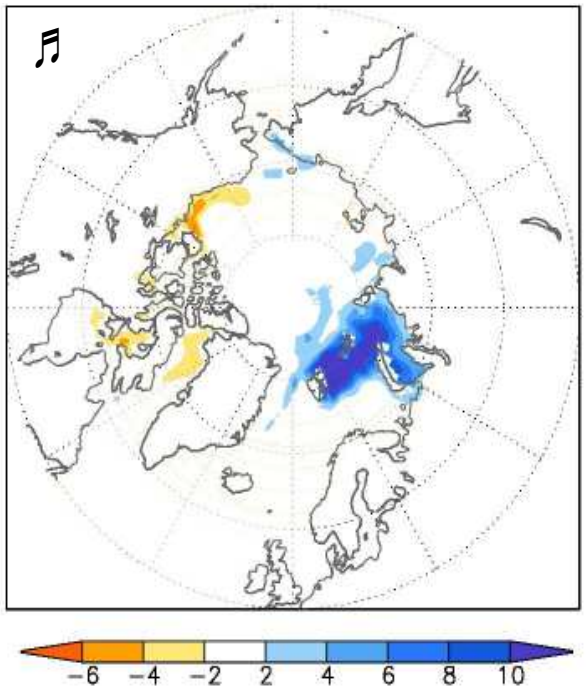


Doblas-Reyes et al. 2013

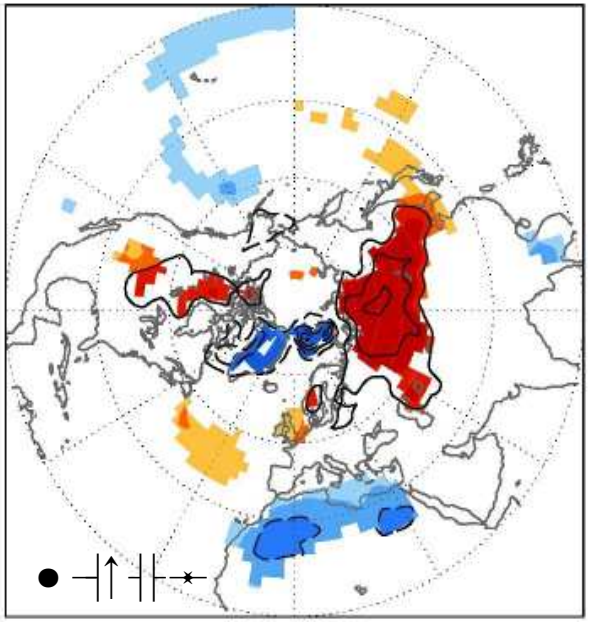
Impacts of cryosphere change on the atmosphere

Regression: Oct-Nov Barents-Kara sea ice conc. (5 yr high pass filtered, 1979-2010)

Oct-Nov sea ice concentration



Dec-Feb surface temperature



King et al. to be submitted

To what extent do sea ice and snow cover changes impact the atmosphere?

Can accounting for them enhance prediction in our region?

Could they have contributed to recent cold winters?

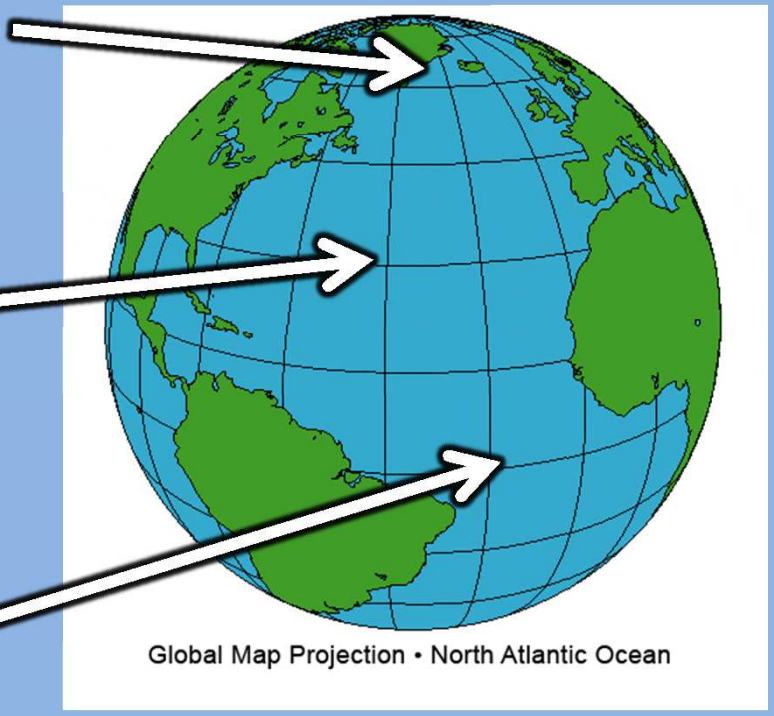
Current projects supporting our prediction activities

GREENICE
(2014-2017)

PRACTICE
(2012-2015)

EPOCASA
(2014-2017)

PREFACE
(2013-2017)



www.greenice.no www.epocasa.no www.preface-project.eu

Goals of the workshop

1. To better understand the extent to which ocean predictability can be extended to the north, to sea ice, and to the atmosphere

2. To better understand the relative importance of SST, sea ice, and snow cover variations in driving teleconnection patterns

3. To define a protocol for coordinated AGCM experiments to help address (2)

4. Have fun!

Bjerknes Centre
for Climate Research