



**Barcelona  
Supercomputing  
Center**  
*Centro Nacional de Supercomputación*



# Forecast systems at High-Resolution using a tuned version of EC-Earth3

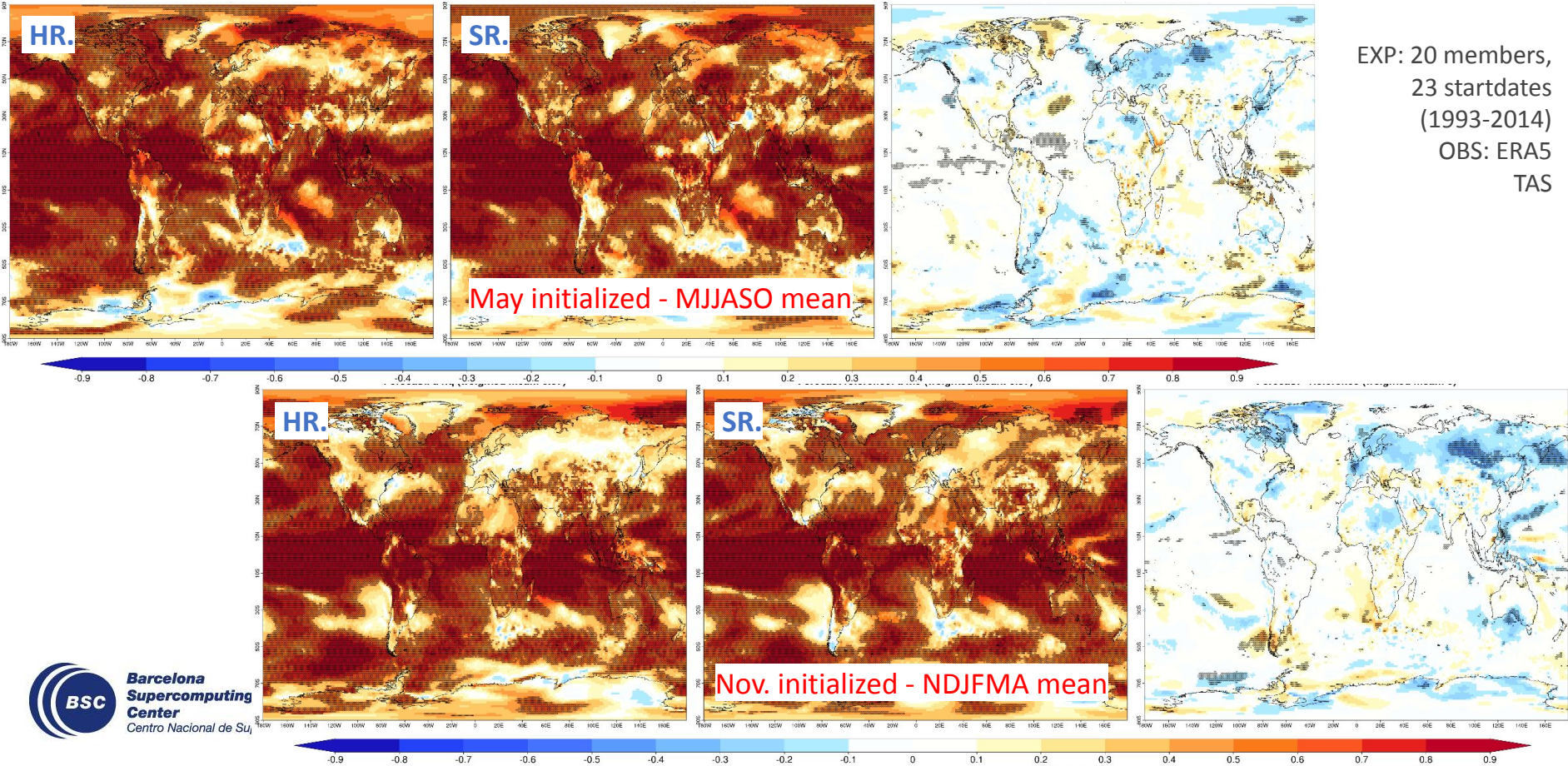
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# Seasonal forecast - Impact of the horizontal resolution

EXP: 20 members,  
23 startdates  
(1993-2014)  
OBS: ERA5  
TAS

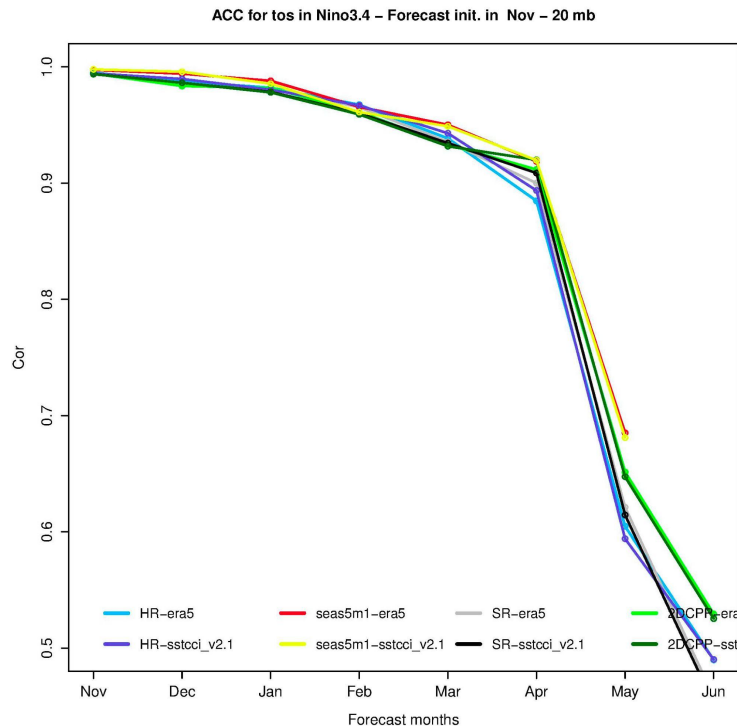
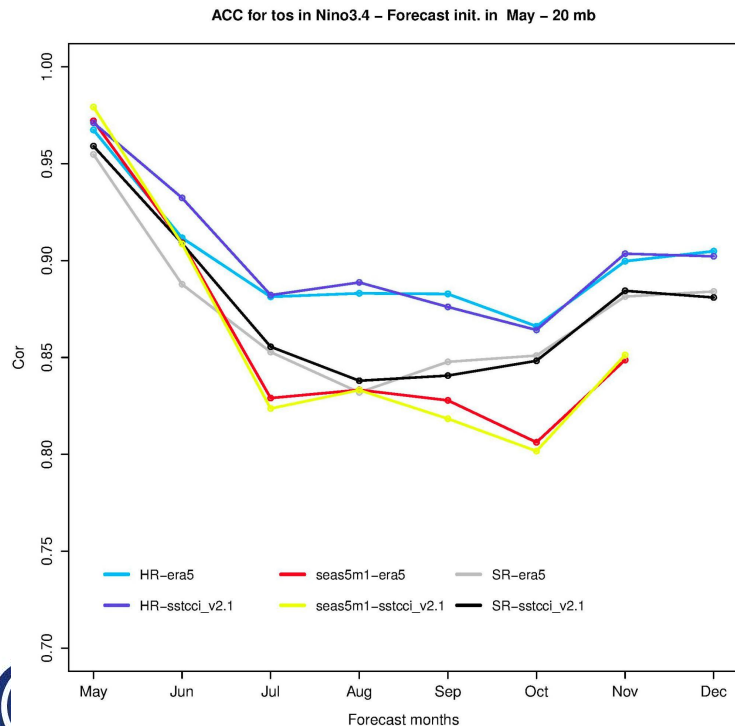


# Seasonal forecast - Impact of the horizontal resolution

Anomaly correlation coefficients (ACC) for the Nino3.4 SST

EXP: 20 members,  
23 startdates  
(1993-2014)

OBS: ERA5, sstcci\_v2.1  
SST



# HR forecast systems: Seasonal and multi-year

## 3) Seasonal Hincasts

**Hindcast period:** 1990-2015

**Ensemble:** 20 members

**Forecast range:** 8 forecasted months

**Initialization:** May and November

## 4) Reduced multi-year system

**Normal**

**Reduced**

1960-2020  
(every yr)

1960-2020  
(every 2rd yr)

10 members

5 members

10 forecast yrs

2 forecast yrs

TOTAL (6100 yrs)

TOTAL (310 yrs)

currently in production