

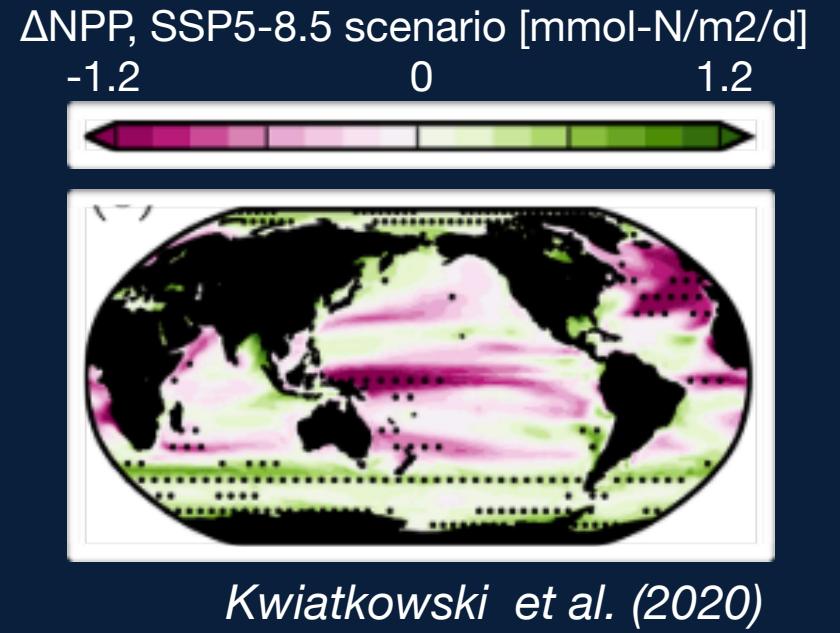
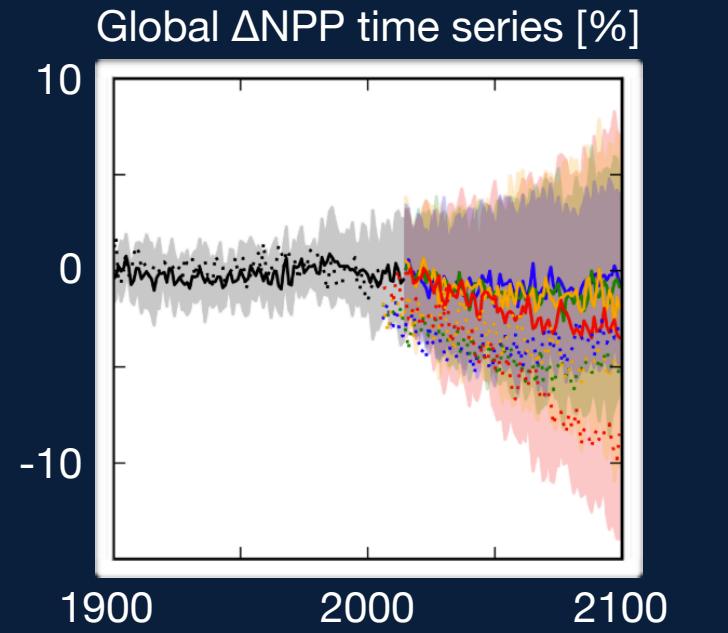
# Oceanic primary production decline halved in eddy-resolving simulations of global warming

Damien Couespe, Marina Lévy & Laurent Bopp

Preprint in Biogeosciences: <https://doi.org/10.5194/bg-2021-14>

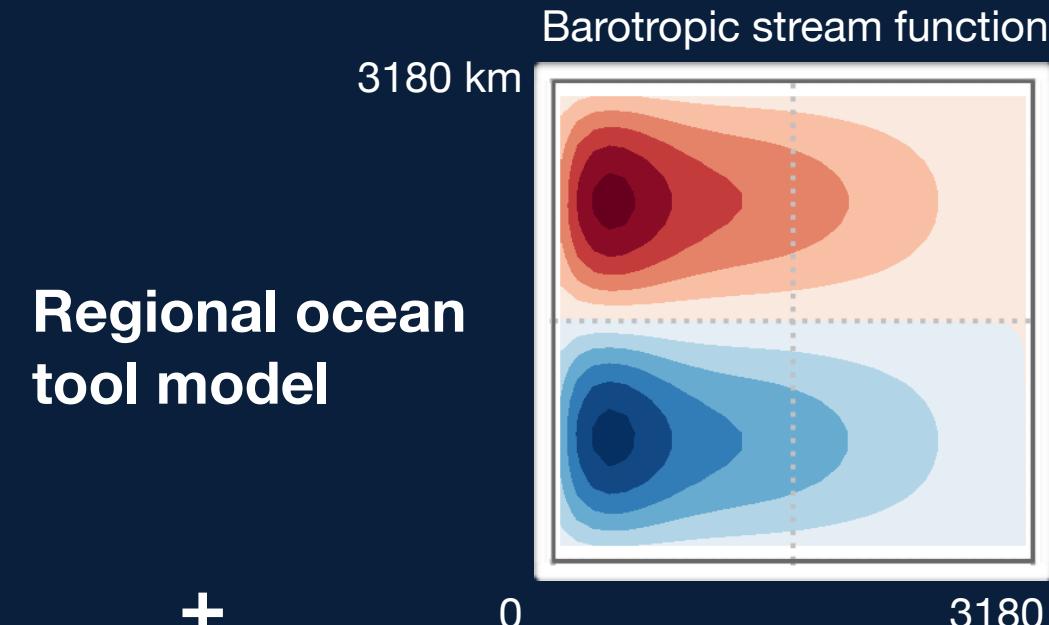
## Context

### Projected changes in marine Net Primary Production (NPP) from 1° and 2° resolution global models:



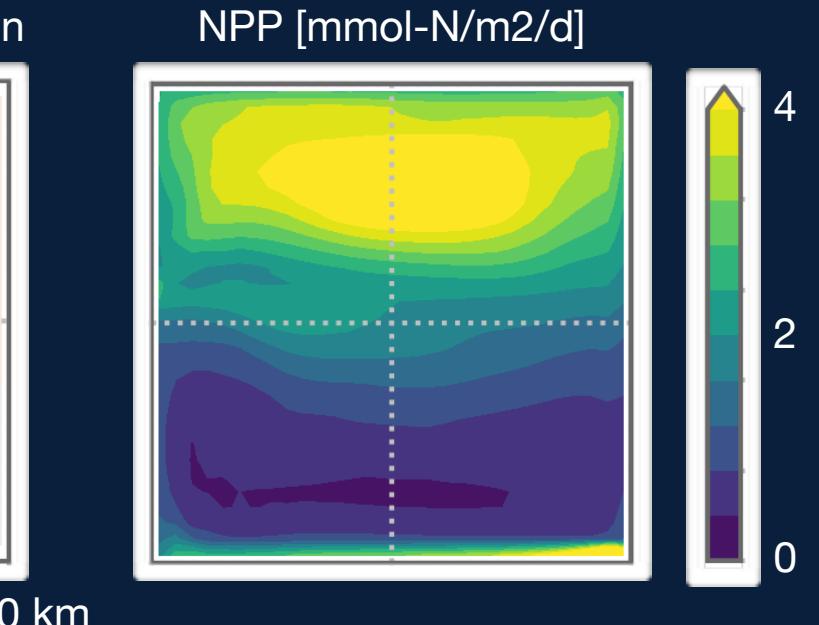
**Do fine scale processes matter for NPP responses to Climate Change ?**

## Methods



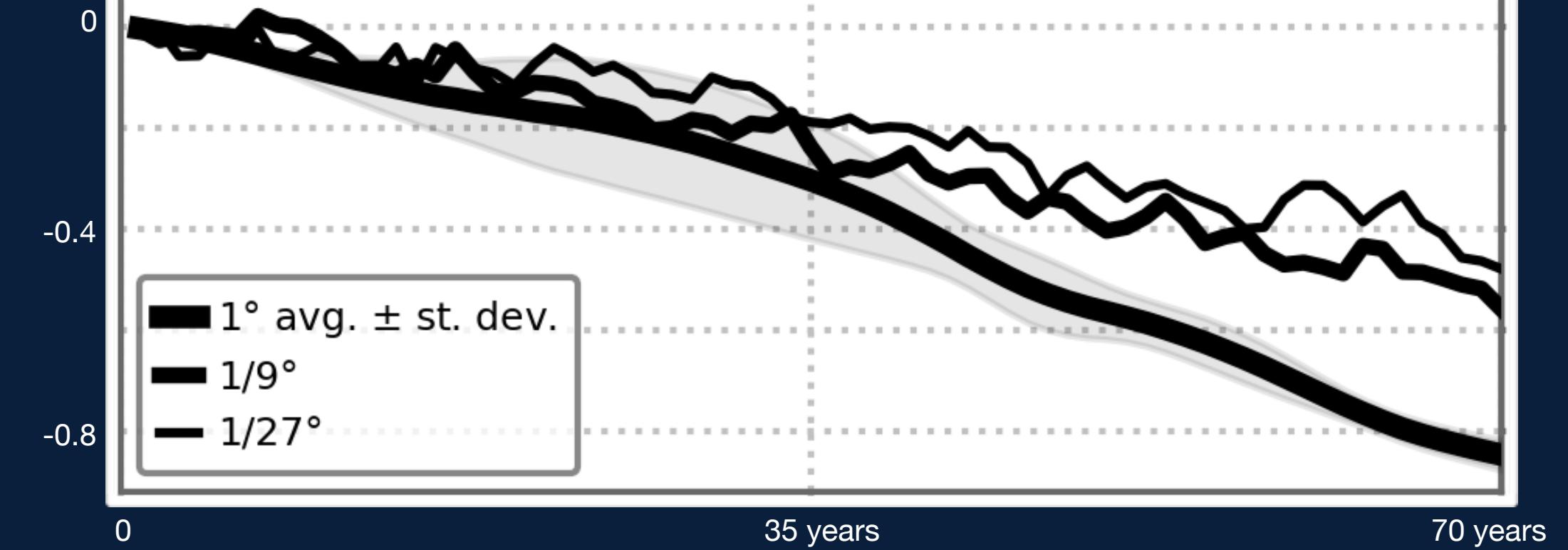
Regional ocean tool model

+  
70 years of linear atmospheric warming

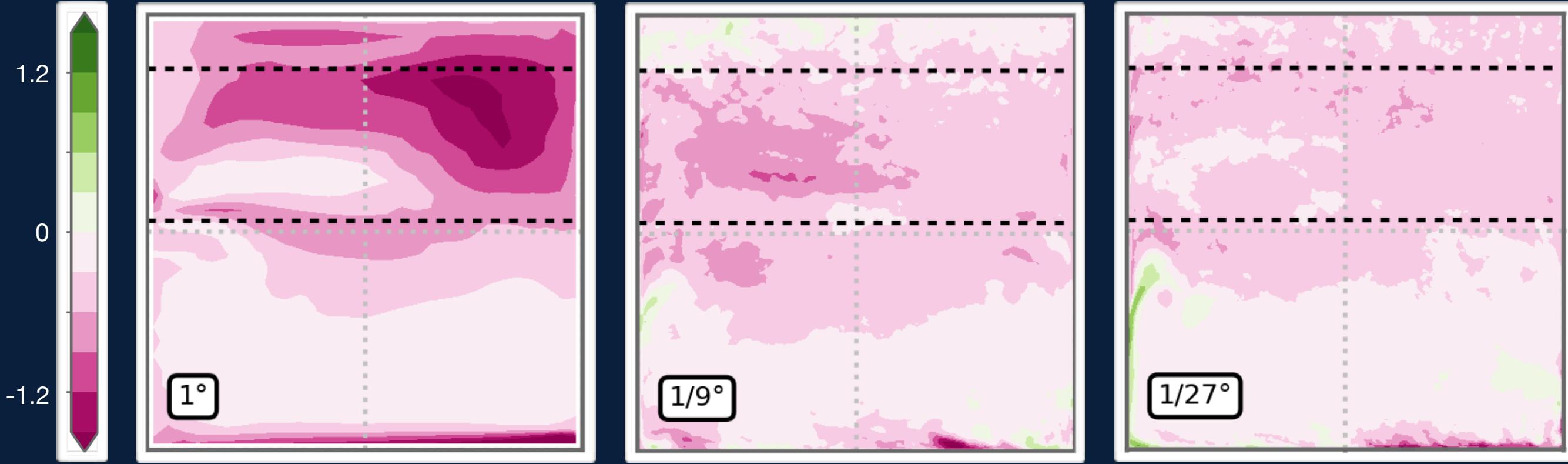


## Results

Tool model subpolar gyre mean  $\Delta\text{NPP}$  time series



$\Delta\text{NPP}$  [mmol-N/m<sup>2</sup>/d]



1. Attenuated NPP decline at fine resolution with our tool model
2. Stems from sensitivity of transport changes to resolution