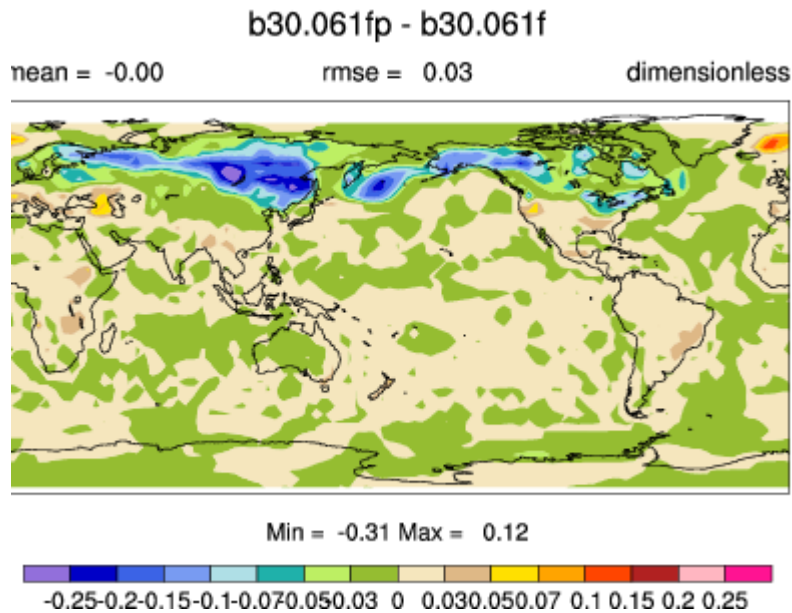
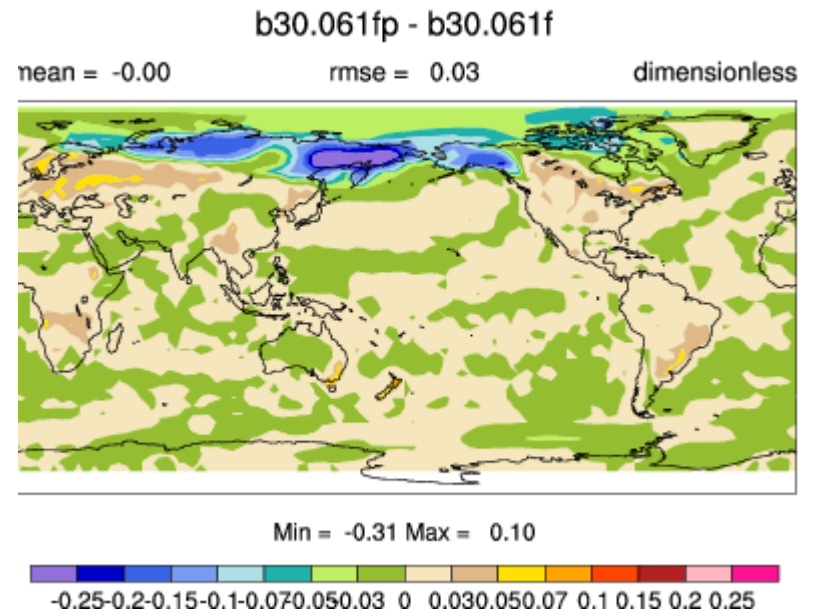


The BGC models provide leaf area index, stem area index, and height to CLM, which affects surface fluxes. The impact of prognostic vegetation on climate must be evaluated in CAM/CLM simulations

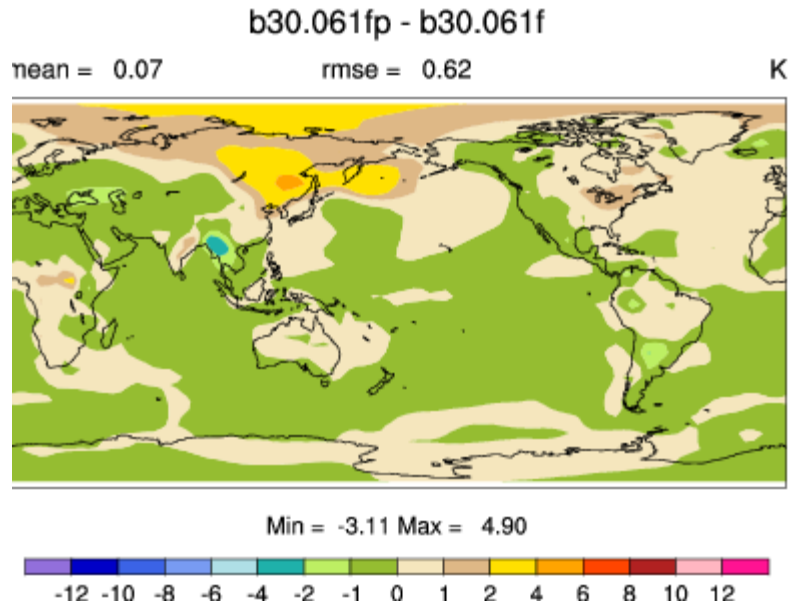
### DJF surface albedo



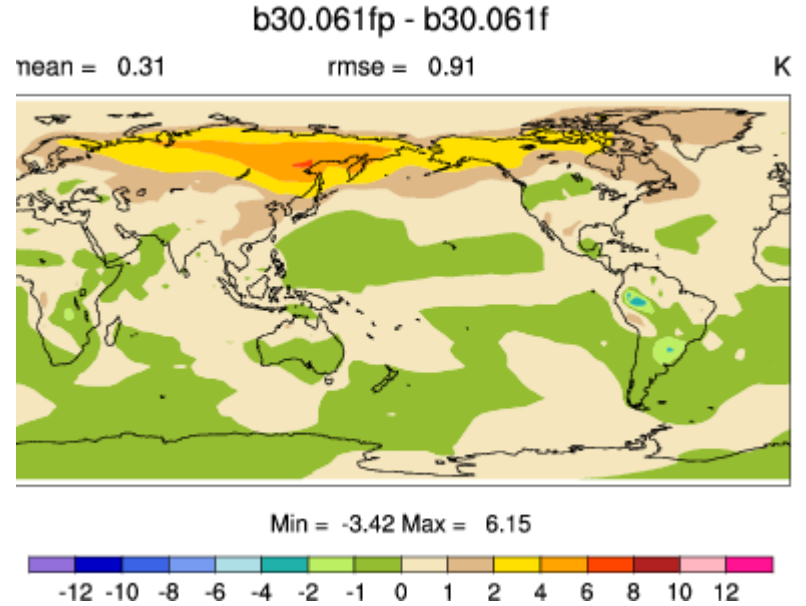
### JJA surface albedo



## DJF 2-m air temperature



## JJA 2-m air temperature



## **Spinup and equilibrate carbon cycle**

Incrementally couple BGC models and physical models...

Using output of 1870 control simulation

1. offline spinup ocean BGC model (2000-3000 years)
2. offline spinup land BGC model with atmospheric CO<sub>2</sub> of (a) (2000-3000 years)

Couple ocean/land BGC models and physical models and spinup