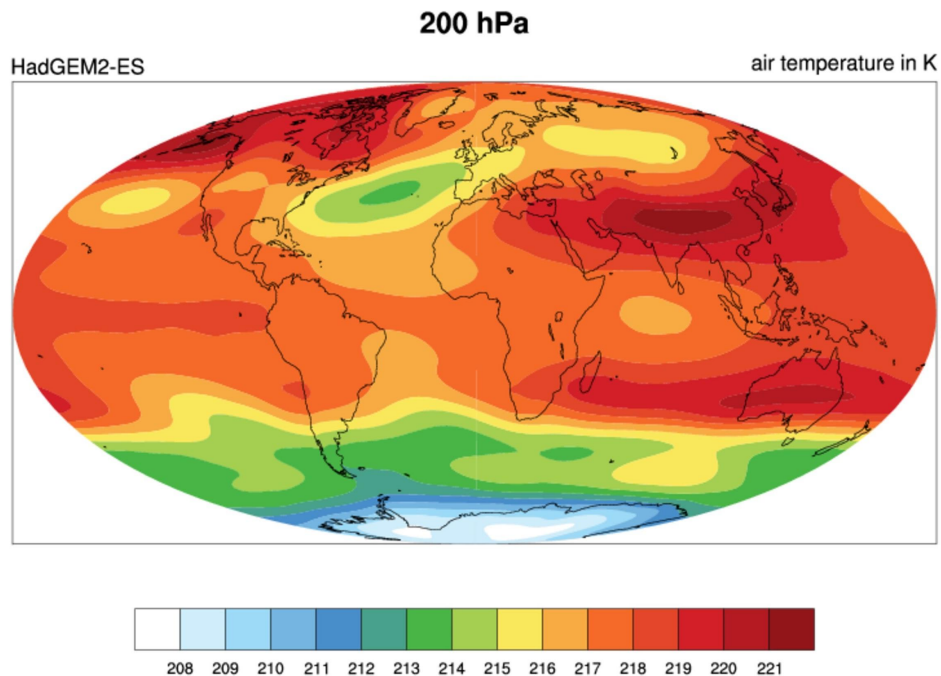


ESMValTool:

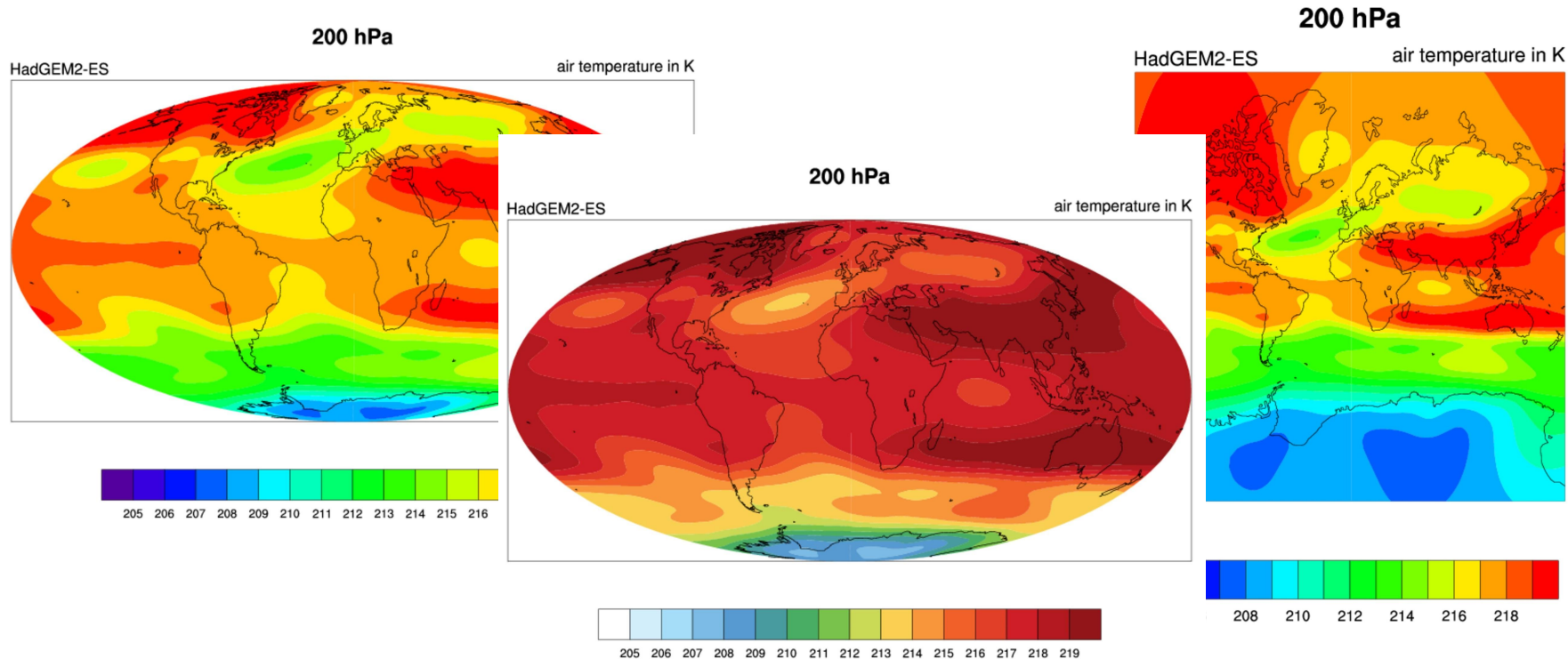
diagnostics and
performance metrics
tool for the evaluation
of Earth System
Models



Purpose of the tool

- ❖ Compare:
 - Different ESMs together
 - Different versions of same ESM
 - To observations (accepts several reanalysis and observation products)
- ❖ Will be used to produce model evaluations of CMIP6 contributions
- ❖ Good quality plots by default
- ❖ 42 predefined diagnostic sets
- ❖ Possible to add own diagnostic set
- ❖ Plots are customisable

What you can do in 5 minutes



A bit of a learning curve to go beyond that

Requires up-front work

- ❖ Tool can't be centrally installed
- ❖ It is creating intermediary files: duplication of data can create problems if a lot of users do so.
 - Try to use shared areas for intermediary files?
- ❖ It relies on a filesystem organisation of CMIP and obs data that is not compatible with the current organisation at NCI
 - Either we create copies (links) to conform to what the tool expects
 - Or we add support for our filesystem organisation
 - The second option might be more work up-front but it is more robust. And it is the option suggested by the tool user's guide.

Summary

It's a nice tool. It seems to have a lot of useful diagnostics included. It's easy to customise plots

But it has a learning curve.

Some discussion is required on how the community wants to use it:

- Do we want anyone to be able to run their own diagnostics?

- Do we want to be able to automatically run a standard set of diagnostics (e.g. as part of a rose/cylc suite for CMIP6)?

- Who is going to work on the required setup steps?