Other changes: add GISS-E2-2-G into chem/no-chem comparison

We added the chem (p3) and no-chem (p1) configuration of GISS-E2-2-G, which is the high-top version of GISS-E2-1-G as another chem/no-chem pair since it can better simulate BDC.

Here are the updated Figure 9-12 and Figure B7:

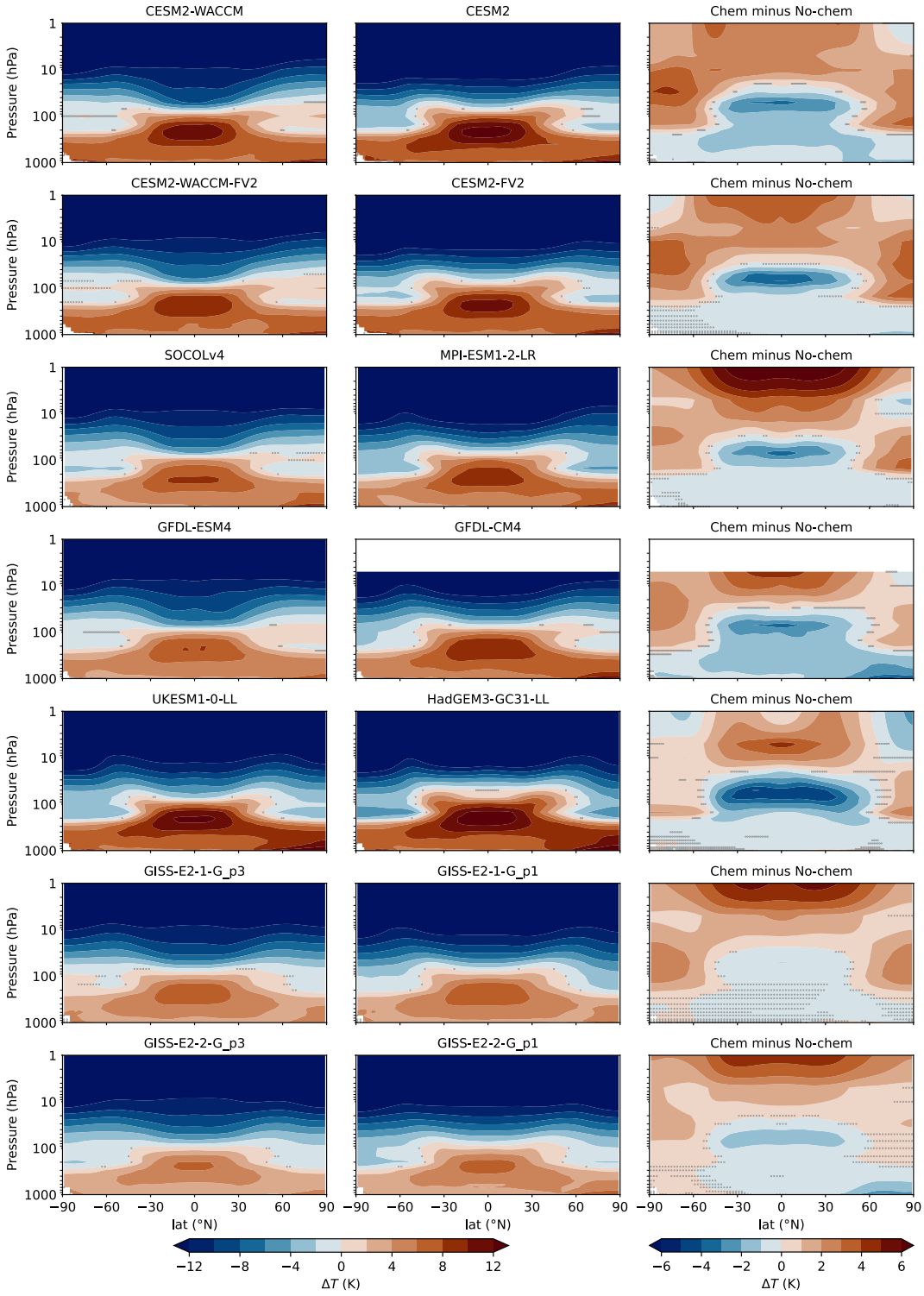

Figure 9. Comparison of the 100-year long annual-mean air temperature response to 4xCO2 between seven pairs of chem and no-chem CMIP6 models. The left column shows the response from chem models, the middle column shows the response from no-chem models and the right column shows the difference between chem and no-chem models.

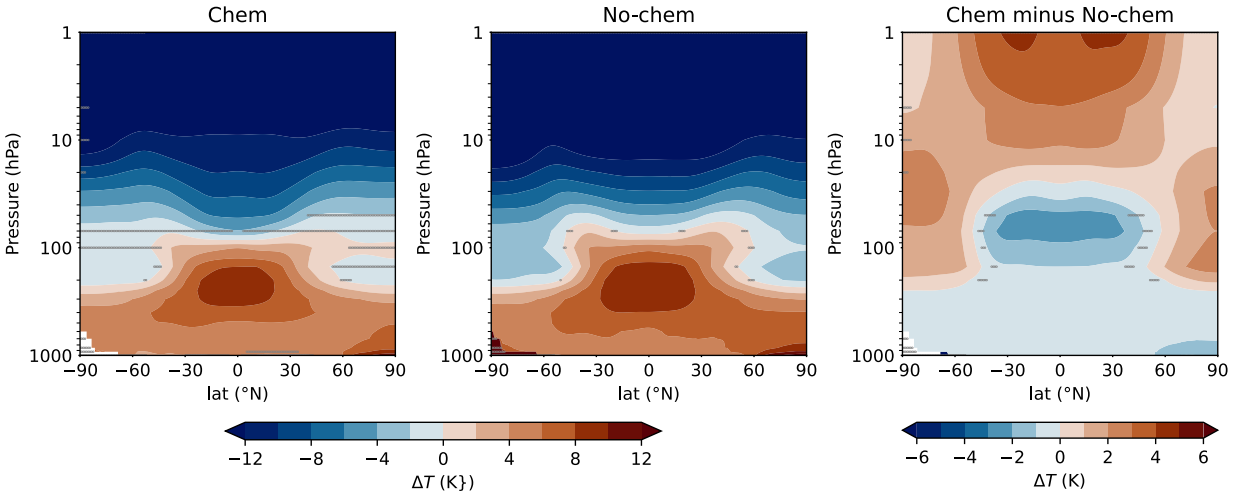

Figure 10. Similar to Figure 9, but average of 100-year long annual mean air temperature response to 4xCO2 of six pairs of chem and no-chem models.

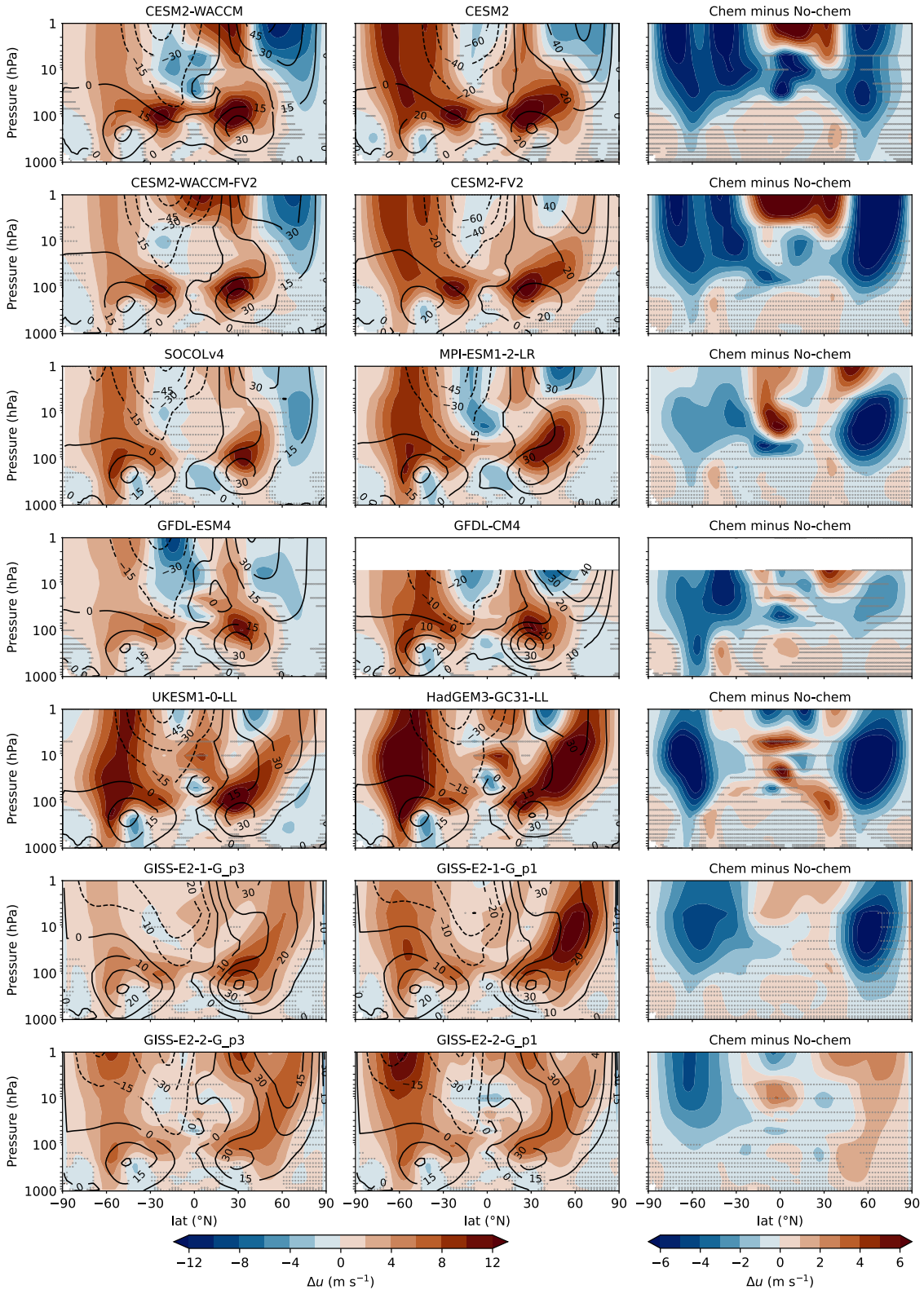

Figure 11. Comparison of the 100-year long seasonal mean zonal wind response to a 4xCO2 change in DJF between seven pairs of chem and no-chem models. Black contour lines depict the zonal wind climatology from the piControl experiment.

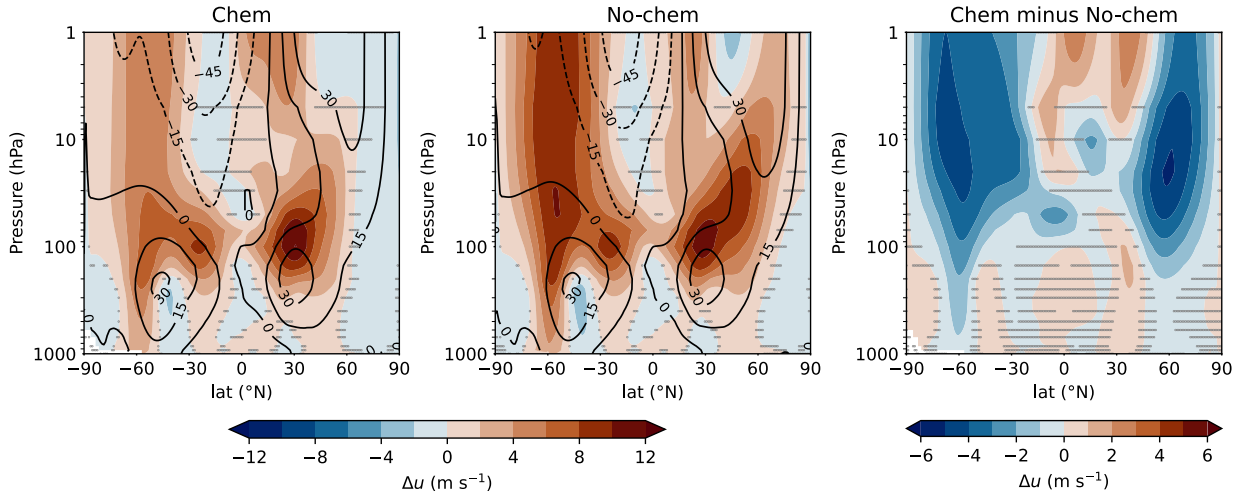

Figure 12. Similar to Figure 11, but a model average.

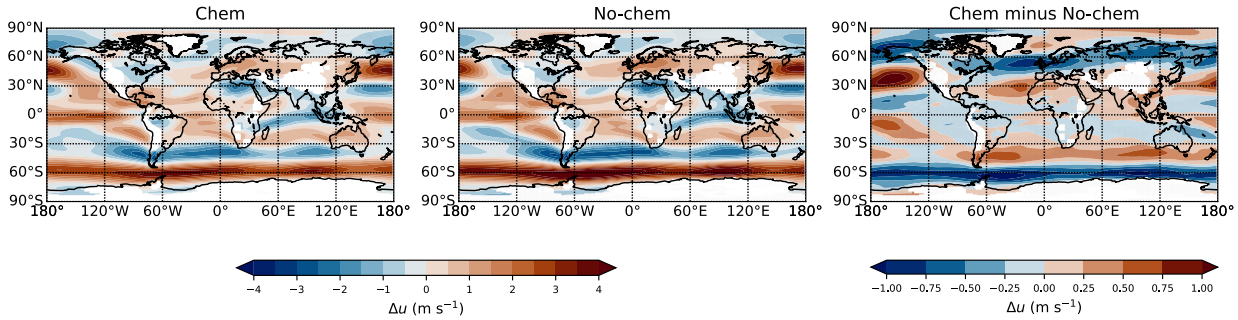

Figure B7. Multi-model average of annual-mean zonal wind response to 4xCO2 at 850hPa in DJF for chem and no-chem models, along with the difference between the two categories of models.

We also add discussion of GISS-E2-2-G as follows:
In Methods section:

"We also examine results from the high vertical resolution version of the GISS CMIP6 climate model submission, GISS-E2-2 (Rind et al. (2020), Orbe et al. (2020)). Though identical in horizontal resolution to E2-1, E2-2 has more than twice the number of vertical levels (102) and a higher model top (0.002 hPa). This, in combination a non-orographic gravity wave drag scheme that is directly tethered to parameterized convection, produces in E2-2 more credible middle atmosphere dynamical and transport circulations, compared to observations (Orbe et al. (2020))."

In Results section, we add the discussion of Figure 11 as follows:

"The one exception is the E2-2-G model, in which interactive composition produces a more dramatic weakening of the Atlantic Meridional Overturning Circulation; this, on longer timescales,

accelerates the NH jet, obfuscating the initial weakening of the NH polar vortex (Orbe et al. (2024)). On shorter timescales, however, the initial response of the polar vortex in the interactive chemistry simulation is consistent with the response observed in the other models."