

Figure 1: Poleward eddy momentum flux vs eddy length scale for different rotation rates.

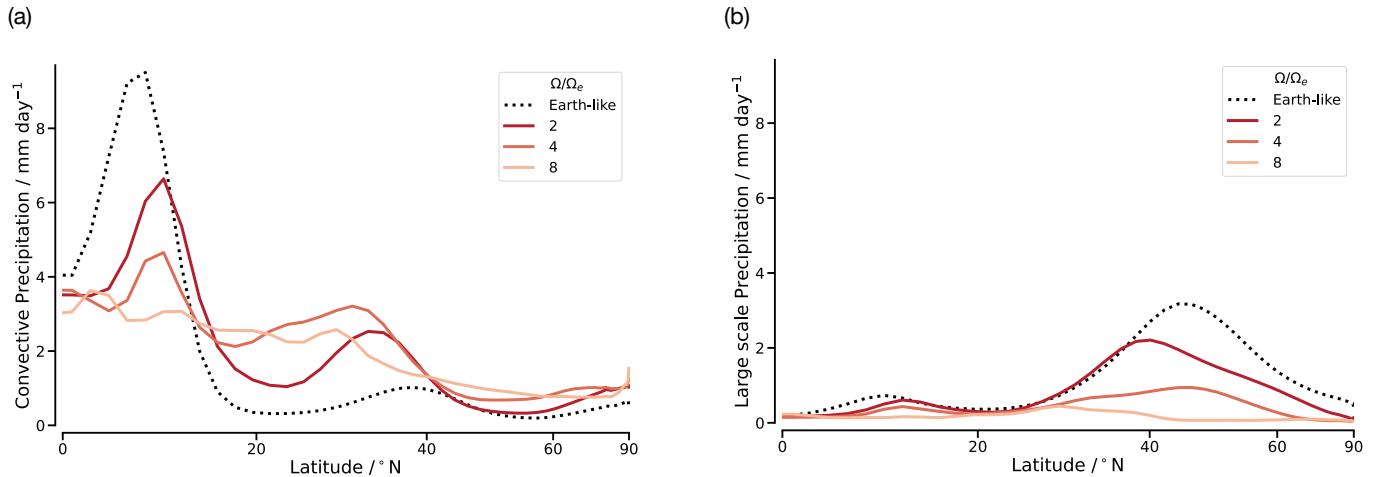


Figure 2: Zonal mean of (a) convective and (b) large-scale precipitation for rotation rates from Earth-like to  $\Omega/\Omega_e = 8$

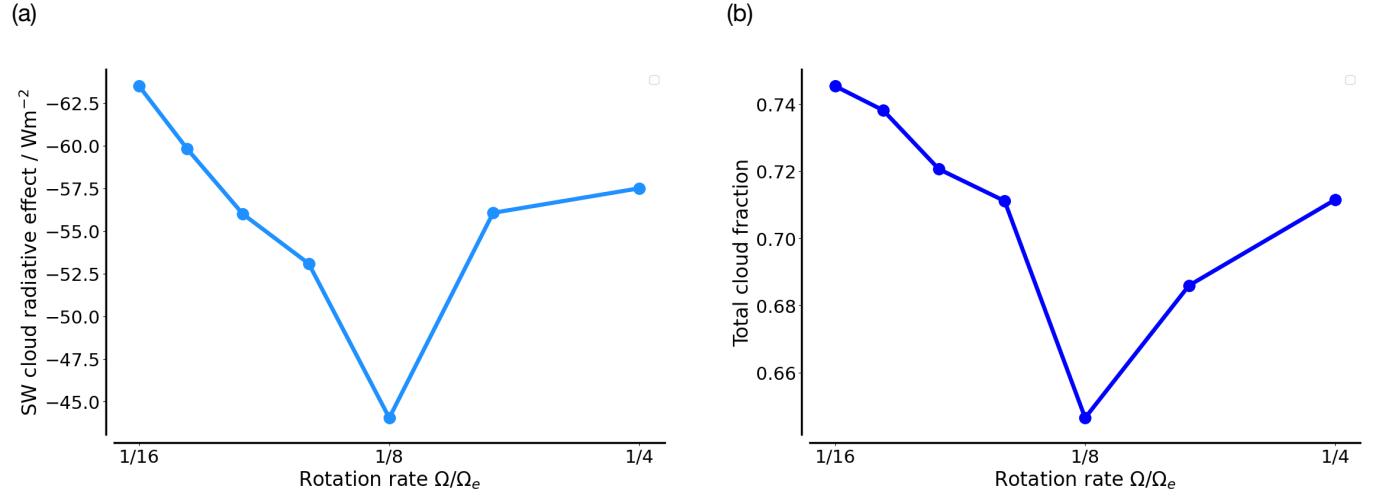


Figure 3: Global mean of (a) SW cloud radiative effect and (b) total cloud fraction for rotation rates between  $\Omega/\Omega_e = 1/4$  and  $\Omega/\Omega_e = 1/16$ .

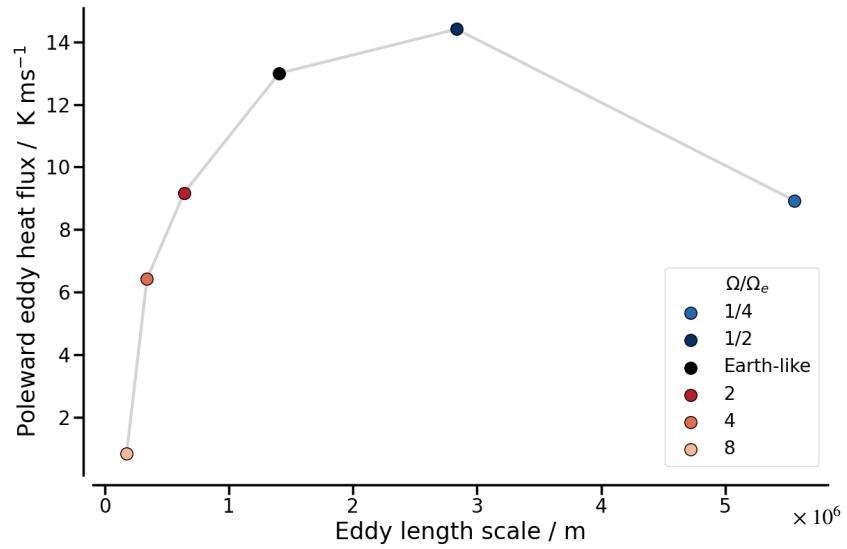


Figure 4: Eddy heat flux at 850 hPa vs eddy length scale for different rotation rates.

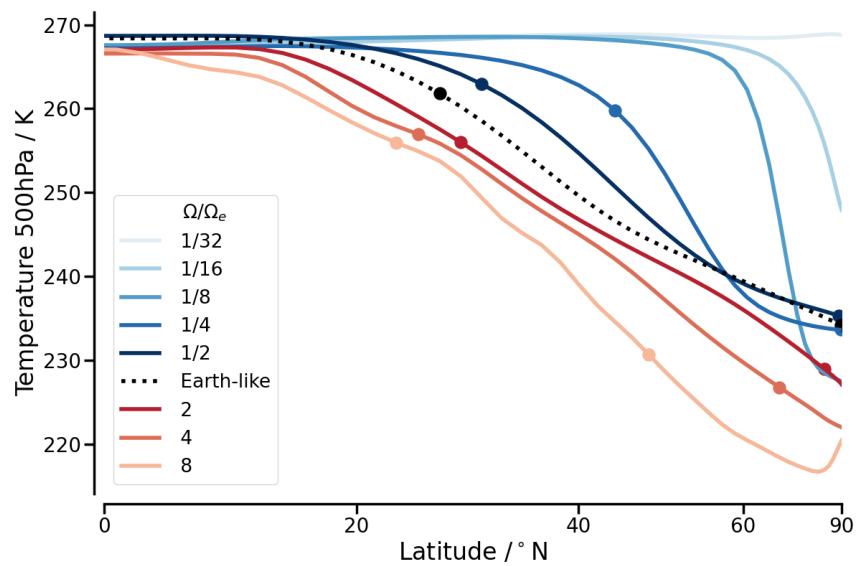


Figure 5: Zonal mean temperature at 500 hPa for different rotation rates and the latitudes between the two dots for  $\Omega/\Omega_e < 1/8$  are the baroclinic zones which are the regions >30 % of the maximum eddy heat flux.

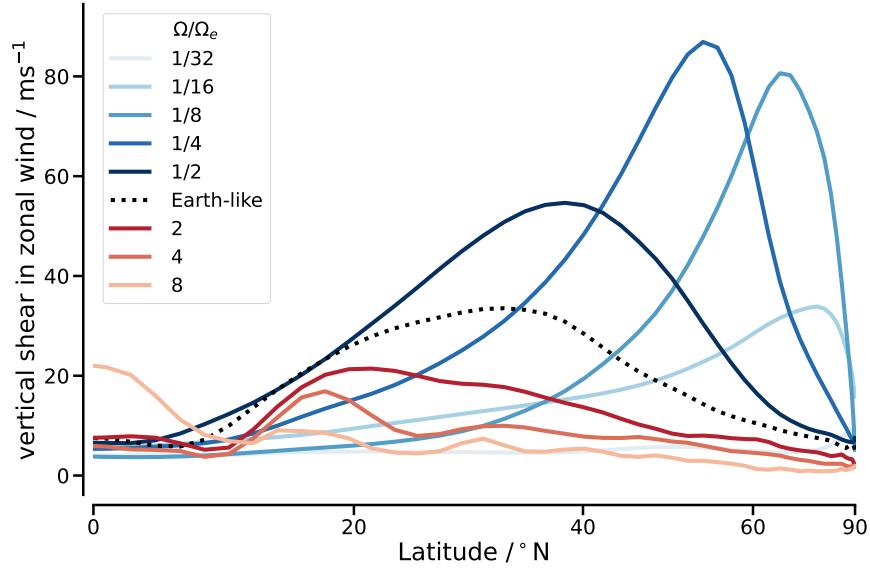


Figure 6: Zonal mean of the vertical shear of the zonal wind between 250 hPa and 850 hPa at different rotation rates.

The zonal component of the thermal wind/vertical shear of the zonal wind is given as

$$\frac{\partial u}{\partial p} = \frac{-R}{pf} \left( \frac{\partial T}{\partial y} \right)_p \quad (1)$$

where  $\frac{\partial u}{\partial p}$  is the vertical shear of the zonal wind,  $f$  is the Coriolis parameter,  $\left( \frac{\partial T}{\partial y} \right)_p$  is the meridional temperature gradient.

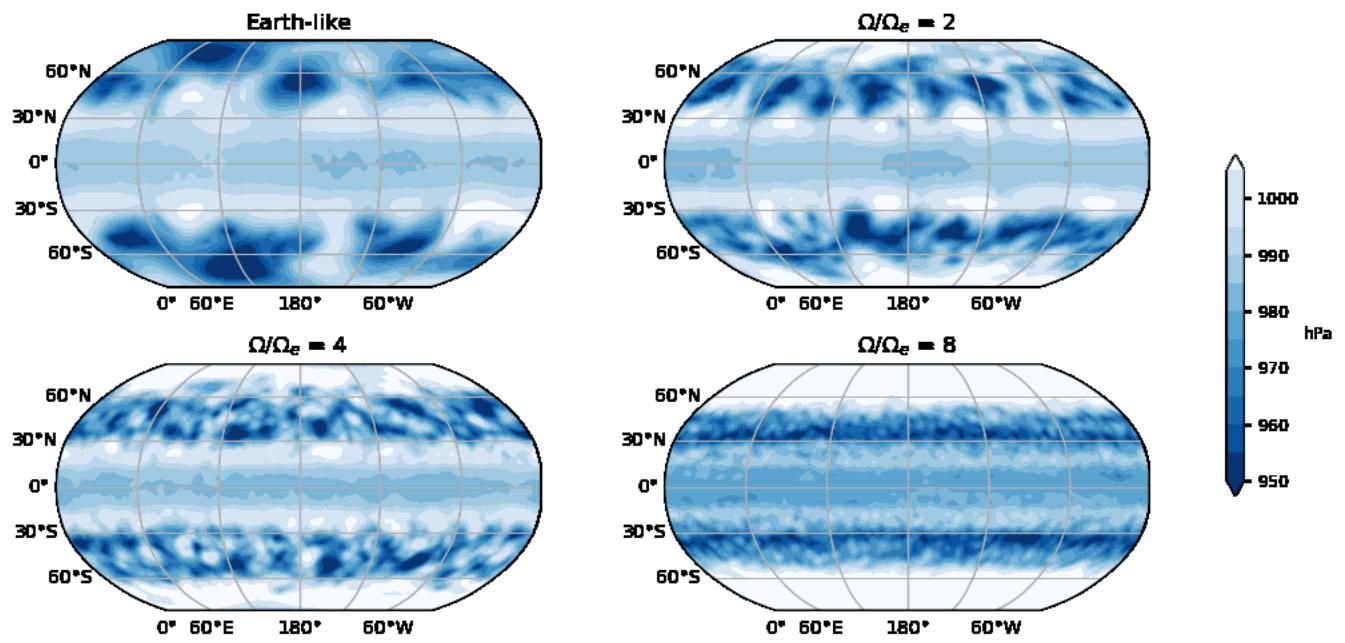


Figure 7: Snapshot of surface pressure for Earth-like and faster cases