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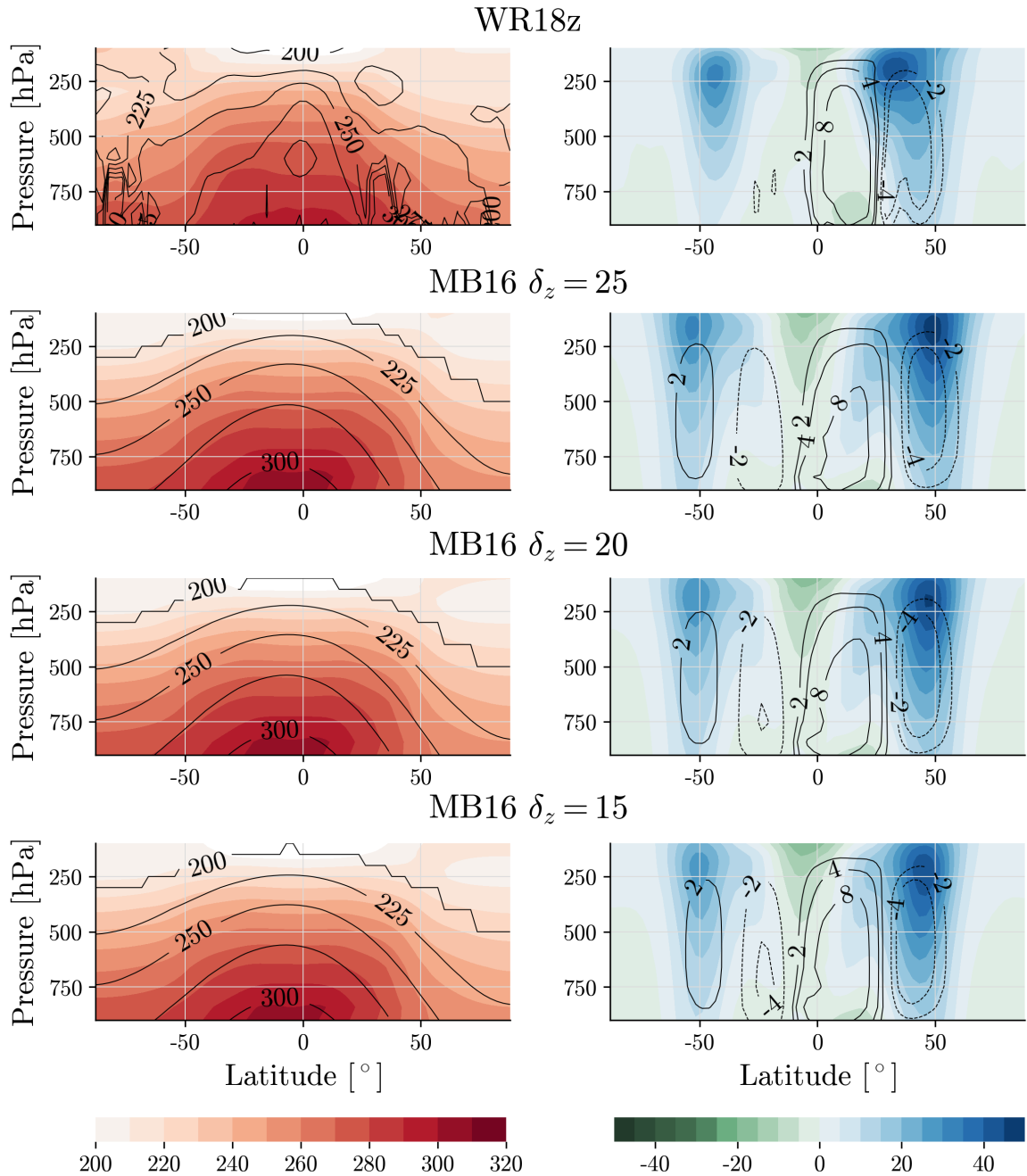
*Supplement of*

## **Replicating the Hadley cell edge and subtropical jet latitude disconnect in idealized atmospheric models**

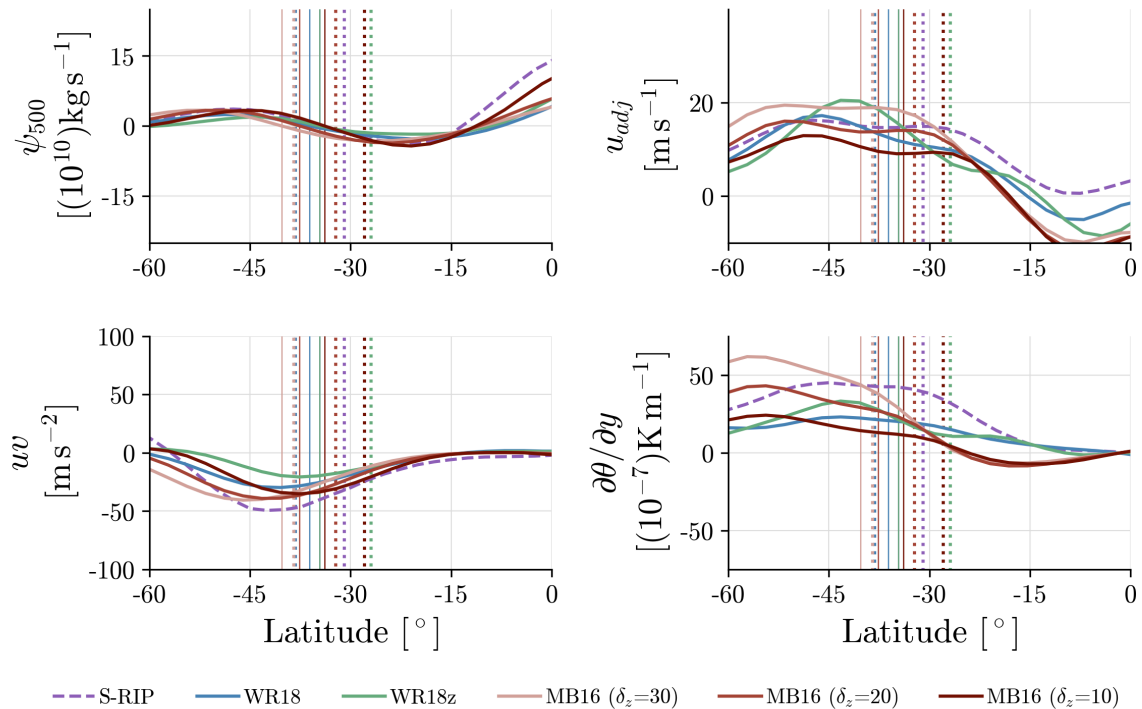
**Molly E. Menzel et al.**

*Correspondence to:* Molly E. Menzel ([molly.menzel@nasa.gov](mailto:molly.menzel@nasa.gov))

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**Figure S1.** DJF zonal-mean equilibrium temperature (left, black contour lines, K) and DJF climatology of the simulated temperature (left, color contours, K), zonal wind (right, color contours,  $\text{ms}^{-1}$ ), and mean meridional circulation (right, black contour lines,  $10^{10} \text{kg s}^{-1}$ ) for WR18z (top), MB16 ( $\delta_z = 25$ ) (middle top), MB16 ( $\delta_z = 20$ ) (middle bottom), and MB16 ( $\delta_z = 15$ ) (bottom).



**Figure S2.** SH DJF zonal-mean meridional streamfunction at 500 hPa (top left), adjusted wind (top right), vertically averaged eddy momentum flux between 200-400 hPa (bottom left), and vertically averaged meridional temperature gradient between 100-400 hPa (bottom right) for S-RIP, WR18, WR18z, MB16 (default,  $\delta_z = 10$ ), MB16 ( $\delta_z = 20$ ), and MB16 ( $\delta_z = 30$ ). The dotted and solid thin vertical lines show the climatological  $\phi_{STJ}$  and climatological  $\phi_{HC}$ , respectively, for each corresponding simulation.