

## **Stratosphere-troposphere coupling: Impact of interactive chemistry on wave coupling between the troposphere and stratosphere**

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Recent studies illustrate that stratospheric ozone changes affect the vertical coupling of planetary waves between the troposphere and stratosphere in the Southern Hemisphere. Here we compare this coupling process between GEOS chemistry climate model simulations with interactive ozone chemistry and a corresponding simulation with prescribed zonal mean ozone changes, and illustrate the subsequent impact on tropospheric wave structure. The results of this analysis further contribute to our understanding about the importance of including interactive ozone chemistry for simulating the impact of stratospheric ozone changes on Southern Hemisphere circulation in the troposphere.