

Stratosphere-troposphere coupling: Extratropical wave coupling and the impact of model configuration

Tiffany Shaw[†]; Judith Perlwitz

[†] Columbia University, USA

Leading author: tas2163@columbia.edu

Planetary waves represent the most important source of dynamical coupling between the stratosphere and troposphere in the extratropics. Here we examine the impact of stratospheric model configuration on modeled planetary-scale waves during Northern Hemisphere winter and Southern Hemisphere spring. We analyze planetary scale Eliassen-Palm fluxes between the troposphere and stratosphere in high-lid and low-lid models. The relationship between the wave fluxes and the stratospheric basic state (zonal wind and temperature) is examined.