

ATS/CIRA Special Seminar

Cathy Hohenegger
from Max Planck Institute

Hosted by Sue van den Heever

3 p.m. Monday, February 26
ATS 101 and Zoom

On the Positiveness of the Coupling Between Water Storage and Precipitation

The sign and strength of the coupling between water storage and precipitation has long been debated. In this talk, I use two novel approaches to diagnose this coupling. The first one is making use of the partitioning of precipitation between land and ocean and of a conceptual model of the tropical precipitation distribution as a rainbelt combined with observations. The second one derives the strength of the coupling from global km-scale simulations. Both approaches reveal that the coupling is negative, in contrast to the typical positive coupling obtained in coarse-resolution global climate models. This questions the ability of coarse-resolution global climate models to answer questions related to climate over land.

Colloquia page: atmos.colostate.edu/colloquia