**Model Resolution Sensitivity of Simulated ENSO Teleconnections to Winter Precipitation Extremes Over the US in E3SM**

We evaluate the simulated teleconnection of El Nino Southern Oscillation (ENSO) to winter season precipitation extremes over the United States in a long (98 years) control (1950) high resolution version (HR) of the Energy Exascale Earth System Model version 1 (E3SMv1). HR improves both the spatial pattern and the magnitude of ENSO teleconnections to mean as well as extreme precipitation over Southeast USA (SE-USA) as compared to the low-resolution model's historical simulation (4-member ensemble, 1979-2014, LR). However, it also amplifies the stronger than observed ENSO impacts over the Pacific Northwest (PNW), with La Nina events associated with stronger extremes there. HR simulates a stronger increase in extratropical cyclone activity during El Nino events over SE-USA. While the bias over the PNW region in LR is associated with stronger than observed impact of storm track activity, the amplified HR bias is due to a stronger than observed ENSO impacts on moisture transport. HR also improves both the ENSO impacts on mean moisture transport as well as ENSO impacts on synoptic scale variability of moisture transport over SE USA. High resolution models simulate finer scale features that yield stronger vertical velocities. During El Nino, these stronger vertical velocities in HR produce stronger stable condensation resulting in larger latent heating of the troposphere pulling in more moisture from the Gulf of Mexico into the SE USA. This positive feedback results in stronger mean and extreme precipitation and is evident from a composite analysis during ENSO events over the region.