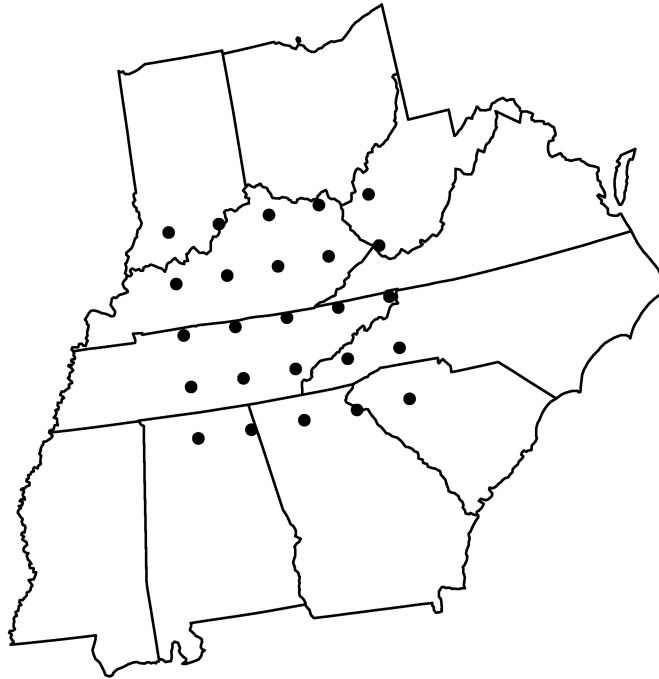
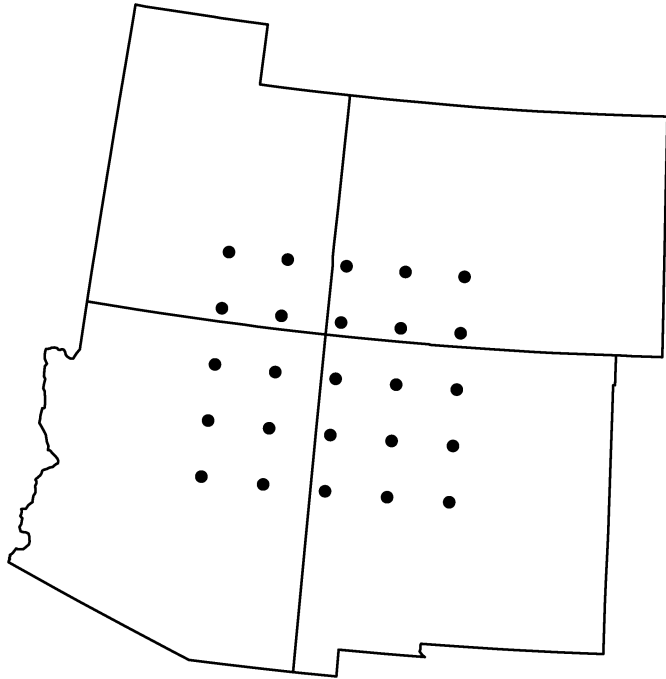


SPQR spacetime model fit metrics

Locations

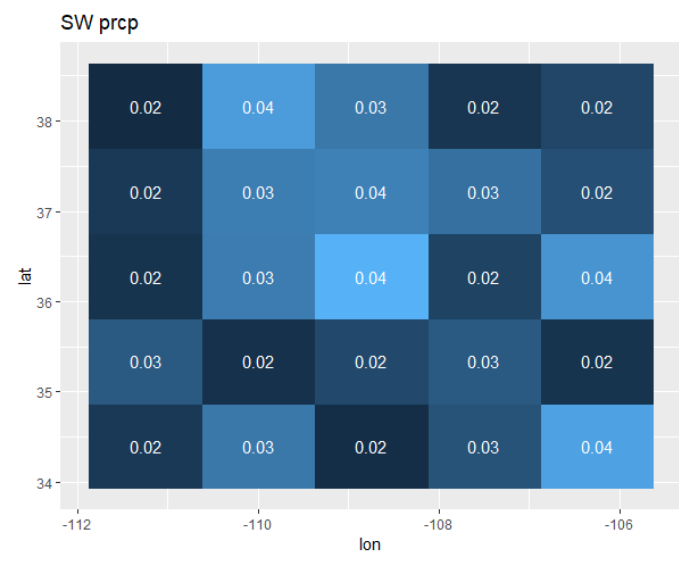
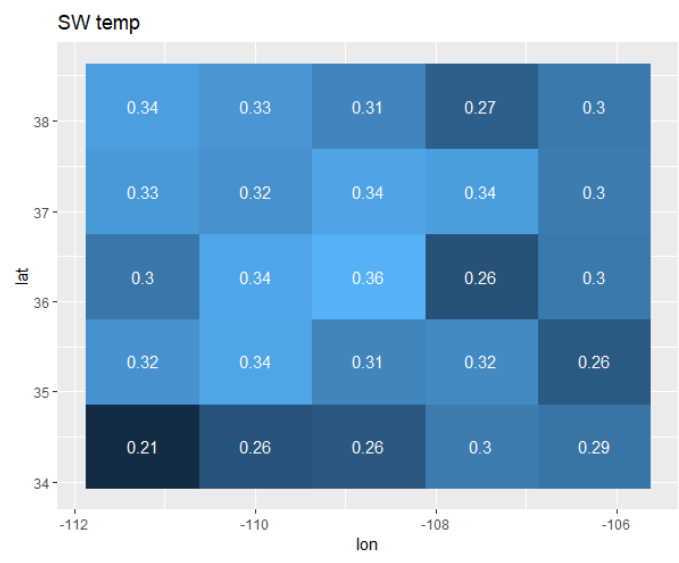
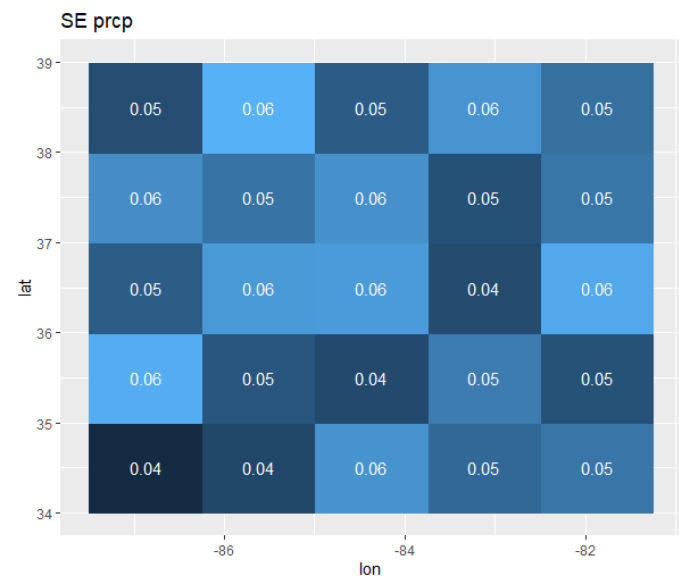
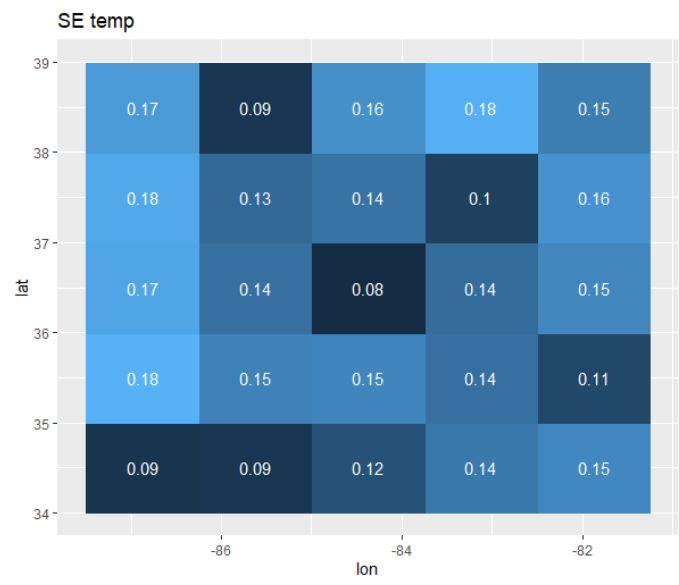


- I'm calling them SW and SE, though that is not entirely correct.
- Distances between grid points are somewhere in the range of 1-6 degrees

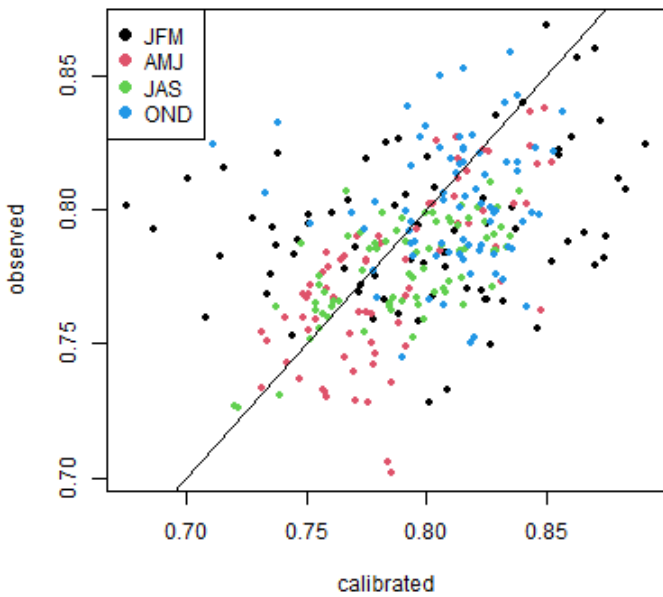
Wasserstein distance

	Southwest	Southeast
Temp	0.304 (0.035)	0.139 (0.03)
Prcp	0.027 (0.009)	0.052 (0.007)

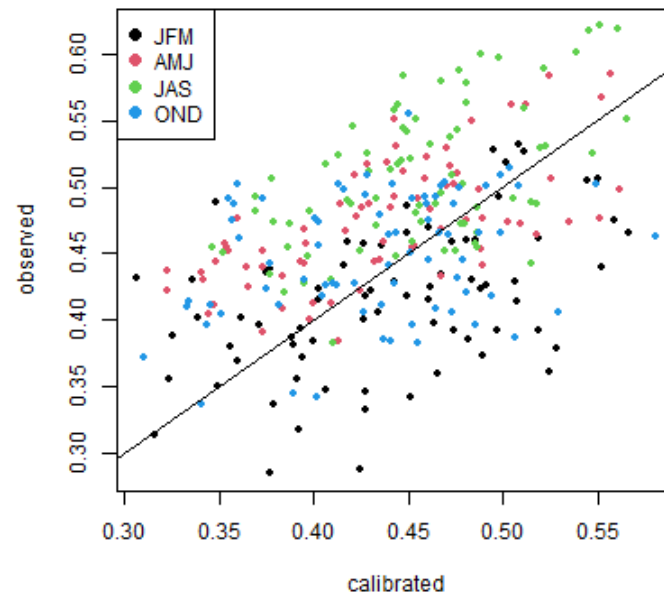
- Mean (SD) of Wasserstein distance across the 25 locations in each region
- Each value is computed based on all 12 months of data
- Additional measure of overall fit – RMSE of cross-correlations:
 - SW: 0.0002
 - SE: 0.0001



temp autocorrelations

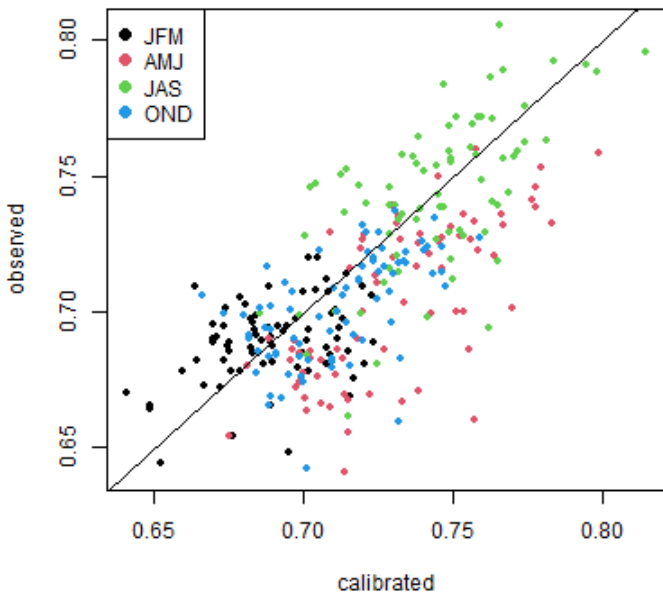


prcp autocorrelations

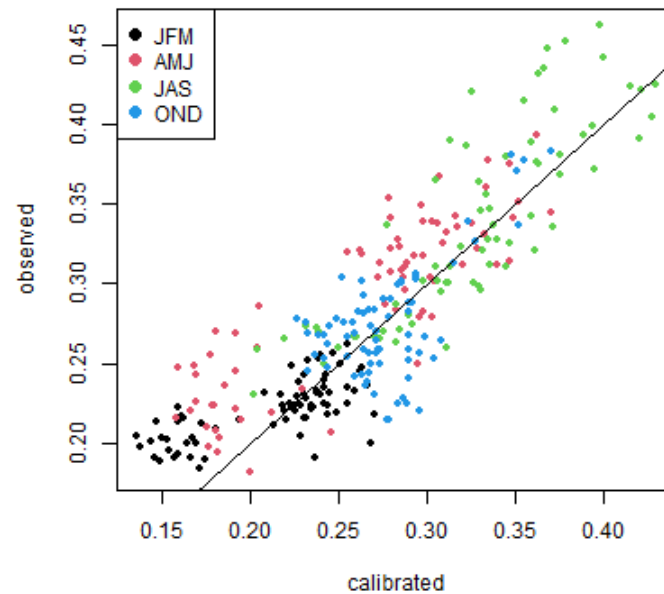


- Autocorrelations at each grid cell and each month (25 x 12 values)
- SW on top, SE in the bottom
- SE has less variability, but low prcp has more bias
- I don't have the autocorrelations for the GCM data saved, but I can overlay those

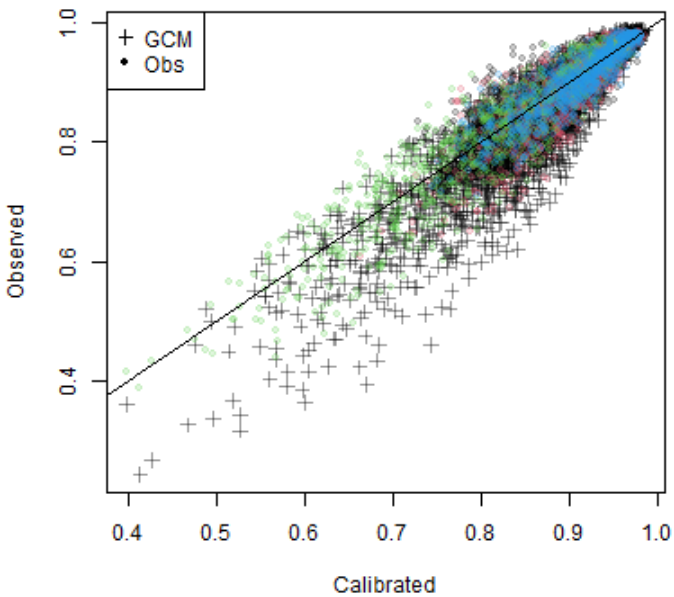
temp autocorrelations



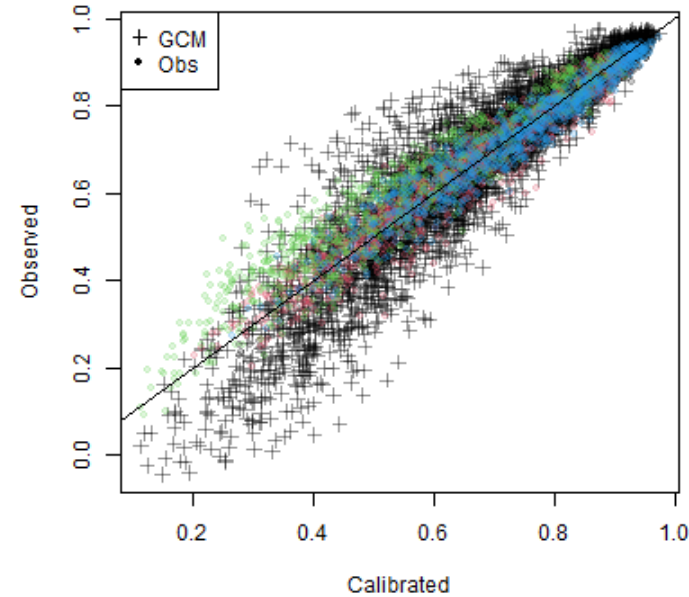
prcp autocorrelations



Temp spatial correlations

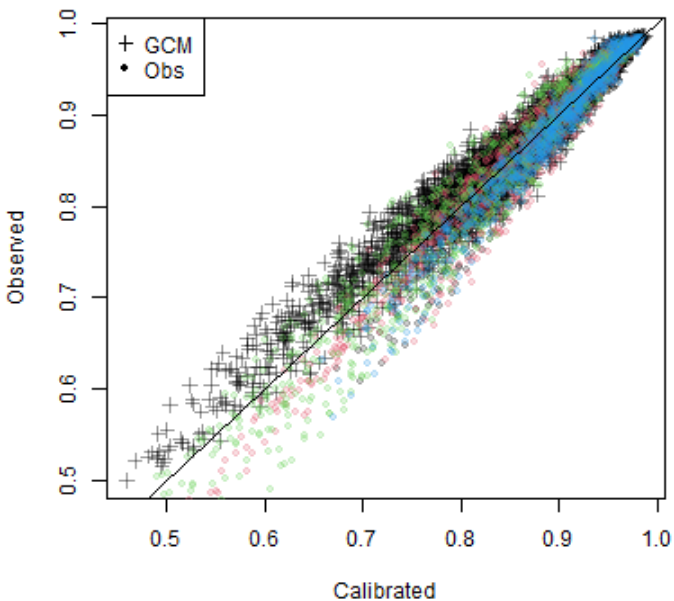


Prcp spatial correlations

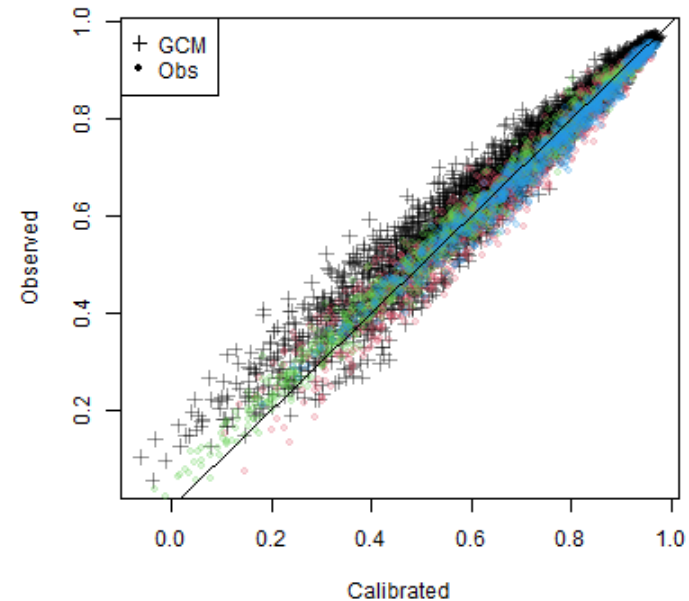


- Spatial correlations at each grid cell pair and each month (300 x 12 values)
- SW on top, SE in the bottom
- GCM spatial correlations overlaid
- SE has less variability
- Low values have more variability in all plots

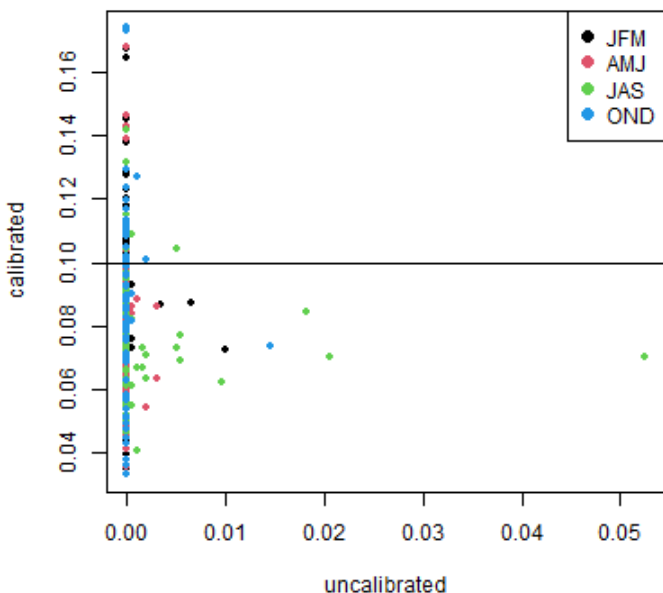
Temp spatial correlations



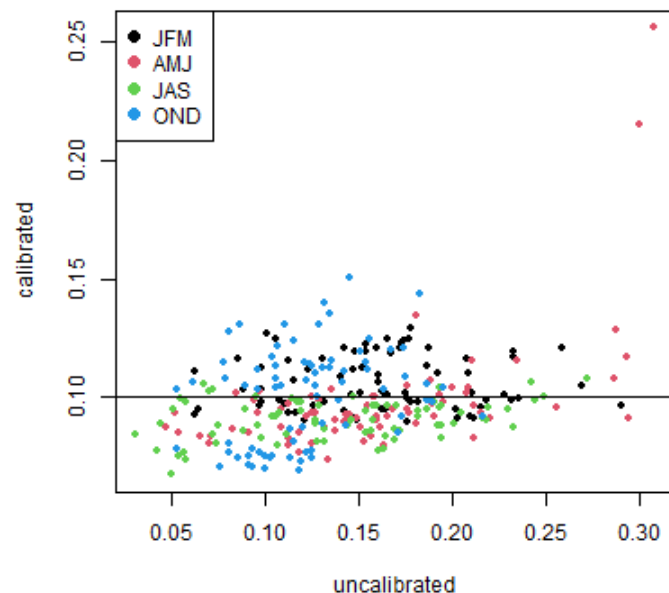
Prcp spatial correlations



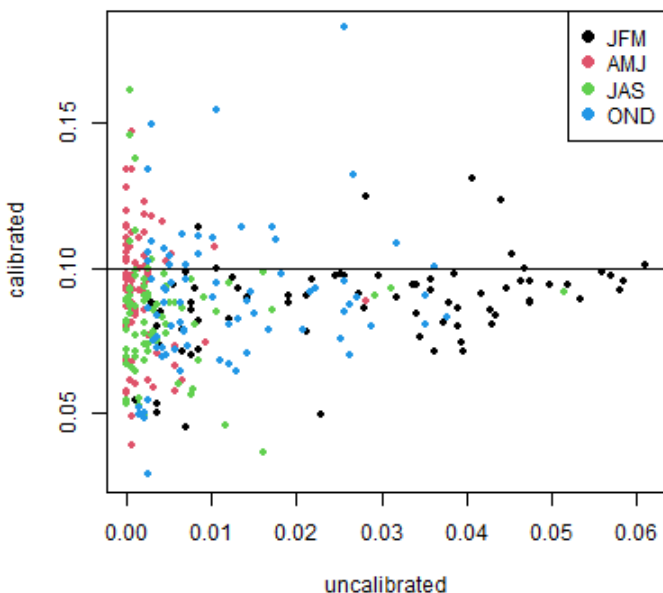
Temp exceedance probability above 0.90 quantile



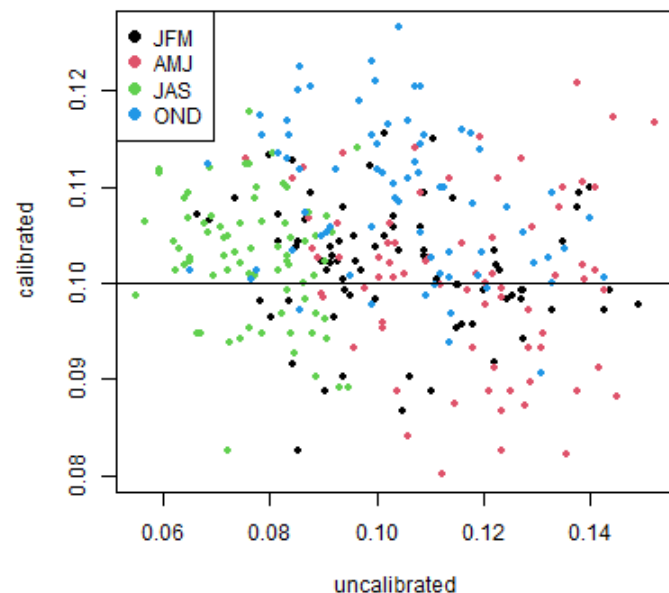
Prcp exceedance probability above 0.90 quantile



Temp exceedance probability above 0.90 quantile



Prcp exceedance probability above 0.90 quantile



- Exceedance probabilities at each grid cell and each month (25 x 12 values)
- SW on top, SE in the bottom
- True value always 0.10 in this case
- Temp interpretation:
 - GCM data for SW has very thin upper tails (x-axis)
 - SE also, but better than SW
 - Ranges seem roughly the same after calibration (y-axis)
- Prcp interpretation:
 - SW had a LOT more variability in its upper tail mass than SE (values ~0.30)
 - For SE, GCM actually lines up decently
 - After calibration, both SE and SW have similar ranges (except some SW outliers)