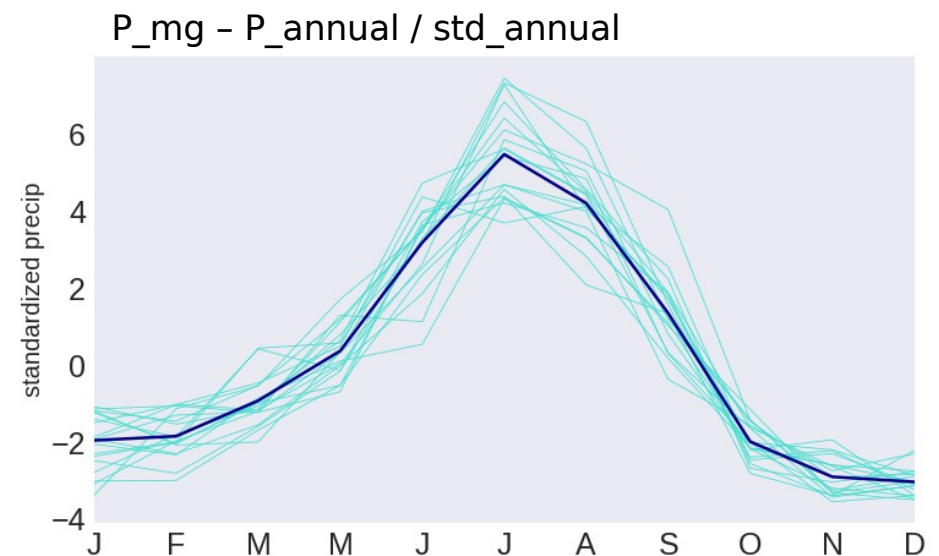
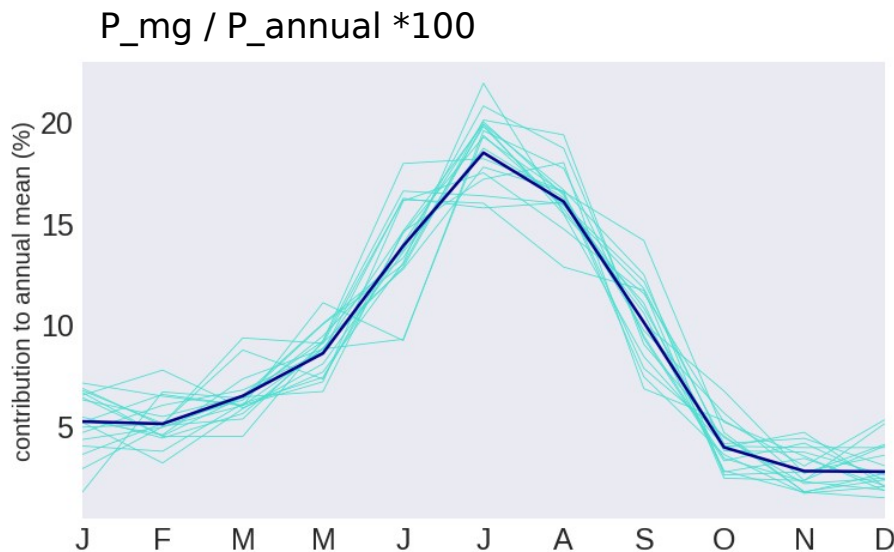


Cluster analysis based on GPM V06

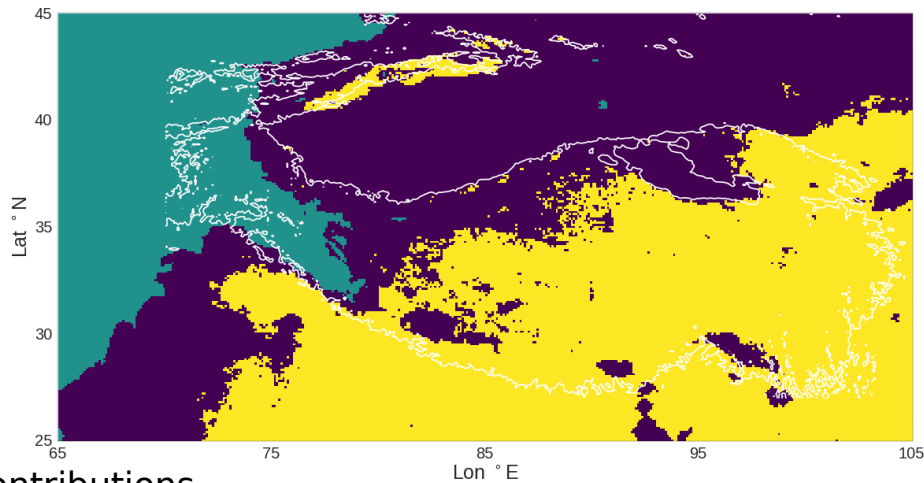
- **K-means clustering with 3 centroids**
- **GPM V06: 2000 - 2019**
- **Domain: 25 - 45N, 60 - 105E**
- **Training feature: normalized seasonal cycle**



Figures show seasonal cycles averaged over domain for all years and each individual year

Results for 3 cluster centers

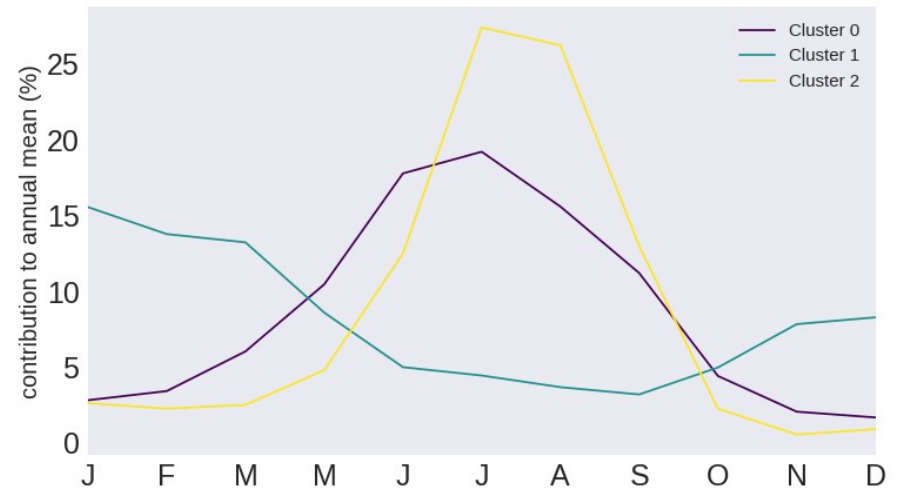
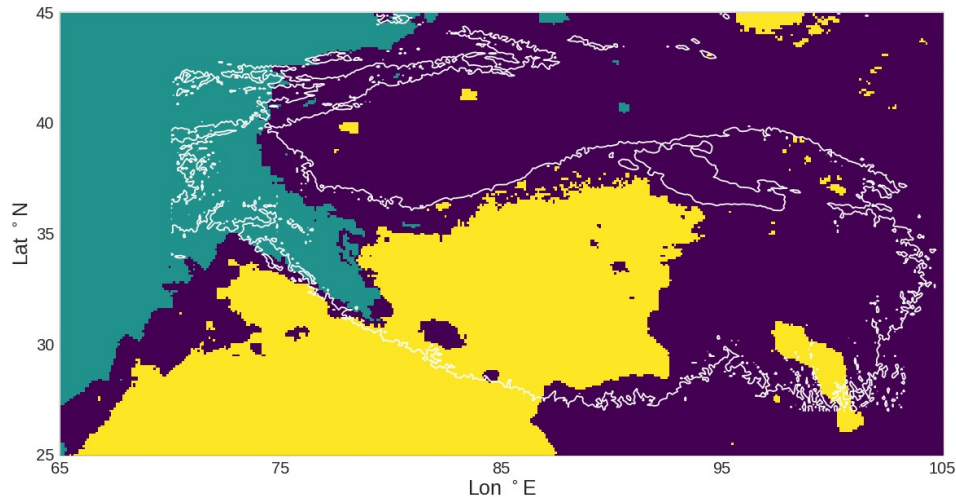
Standardized



Cluster 0: 33167, Cluster 1: 32810, Cluster 3: 14624

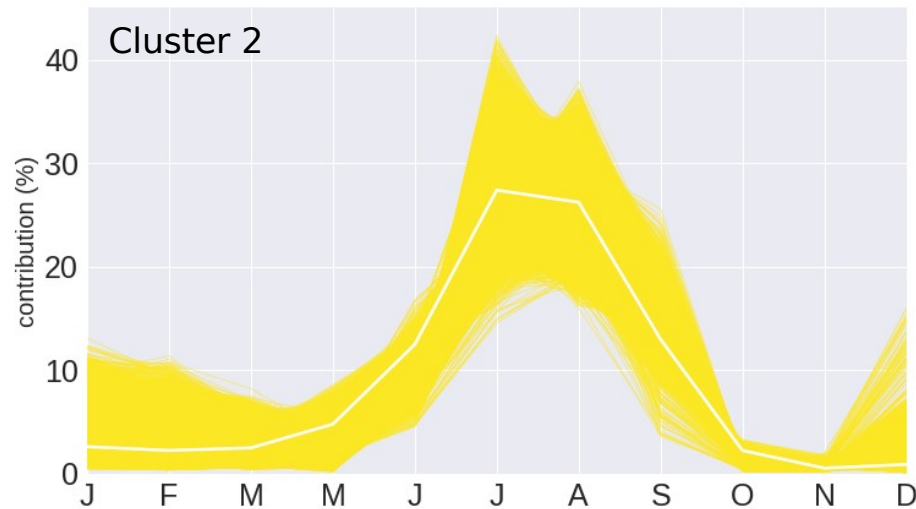
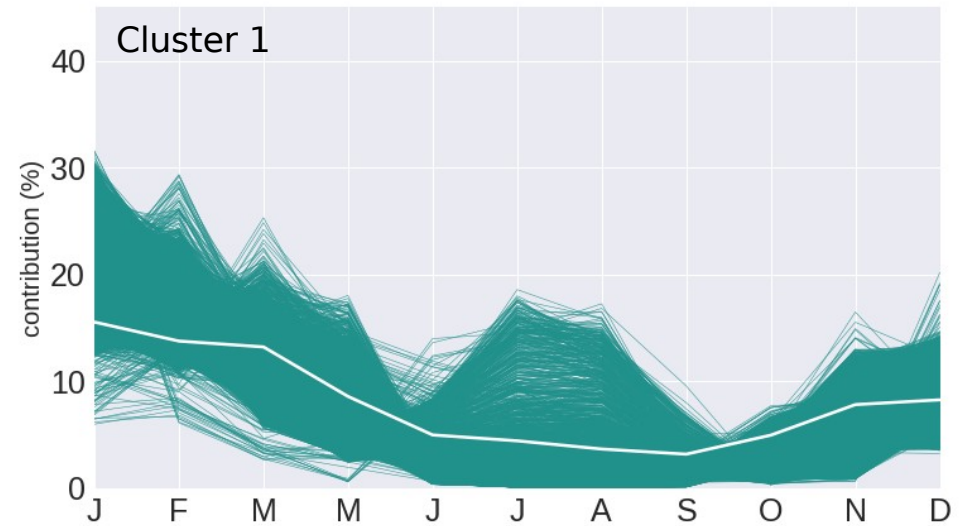
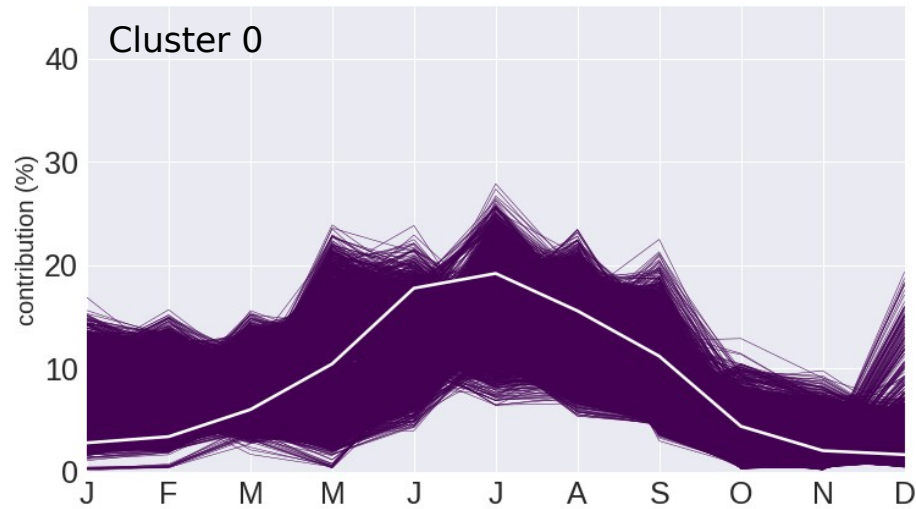


Contributions



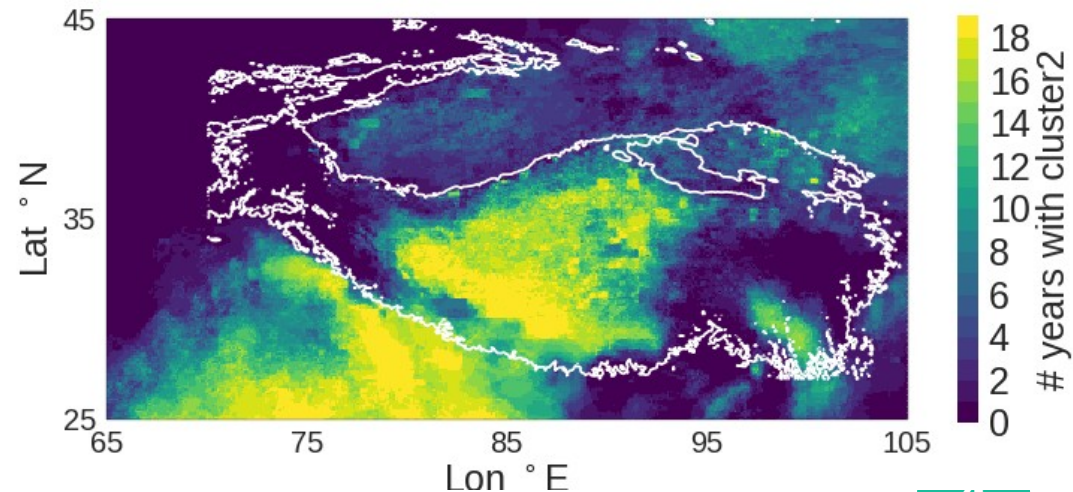
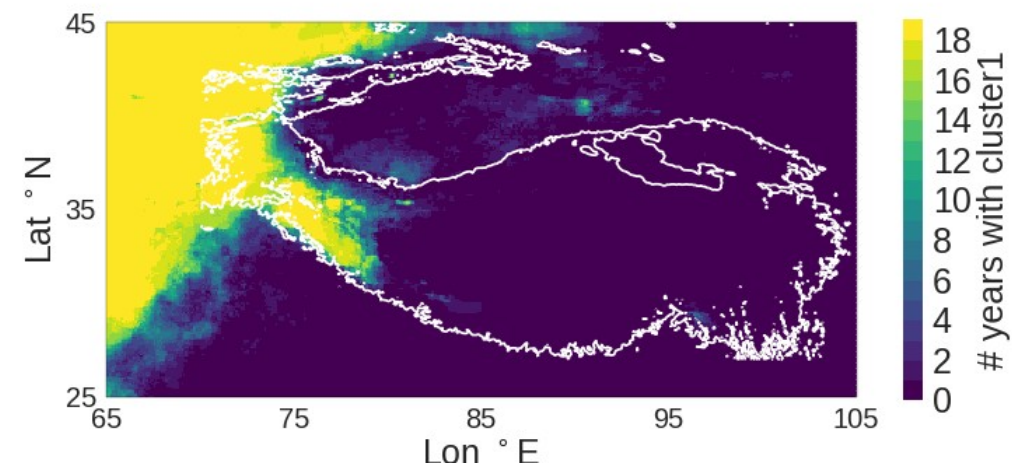
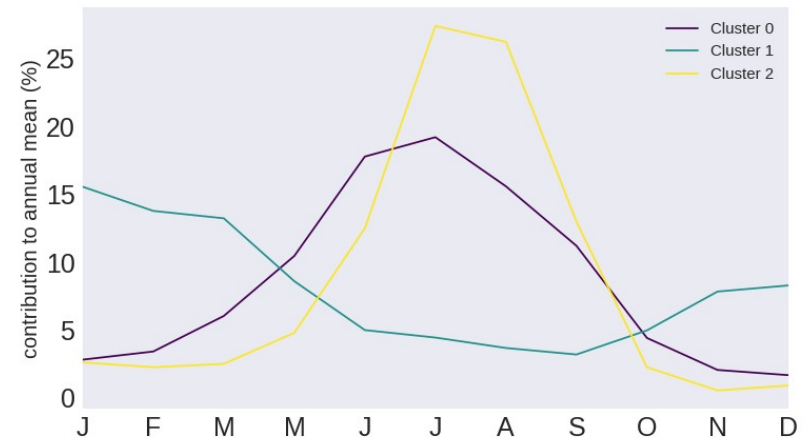
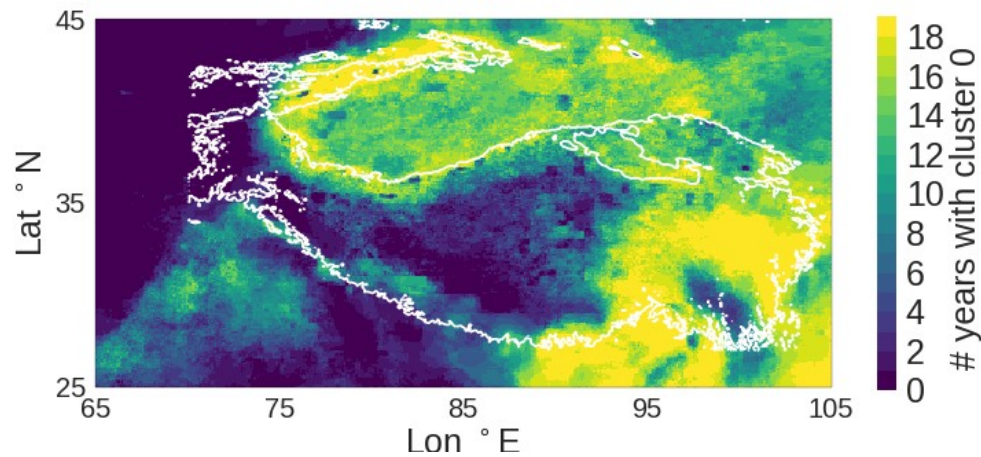
Cluster 0: 43694, Cluster 1: 15597, Cluster 3: 21310

Characteristics of the 3 centroids



Prediction of each year

What is the closest cluster center of the seasonal curve in each year?



Prediction of each year

10-days pentad averages

- **Seasonal curve with 36 values → cluster analysis**
- **10- days average precip to identify evolution of monsoon**
-

Seasonal EOF