

Jin, D., Z. Guan, J.Cai, and W. Tang, 2015: Interannual variations of regional summer precipitation in Mainland China and their possible relationships with different teleconnections in the past five decades. *J. Meteor. Soc. Japan*, **93**, 265-283.

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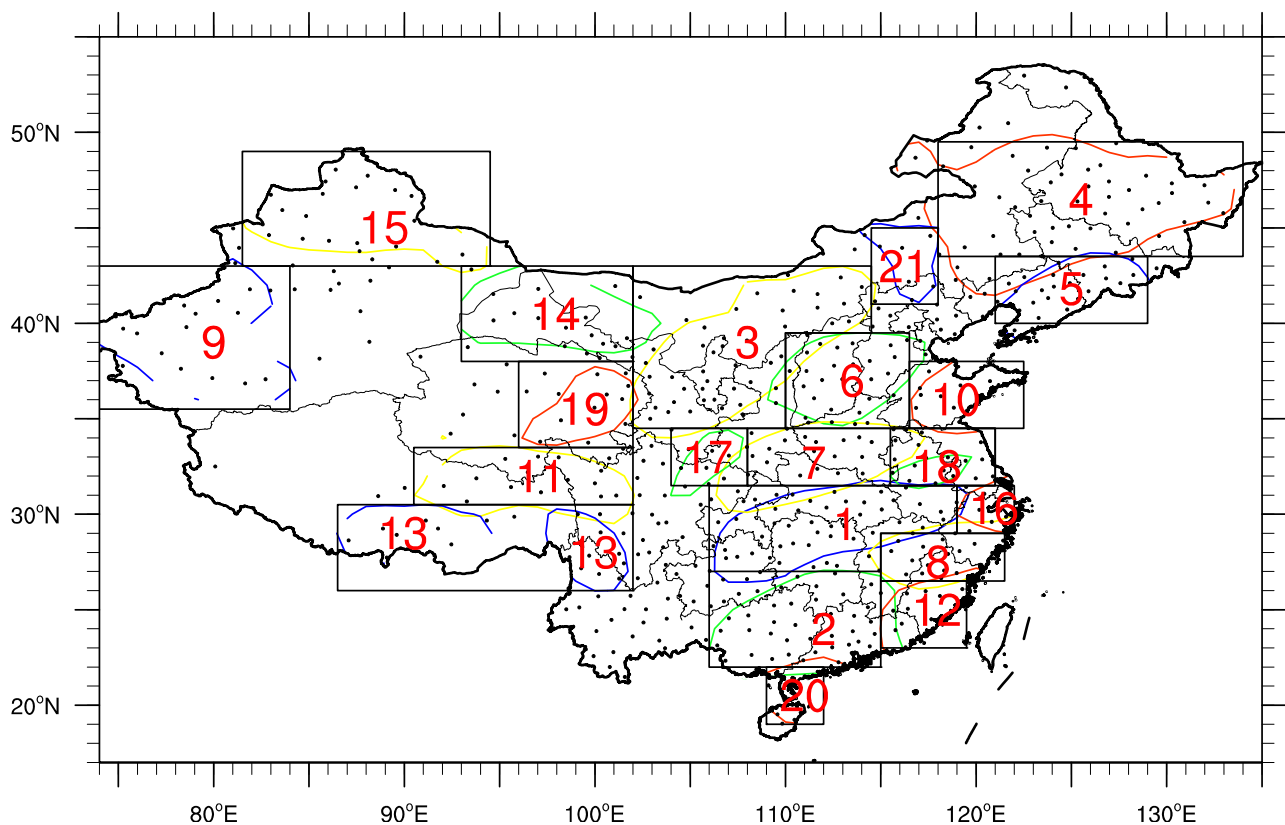


Figure 1. Twenty one climatic regions in Mainland China for interannual variations of JJA mean rainfall as obtained from REOF decompositions. Different colored isolines denote contours for different REOF modes. Rectangular frames with numbers in them indicate the regions covering roughly the higher loading parts (absolute values bigger than 0.4) of the different REOFs. Dots in the figure show the locations of 596 stations.

- Using observational rainfall data at 596 meteorological stations in mainland China from 1961 to 2008, the authors identified 21 regions for June-July-August mean rainfall anomalies by employing the rotated empirical orthogonal function (REOF) decompositions (Fig.1). These 21 regions cover most territory of China. The rainfall variations in any one of these 21 regions are almost statistically independent of those in the others, suggesting the variations of summertime mean rainfall are very regional.
- Rainfall variations in different regions are found to be possibly influenced by different factors including both/either signals from tropics and/or teleconnections from mid-high latitudes by conducting a survey with some indices of sea surface temperature anomalies (SSTA) such as DMI (the Indian Ocean dipole mode index) and teleconnection patterns such as PJ (the Pacific-Japan (PJ) teleconnection index) .