

Figure 2: Number of predictors in the final regression equations for the three reconstruction experiments. Shown in the right panel are the changes of the number of variables for each experiment. The mean total number of predictors for whole reconstruction period is shown in the left panels, where 'P' and 'T' denote SLP and temperature, respectively. The subscripts of '0', '-1', '+1' denote the concurrent, previous one, and next one month, correspondingly.

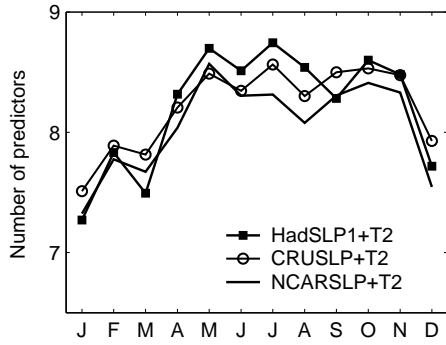


Figure 3: Number of predictors for different months.

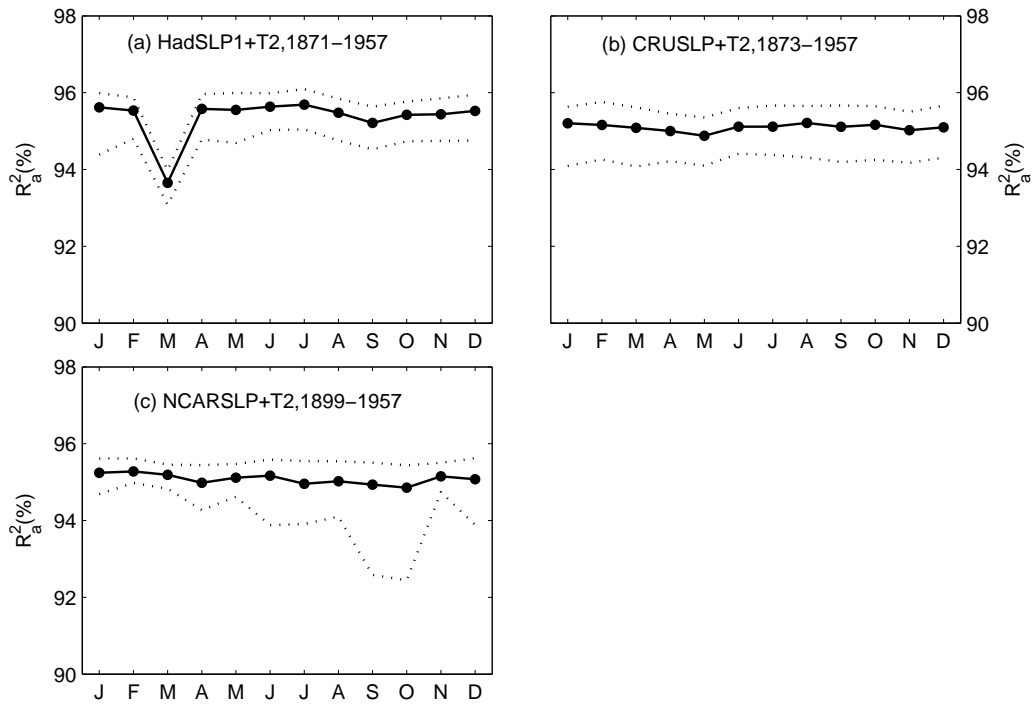


Figure 4: Seasonal variation in the adjusted R square. Lines with filled dots are means over whole reconstruction period, the maximum and minimum values are plotted together as dotted lines.

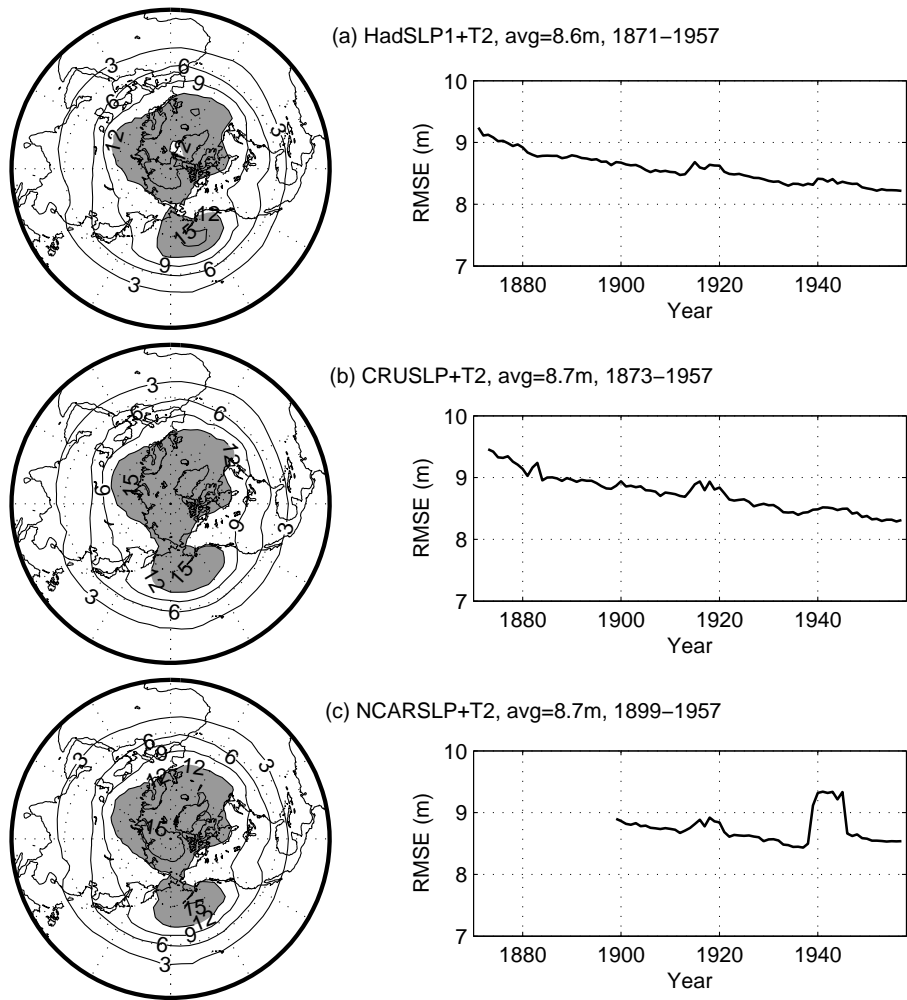


Figure 5: Distribution of the root mean squared errors (RMSE). Regions where values greater than 12m are shaded in order to highlight the error centers. Their changes with time are shown in the right panel.

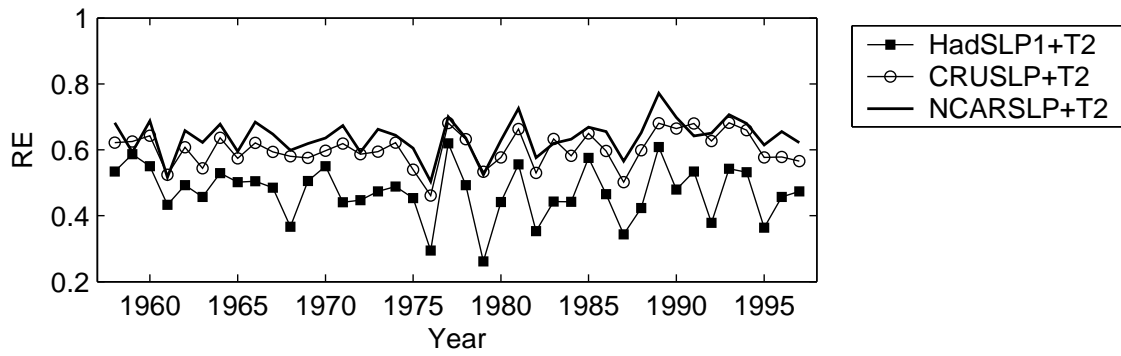


Figure 6: Time series of the RE scores for the cross-validation period of 1958-1997.

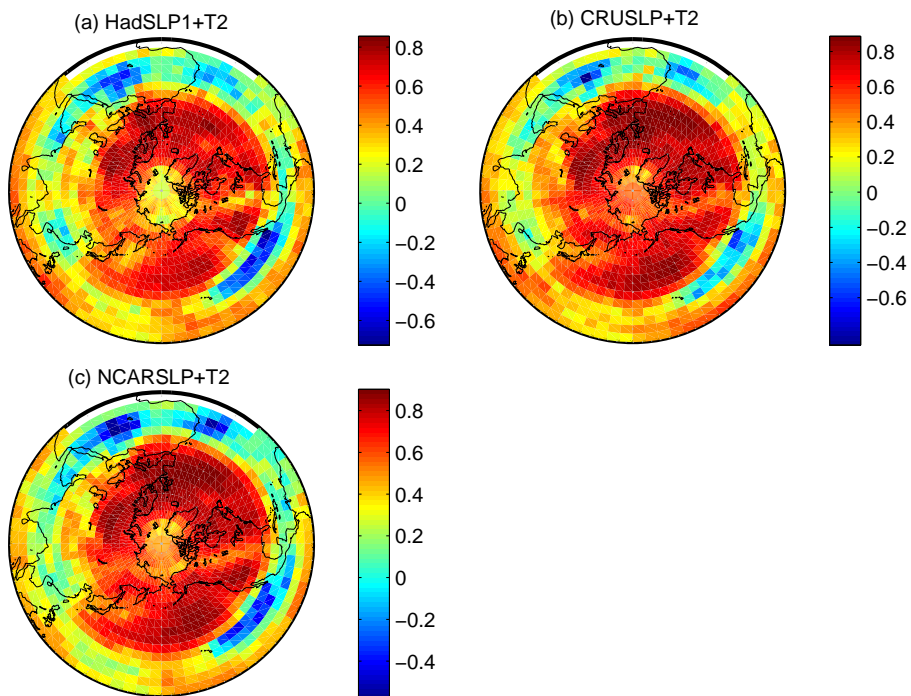


Figure 7: Spatial distribution of the RE scores for the cross-validation period of 1958-1997.

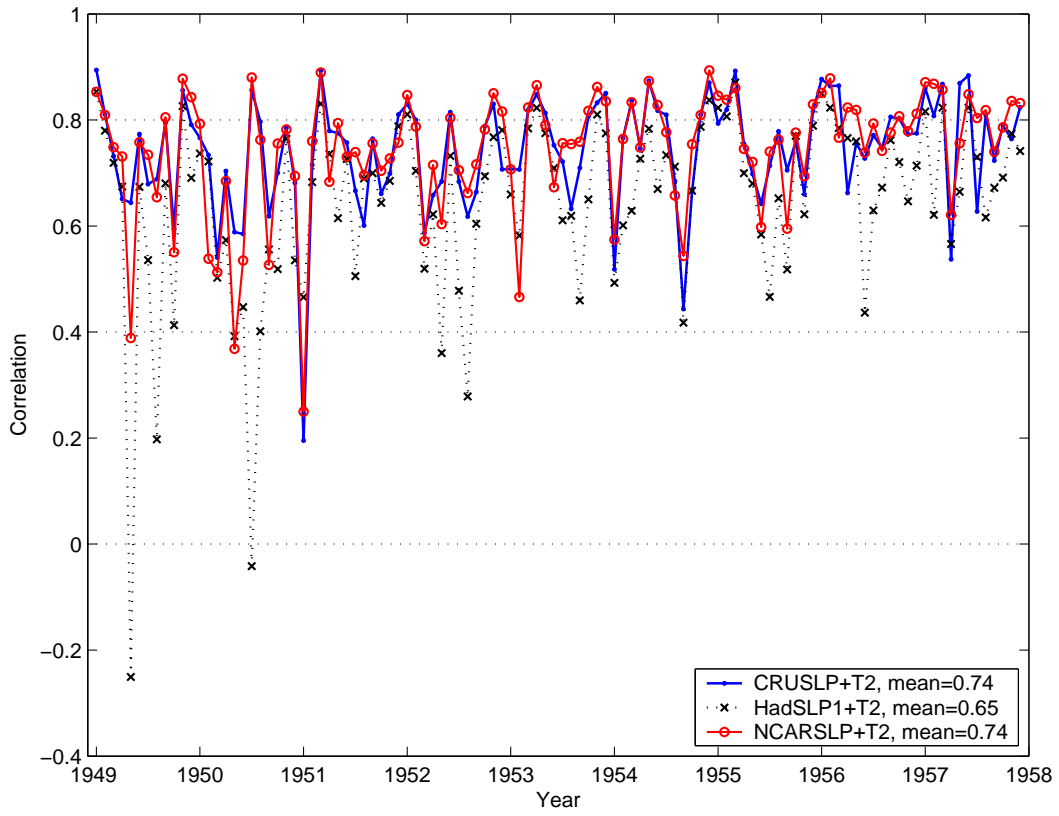


Figure 8: Spatial correlation coefficients between the computed 500 hPa height anomalies and NCEP/NCAR reanalysis height anomalies over northern hemisphere. Three cases are plotted together for comparison.

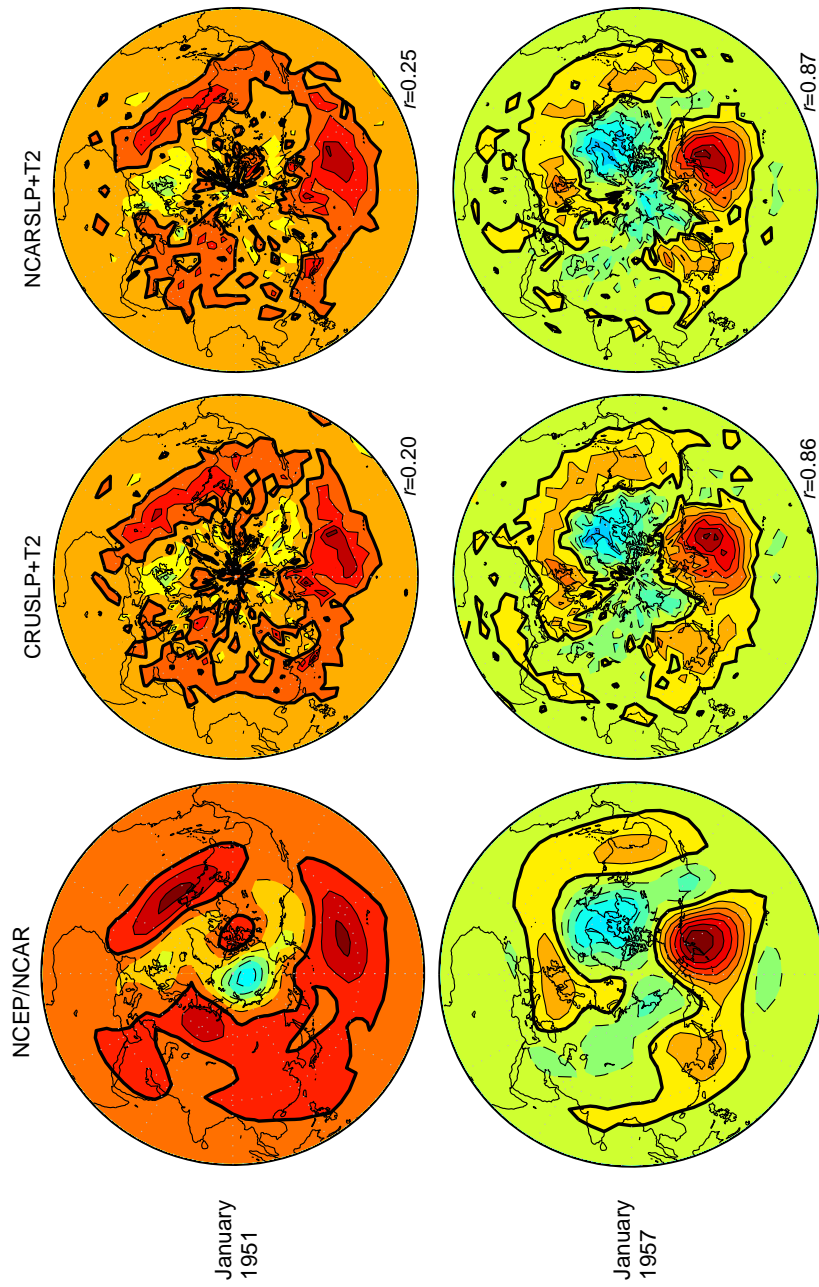


Figure 9: Reconstructed 500hPa height anomalies from CRUSLP+T2 and NCARSLP+T2 experiments for January 1951 and January 1957. Compared with NCEP/NCAR reanalysis 500hPa height anomalies. Spatial correlation with NCEP/NCAR are shown too. Zero contours are shown in bold, positive contours are shown in solid lines, and negative contours are in dashed lines. Contour intervals: 40m.

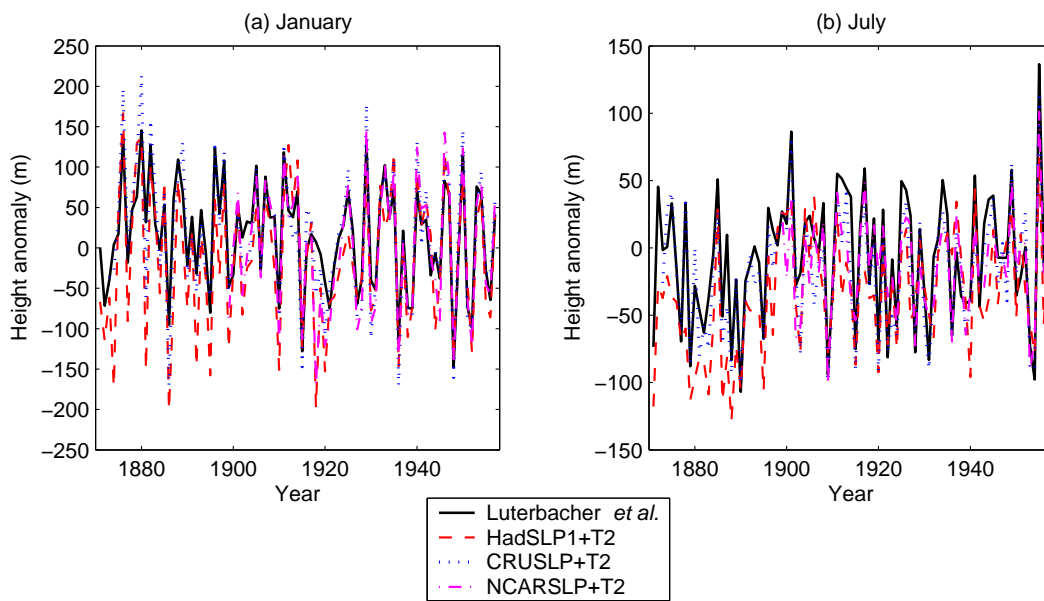


Figure 10: Time series of the reconstructed 500hPa height anomalies at a grid ( $0^{\circ}\text{E}$ ,  $60^{\circ}\text{N}$ ) for (a) January and (b) July.

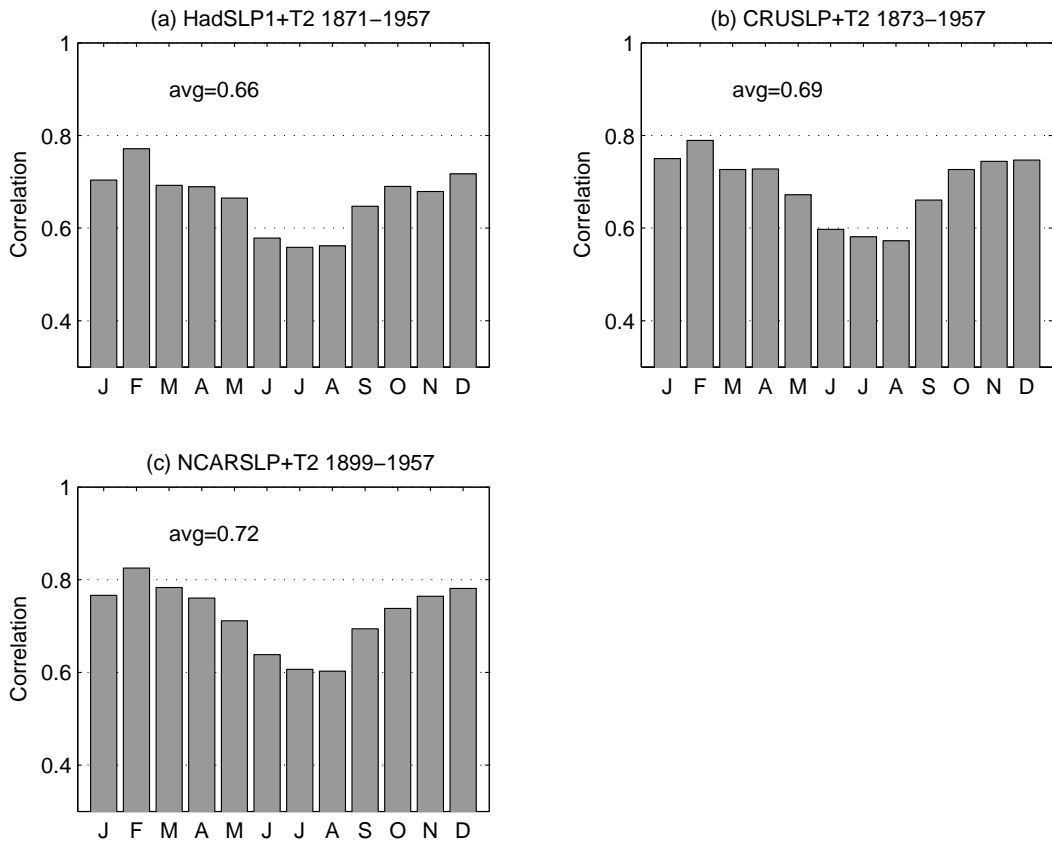


Figure 11: Temporal correlation coefficients between Luterbacher et al.(2002) results and the three reconstructions, shown as the regional means averaged over Europe and eastern Atlantic (30°W-40°E, 70°N-30°N).



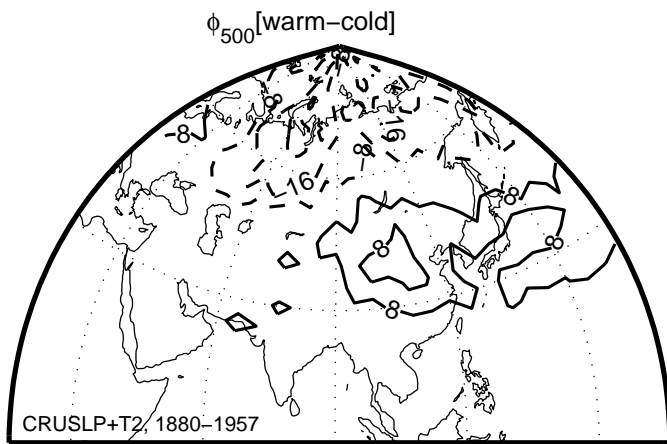


Figure 12: Composite map of December-February 500hPa heights using CRUSLP+T2 reconstruction with respect to the winter temperature extremes in East China. Warmest three winters (1934/35, 1945/46, 1948/49) minus coldest five years (1884/85, 1892/93, 1935/36, 1944/45, 1956/57). Unit: m.

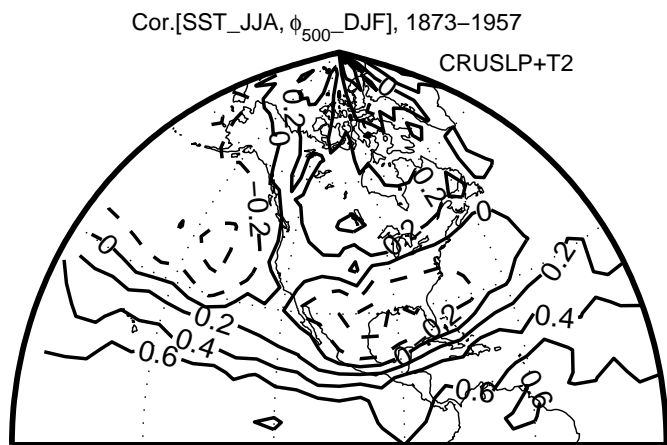


Figure 13: Correlation of June-August Niño3 SST with December-February 500hPa height of CRUSLP+T2 reconstruction. Data period is 1873-1957. SST leads height by 6 months.