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Contrasting impacts of two types of El Niño events on winter haze days in China's Jing-Jin-Ji region

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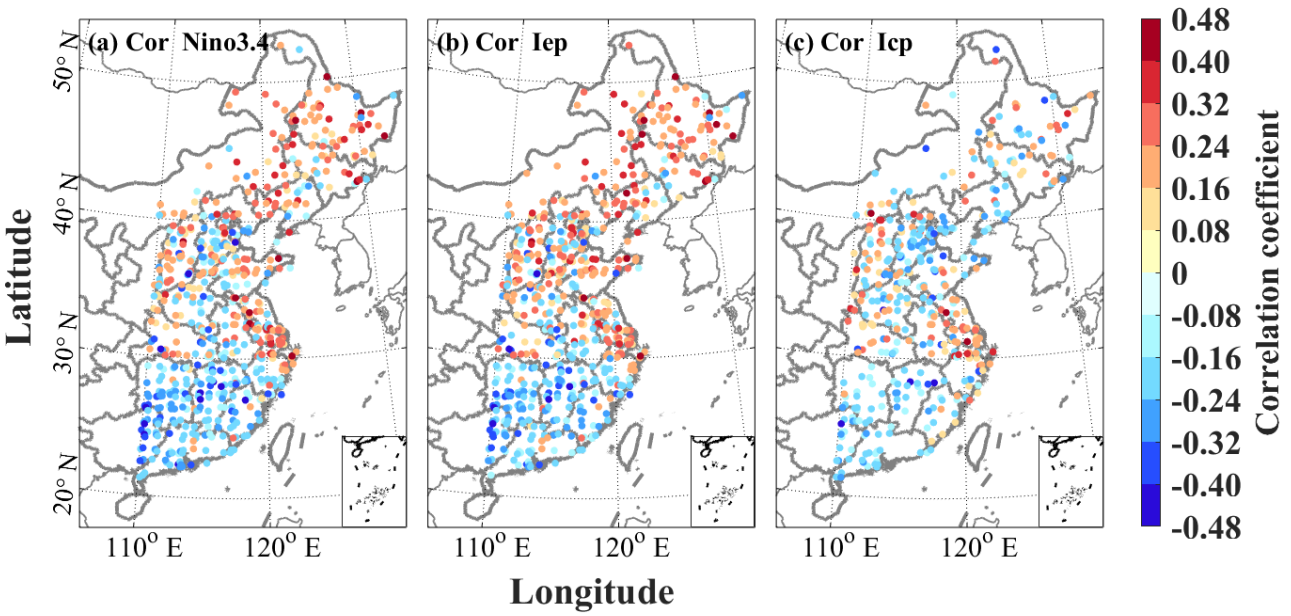

Figure S1: Correlation coefficients between the time series of site-observed winter haze days in eastern China (east of 110°E) and (a) INino3.4, (b) Iep, and (c) Icp indices. The correlations at these sites are significant at 90% confidence level.

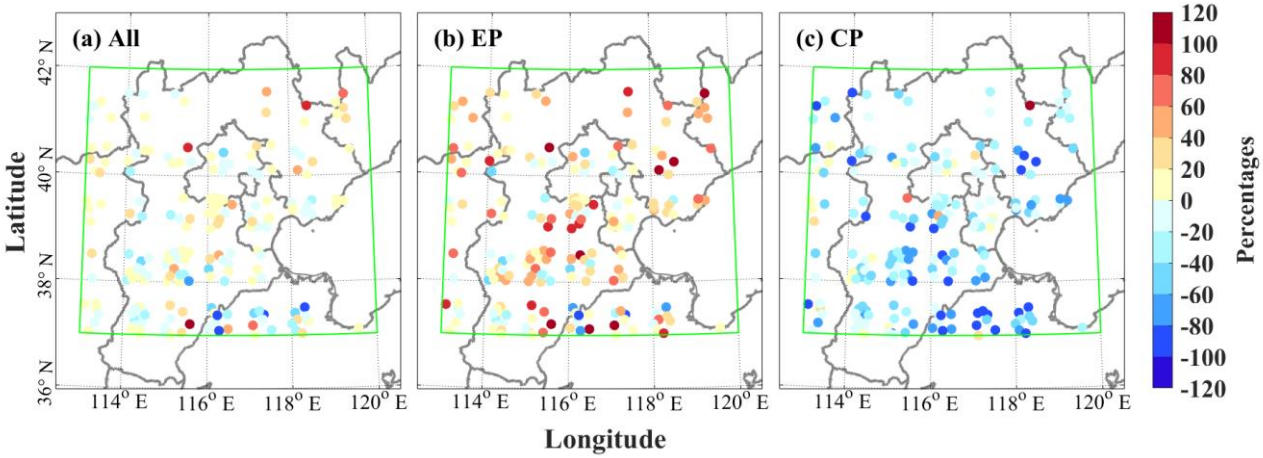

Figure S2: Percentages of winter haze days anomalies at all sites over JJJ region in (a) all El Niño, (b) EP El Niño, and (c) CP El Niño years, respectively, relative to the 1961-2013 mean winter haze days (unit: %). The green box represents the domain of JJJ region (37–42°N, 113–120°E) in this study.

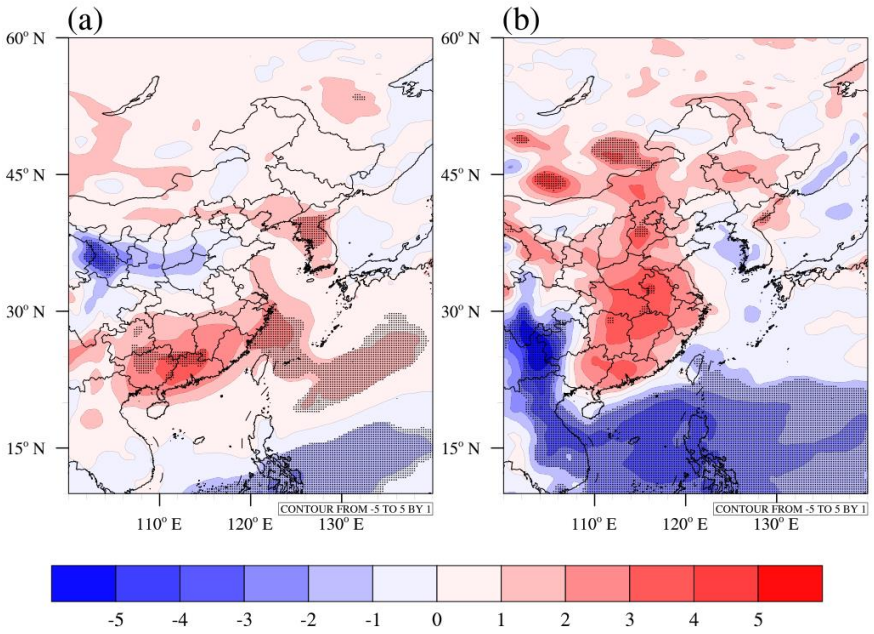

Figure S3: Winter mean changes in relative humidity averaged from 1000 hPa to 850 hPa (unit: %) in responses to (a) EP and (b) CP El Niño, respectively, relative to the 1961-2013 climatological means. The dots indicate significance at ≥ 90% confidence level from the t test.

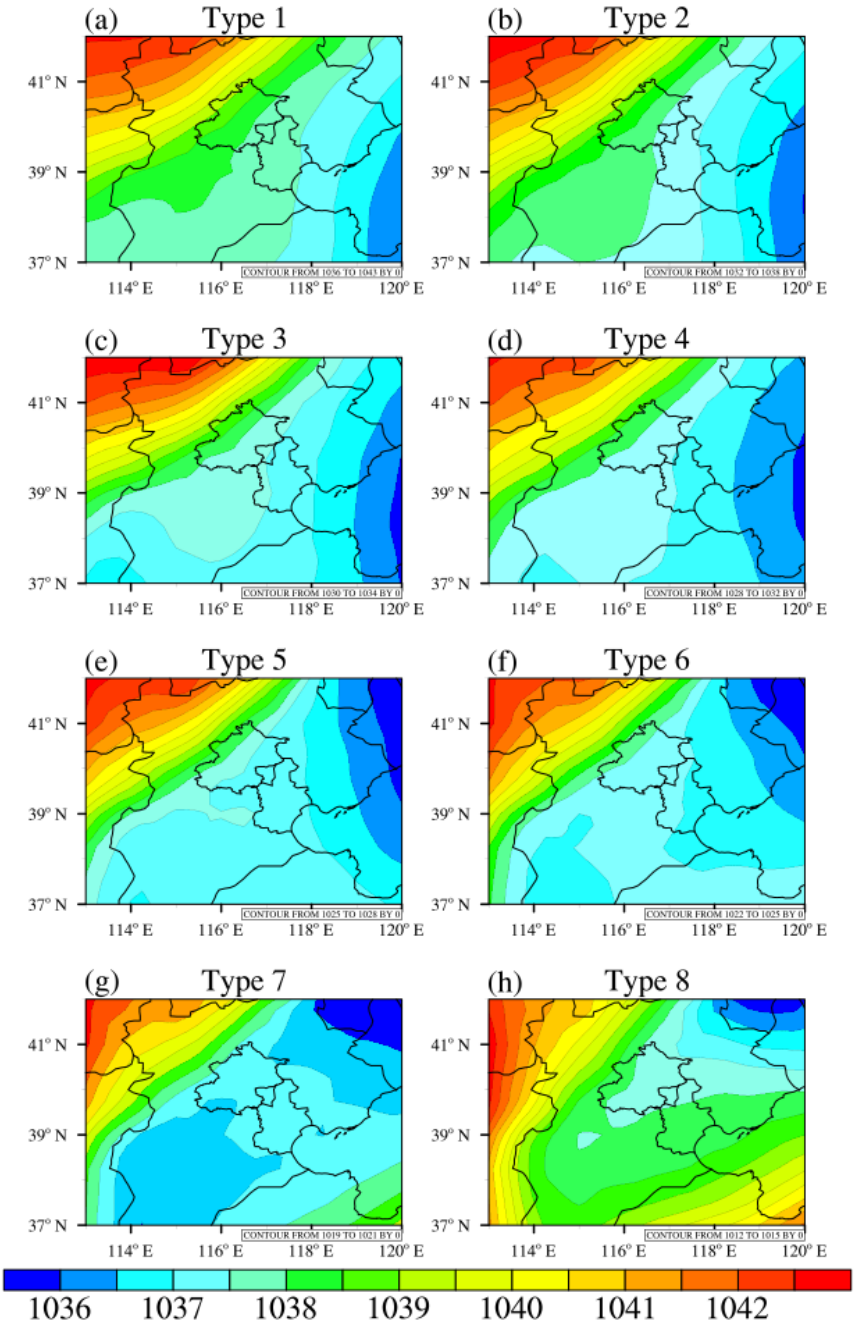

Figure S4: Climatological distributions of SLP (unit: hPa) over JJJ region in winter for eight circulation types. Thank Dr. Yongjie Huang (Institute of Atmospheric Physics, Chinese Academy of Sciences, IAP/CAS) for providing map database (https://coding.net/u/huangynj/p/NCL-Chinamap/git).

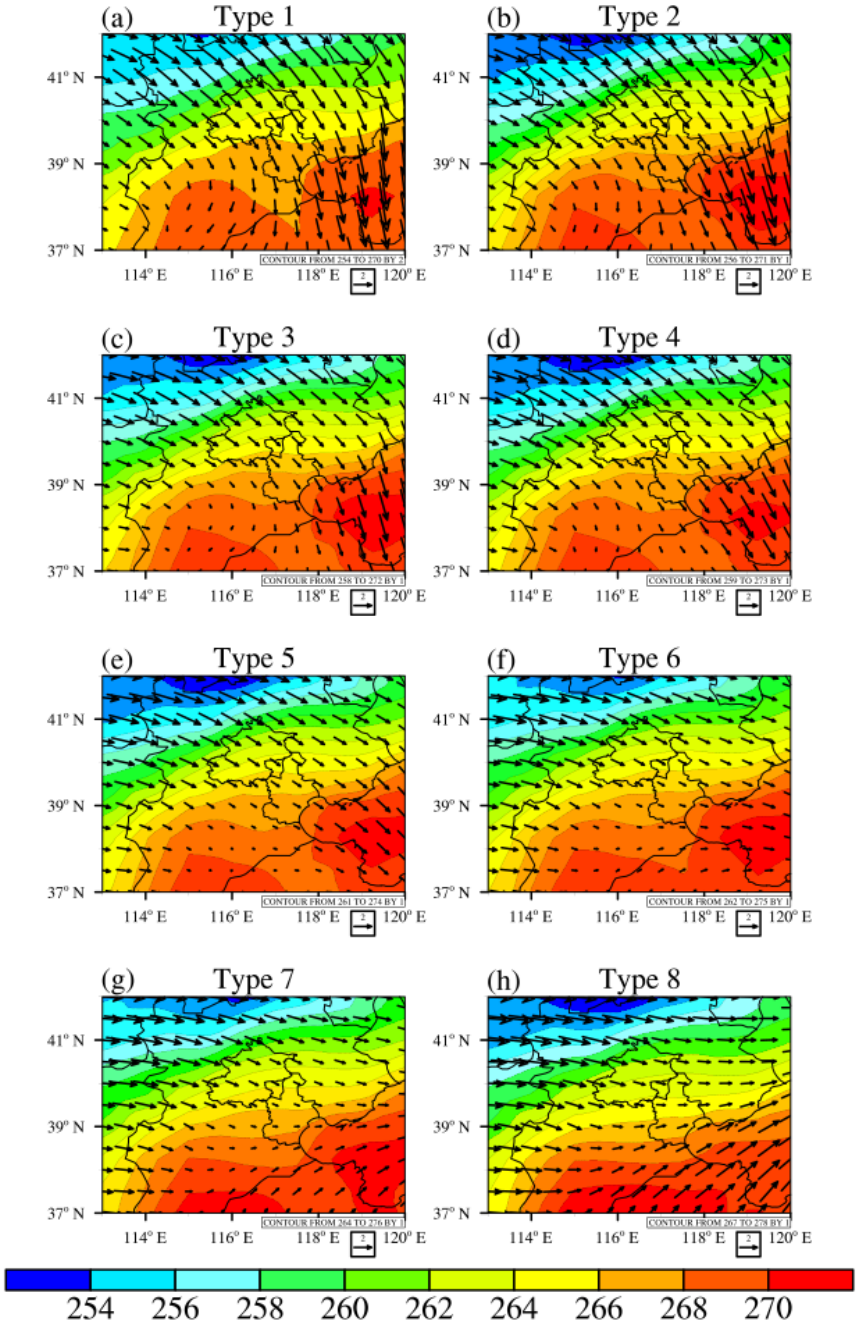

Figure S5: Climatological distributions of temperature at 2 m (contours, unit: K) and wind at 10 m (arrows, unit: m s^{-1}) over JJJ region in winter for eight circulation types. Thank Dr. Yongjie Huang (Institute of Atmospheric Physics, Chinese Academy of Sciences, IAP/CAS) for providing map database (https://coding.net/u/huangynj/p/NCL-Chinamap/git).