

EGU2020-12374

<https://doi.org/10.5194/egusphere-egu2020-12374>

EGU General Assembly 2020

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## Combined Effects of Synoptic-Scale Teleconnection Patterns on Summer Precipitation in Southern China

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Using ERA-Interim daily reanalysis and precipitation data, the combined effects of East Asia-Pacific (EAP) and Silk Road (SR) teleconnection patterns on summer precipitation in southern China were investigated on synoptic to sub-monthly timescales. Combined EAP and SR patterns lead to more persistent and extreme precipitation in the Yangtze River Valley (YRV) and exhibit an obvious zonal advance between the South Asia High (SAH) and Western Pacific Subtropical High (WPSH) prior to its onset. During typical combined events, an overlap between the SAH and WPSH remains in a favorable position for Persistent Extreme Precipitation (PEP). Furthermore, SR-induced acceleration of the westerly jet stream and extra positive vorticity advection provide persistent upper-level divergence for YRV precipitation. An anomalous EAP-related cyclone/anticyclone pair over East Asia induces enhanced low-level southwesterlies to the northern anticyclone flank and northerlies from the mid-latitudes, advecting anomalously abundant moisture toward the YRV, resulting in clear moisture convergence. Moreover, the strong ascent of warmer/moister air along a quasi-stationary front may be crucial for PEP. During decay, the SAH and WPSH diverge from each other and retreat to their normal positions, and the strong ascent of warmer/moister air rapidly weakens to dissipation, terminating PEP in the YRV.