Interactive comment on "The precipitation variability of wet and dry season at the interannual and interdecadal scales over eastern China (1901–2016): The impacts of the Pacific Ocean" *by* Tao Gao et al.

Anonymous Referee #1

Received and published: 14 April 2020

This paper attempted to investigate the variability of precipitation in China using a long-term dataset and integrating multiple statistical methods such as PCA/EOF, wavelet analysis, and Bayesian dynamical linear model. However, the results presented in this paper are very well understood in the literature, and the impacts of ENSO and PDO have been studied extensively in existing studies (the authors also introduce some of them in their introduction section). The authors should have done a thorough investigation of the research gap, and the novelty of their current paper should be clearly stated. It seems that the authors thought utilizing April–September as the wet half year

(wet season) and October–March as the wet half-year is novel. That is not convincing.

Some similar studies are as follows (there are much more than that):

Ouyang, R., Liu, W., Fu, G., Liu, C., Hu, L., & Wang, H. (2014). Linkages between ENSO/PDO signals and precipitation, streamflow in China during the last 100 years. Hydrol. Earth Syst. Sci, 18(9), 3651-3661.

Yang, Q., Ma, Z., & Xu, B. (2017). Modulation of monthly precipitation patterns over East China by the Pacific Decadal Oscillation. Climatic change, 144(3), 405-417.

Yang, Q., Ma, Z., Fan, X., Yang, Z. L., Xu, Z., & Wu, P. (2017). Decadal modulation of precipitation patterns over eastern China by sea surface temperature anomalies. Journal of Climate, 30(17), 7017-7033.

Xiao, M., Zhang, Q., & Singh, V. P. (2015). Influences of ENSO, NAO, IOD and PDO on seasonal precipitation regimes in the Yangtze River basin, China. International Journal of Climatology, 35(12), 3556-3567.

———————————————

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2020-102, 2020.