

Supplementary material

Quantifying the impacts of the Three Gorges Dam on the spatial-temporal water level dynamics in the Yangtze River estuary

Huayang Cai^{1,2}, Hao Yang^{1, 2}, Pascal Matte³, Haidong Pan⁴, Zhan Hu⁵, Tongtiegang Zhao⁶, and Guangliang Liu⁷

¹Institute of Estuarine and Coastal Research/State and Local Joint Engineering Laboratory of Estuarine Hydraulic Technology, School of Marine Engineering and Technology, Sun Yat-sen University, Guangzhou, 510275, China

²Guangdong Provincial Engineering Research Center of Coasts, Islands and Reefs/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai), Zhuhai, 519082, China

³Meteorological Research Division, Environment and Climate Change Canada, Quebec, QC G1J 0C3, Canada

⁴First Institute of Oceanography, and Key Laboratory of Marine Science and Numerical Modeling, Ministry of Natural Resources, Qingdao, 266061, China

⁵School of Marine Sciences, Sun Yat-sen University, Zhuhai, 519082, China

⁶School of Civil Engineering, Sun Yat-sen University, Zhuhai, 519082, China

⁷Shandong Provincial Key Laboratory of Computer Networks, Qilu University of Technology (Shandong Academy of Sciences), Jinan, 250353, China

Correspondence: Guangliang Liu (guangliangliu@163.com)

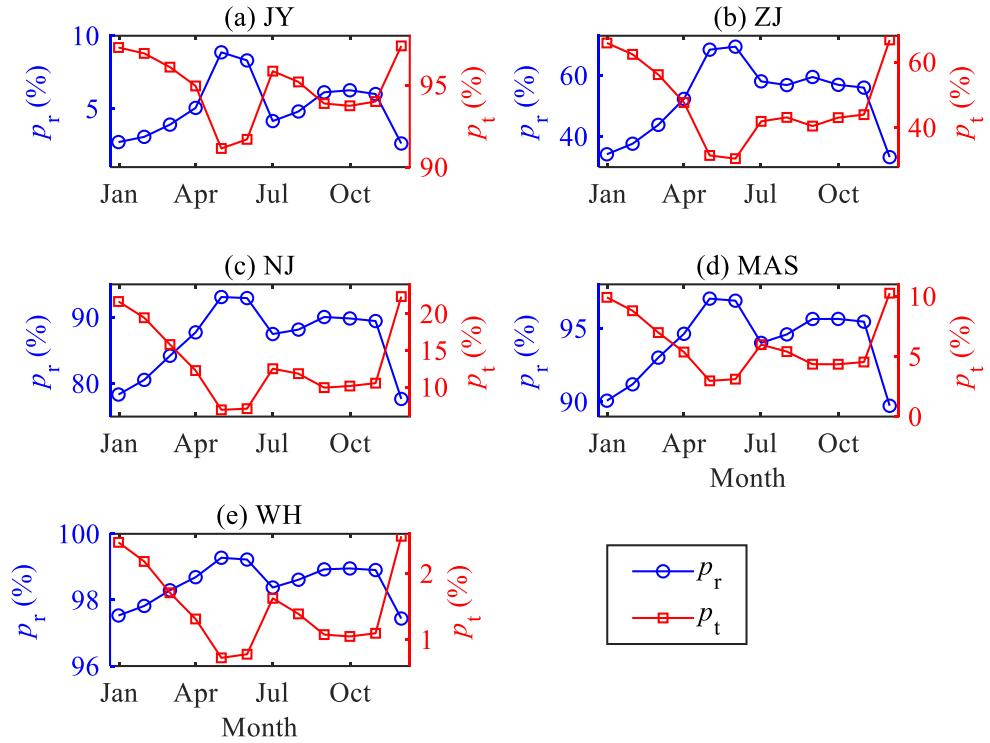


Figure S1. Variance contributions induced by the riverine Δp_r and tidal Δp_t forcing at different gauging stations along the Yangtze River estuary during the pre-TGD period.

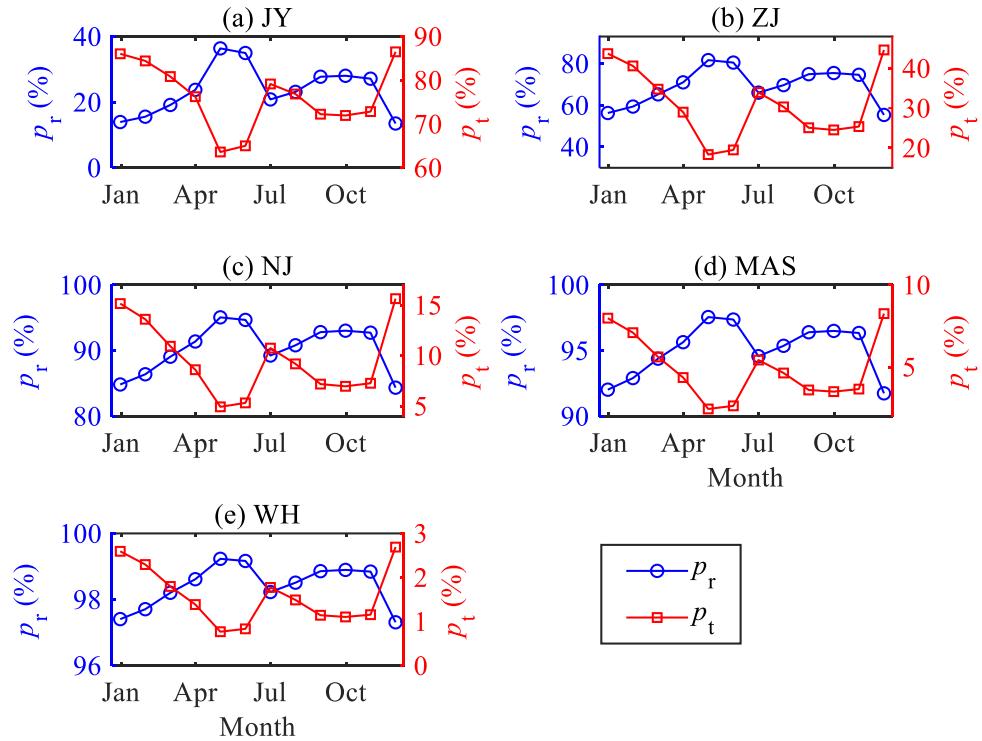


Figure S2. Variance contributions induced by the riverine Δp_r and tidal Δp_t forcing at different gauging stations along the Yangtze River estuary during the post-TGD period.