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Seasonal behaviour of tidal damping and residual water level slope in the Yangtze River estuary: identifying the critical position and river discharge for maximum tidal damping

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Introduction

Figures S1-S3 show the seasonal behavior of the velocity number μ, the celerity number λ and the phase lag ε under a wide range of tidal and riverine forcing conditions in the Yangtze River estuary.

Figure S4 shows the seasonal behavior of the three components (S_t , S_r , S_{tr}) that contribute to the development of the residual water level slope S.

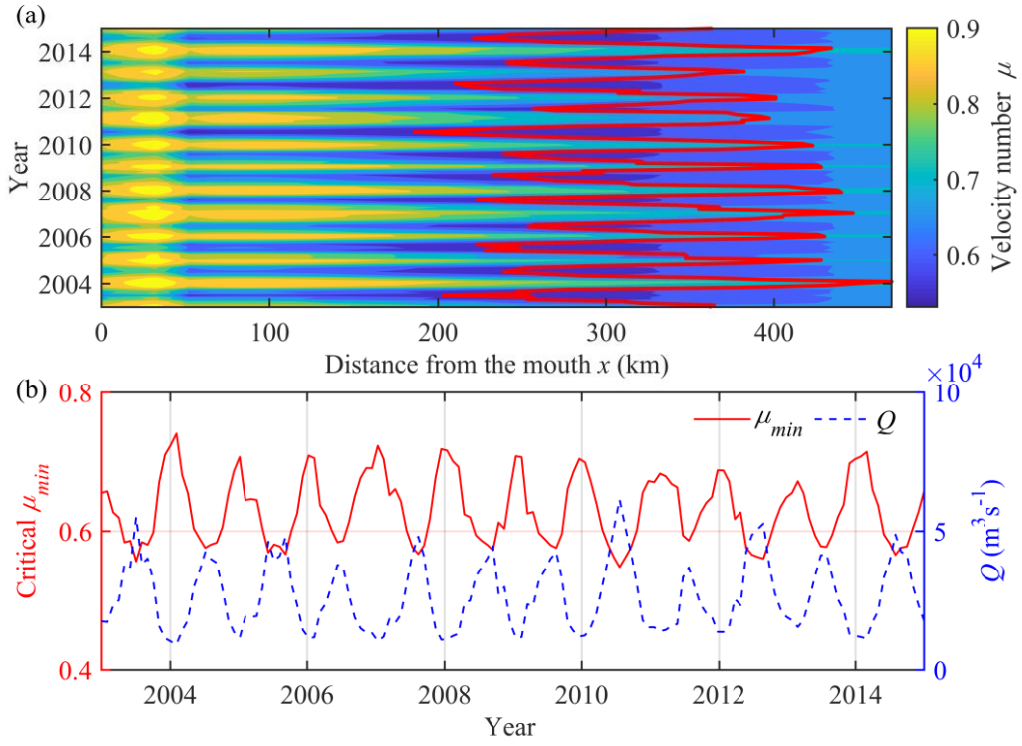

Figure S1. Contour plot of the velocity number μ together with its minimum value μ_{min} (indicated by the red line) for each month (a) and the relation between the critical value and the river discharge Q (b).

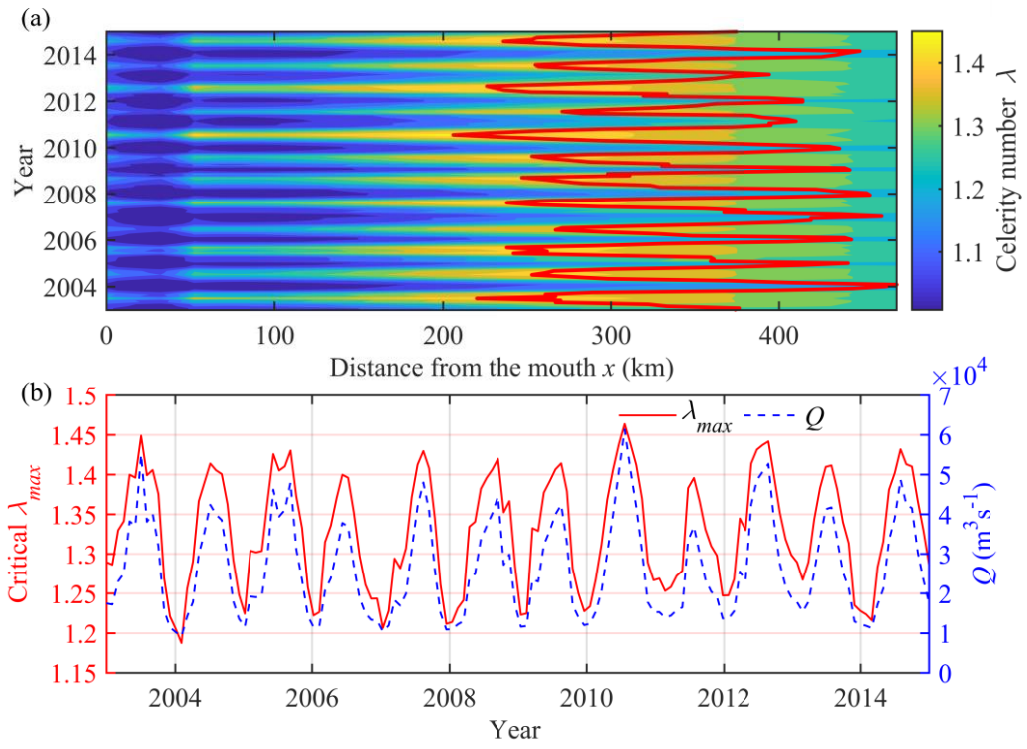

Figure S2. Contour plot of the celerity number λ together with its maximum value λ_{max} (indicated by the red line) for each month (a) and the relation between the critical value and the river discharge Q (b).

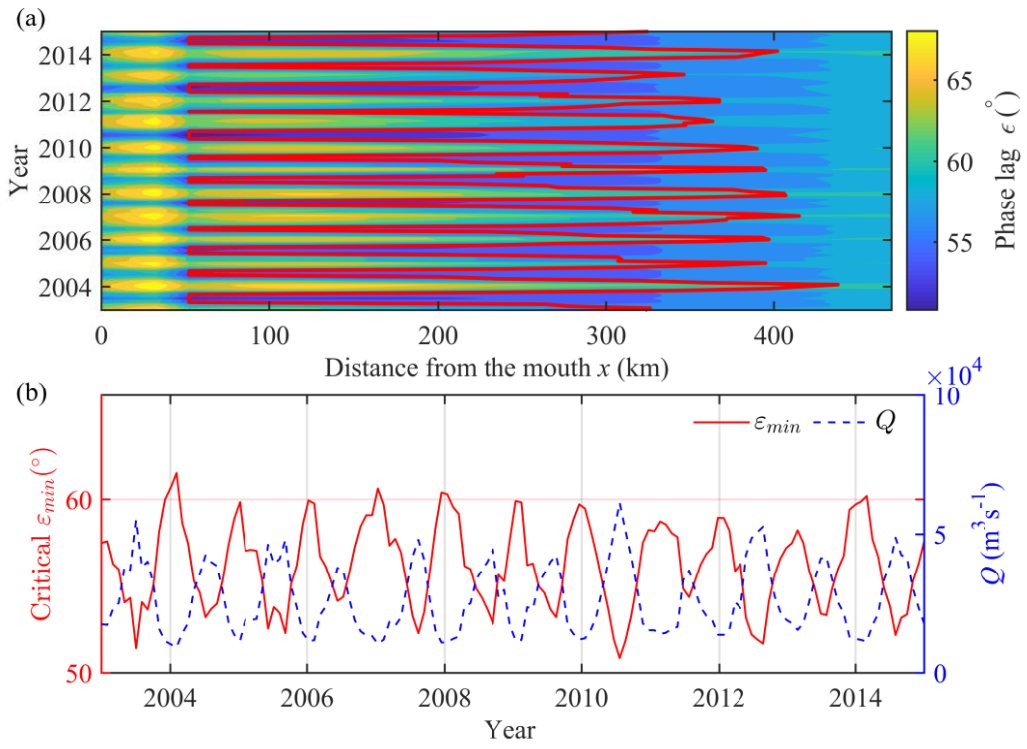

Figure S3. Contour plot of the phase lag ε together with its minimum value ε_{min} (indicated by the red line) for each month (a) and the relation between the critical value and the river discharge Q (b).

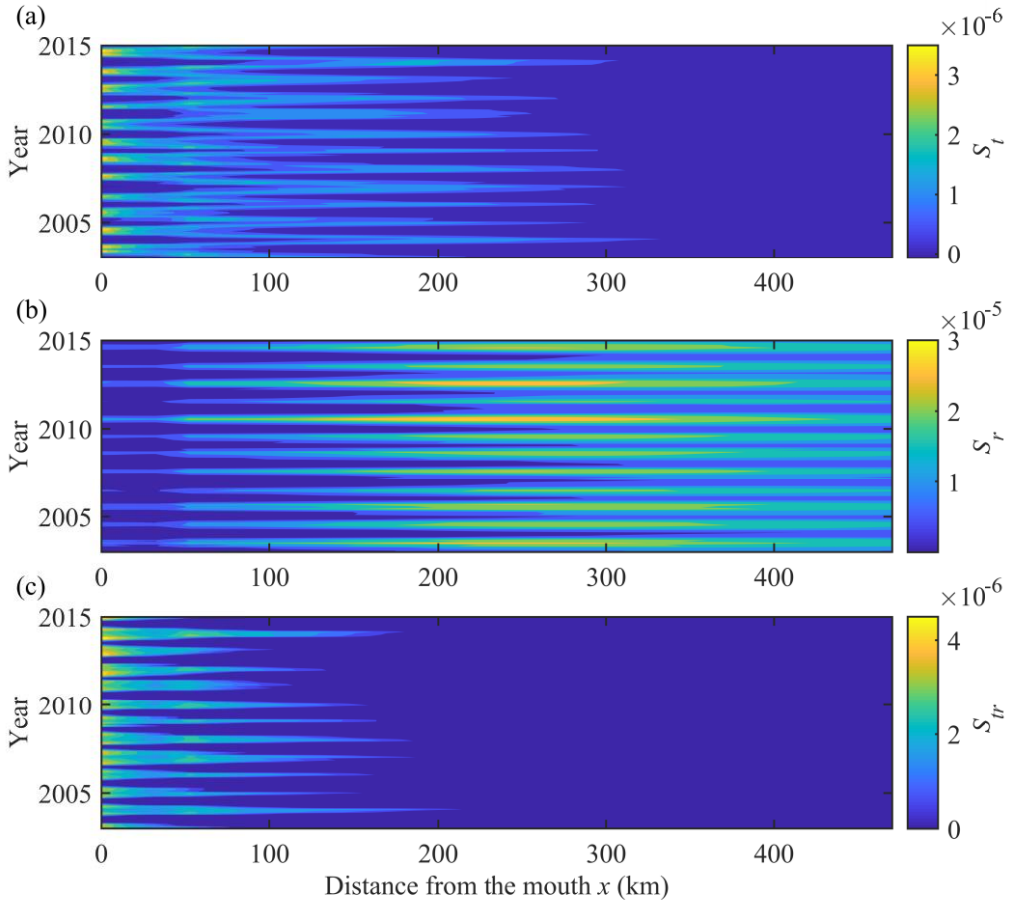

Figure S4. Contour plot of the three contributions made to the residual water level slope: tidal component S_t (a), riverine component S_r (b), tide-river interaction component S_{tr} (c).