# Supplementary Materials for <br> Is the tropical cyclone surge in Shanghai more sensitive to landfall location or intensity change? 

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1. Table S1
2. Figure S1-S2

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TABLE S1 List of experiments. The latitude difference is relative to the latitude of the city centre of Shanghai $\left(31.2^{\circ} \mathrm{N}\right)$. Negative values represent landfalls to the south of Shanghai centre, and vice versa.

| Name | Latitude $\left({ }^{\circ} \mathrm{N}\right)$ | $\mathrm{SST}\left({ }^{\circ} \mathrm{C}\right)$ |
| :---: | :---: | :---: |
| CTRL_N2 | +0.9 | 27 |
| CTRL_N1 | +0.3 | 27 |
| CTRL_0 | -0.5 | 27 |
| CTRL_S1 | -1.2 | 27 |
| CTRL_S2 | -1.8 | 27 |
| CTRL_S3 | -2.7 | 27 |
| SST1_N2 | +0.9 | 28 |
| SST1_N1 | +0.3 | 28 |
| SST1_0 | -0.5 | 28 |
| SST1_S1 | -1.2 | 28 |
| SST1_S2 | -1.8 | 28 |
| SST1_S3 | -2.7 | 28 |
| SST2_N2 | +0.9 | 29 |
| SST2_N1 | +0.3 | 29 |
| SST2_0 | -0.5 | 29 |
| SST2_S1 | -1.2 | 29 |
| SST2_S2 | -1.8 | 29 |
| SST2_S3 | -2.7 | 29 |



FIGURE S1 Map of Shanghai.


FIGURES2 As Figure 1b, but for the radius of (a) maximum wind and (b) gale-force wind ( $18 \mathrm{~ms}^{-1}$ ) calculated from the azimuthally averaged wind profile.


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