

This study applied numerical simulation model to resolved tides and typhoon induced storm surge, waves in Dongsha fishery port, Zhejiang Province, China, the methodology can be used to acquire valuable information on the resilience of fishery ports to typhoons.

**Response:**

Thanks for your comments. We really appreciate your kind help in reviewing the manuscript. Detailed point-by-point responses are presented as below according to your comments.

Some technical problems are:

- In model verification part, (1) several validation stations are applied, please mark these stations on the map, and list the location (longitude and latitude) in a table, explain the deviations of simulated results in detail. (2) What kind of driven winds are used to drive the model, only typhoon wind? (3) How about the boundary tidal elevation and storm surge elevation?

**Response:**

(1) In model verification part, the validation stations applied will be marked on map, and the location (longitude and latitude) will be listed in a table. For the deviations of simulated results, modeling results very close to the observed data are very difficult to achieve, as the wind, rain, current, and wave interactions are complex during a typhoon. Therefore when the average deviations are not bigger than 25% and the trends of simulated results are similar to the observed results, further steps can be taken to forecast the effects of storm surges and waves.

(2) The driven winds were comprised of typhoon wind and background wind field.

(3) The boundary tidal elevation and storm surge elevation were the measured data from ocean stations.

- 2 hourly tide interactions with storm surge seems not enough, under a semidiurnal tidal situations, 1 hourly should be more accurate.

**Response:**

We agree that the tide-surge interactions will be more accurate with higher time accuracy. However, considering the amount of computation and computing power, we picked the 2 hourly tide interactions which was enough to reflect the tide-surge interactions in this study case.

- In 3.1 Seawall section, please give the details of model setting of storm wave simulation.

**Response:**

The details of model setting of storm wave simulation will be given.

- In 3.2 Berth waters section, please present methodology of how to calculate the force at the 23 feature points in the fishery port.

**Response:**

In the 2.3.4 section, there is the methodology of how to calculate the force at the 23 feature points in the fishery port.

Some minor problems:

- In line 299, what does “Considering the long period force on fishing boats” mean? Which content in the text show the long period?

**Response:**

In general, the wind and current are longer period force on fishing boats than the wave. So “the long period force on fishing boats” here refers to the forces generated by wind and current.

- In line 315, saying of “The water elevation was the height of the storm surge adding to  $1/2 H_s$ ” is not reasonable.

**Response:**

This saying may be not inappropriate. Because the interactions of storm surge and wave are complicated. This is just a simple and convenient method to calculate the water elevation when the interactions are not figured out.

- Line 97, MIKE21 is not software.

**Response:**

The word “software” will be deleted.

- Please show the model mesh of Dongsha fishery port zone.

**Response:**

The paper will show the model mesh of Dongsha fishery port zone.