

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC1
<https://doi.org/10.5194/nhess-2021-82-RC1>, 2021
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Comment on nhess-2021-82

Anonymous Referee #1

Referee comment on "Evaluation of the resilience of fishery ports to typhoons: a case study on Dongsha fishery port" by Yachao Zhang et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2021-82-RC1>, 2021

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

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?
- 2 hourly tide interactions with storm surge seems not enough, under a semidiurnal tidal situations, 1 hourly should be more accurate.
- In 3.1 Seawall section, please give the details of model setting of storm wave simulation.
- In 3.2 Berth waters section, please present 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?
- In line 315, saying of "The water elevation was the height of the storm surge adding to $1/2 H_s$ " is not reasonable.
- Line 97, MIKE21 is not software.

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