**Future Work Ideas**

* Domain space exploration continued:
  + 7 variables: primary and secondary significant wave height, period, sea heading, and ship speed.
  + Do big experiment, say 1000 training records, 200 validation, and 200 test records.
    - All randomized parameters.
      * Randomly choose SS5, SS6, SS7, SS8 for primary; randomly choose primary wave height and period within the range of selected sea state.
      * Same for secondary, but smaller wave heights.
      * Totally random angles for both sea headings
      * Random ship speed in some range.
    - Goal: <1 degree on roll and <0.1 degree on pitch (for the single significant amplitude).
    - If the big experiment doesn’t work, then divide the total design space/domain space into smaller chunks. The idea being, if 1 LSTM can’t handle the entire space by itself, maybe we can have a group of LSTM’s each handling a smaller subspace.
* Experiment with different input methods:
  + Wave grid.
* Slamming & Whipping
  + These are infrequent phenomena which can dramatically affect the vertical bending moment (VBM) at certain peak motions.
  + If LSTM cannot handle it, then explore other methods
    - Could include an augmenting LSTM, which would only become active in certain conditions (excessive motion)
* (From Vladas) Explore simple linear regression on SC🡪LAMP, including lag time.