The experiments are grouped as follows (Table 2): 1. The first set of experiments represents a suite of ocean mixing experiments (Grosfeld et al., 2016) where we have compared the effects of model resolution on ice shelf boundary layer processes. This set of experiments has been designed to investigate the effects of varying model resolution on ice shelf boundary layer processes. The second set of experiments examines spreading the melt and salt variability over the top 20 m of water column and further KHP mixing. The third set of experiments focuses on the effects of varying melt rates, which are modeled as a function of time. Both strategies of meltwater mixing are in agreement with the results of the previous studies, but there are some differences in the exact values of melt rates obtained by these studies. For example, in the study by Grosfeld et al. (2016), the melt rates were obtained using the model resolution of 120 m, whereas in the study by Grosfeld et al. (2016), the melt rates were obtained using the model resolution of 60 m. These differences are likely due to the differences in the model resolution used in these studies.

Ocean mixing experiments (Grosfeld et al., 2016) show that larger micromelt rates, such as colder and fresher water, are less likely to be found near the ice shelf boundary, but in the deeper layer, they are more likely to be found. Ocean mixing experiments do not produce a mixed layer near the ice shelf boundary, but they do make the mixed layer deeper and extend further into the ocean. Both strategies of mixing are in agreement with the results of the previous studies, but there are some differences in the exact values of melt rates obtained by these studies. For example, in the study by Grosfeld et al. (2016), the melt rates were obtained using the model resolution of 120 m, whereas in the study by Grosfeld et al. (2016), the melt rates were obtained using the model resolution of 60 m. These differences are likely due to the differences in the model resolution used in these studies.

The experiments in this study were performed using the H-scored model, which has been shown to be very effective in simulating the ocean-meltwater interactions at the ice shelf boundary. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other models. The H-scored model has been shown to be able to predict the ocean-meltwater interactions at the ice shelf boundary more accurately than other model...