HBM Code Modernization - Current Status with a Focus on the Intel Xeon Phi Architecture
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HBM, the HIROMB-BOOS Model, is an ocean circulation model code that is developed and applied at DMI in different setups from operational forecast model for the official Danish stormsurge warning system to research projects such as climate and bio-geo-chemical modeling on Pan-European scale. The model code is being developed for present and future architectures, and therefore has matured support for shared and distributed memory systems.

The Intel Xeon Phi co-processor was used as one of the target processors in a recent performance overhaul of the source code and we would like to share the general findings that emerged from this experiment.