Test s00c2

In this test setup, a twin experiment with a simple rectangular model is used. As the truth, the model is forced with simple open boundary conditions (Hsig = 5m, Tm01=20s), which are constant in space and time. To generate synthetic observations for the EnKF, the true model is run for two days and the Hsig output data are recorded hourly at six locations.

For the EnKF run, as the underlying model, we use the same model as above, but at the open boundary the parameter Hsig is set to 1 m instead of 5 m. In this way, the output of this model will deviate from the truth. We use an EnKF with 30 members to assimilate the synthetic observation of Hsig at all the six locations to correct the open boundary and the model state to reproduce the true output. Here, the EnKF is run only on the second day.

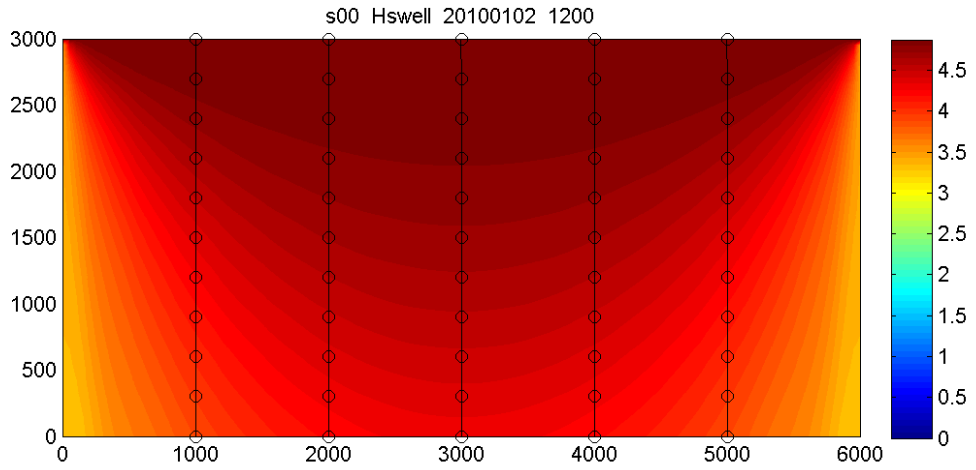

Figure 1. Sample results from run s00 (map of Swell wave height after 36h).

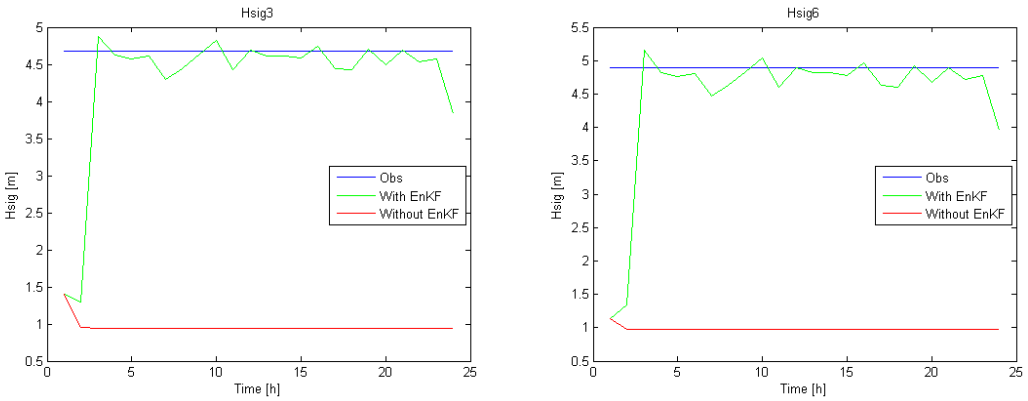

Figure 2. Sample of experiment results: Hsig at locations 3 and 6.