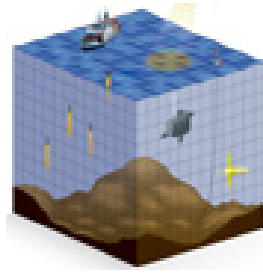


Joint ECMWF/OceanPredict workshop on Advances in Ocean Data Assimilation



Contribution ID: 63

Type: **Poster presentation**

Controlling Lateral Boundary Conditions of a Regional Ocean Model by an Approximate Kalman Filter

Satellite altimeter data have been assimilated into ocean models aiming at a better estimation of the current and past ocean state and thus leading more accurate predictions. In this study, we attempt to develop a regional and short-term ocean forecasting system, where the lateral boundary conditions are modified by assimilation of satellite sea surface height data by an approximate Kalman filter. Traditionally, the system error (process noise) has been basically attributed to the surface meteorological conditions. However, the assimilation impacts decay rapidly to depths and can not propagate into deep layers. The lateral boundary conditions assimilation proposed in this study extends the effective persistency of data assimilation temporally and spatially. We hope this forecasting system can provide a swift and accurate prediction of background fields at all levels to fishery, ocean power, and so on.

Which theme does your abstract refer to?

Development and assessment of data assimilation in forecasting applications (global and regional)

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Session Classification: Poster session 2

Track Classification: Development and assessment of data assimilation in forecasting applications