

Data assimilation into high-dimensional ocean models: results from an EnKF reanalysis.

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The Ensemble Kalman Filter (EnKF) has been first introduced in the early 90's as a more stable alternative to the Extended Kalman Filter for assimilation into non-linear dynamical systems in oceanography. It has since then proved efficient in the difficult case of coupled ice-ocean systems and also promising for the chaotic marine ecosystem models with non-Gaussian distributed variables. The presentation will give an overview of the development and applications of the EnKF to the TOPAZ ocean forecasting and reanalysis system, with several millions of parameters in the state vector.