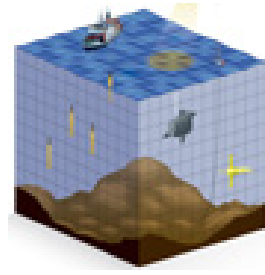


Joint ECMWF/OceanPredict workshop on Advances in Ocean Data Assimilation



Contribution ID: 58

Type: **Oral presentation**

Invited talk: The Joint Effort for Data assimilation Integration

Tuesday, 18 May 2021 15:30 (30 minutes)

The long term objective of the Joint Effort for Data assimilation Integration (JEDI) is to provide a unified data assimilation framework for research and operational use, for different components of the Earth system including coupled systems, and for different applications, with the objective of reducing or avoiding redundant work within the community and increasing efficiency of research and of the transition from development teams to operations.

In a well-designed software system, teams can develop different aspects in parallel without interfering with other teams work and without breaking the components they are not working on. Scientists can be more efficient focusing on their area of expertise without having to understand all aspects of the system. JEDI fully implements this separation of concerns. The concept of models is clearly separated from the observation handling with clear interfaces. The data assimilation algorithms are themselves separated from the model space and observation space components. Generic code is used wherever possible to further reduce duplication of effort. This includes generic observation quality control, bias correction and observation operators on the observation side, as well as generic background error covariance matrices.

In this talk, an overview of the system and the current status of the implementation for several Earth-system components, with an emphasis on marine components, will be presented. Since JEDI can handle data assimilation for all major components of the Earth-system in a generic manner, generic coupled data assimilation can be explored. Initial steps in this direction will be discussed.

Which theme does your abstract refer to?

Recent assimilation infrastructure developments (e.g. OOPS, JEDI, future HPCs, etc)

Primary author: TREMOLET, Yannick (JCSDA)

Presenter: TREMOLET, Yannick (JCSDA)

Session Classification: Theme 7: Recent assimilation infrastructure developments

Track Classification: Recent assimilation infrastructure developments