

**National Workshop cum Training on – ‘Data Assimilation for Atmospheric and Ocean models’**

**3-10 October 2012, IITM, Pune, India**

Data assimilation (DA) aims at determining as accurately as possible the state of a dynamical system by combining heterogeneous sources of information in an optimal way. Generally speaking, the mathematical methods of DA describe algorithms for forming optimal combinations of observations of a system, a numerical model that describes its evolution, and appropriate prior information. DA has now become an intensive field of research, with applications in atmospheric science, oceanography and to other geophysical sciences. DA is now a key issue in most numerical forecasting systems in geophysics. During the last two decades, there has been a considerable improvement in the accuracy of weather/climate prediction by numerical modelling. However, the potential skill has not been realized. In recent years, newer technology has led to enhanced quality observations of our Earth System (ocean-ice-land-atmosphere-biosphere). Modern HPC systems and developments in modelling are making it possible to build weather, climate and earth system models and assimilate the enhanced observed data into these models. MoES is implementing 'Monsoon Mission' programme with an aim to improve the prediction capability in various temporal and spatial scales with participation of the entire earth sciences community. Initialization for coupled modelling is an important component of tropical weather/climate simulations. **Dr. Oliver Talagrand, Laboratoire de Météorologie Dynamique, France is a pioneer in this field and he will be conducting a short course on inverse problem, and different data assimilation techniques during 3-10 October 2012 at IITM, Pune.** Limited travel support is available. So it is encouraged that the participants arrange the travel support from their parent institution. IITM will extend the local hospitality to all the outstation participants. **Prior to this short course, Prof. V.K. Gaur, CMMACS, Bangalore, who is an internationally renowned, eminent geophysicist and former Secretary, Dept. of Ocean Development, will be delivering a series of lectures during 29 September to 1 October 2012, on the fundamentals of inverse modelling.**

**Agenda:** Will be made available at IITM website [www.tropmet.res.in](http://www.tropmet.res.in)

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