

Meghívó

A Magyar Meteorológiai Társaság és az MTA MTB Légekördinamikai és
Szinoptikus Meteorológiai Albizottsága

tisztelettel meghívja következő előadóülésére

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Az ensemble előrejelzés alapjai

Az előadás helye:

OMSZ I. emeleti tanácsterem 1.116 (Budapest II. kerület, Kitaibel Pál utca 1)

Az előadás ideje:

április 24 (kedd) délután: 13 00 – 14 30.

Minden érdeklődőt tisztelettel várnak a Szervezők

Ensemble Forecasting Basics

Az *Ensemble előrejelzés alapjai* – előadás magyar nyelven, rövid szakmai áttekintéssel a *Global Systems Division, NOAA/OAR/ESRL* kutatási tevékenységéről és aktuális fejlesztéseiről)

Realistic Numerical Weather Prediction (NWP) models can well simulate the spatiotemporal variability of weather. Hence with initial conditions closely representing nature, NWP models are widely used to predict the future evolution of weather. Predictability, however is limited due to the chaotic amplification of forecast errors. The loss of predictability in NWP forecasts is tied to the spatiotemporal scales of weather phenomena: larger scale features are predictable over progressively longer time periods.

In the late 1950s and 1960s, ensemble forecasting, where a set of NWP integrations are carried out from intentionally degraded initial conditions, was proposed to identify, on a case by case basis the predictable signal in NWP forecasts. Obviously, the best single forecast is made starting from the best estimate of the state of the natural system (i.e., from the unperturbed “control” analysis). The larger scale, predictable features in such a forecast carry useful information about nature, while the phase and amplitude of finer scale features soon lose their connection with the evolution of such features in nature.

Through theoretical considerations and experimental data, this presentation will revisit the basic premise of ensemble forecasting. Does the mean of an ensemble, for example, enhance the information on predictable forecast features, or only filters out the unpredictable, smaller scale phenomena while leaving the predictable information unchanged or possibly slightly degraded? Since ensemble forecasting is a computationally expensive operation, the answer to this question can have profound implications as to the optimal configuration for NWP forecasting.