

Second SRNWP Workshop on Statistical and Dynamical Adaptation

5-7 May 2003, Vienna, Austria

Is statistical adaptation still necessary?

Or as it has been said to the participants: What would you answer to your Director if he would ask you to work now to the improvement of the model and no longer for the adaptation?

Some answers:

- Models are improving but are not yet perfect: it is thus perfectly justified to continue to work to the improvement of the model results.
- We are now asked to make very local weather forecasts. Today's model resolutions cannot take into account very local effects. Thus we must rely on statistical adaptation.
- If you want to correct a weakness in the results of a numerical model, you can do it much more rapidly with a statistical correction than by changing the model formulation.
- Some needed parameters are not computed in the model. Example: visibility. This has to be done in the post-processing.

Assessment of the model results: are we using the right scores?

Is rmse a good score? Maybe, but one thing is sure: it must only be used with other scores. The reason is well known: it rewards smooth, undetailed results (as 2D-fields) and punish the scientist who does work at high resolution or develops schemes prone to handle extreme situations (cf. presentation of Anders Persson).

If rmse is used for the verification of 2D-fields, it must be accompanied by the variance. Thus very smooth fields, which will have low rmse, will be punished with the variance.

It has been said that for point verification (normally an observing station) we use too many scores. After definition of thresholds, "hit rate" and "false alarm rate" should be sufficient.

Probability forecasts

The works presented were based on the ECMWF ensembles of 51 members.

Participants have been asked whether they have remarks about the ECMWF products.

Two remarks have been made:

- 51 members with a good spread are enough. No need is seen for more members (the Centre plans to increase the ensemble to 100 members)
- a colleague thinks that the deterministic high resolution 12 UTC integration should be suppressed and the effort put on an increase of the resolution of the ensemble.

Next meeting

A colleague proposed to hold this workshop annually instead of every two years. But the majority of the participants who

aired their opinion on that point clearly favored a 2-year cycle.

The next meeting will take place in May 2005 in Vienna.

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