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Forecasting the weather
- ensemble techniques
in probabilistic weather prediction

Towards the implementation of a local MOS prediction system.

S. Carreño (1,2), K. Otxoa de Alda (1,2), S. Gaztelumendi (1,2), J. Moreno (1,2), J. Egaña (1,2), I. R Gelpi (1,2)
(1) TECNALIA - Meteo Unit , (2) Basque Meteorology Agency (EUSKALMET)

In this work is continued the presentation of some aspects relating to the implementation of a statistical forecast system for daily punctual parameters for the Basque Country based on a Model Output Statistics (MOS) system.

The statistical method selected, as in the case of previous jobs, is the adjusted-R2 for cuasi-continuous predictands and pseudo-R2 for categorical. The equations set is based on multiple regression, linear and logistic. Different equations for warm and cold season are considered.

The developed system allows MOS-basis forecasts for maximum and minimum temperature, probability of precipitation and 24-h accumulated precipitation for four representative locations in the Basque Country for D, D+1, D+2 and D+3 days. The GFS global model supply forecast data to the system, that consider the best MOS pre-calculated equations for the different selected locations for the warm and cold periods. In this work is showed some results obtained in the system execution experiments for a 9-month period during cold season. Several verification indexes, daily and monthly comparatives for every one of the four considered predictands are presented. Also are showed, comparatives of results coming from different set of equations. Finally, are presented some general conclusions and new features to take into consideration in order to improve the system and possible operational implementation.