Geophysical Research Abstracts, Vol. 7, 05997, 2005
SRef-ID: 1607-7962/gra/EGU05-A-05997

Bias correction methods - adjusting moments

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It is well know that numerical weather prediction models and ensemble formation are imperfect. Systematic errors always remain and cause biases in the 1st, 2nd moments of ensemble distribution. In this study a bias correction method - adjusting moments - is developed and implemented to NCEP's global ensemble forecasts. Both the 1st and 2nd moments of the ensemble forecasts such as 500 hPa heights, 850 hPa temperature are corrected. The bias-corrected forecasts are verified with respect to the analysis fields, given on the model grid. Preliminary results show that such a moment adjusting method combined with decaying averaging approach to improve the NCEP's global ensemble forecast system seems promising.