



Error estimation and bias adjustments in ERA-CLIM and ERA-Interim

L. Haimberger (1), L Ramella Pralungo (1), D Dee (2), C Tavolato (1), and M Milan (1)

(1) University of Vienna, Meteorology and Geophysics, Vienna, Austria (leopold.haimberger@univie.ac.at), (2) European Centre for Medium-range Weather Forecasts

Adjustment of biases in both satellite and in situ observations as well as an accurate description of observation error variances are crucial for achieving spatiotemporally homogeneous reanalysis datasets. These error estimates can be calculated using variational methods during data assimilation or "offline" from archived background departure information that is nowadays available from several reanalysis datasets. The approaches used in ERA-Interim as well as new developments achieved in the ongoing EU project ERA-CLIM are described. In particular, variational adjustment of wind direction errors and an extension of radiosonde temperature and wind bias adjustments back to the 1940s made substantial progress.