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COST-ES0601: Advances in homogenisation methods of climate series: an integrated approach (HOME)

O. Mestre (1), I. Auer (2), V. Venema (3), P. Stepanek (4), T. Szentimrey (5), A. Grimvall (6), and E. Aguilar (7)

(1) Meteo-France, ENM, Tolouse, France, (2) Central Institute for Meteorology and Geodynamics, Vienna, Austria, (3) Meteorological Institute, University of Bonn, Bonn, Germany, (4) Czech Hydrometeorological Institute, Regional Office Brno, Czech Republic, (5) Hungarian Meteorological Service, Budapest, Hungary, (6) Department of Computer and Information Science, University og Linkoping, Linköping, Sweden, (7) Center on Climate Change (C3), Unitat Predepartamental de Geografia, Universitat Rovira i Virgili, Tarragona, Spain

The COST Action ES0601: Advances in homogenisation methods of climate series: an integrated approach is nearing the end of its second year of life. The action is intended to provide the best possible tools for the homogenization of time series to the climate research community. The involved scientists have done remarkable progress since COST Action ES0601 was launched (see www.homogenisation.org).

HOME has started with a literature review and a survey to the research community to identify those climatic elements and homogenisation techniques to be considered during the action. This allowed the preparation of the benchmark monthly dataset to be used during the remaining time of the action. This monthly benchmark contains real temperature and precipitation data (with real inhomogeneities), as well as synthetic and surrogate networks, including artificially produced missing values, outliers, local trends and break inhomogeneities which are inserted at the usual rate, size and distribution found in actual networks. The location of the outliers and change points is undisclosed to the HOME scientists, who are, at present, applying different homogenisation approaches and uploading the results, to analyse the performances of their techniques. Everyone who works on the homogenization of climate data is cordially invited to join this exercise.

HOME is also working on the production of a daily benchmark dataset, to reproduce the experiment described above, but in a lower temporal resolution, and on the preparation of freely available homogenization tools, including the best performing approaches.