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Homogeneity analysis of daily time series of ECA&D

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Spatial and temporal climate variability analysis demands the existence of homogenized datasets of meteorological elements. In recent years considerable attention has been devoted to homogeneity analysis of monthly data (Venema et al, 2011). In this work we focused on comparison of results obtained with the use of different methods for inhomogeneities detection (on monthly scale) applied upon various elements. Data used consists of daily series available from European Climate Assessment & Dataset (http://eca.knmi.nl/). Methods selected are among those tested in the framework of the ES0601 COST Action (HOME), such as PRODIGE and MASH. SNHT was also used to compare the results obtained between “older” and modern methods. For correction of the found inhomogeneities various methods were applied (tested within the COST Action as well). Validation procedure includes comparison with complete national datasets (e.g. from the Czech Republic, Portugal, Norway) to account for problems associated with lower station density in the ECA&D.

Reference:
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