



## Quality Control of the Belgian Historical Weather Data

Charles Delvaux, Olivia Bleeckx, Michel Journée, and Cédric Bertrand  
Royal Meteorological Institute of Belgium, Brussels, Belgium

Long-term, high-quality and reliable instrumental climate records are indispensable pieces of information required for undertaking robust and consistent studies to better understand, detect, predict and respond to climate variability and change. Thanks to a recent digitization project financed by the Belgian Science Policy, time series of daily extreme (minimum and maximum) temperature and precipitation data are now available since 1881 for a number of climatological stations in Belgium (i.e. 623 series of precipitation and 239 series of temperature data have been digitized for the period 1881-1949). The present contribution describes the QA/QC procedures developed at the Royal Meteorological Institute of Belgium to isolate and flag potentially errant values as well as to ensure internal consistency and temporal and spatial coherence of the data. Note that when possible mistakes in data digitization were corrected. Because of the huge amount of values to process, it was of the prime importance to automate the QA/QC process.