EMS Annual Meeting Abstracts
Vol. 8, EMS2011-394, 2011
11th EMS / 10th ECAM
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Forecasting the weather
- ensemble techniques
in probabilistic weather prediction

Temperature and precipitation fluctuations in the Czech Republic in the instrumental period

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The beginnings of the early instrumental measurements in the Czech Lands and development of meteorological observations organised by Bohemian Patriotic-Economic Society and Moravian-Silesian Economic Society before the establishing of Central Institute of Meteorology and Earth Magnetism in Vienna (1851) are described. History of measurements for the Prague-Klementinum (temperature from 1775, precipitation from 1804) and Brno (temperature from 1799, precipitation from 1803) is presented. Series of these two stations extended by other secular stations Čáslav, Olomouc, Opava and Tábor (starting with observations in the second half of the 19th century) are used for further analyses. Monthly temperature and precipitation series of these stations were homogenized using the Alexandersson's Standard Normal Homogeneity test as well as the test of Maronna and Yohai using softwares AnClim and ProClimDB. Seasonal and annual series calculated from homogenised monthly values are used for statistical investigations of their temporal changes (trend, cyclicity) and spatial relationships. Results of the analysis are compared with existing knowledge related to temperature and precipitation fluctuations in the Central European region.