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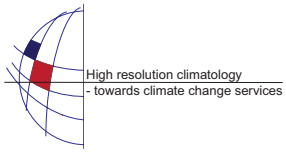

Cluster analysis of temperature trends during the 20th century in the 20C3M experiments of the ENSEMBLE project

P. Pisoft

Charles University in Prague, Faculty of Mathematics and Physics, Department of Meteorology and Environment Protection, Czech Republic (petr.pisoft@mff.cuni.cz)

The presented study is focused on the temperature trends in the model climate during the 20th century. We have studied temperature fields at various pressure levels (500, 300, 100 and 30 hPa) computed by four global climate models (CNCM3, DMIEH5, FUBEMA and HADGEM) within the ENSEMBLE project. The temperature series were analyzed in order to identify the included trends. For this purpose, we have used several techniques like running means or wavelet filters. The detected trends were subsequently classified by the cluster analysis. We have applied the hierarchical clustering algorithms and then we have studied the resulting dendrograms. The results point to distinct areas of similar temperature trends at various pressure levels.