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Homogenity of the MERRA- 2 and ERA-5 temperature data

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When we use data for the trend analysis it is necessary for them to be homogenous without any artificial breakpoints. The aim of this poster is detection of these breakpoints in the temperature time series from the MERRA -2 and ERA-5 reanalyses with the help of the Pettitt homogeneity test for several pressure layers from the troposphere up to the middle atmosphere in the winter months of the Northern Hemisphere. We are searching for grids where these breakpoints occur and also for years when they occur. It is expected the results will be better for the Northern Hemisphere due to the denser data. We are interested in the spatial and vertical distribution of these points. These results give us the knowledge about the quality of data series from these reanalyses.