

Analyses of correlation between the annual and the monthly mean temperatures in Croatia

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Correlation between the annual and the monthly mean temperatures was analyzed for each month separately in the period 1951-2000 at the stations Zagreb-Gric and Gospic in the continental Croatia and at the stations SplitMarjan and Hvar in the coastal Croatia.

In general, the correlation is greater in the summer than in the winter. At all stations there is a remarkable drop of correlation in the autumn, reaching a bottom in December which has almost no correlation with the mean annual temperature. At the coastal stations there is low correlation throughout the winter, while at the inland stations the correlation is much higher.

Unlike January and February, the mean temperature in December has very little correlation with the mean annual temperature and it does not contribute to the mean annual warming of the last decades. An inspection of the mean circulation reveals that during warm Decembers there is an anomalously southerly component in the middle troposphere flow, while during warm Januaries, the westerly component of the middle tropospheric winds is anomalously strong.