



Climatic Change in Spain through Statistical Control Charts

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In the present work, climatic change is analysed using a statistical tool unusual in this context: statistical control charts. Data for this analysis were supplied by Meteorology National Agency of Spain. In particular, data consist on daily temperatures in different climatic stations of Spain from last century.

After defining the standard limits of temperature on each climatic station and obtaining the time series seasonally adjusted, control charts techniques are then applied. The objective of this analysis is to find out the existence or not existence of statistical evidence for temperature changes among the different time periods studied.

The methodology applied can be summarized as follows:

1. Collection, depuration and exploration of data.
2. Seasonally adjust of Time Series on each climatic station.
3. Selection of the standard limits of temperature on each climatic station.
4. Application of control charts and statistical inference on each climatic station.
5. Results and conclusions.

As a consequence of this work, the evidence of climatic change can be obtained from data analysis.