

## Week 1, tutorial 2

### KNMI weather data

The KNMI, the Royal Netherlands Meteorological Institute, provides large data sets of wheather data. This data is publicly available on their website at: [http://www.knmi.nl/climatology/daily\\_data/selection.cgi](http://www.knmi.nl/climatology/daily_data/selection.cgi)

### Excercise

0. Start a new report (to be handed in as a A4 PDF).
1. Download the wheather data for all of the Netherlands during the period 1950-2000. How many lines is this file? Add the answer to your report.
2. Open the file in a text editor and observe that it has a header that is followed by a large amount of data. How many lines does the header contain, and how many lines of data is present. Add these numbers to you report.
3. The **grep** command can do pattern matching as well as the simple matches we described in the reader. To match the first number at the start of the line (possibly after a few whitespace characters), we can use the following command (changing **filename** as required):

```
grep "^[[:space:]]*210" filename
```

4. How many weather observations does the Hoogeveen wheather station have in the full data set? Add the answer to your report.
5. What was the wheather like in Hupsel on august 4 1980? Add the maximum and minimum temperatures to your report, also describe how you found them.
6. What was the wettest day in this data set? What was the wettest day in Arcen.