Assignment 1 – General information

Goal

You will do a statistical analysis of real precipitation data observed at a MeteoSwiss station (hourly precipitation depth over almost 40 years). Your end goal is to compute the Depth-Duration-Frequency (DDF) curves at the meteorological station, for a selection of return periods T.

Practical information

- You will work in groups of **three**. The group will remain the same for Assignment 2.

- Each group receives data from a different meteorological station. The data file will be available on Moodle as soon as you are registered in a group on Moodle.

- Each group has to write an accurate, concise report describing the adopted strategies, the results and their interpretation. Please structure your report in sections as in the detailed instructions. Make sure you include the figures and tables listed in bold. Then, you can add as many other figures as you like.

- Each group is required to hand in through Moodle these files:
    - one **pdf** report (no MS word document is allowed), named: `report_Ass1_grXX.pdf`, where `XX` is your group number.
    - the datafile `data.txt`
    - one copy of the Matlab codes used to generate the results and figures. All the codes must execute entirely without errors and produce the correct figures as they appear in the report. Name the files as: `code_part1_grXX.m`, `code_part2_grXX.m` and `code_part3_grXX.m`.

- The submission deadline is **Sunday October 23th, 2022 at 23:59**. Later submissions are not permitted and will result in a penalty on the grade of minimum 10 points.

Producing clear figures

The clarity of your report is very important and it is evaluated along with your results. Here some tips on how to make figures clear:

- All figures must include appropriate title(s), axes titles, units and legends. If these are missing, poorly readable or wrong, this is considered as an error.

- Avoid taking screenshots and pasting them in your report because it is unprofessional and most importantly because the quality of the figures is typically poor. For saving good-quality figures, use the appropriate commands (and check out the Matlab guide on moodle, where this is specifically addressed).

- Make sure that points are not too small, lines are not too thin and that you can distinguish their colors.

- Figure text has to be readable, even when printed on paper. It should be approximately the same size as the report text.

- Make sure you use efficiently the figure space. If there is plenty of white space and all the information is compressed in a small region of your plot, you may want to modify the limits of the figure axes.

- Legends should not hide the data.