

Extreme Weather Events

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Introduction

- ▶ **Presentation:** We are studying extreme values in weather data, to help us predict extreme weather events.
- ▶ **Problems:** Most of the data collected over the years is based on central measures, i.e. means, we are looking for the maximums. We will also need to find data spread over a large time interval.
- ▶ **Benefits:** It is a project that helps everyone, from governments to scientists to worldwide communities, by warning them ahead of time of the possible natural disasters heading their way.

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Planning

Find relevant data

- ▶ Search the internet for data
- ▶ Do a quick summary to check its relevance in order to choose one data set
- ▶ Repeat for as many data sets as possible
- ▶ Find the most appropriate data set

Analyse data and find enough extreme values

- ▶ Extract characteristics of the variables that have these extreme values
- ▶ Study and analyse their graphs
- ▶ Study and interpret their measures

Create maps to visualise our research

- ▶ Discover softwares to display these maps with a legend
- ▶ Annotate these maps
- ▶ Colour the maps according to a colour gradient indicated in the legend

Data Treatment

- ▶ Cleaning the dataset, handling missing values (NA)
- ▶ Divide the dataset by meteo station
- ▶ Identify the maximum per year

Procedure