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Abstract:
Previous works using lower-density datasets addressed warming rates with slight differences depending on the season and diffuse trends for precipitation. New and more accurate results in spatio-temporal variations of these climate variables are expected on behalf the development of the CLIMPY project, which aims to: i) detect past trends, ii) assess the instrumental data and, iii) estimate future behaviours in climatic variables based on IPCC scenarios. Temperature, precipitation and snow cover in the Pyrenees will be analysed within the framework of the project, and the methodology we will follow to conduct the quality control analysis of daily temperature and precipitation, which will include 673 stations of Spain, France and Andorra, covering the period 1950–2015.

Temperature and precipitation:

Methods and data:
The study area comprises the border between Spain, France and Andorra. The highest elevations (>3,000 m) are located in the Spanish side, with a progressive gradient to both (more pronounced) and south, and to both north and east. The CLIMPY project is a joint effort of the three countries to share their climatic information.

Snow cover:
An analysis of the spatio-temporal variation of the snow cover and the snow depth will be carried out covering the whole territory of Pyrenees. The snow is a highly sensitive variable to climate change, and the snow cover and its temporal evolution is of key importance to identify the impacts in the water resources.

References: