



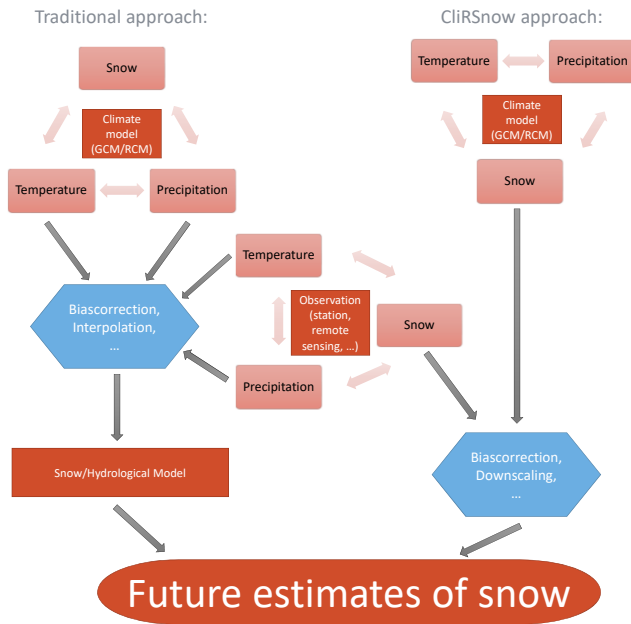
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1 FACTS

Funding scheme: H2020 – Marie Curie Individual Fellowships
Time period of project: October 1, 2018 – March 31, 2021

2 OBJECTIVES

The main objective of CliRSnow is to provide near and distant future snow projections for the entire European Alpine domain at an unprecedented spatial resolution by combining regional climate models (RCMs) with remote sensing (RS).



3 RESULTS

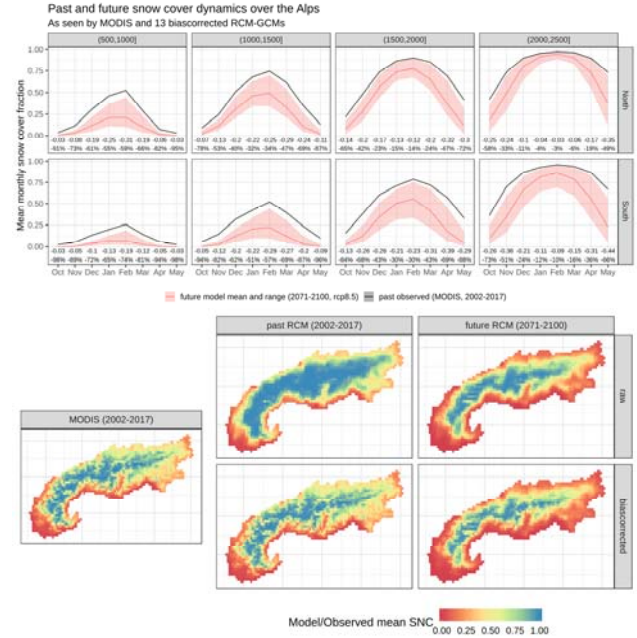
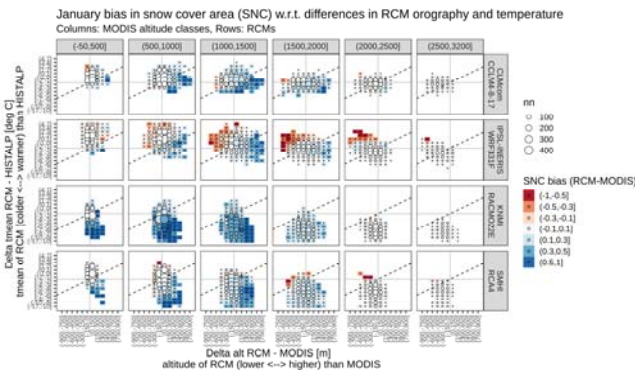


Fig 1: Bias in model snow cover is strongly related to model biases in orography (topographic smoothing) and temperature (RCM cold bias in the alps). -> Snow projections in RCMs adequate given coarse resolution

Fig 2: Bias correction of coarse resolution (~12km) snow cover using Quantile Delta Method. Preliminary results of future trends for business-as-usual scenario.

Fig 3: Bias corrections imposes the true observations (adjusts topography and temperature biases) on models.

4 PLANNED ACTIVITIES 2020

WP1: Alpine wide station data on snow depth

- Finish acquisition of station data
- Analyze trends and variability in snow depth using quantile regression
- Publish results

WP2: Identify bias satellite – climate model (MODIS snow cover vs. CORDEX)

- Estimating the high to low resolution relationship of snow cover using machine learning

WP3: Bias-corrected projections and validation

- Publish results coarse resolution bias-correction with external validation data from Uni IBK

Other activities

- Revise communication plan; identify interaction opportunities with possible stakeholders