



Climate change projections for Lower Saxony, Germany, in the 21st century

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The Klimafolgenforschung (KLIFF) research cluster aims at exploring climate-change adaptation strategies for the federal state Lower Saxony, northern Germany, in the 21st century. The sub-projects within KLIFF dealing with regional modelling and data analysis adapt and develop methods (e.g., bias correction) to increase resolution, accuracy and robustness of model projections of climate variables.

Here we study the climate-change signal for the climate variables temperature and precipitation via differences between 30-year future periods (2071 to 2100 and 2021 to 2050, respectively) and the reference period (1971 to 2000). Several runs from the EH5-REMO regional climate model are used (reference period: C20, projection: A1B scenario). We analyse monthly means of daily-average temperature and bias-corrected (quantile mapping) monthly rainfall totals. The spatial resolution is approximately 10 km x 10 km (REMO grid). This dataset of climate-change projections serves as basis for other adaptation projects within KLIFF. Estimations of the climate-change signal shall be performed within KLIFF also for other combinations of climate models and scenarios.