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BigData@Geo: A Climate Atlas for Lower Franconia (Germany)

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Within the frame of BigData@Geo, a collaborative EFRE-funded project between the University of Würzburg and several medium-sized companies in regional pome- and viticulture, a webportal similar to a climate-atlas is built. An Ensemble of six RCM/GCM-Couples from EURO-CORDEX with EUR-11 resolution is therefore retrieved. After a Nearest-Neighbour-Remap onto a 1x1km-grid within Lower Franconia (Bavaria, Germany), a linear bias-correction of air-temperature and precipitation is executed. The applied method calibrates mean seasonal cycles for the reference period 1970-1999 using gridded observation data from the German Weather Service. Subsequently, climatic tendencies of seasonal temperature and precipitation as well as various derived indices (e.g. frostdays, hot days, tropical nights, vegetation period, huglin index) are evaluated along emission pathways rcp45 and rcp85 during the 21st century.