



Evaluation of regional climate model simulations with respect to daily precipitation characteristics

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Regional climate models are now frequently used for simulations on regional to local scales and also for scenarios of the future climate. For this, a thorough evaluation of model errors and deficiencies is necessary. We investigate daily precipitation as a parameter which is important for climate impact studies, but difficult to assess in numerical models. Because of the non-normal nature of precipitation, many standard methods for the comparison of simulated and observed characteristics are not appropriate. We present several methods which do not rely on distributional assumptions and are easily applicable to daily precipitation data. In our study, these methods are applied to simulations with the regional climate model CLM, which has been developed by the German Meteorological Service and several institutes in Germany. Different characteristics of daily summer precipitation are compared between the model output of eleven simulated summer seasons and observations from station data in Germany.