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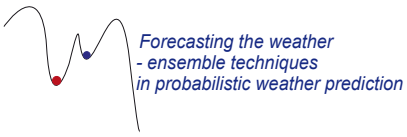

Annual cycle of precipitation simulated by regional climate models

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Recently, large effort has been devoted to increasing horizontal resolution in regional climate models. The motivation is the expectation that higher resolution will provide more realistic information on small scale processes and improve the overall model performance. However, it is still necessary to validate the hypothesis. Our study concentrates on analysis, whether the annual cycle of precipitation over the Czech Republic is better simulated in RCMs with higher resolution. We analyze simulations of RegCM3 and ALADIN-CLIMATE/CZ models in 10 km and 25 km horizontal resolution driven by reanalysis ERA-40. The model experiments come from the projects CECILIA and ENSEMBLES. The model outputs are compared to high resolution gridded dataset.