

A Nesting strategy ECHAM5-RegCM3 over West Africa to investigate regional climate change

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Abstract: The ECHAM5 global circulation model (GCM) is used to force the regional climate model RegCM3, developed and supported by the Earth System Group (EGS) of the International Center for Theoretical Physics (ICTP), as initial and lateral boundary conditions. The RCM is run at high space resolution to simulate present and future time slices over a domain covering West Africa. An investigation of simulation results is done and validated against observed data to understand weaknesses and strengths of the model. An assessment of expected future regional climate change is then done focusing on selected climate variables.