



Climate of Eastern China simulated in a regionally-oriented atmospheric general circulation model

L. Li

Laboratoire de Meteorologie Dynamique, IPSL, CNRS/UPMC, Paris, France
(li@lmd.jussieu.fr)

LMDZ-regional is a variable-grid atmospheric general circulation model, used for regionally-oriented climate studies. A version of the LMDZ-regional, with a spatial resolution of 50 km, is configured for the Yangtze River basin to study the climate variability in Eastern China. The model is firstly nudged in the ERA40 reanalysis data, which allows to evaluate its performance in reproducing the regional climate variability. When the validation is accomplished, LMDZ-regional is then nested in the global version of LMDZ model and used for future climate projection (2050) under the IPCC-A2 scenario. The focus of the analysis is on the difference between the global model and the regional one, in order to have an appreciation on the added values of the regional model. Some preliminary results of a two-way nesting test between the two models are also presented.