EMS Annual Meeting Abstracts Vol. 9, EMS2012-166, 2012 12th EMS / 9th ECAC © Author(s) 2012



The cascade approach – influence of the driving model's resolution on the results of an Empirical Statistical Downscaling method

S. Baumgart, F. Kreienkamp, A. Spekat, and W. Enke Climate and Environment Consulting Potsdam GmbH, Potsdam, Germany (arne.spekat@cec-potsdam.de)

There are several pathways to obtain regional climate information: (i) using the output of a Global Climate Model (GCM), (ii) using a Regional Climate Model (RCM) nested into a GCM, (iii) using an Empirical Statistical Downscaling (ESD) method which extracts large scale information from a GCM or (iv) using a GCM-RCM-ESD chain. (i) Is of limited applicability on the regional scale and (ii) to (iv) are so-called model cascades. A rationale for exploring these cascades as well as results concerning the relevance of the driving models' scale for a multitude of regional climate parameters will be shown.