

**Assessing the capturing capacity of RegCM4 for the precipitation over Med-CORDEX
using boundary data with higher resolution and improved accuracy**

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Abstract

The RegCM4 model is used in a climate simulation experiment using a Med-CORDEX domain slightly extended eastward to cover the whole area of Turkey. Accuracy of the model representation of the actual distribution of daily, seasonal and yearly precipitation is evaluated using the TSMS observation data and those obtained from CRU and CMAP. The analysis is especially focused on the evaluation of the model's ability to represent the actual frequency of occurrence and intensity of extreme events. This study was partially supported by the Karabuk University Fund for Scientific Research Projects (KBU-BAP-C-11-D005).