



Testing the decadal predictability of PDO based on ENSO index

Jae-Heung Park and Soon-II An

Yonsei University, Department of Atmospheric Science, Seoul, Republic Of Korea

Using a simple forecast model of Pacific Decadal Oscillation (PDO) index, which consist of El Nino-Southern Oscillation (ENSO)-forced part and sustained memory, we tested the decadal predictability of PDO appeared in various coupled models that have been participating IPCC AR4. Firstly, we found that most of models exhibited deficiency in the simulation of PDO as well as ENSO, especially in terms of their leading EOF modes, compared with the observation. Consequently, the relation between PDO and ENSO was highly model-dependent. They are actually is strongly linked in the observation. Furthermore, it was confirmed that PDO predictability of each model was closely related to their performance on ENSO simulation. We also applied same method to the model output for the global warming scenario experiments and compared with results from 20C run.