ABSTRACT

The present research proposal is aimed to achieve realistic prediction of summer monsoon rainfall in short range (3-4 days) scale over eastern parts of India. To accomplish the aim, attempts have been made to improve initial conditions through assimilation of satellite and DWR observations, and land surface conditions. Along with improving the initial conditions, the sensitivity of (i) DWR data assimilation to microphysics and (ii) land use-land cover data on rainfall is also studied. The Indian monsoon region is identified as one of the major 'hot spots' for soil moisture and rainfall interaction. Therefore, the dependency of rainfall prediction on soil moisture and temperature initialization is also studied.