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The performance of BCC_CSM1.1(m) on seasonal forecast

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BCC_CSM1.1(m) is a climate system model was new developed by the Beijing Climate Center during 2004-2011, including atmosphere, ocean, land, and sea-ice components and incorporating global carbon cycle and dynamic vegetation cover. The atmospheric component in BCC_CSM1.1(m) is the BCC_AGCM2.2 at T106 horizontal resolution and 26 vertical layers, and the land model is BCC_AVIM1.0 with a same horizontal resolution as the atmospheric model. The ocean component and sea ice component are MOM4-L40 and SIS. The different components are fully coupled with an inclusion of global carbon cycle. BCC_CSM1.1(m) has participated in the fifth phase of the Coupled Model Intercomparison Project (CMIP5) and conducted several core experiments. The performance of BCC_CSM1.1(m) on seasonal forecast has been conducted basing on 1991-2012 hindcasts. The results show that there are higher correlations of troposphere circulations between BCC_CSM1.1(m) and the NCEP/NCAR reanalysis in the middle latitudes and tropical zones. The East Asia summer monsoon can be successfully predicted in BCC_CSM1.1(m), but the South Asia summer monsoon is poor.
Keywords: BCC_CSM1.1(m), seasonal forecast, summer monsoon