

The near-real time prediction system of the East Asian summer monsoon using Subseasonal to Seasonal Models

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The near-real time prediction system of precipitation and onset-withdrawal in East Asian Summer Monsoon (EASM) is established by using subseasonal to seasonal models (KMA, UKMO, ECMWF, BoM, NCEP, ECCC, CMA and Multi model ensemble).

The EASM prediction system is consisted by three components on a weekly basis: 1) the spatial distribution of ensemble mean precipitation bias (per each model climatology), 2) the area averaged precipitation, ensemble spread distributions and ± 1 standard deviation of total ensemble members, 3) the verification of precipitation forecasts (bias and root mean square error by calculating with JRA-55 reanalysis data).

The EASM prediction system reproduces ensemble mean precipitation with forecast length of 8 weeks. It is used forecasts starting on last Thursday as initial time in every week.

The EASM period is defined by the period in which the weekly precipitation amount (3-week running average) is above $+1$ standard deviation of annual mean precipitation.