

## **Effect of High-Resolution SST on 60km-AGCM simulated Baiu-Meiu**

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### **Abstract**

Effect of high-resolution SST on Baiu-Meiu and relationship with tropical convective activity is investigated using 60km-AGCM. In this study, we used AMSR-AVHRR-OISST (~20km resolution) which resolves warm western boundary current such as Kuroshio and Gulf-stream, and coastal upwelling. AGCM experiment with fine resolution SST simulates rainfall peak over the warm SST band than one with smoothed SST around June-July. Spatial pattern of observed rainfall (TRMM-3B43) in this season is closer to the former experiment. We also investigated the SST effect through relationship between such Baiu-Meiu rainfall and Asian summer monsoon circulation. In June, rainfall is collocated with the warm SST band along Kuroshio and there is no significant pressure pattern. In July, in contrast, significant subtropical high anomaly emerges with suppressed convective activity around northwestern subtropical Pacific. During August-September, in contrast, influence of SST around Japan on the rainfall becomes less significant.