

Recent change in relationship between western North Pacific and east Asian summer monsoons

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The Asian summer monsoon system consists of the western North Pacific summer monsoon, the Indian summer monsoon, and the east Asian summer monsoon. These subsystems influence each other with different temporal and spatial scales. Previous studies have reported the inverse relationship between the western North Pacific and the east Asian summer monsoons, which has been used to improve forecast skill of climate model by model output statistics method.

Recently, change in the relationship between the western North Pacific and the east Asian summer monsoons is detected on a decadal time scale. To get to the bottom of this change, we investigate differences in mean fields of climate variables, action center of monsoon systems, major modes of variability, and teleconnections. This novel correlation could give us a better understanding on interaction between subsystems of the Asian summer monsoon and induce a novel theoretical approach.