



Selective Monsoon-ENSO Interaction: Active Role of the Southeast Asian Monsoon

Song Yang

Sun Yat-sen University, Guangzhou, China

The interactive nature of the Asian monsoon and ENSO has been investigated extensively in the past decades; however, the annual cycles of the monsoon and ENSO have seldom been considered mutually and simultaneously in this interaction although the selective interaction between the two has been discussed Webster and Yang (1992). This presentation will first review some key features of Webster and Yang, focusing on monsoon variability, spring predictability barrier, selective monsoon-ENSO interaction, and precursory signals of monsoon in the subtropical westerlies. The importance of the Southeast Asian climate variations in monsoon-ENSO interaction will then be discussed. It is found that in the past decades the atmospheric heating and sea surface temperature in Southeast Asia and adjacent regions have increased apparently and these increases have caused changes in global climate and ENSO. For example, the convection over the Maritime Continent in spring time causes subsequent changes in the evolution of the Pacific trade wind and thus ENSO. The favorable role of the Maritime Continent (land) in ENSO decay will be demonstrated, along with the mechanisms for the influence of the Maritime Continent on ENSO evolution.