HyARC Seminar (HyARC Seminar#171)

Date: May 29 (Thursday) 15:00-

Room: The meeting space (#617) of Research Institutes Building.

Speaker: Prof. Ben Jong-Dao JOU
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Title: Precipitation in Monsoon

Abstract:
East Asia summer monsoon (EASM) is one important branch of the global monsoon system. The precipitation associated with EASM is crucial to the people/society in this area. Accurate forecast of different temporal and spatial scales of the monsoon rainfall is important in many aspects. In this seminar, the precipitation in short time scale, especially those produced extreme heavy rainfalls, is discussed.

Precipitation process is a complicated subject. Not only the cloud microphysical process is important to accurate prediction of precipitation, the triggering mechanisms related to the meso- and even larger scales are also important. The current operational networks in general cannot provide detailed observational data for the purpose of studying precipitation processes. Intensive mesoscale field experiments are needed in order to provide detailed and concentrated information for understanding the physical processes closely related to monsoon rainfall, especially those with extreme heavy ones.

In the seminar, information related to the effort having been striven by Taiwan scientists in the last three decades in studying the precipitation of monsoon will be presented. TAMEX (Taiwan Area Mesoscale Experiment-1987, Kuo and Chen 1990) and SoWMEX/TiMREX (Southwest Monsoon Experiment/Terrain-influenced Monsoon Rainfall Experiment – 2008, Jou et al. 2011) are the two internationally-widely known field experiments. Scientific results from these two programs will be presented and future perspectives will be discussed.

Keywords: Precipitation, East Asian summer monsoon (EASM), precipitation process, mesoscale field experiments, triggering mechanisms, microphysical observations.

(given in English)