



グローバルCOEプログラム

「極端気象と適応社会の生存科学」

Global COE Program

“Sustainability/Survivability Science for a Resilient Society  
Adaptable to Extreme Weather Conditions (ARS)”

# 第30回GCOE-ARSセミナー

## 30<sup>th</sup> GCOE-ARS Seminar

下記の内容で第30回GCOE-ARSセミナーを開催いたします。関心のある教員ならびに院生(特にARSコース受講生)の参加をお待ちしております。

We will hold the 30th GCOE-ARS Seminar with the following contents. We welcome all interested Staffs and Graduate school Students (especially those who have registered to GCOE-ARS course).

日時/Date: 2012年7月25日 (Wed.) 15:00-17:00

July 25 (Wed.), 2012 15:00-17:00

場所/Place: 京都大学 吉田キャンパス(北部構内) 理学部1号館  
5階 563号室

Kyoto University, Yoshida Campus, Room No. 563,  
Faculty of Science Bldg. No1.

15:00-16:00

講師/Lecturer: Dr. LinHo (Professor, National Taiwan University, Taiwan)

題目/Title: Super El Niño and reinforced Bjerknnes instability

要旨/Abstract: Among 18 El Niños during the instrumental era (1952~2010), three El Niños; 72, 82 and 97, attained to amplitude more than one standard deviation above the rest. The relatively infrequent appearance of super El Niño masks the fact that they dominate common features of El Niño, not only because their large amplitudes exert maximum impact on surrounding systems, but also because their evolutions are remarkably uniform comparing to other possible grouping.

To breed a super El Niño it requires several necessary conditions. While the tropical upper troposphere has been loomed under cold anomaly for extended period, development of the foot-print mode in Northern Hemisphere in the boreal winter facilitates subsidence over the Maritime Continent, which, in turn, drives a teleconnection pattern in Southern Hemisphere. Once El Niño is triggered, it leads to positive feedback between the South Hemispheric dipole and El Niño convection source. Some extra booster of the Bjerknnes instability is generated. The super El Niño is found to grow at an accelerating speed.

The super El Niño provides our best chance to extend predictability, which also marks a long sequence that up to seven years stretch appears embedding a super El Niño event.

16:00-17:00

講師/Lecturer: Dr. Bui Hoang Hai (Lecturer, Hanoi University of Science, Vietnam)

題目/Title: The uses of simple and sophisticated numerical models for tropical cyclone studies

要旨/Abstract: Over the last decade, computer power has become powerful to be able to run very high resolution and sophisticated numerical models. However, the use of simple model is still important for isolating complicated processes and understanding fundamental mechanisms of phenomena. This presentation will first provide a brief overview the uses of simple models to study tropical cyclones. It will then describe a proposal of using an idealized axisymmetric model in conjunction with a state-of-the-art three dimensional model for studying the development and matured phases of tropical cyclones.

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