

CREAMS/PICES International Summer School on  
Ocean Circulation and Ecosystem Modeling

*August 23-25, 2006*

*Busan, Korea*

**PROGRAM**

## **August 23 (Wednesday), 2006**

### **Opening (08:30-09:30)**

Introduction of Lecturers, Students, and Assistants; General notice

### **Session 1. Ocean Circulation Modeling**

**(Leading lecturer: Prof. Naoki Hirose)**

#### **1. Simple 1-D and/or 2-D numerical modeling**

- Lecture, 09:30-11:00 (*Lecturer: Prof. Naoki Hirose*)

Coffee Break (11:00-11:30)

- Tutorial, 11:30-12:30 (*Lecturer: Prof. Naoki Hirose*)

Lunch Break (12:30-13:30)

#### **2. Three-dimensional general circulation models**

- Introduction, 13:30-13:45 (*Lecturer: Prof. Naoki Hirose*)

- RIAM Ocean Model, 13:45-15:00 (*Lecturer: Prof. Naoki Hirose*)

Coffee Break (15:00-15:20)

- HYbrid Coordinate Ocean Model, 15:20-16:35 (*Lecturer: Dr. Patrick Hogan*)

- Princeton Ocean Model, 16:35-17:50 (*Lecturer: Prof. Christopher Mooers*)

## **August 24 (Thursday), 2006**

### **Session 1. Ocean Circulation Modeling**

**(Leading lecturer: Prof. Naoki Hirose)**

#### **3. Data assimilation**

- Introduction, 09:00-09:30 (*Lecturer: Prof. Naoki Hirose*)
- Kalman filter, 09:30-11:00 (*Lecturer: Prof. Naoki Hirose*)

Coffee Break (11:00-11:30)

- Adjoint method, 11:30-12:30 (*Lecturer: Prof. Yoichi Ishikawa*)

Lunch Break (12:30-13:30)

### **Session 2. Ecosystem Modeling (Leading lecturer: Dr. Shin-ichi Ito)**

#### **1. A Lower Trophic Ecosystem Model NEMURO**

- History of ecosystem modeling, 13:30-15:30 (*Lecturer: Prof. Fei Chai*)

Coffee Break (15:30-16:00)

- NEMURO introduction and hands-on, 16:00-18:00  
(*Lecturer: Prof. Michio Kishi, Assistants: Drs. Goh Onitsuka and Naoki Yoshie*)

Dinner invited by local organizing committee (18:30-20:30)

**August 25 (Friday), 2006**

**Session 2. Ecosystem Modeling (Leading lecturer: Dr. Shin-ichi Ito)**

**2. A Lower Trophic Ecosystem and Fish Growth Coupled Model NEMURO.FISH**

- NEMURO.FISH introduction, 09:00-10:15 (*Lecturer: Dr. Shin-ichi Ito*)

Coffee Break (10:15-10:45)

-NEMURO.FISH hands-on, 10:45-12:00

*(Lecturer: Dr. Shin-ichi Ito, Assistants: Drs. Goh Onitsuka and Naoki Yoshie)*

Lunch Break (12:00-13:30)

**3. An Automated Parameter Estimation Tool PEST**

- Automated parameter estimation PEST introduction, 13:30-15:00

*(Lecturer: Dr. Shin-ichi Ito)*

Coffee Break (15:00-15:30)

- PEST hands-on, 15:30-17:00

*(Lecturer: Dr. Shin-ichi Ito, Assistants: Drs. Goh Onitsuka and Naoki Yoshie)*

**Conferment Ceremony (17:00-18:00)**