# 3rd OFES International Workshop

November 4-5, 2010 Miyoshi Memorial Auditorium JAMSTEC Yokohama Institute for Earth Sciences Yokohama, JAPAN

# Abstracts

# Organizers

Earth Simulator Center (ESC), JAMSTEC Research Institute for Global Change (RIGC), JAMSTEC Application Laboratory on Climate Variation Studies (APL), JAMSTEC International Pacific Research Center (IPRC), University of Hawaii

#### Conveners

Hideharu Sasaki (ESC, JAMSTEC) Kevin Hamilton (IPRC, Univ. of Hawaii) Yukio Masumoto (RIGC, JAMSTEC) Wataru Ohfuchi (ESC, JAMSTEC)

# **Workshop Schedule**

# **Thursday November 4**

9:30–10:00 Registration

### **Opening Session**

#### **Chair: Yukio Masumoto**

10:00–10:10 Opening Address Shiro Imawaki (JAMSTEC)

10:10-11:00

Keynote presentation 1 David Webb (National Oceanography Centre, Southampton) Development and research with the FRAM and OCCAM ocean models

11:00–11:50 Keynote presentation 2 Lie-Yauw Oey (Princeton University) Regional Ocean Modeling and Processes

11:50–13:00 Lunch Break

13:00–13:20 Photo Session

#### Session 1: Mid–latitude Ocean Chair: Shinichiro Kida

13:20–13:40Bo Qiu (University of Hawaii)Decadal predictions of the dynamic state of the Kuroshio Extension system

13:40-14:00

Masami Nonaka (RIGC, JAMSTEC) Internal variability of the Kuroshio ExtensionCurrent in OFES North Pacific regional model: a preliminary result

14:00-14:20

Magdalena Andres (Woods Hole Oceanographic Institution) The barotropic response of the Kuroshio to wind-forcing: observations and OFES data

#### 14:20-14:40

Jianyu Hu (Xiamen University) Comparison between OFES results and in situ observations near the Luzon Strait

#### **Chair: Francois Ascani**

#### 14:40-15:00

Yu-Lin Eda Chang (Princeton University, National Taiwan Normal Univ.) Tide-gauge data off the northeastern coast of Taiwan

#### 15:00-15:20

Yan Du (South China Sea Institute of Oceanology, CAS) Pathways of mesoscale variability in the South China Sea

#### 15:20-15:40

Tea Break

#### 15:40-16:00

Yoshi N. Sasaki (IPRC, University of Hawaii) Propagation of decadal spiciness anomalies in the North Pacific

#### 16:00-16:20

Miho Ishizu

Oxygen-nitrate relationship of water masses in the Kuroshio Extension, the Oyashio and the mixed water region

# **Chair: Akio Ishida**

#### 16:20-16:40

Tomoki Tozuka (The University of Tokyo) Indian Ocean Subtropical Dipole Mode and its influence on the Agulhas Current

#### 16:40-17:00

Tangdong Qu (IPRC) Formation and variability of North Atlantic sea surface salinity maximum in global OGCMs

#### 17:00-17:20

Ali Belmadani (IPRC) Impact of intraseasonal equatorial Kelvin waves on eddy activity in an eddy-resolving model of the Humboldt system

#### 17:20-17:40

Yoshikazu Sasai (RIGC, JAMSTEC) Formation and spreading of SAMW and AAIW using OFES

18:00-20:00

Reception (Guest house)

# Friday November 5

# Session 2: Tropical Ocean

#### Chair: Masami Nonaka

9:30-9:50

Yukio Masumoto (RIGC, JAMSTEC) Simulated oceanic evolutions associated with the 2006 Indian Ocean Dipole event

#### 9:50-10:10

P. N. Vinayachandran (Indian Institute of Science) Modeling intraseasonal variations in the Bay of Bengal

#### 10:10-10:30

Iskhaq Iskandar (PMEL, NOAA)

Coherent oceanic intraseasonal variations in the eastern equatorial Indian Ocean and in the Lombok and Ombai Straits

#### 10:30-10:50

Shinichiro Kida (ESC, JAMSTEC) The impact of the Indonesian Throughflow and tidal mixing on the SST over the Indonesian Seas

#### 10:50-11:10

Tea Break

## Session 3: Coupled Ocean-Atmosphere Processes Chair: Tandong Qu

11:10–11:30 Niklas Schneider (IPRC) The impact of SST on the atmospheric Ekman layer and Ekman pumping

11:30-11:50

H. Annamalai (IPRC) Role of local air-sea interaction on the south Asian monsoon in a changing climate

#### 11:50-12:10

Nobumasa Komori (ESC, JAMSTEC)

"Coupling coefficients" around the mid-latitude SST fronts in a coupled atmosphere-ocean and a stand-alone atmospheric GCMs

#### 12:10-12:30

Bunmei Taguchi (ESC, JAMSTEC)

Deep oceanic zonal jets driven by fine-scale wind stress curls in a high-resolution coupled GCM

12:30-13:40

Lunch Break

# Session 4: Ocean dynamics

# Chair: Bo Qiu

13:40–14:00 Bach Lien Hua (IFREMER) Layering and stratified turbulence surrounding an anticyclonic eddy: geoseismic observations and numerical simulations

#### 14:00-14:20

Jin-Song von Storch (Max-Planck-Institute for Meteorology) Internal gravity waves simulated by 1/10 degree OGCMs

#### 14:20-14:40

Hidenori Aiki (RIGC, JAMSTEC) The combined pressure and potential energy flux in the global ocean

14:40-15:00

Tea Break

# **Chair: Kelvin Richards**

15:00–15:20 Patrice Klein (IFREMER) Impact of submesoscales on the large-scale oceanic circulation from high-resolution simulations

15:20-15:40

Hideharu Sasaki (ESC, JAMSTEC) Preliminary results from a 1/30 degree North Pacific simulation

15:40-16:00

Francois Ascani (University of Hawaii, IPRC) Contribution of the surface, barotropic and baroclinic modes in the North Pacific using the 1/10th and 1/30th-degree OFES simulations

# **Session 5: Discussion**

## Chair Hideharu Sasaki

16:00–17:00 Discussion

17:00 Adjourn