

AND OFES INTERNATIONAL WORKSHOP AND ESC-IPRC JOINT WORKSHOP OR COMPUTATIONALLY-INTENSIVE MODELING OF THE CLIMATE SYSTEM

December 9 - 10, 2009
Keoni Auditorium
East-West Center
Honolulu, Hawaii



Second OFES International Workshop and ESC-IPRC Joint Workshop on Computationally-Intensive Modeling of the Climate System

December 9-10, 2009

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Honolulu, Hawaii

Wednesday December 9

9:00-9:20 Registration

9:20-9:30 Opening/Practical Information

Kevin Hamilton and Wataru Ohfuchi

Session 1

Tropical Ocean and Coupled Ocean-Atmosphere Processes

Chair: Akio Ishida

9:30-9:50 Hideharu Sasaki (ESC)

Seasonal variations of the Hawaiian Lee Countercurrent induced by the meridional migration of the Trade Winds

9:50-10:10 Baoqiang Xiang (IPRC)

A newly developed global climate model - Coupled POP and ECHAM model

10:10-10:30 Ingo Richter (RIGC)

The link between equatorial and southeast Atlantic warm events as inferred from CFES simulations and observations

10:30-11:00 Break, Photo Session

Tropical Ocean and Coupled Ocean-Atmosphere Processes (Continued)

Chair: Hideharu Sasaki

11:00-11:20 Yoshikazu Sasai (RIGC)

Seasonal and interannual variability of marine ecosystem in the Eastern Tropical Pacific with an eddy-resolving physical-biological model

11:20-11:40 Akio Ishida (RIGC)

Water mass transport in the Arabian Sea: an idealized tracer study using OFES

11:40-12:00 Yukio Masumoto (RIGC and U. Tokyo)

Decadal variations in the shallow meridional overturning cell in the southern tropical Indian Ocean

12:00-13:20 LUNCH

Session 2
Ocean Dynamics
Chair: Takeshi Enomoto

13:20-13:40 Oleg Melnichenko (IPRC)
Quasi-stationary striations in the eastern subtropical Pacific: Vorticity balance

13:40-14:00 Shinichiro Kida (ESC)
The impact of open ocean circulation on marginal sea overflows

14:00-14:20 Patrice Klein (LPO/IFREMER)
Upper-ocean turbulence at meso and submesoscales: New results obtained from high-resolution 3-D simulations

Session 3
Data Assimilation
Chair: Tangdong Qu

14:20-14:40 Gleb Panteleev (IARC)
Toward 20 year reanalysis of the Arctic Ocean circulation

14:40-15:10 Break

Data Assimilation (Continued)

15:10-15:30 Takeshi Enomoto (ESC)
Precursory signals of significant weather events found in ensemble reanalysis ALERA

15:30-15:50 Gleb Panteleev (IARC)
4dVar assimilation experiments into highly non-linear models with adjointless technique

Session 4
Climate Change Modeling
Chair: Kevin Hamilton

15:50-16:10 Axel Lauer (IPRC)
The impact of global warming on Maritime boundary layer clouds over the Eastern Pacific - A regional model study

16:10-16:30 H. Annamalai (IPRC)
Has the South Asian summer monsoon rainfall responded to anthropogenic forcing?

16:30-16:50 Tim Li (IPRC)
Global warming shifts Pacific tropical cyclone location

WORKSHOP DINNER starting 18:30

Thursday, December 10

9:00-9:10 Practical Information
Kevin Hamilton and Wataru Ohfuchi

Session 5
Midlatitude Ocean and Coupled Ocean-Atmosphere Processes
Chair: Masami Nonaka

9:10-9:30 Hisashi Nakamura (U. Tokyo and RIGC)
Importance of midlatitude oceanic frontal zones in the formation of storm-tracks and westerly jets as revealed in high-resolution climate model simulations

9:30-9:50 Akira Kuwano-Yoshida (ESC)
Precipitation response to the Gulf Stream in an atmospheric GCM

9:50-10:10 Bunmei Taguchi (ESC)
Atmospheric response to decadal SST anomalies confined within the North Pacific subarctic frontal zone in a coupled model simulation

10:10-10:30 Masami Nonaka (RIGC)
Decadal variations in heat content and surface heat flux in the western North Pacific in a coupled GCM

10:30-11:00 Break

Midlatitude Ocean and Coupled Ocean-Atmosphere Processes (Continued)
Chair: Bunmei Taguchi

11:00-11:20 Yoshi N. Sasaki (IPRC)
Interannual to decadal Gulf Stream variability in an eddy-resolving ocean model

11:20-11:40 Tangdong Qu (IPRC)
A North Pacific decadal variability in subduction rate identified by OFES

Session 6
Model Development Issues
Chair: Wataru Ohfuchi

11:40-12:00 Nobumasa Komori (ESC)
A high-resolution simulation of the global coupled atmosphere-ocean system using CFES

12:00-12:20 Ryo Onishi (ESC)
Spectral-bin cloud microphysics scheme in MSSG and its applications

12:20-13:40 LUNCH

Model Development Issues (Continued)

13:40-14:00 Juanxiong He (IARC)

Development of the coupled WRF within CCSM4

14:00-14:20 Don Morton (U. Alaska)

Weather and climate activities in Alaska's state-of-the-art high performance computing environment

Session 7

Atmospheric Dynamics

Chair: Hisashi Nakamura

14:20-14:40 Yoshiyuki O. Takahashi (Kobe U.)

Medium and high resolution simulations of Martian atmosphere

14:40-15:00 Yoshio Kawatani (RIGC)

The roles of equatorial trapped waves and internal inertia-gravity waves in driving the quasi-biennial oscillation

15:00-15:30 Break

Atmospheric Dynamics (Continued)

15:30-15:50 Wataru Ohfuchi (ESC)

Descriptions of sensitivity of the zonal jets and Hadley circulations in aqua planet experiment project

15:50-16:10 Shang-Ping Xie (IPRC)

Observations and modeling of island wakes near Hawaii

16:10-16:30 Hironori Fudeyasu (IPRC)

Multiscale interactions in the lifecycle of a tropical cyclone simulated in a global cloud-system-resolving model NICAM

16:30-16:50 Kevin Hamilton (IPRC)

Spatial variance characteristics of high resolution atmospheric model simulations

16:50-17:30 Discussion