

"International Symposium on Climate Variations: From Basic Research to Rich Applications"

(気候変動に関する国際シンポジウム～基礎的研究から応用利用まで～)

日程：平成 24 年 4 月 11 日 (水) ～4 月 13 日 (金)

場所：東京大学理学部 1 号館 2 階 小柴ホール

<http://www.s.u-tokyo.ac.jp/ja/map/map01.html>

大気海洋系気候変動の研究は、これまで熱帯域における大洋規模での季節から経年的な変動が中心となっていた。最近では、中緯度域まで含めたより長期の変動に研究の主流が移りつつある。また、基礎的な研究に基づくメカニズムの理解と予測研究に加え、予測結果の応用利用を積極的に目指す分野横断的なアプローチも多く取られるようになって来た。このような背景のもと、本シンポジウムではこれまでの気候変動研究を振り返り、我々の理解の現状を把握し、解決すべき問題点や今後の方向性を探ることを目的とする。

また、初日は JICA-JST の SATREPS プロジェクトの 1 つである「気候変動予測とアフリカ南部における応用」プロジェクトのシンポジウムとし、南部アフリカ域の気候変動を中心に議論を行う。国内外から気候変動研究分野で第一線の研究者に参加して頂く予定。

International Symposium on Climate Variations -From Basic Research to Rich Applications-

11-13 April 2012

**Organizers: JAMSTEC and the University of Tokyo
Venue: Koshiba Hall, University of Tokyo**

Program

April 11

Registration: 09:30-09:50

Opening Session

- 09:50-10:00 Yoshihisa, Shirayama (Executive Director, JAMSTEC, Japan)
- 10:00-10:10 Akio Takahashi (Assistant Program Officer, SATREPS, Japan Science and Technology Agency(JST),Japan)
- 10:10-10:20 Ichiro Adachi (Director, Environmental Management Division 2, Environmental Management Group Global Environment Department, Japan International Cooperation Agency (JICA),Japan)
- 10:20-10:30 Cecil B. MASOKA (Minister Counsellor : Science & Technology Embassy of South Africa)

Key Note Speeches on Climate Variations and its Applications (Chair: Masumoto)

- 10:30-11:00 Toshio Yamagata (JAMSTEC, Japan)
"Impacts of the Indian Ocean Dipole on climate variations of the southern part of Eurasian Continent"
- 11:00-11:30 George Philander(Princeton University, USA)
"Only a Balance between Small Science and Big Science can explain why Planet Earth is a Special Place at a Special Time"
- 11:30-12:00 Hannes Rautenbach (University of Pretoria, South Africa)
"Atmospheric model simulations over the Limpopo Province and Mariepskop in South Africa: initiatives inspired by the SATREPS project"

First Session: SATREPS-South Africa Project (Co-chair: Sakuma, Behera)

- 12:00-12:20 Makomo Matlou (Parliamentary Constituency Offices, Limpopo and Mpumalanga provinces, RSA Parliament, South Africa)
"Overview and Challenges of African Indigenous Science Ethoson Climate Variations and its Rich Application Over Mopani Region in Limpopo Province, South Africa"

12:20-12:40 Keiko Takahashi (JAMSTEC, Japan)
“Ultra high resolution downscaling for forecasting regional weather/climate in South Africa”

12:40-14:00 Lunch Break

14:00-14:15 Tomoki Tozuka (University of Tokyo, Japan)
“Interannual variations of the sea surface temperature above the Seychelles Dome”

14:15-14:30 Swadhin K. Behera (JAMSTEC, Japan)
“ Impacts of Tropical and Subtropical Climate Modes on Southern Africa

14:30-14:45 Jayanthi Venkata Ratnam (JAMSTEC, Japan)
“Processes affecting the summer precipitation over southern Africa during ENSO/ENSO Modoki events”

14:45-15:00 Yushi Morioka (JAMSTEC, Japan)
“Subtropical dipole modes influencing the southern African climate”

15:00-15:30 Coffee Break

15:30-15:45 Satyaban Bishoyi Ratna (JAMSTEC, Japan)
“Extreme weather events associated with tropical- extra tropical interaction over southern Africa and its temporal evolution”

15:45-16:00 Pascal Oettli (University of Tokyo, Japan)
“Spatial patterns of intraseasonal OLR anomalies, as revealed by a self-organizing map, Influence on southern Africa rainfall.”

16:00-16:15 Hirofumi Sakuma (JAMSTEC, Japan)
“On the first inevitable step for the application studies using climate variability prediction”

Second Session: Coupled Climate Modeling (Co-chair: Xie, Ratna)

16:15-16:35 Antonio Navarra (CMCC, Italy)
“Climate change as an example of convergence”

16:35-16:55 Sebastien Masson (LOCEAN/IPSL, France)
“Role of the SST coupling frequency and intra-daily SST variability on ENSO and monsoon-ENSO relationship in a global coupled model “

16:55-17:15 Jing-Jia Luo (Bureau of Meteorology/CAWCR, Australia)
“Seasonal prediction and coupled model development: A review based on SINTEX-F”

17:15-17:30 Ingo Richter (JAMSTEC, Japan)
“Why GCMs refuse to simulate cold SSTs in the eastern and southeastern tropical Atlantic”

Reception

18:30-20:30 Sanjo Kaikan

April 12

Third Session: Climate/Ocean Variations in the Indian Ocean Sector (Co-chair: Qu, Tozuka)

- 09:00-09:20 Jay McCreary (University of Hawaii, USA)
“Dynamics of the Oxygen Minimum Zones in the Northern Indian Ocean”
- 09:20-09:40 Saji Hameed (Aizu University, Japan)
“A review of the impacts of the Indian Ocean Dipole on global climate”
- 09:40-10:00 P.N. Vinayachandran (COAS, Indian Institute of Science, India)
“Intraseasonal variations of the Bay of Bengal Sea Surface Temperature”
- 10:00-10:15 Motoki Nagura (JAMSTEC, Japan)
“The dynamics of wind-driven intraseasonal variability in the equatorial Indian Ocean”
- 10:15-10:30 Yukio Masumoto (JAMSTEC, Japan)
“Variability of Eastern Equatorial Indian Ocean as observed by Indian Ocean Observing System (IndOOS)”
- 10:30-10:50 Hezi Gildor (Hebrew University, Israel)
“Climatic variations over the Red Sea region since the Last Glacial Maximum: regional and global lessons”
- 10:50-11:10 Coffee Break

Fourth Session: Climate/Ocean Variations in the Pacific Ocean Sector (Co-chair: Vinayachandran, Aiki)

- 11:10-11:30 Bin Wang (University of Hawaii, USA)
“Dynamics of Western North Pacific Subtropical High Shaping Summer Monsoon and Tropical Storms”
- 11:30-11:50 Shang-Ping Xie (University of Hawaii, USA)
“Climate change in the Indo-Pacific Oceans”
- 11:50-12:10 Zhaoyong Guan (NUIST, China)
“The Area Changes of West Pacific Subtropical High in Association with the different SSTA Patterns in Tropical Indian and Pacific Oceans”
- 12:10-12:30 Tangdong Qu (University of Hawaii/IPRC, USA)
“Intrusion of South Pacific intermediate water along the Philippine coast”
- 12:30-13:40 Lunch Break
- 13:40-14:00 Bo Qiu (University of Hawaii, USA)
“Multi-Decadal Sea Level and Gyre Circulation Variability in the Western Tropical Pacific Ocean”

- 14:00-14:20 Hisashi Nakamura (RCAST, Univ. Tokyo/RIGC, JAMSTEC, Japan)
“Air-Sea Interactions Associated with Midlatitude Ocean Fronts:
Multi-Scale Impacts of the Ocean on the Atmosphere”
- 14:20-14:40 Shoshiro Minobe (Hokkaido University, Japan)
“Atmospheric Responses to the Gulf Stream and the Kuroshio”
- 14:40-15:00 Xinyu Guo (Ehime University, Japan)
“Interannual variability in the sea level and Kuroshio transport in
the East China Sea detected by a data assimilation ocean model”

Fifth Session: Ocean Processes and Their Relevances to Climate Variations

(Co-chair: Qiu, Nagura)

- 15:00-15:20 Roger Lukas (University of Hawaii, USA)
“The Salinity Balance of the Mixed Layer of the North Pacific
Subtropical Gyre”
- 15:20-15:40 Ping Chang (Texas A&M University, USA)
“Effect of Ocean Barrier Layers on Tropical Cyclone Intensification”
- 15:40-16:00 Coffee Break
- 16:00-16:20 Yign Noh (Yonsei University, Korea)
“Influence of the Coriolis Force on the Formation of a Seasonal
Thermocline”
- 16:20-16:40 Qinyu Liu (Ocean University of China, China)
“Ocean eddy effect on atmosphere in Vicinity of Sea Surface
Temperature Fronts”
- 16:40-17:00 Richard Greatbatch
(GEOMAR, Helmholtz Centre for Ocean Research Kiel, Germany)
“Deep Jets in the Equatorial Atlantic”
- 17:00-17:15 Hidenori Aiki (JAMSTEC, Japan)
“From the intermediate geostrophic dynamics to wave-mean-
flow interactions in ocean circulations”

April 13

Discussions

10:00-11:00

Closing Remarks

11:00-11:10