



UH President Welcomes IPRC Governing Committee

University of Hawai'i Interim President **David McClain** welcomed the IPRC Governing Committee at a breakfast meeting on March 1, 2005, at the Mānoa Campus. The committee members represent the IPRC supporting agencies MEXT and JAMSTEC in Japan, NASA and NOAA in the U.S., and the University of Hawai'i. President McClain surprised everyone when he addressed the Japanese members in fluent Japanese. He expressed his appreciation to the agencies for their support of the IPRC, acknowledging particularly JAMSTEC, which has contributed over \$22 million since IPRC began in 1997. He remarked on the importance of the IPRC mission to conduct research that improves our understanding of climate variation and change. In light of the accumulating scientific evidence on global warming, no other issue challenging us today is as significant as climate change. Climate affects such things as water resources, agriculture, sea level, marine ecology, and fisheries around the globe. President McClain recognized the uniqueness of the IPRC with its international team of scientists and commended it for its scientific accomplishments and leadership role in climate research.

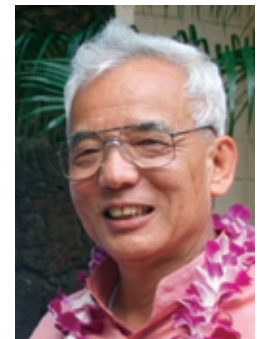
Following the breakfast, the Governing Committee met at the IPRC. The members reported on recent events in their agencies that may impact the IPRC, heard about the most recent IPRC research activities, and discussed governance issues. They also considered how to enhance collaboration between scientists at Frontier and the IPRC. A major step in this regard is being taken by Frontier, which is dispatching at least two Japanese researchers to the IPRC, one at the postdoctoral level and one at a more senior level.

(From left) UH President McClain with governing committee's Hiroshi Fukai (MEXT), Katsuhiko Masuda (FRCGC/JAMSTEC), Howard Diamond (NOAA), Klaus Keil (SOEST), Julian McCreary (IPRC), Eric Lindstrom (NASA), Saichiro Yoshimura (IPRC/AESTO), Tetsuro Isono (FRCGC/JAMSTEC), and Kazutoshi Horiuchi (AESTO).

Pioneer of General Circulation Modeling Visits IPRC

Just before this issue the *IPRC Climate* went to press, Professor **Syukuro Manabe** visited the IPRC.

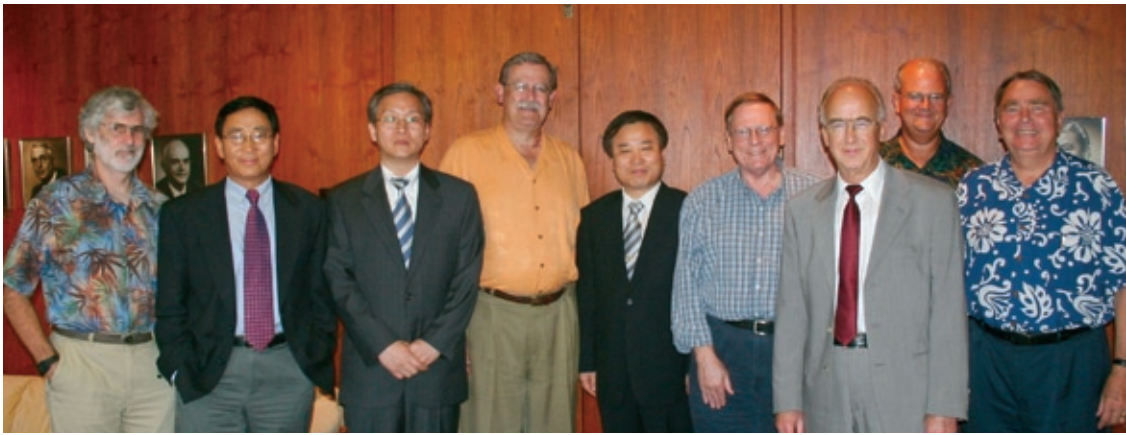
He gave two talks: "The Early Developments in Climate Modeling and Prospects for the Future" and "Simulated ENSOs with Interannual and Decadal Time Scales and Their Amplitude Modulation." Interviews with Professor Manabe will be featured in the next issue of the *IPRC Climate*.



Prof. Syukuro Manabe

Forging Collaborations with Climate Researchers in Korea

Much is happening to strengthen ties between climate research at the University of Hawai'i and Korea. In April 2005, UH Interim President **David McClain** and Mr. **Kwang-Joon Park**, the Director General of the Climate Bureau, Korea Meteorological Administration, signed a Memorandum of Understanding to cooperate on research to improve climate predictions for Asia-Pacific economies and countries. The economic and societal impact of climate change and the increasing occurrence of droughts, floods, and temperature extremes in APEC (Asia-Pacific Economic



Cooperation) regions have prompted APEC to establish the APEC Climate Center (APCC) in Korea. A major task of this new center is to develop a seasonal climate prediction system



Top: (from left) IPRC Director Julian McCreary, Professor Bin Wang, Director of the Climate Prediction Division at KMA Chung-Kyu Park, UH President David McClain, Director General of the KMA Climate Bureau Kwang-Joon Park, Professor James Marsh, ICCS Director Lorenz Maggaard, Dean of CBA Vance Roley, and Dean of SOEST Klaus Keil. **Middle:** (from left) Chung-Kyu Park, Kwang-Joon Park, and Bin Wang. **Bottom:** (from left) Bo Young Yim and Zuojun Yu.

for the APEC region. At the IPRC, Meteorology Professor **Bin Wang** has been working with **In-Sik Kang**, the director of the Climate Environment Systems Research Center at Seoul National University, on developing such a climate prediction system. As a first step in this collaboration, the Korea Meteorology Administration is funding the “Joint U.S.-Korea Research Project in support of APCC for Climate Prediction and its Application to Society.” Principal investigator for the project is Bin Wang; co-investigators are the Director of the International Center for Climate and Society **Lorenz Maggaard**, the President of the Institute of Global Environment and Society **Jagadish Shukla**, and In-Sik Kang. The project includes scientists from the Climate Environment System Research Center and from the following U.S. institutions: George Mason University, Center for Ocean-Land-Atmosphere Studies, NOAA Geophysical Fluid Dynamic Lab, NASA Goddard Space Flight Center, National Center for Environmental Prediction, and Florida State University.

Bin Wang is also principal investigator of another joint Korean-IPRC research project, “Analysis of climate change in Korea and the East Asian area and study of the atmospheric and

ocean effects.” The project is funded by the Korea Institute of Environmental Science and Technology. **Hyung-Jin Kim**, a new postdoctoral fellow at IPRC (see p. 21) is working on the regional modeling component. As part of this project, **Bo Young Yim**, a graduate student of Professor Yign Noh at Yonsei University, visited the IPRC in February 2005. During her visit, she worked with IPRC Director **Julian McCreary** and Associate Researcher **Zuojun Yu** on implementing the “virtual runoff” scheme into an ocean general circulation model used at Yonsei University.

IPRC Scientists Active in the Climate Research Community

Kevin Hamilton, co-leader of the IPRC Impacts of Global Environmental Change Team and chair of the UH Department of Meteorology, has been appointed to the External Advisory Committee for The Institute for Multidisciplinary Earth Studies (TIMES) of the National Center for Atmospheric Research.

Bin Wang, co-leader of the IPRC Asian-Australian Monsoon Team, has become co-chair of the CLIVAR Asian-

Australian Monsoon Panel. The panel coordinates CLIVAR's research program for the Asian-Australian monsoon region. Investigations deal with climate variations and climate change for the entire monsoon system on time scales ranging from within seasons through decades. Bin Wang has also

been appointed to the editorial board of the *Journal of the Atmospheric Sciences*. He will be responsible primarily for papers on tropical meteorology.

Tommy Jensen, an associate researcher with the IPRC Indo-Pacific Ocean Climate Team, continues as an editor for *Journal of Climate*. He

is currently editing a special issue on "The Indian Ocean Climate System," which has many contributions by speakers at the Indian Ocean Modeling Workshop (p. 13). He was also serving this spring as a member of the National Science Foundation Review Panel for Physical Oceanography.

IPRC Welcomes...

Hyung-Jin Kim joined the IPRC as a postdoctoral fellow in April 2005. He received his Ph.D. in 2003 from Yonsei University in Korea, with a dissertation that deals with the effects of radiation on climate and the role of land-



Hyung-Jin Kim

surface processes in an atmospheric general circulation model. Upon receiving his doctorate, he became a special researcher at the Institute of Natural Sciences, Kangnung National University, Kangnung, Korea, where he used Korea's Weather and Research Forecasting modeling system to study the East Asian monsoon.

Kim will work with Bin Wang, co-team leader of the Asian-Australian Monsoon System Team, to develop and implement a dynamical downscaled version of the Weather and Research Forecasting system at the IPRC. The work is part of a four-year research project funded by the Korea Institute of Environmental Science & Technology.

The goal of this project is to assess the impacts of changing land surface on Korea and East Asia with the regional Weather and Research Forecasting model. Kim will first implement an advanced land surface scheme into the model, then couple the model to a state-of-the-art ocean mixed-layer model developed at Yonsei University, and finally, he will couple the regional model to the Seoul National University coupled general circulation model. The model should then be ready for analyzing climate and climate change over the East Asia monsoon region.

IPRC Bids Sayonara...

IPRC's liaison officer with Japan **Saichiro Yoshimura** has returned to Japan where he will continue working on behalf of the IPRC.

Haiming Xu, who worked as a postdoctoral fellow with Shang-Ping Xie and Yuqing Wang, has taken a faculty position at the Department of Atmospheric Sciences, Nanjing University of Information Science and Technology (NUIST). At the IPRC, he used the IPRC regional atmospheric model to study the effects of the Andes on eastern Pacific climate and the effects of Central American mountains on the eastern Pacific winter ITCZ and on moisture transport. He also analyzed satellite observations to describe the within-season variations of the Southeast Pacific stratus clouds. At NUIST, he will continue to use the IPRC regional atmospheric model and satellite observations to study air-sea-land interactions and climate change in East Asia and the western Pacific.

Shinya Yarimizu, computer system administrator at the IPRC for the past 3 years, has moved across town to work with Pipelinefx, a computer software development company dedicated to providing workflow production tools. One of the company's tools is called qube! Remote Control™, software that manages thousands of simultaneous 3D graphics programming tasks on large clusters of computer servers called renderfarms. This type of software development is not new to Yarimizu, who participated in the group's development of the groundbreaking *Final Fantasy: The Spirits Within*, the first fully animated 3D feature film.

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