

## Profiles of Speakers (Keynote Speech)

### Speaker:

Professor Ngar Cheung LAU

Professor

Department of Geosciences

Princeton University



### Topic:

Recent Progress in Earth System Research based on Numerical Model Simulation and Experimentation

### Biography:

Professor Ngar-Cheung Lau is the lead scientist of the Climate Diagnostics Project at the Geophysical Fluid Dynamics Laboratory (GFDL) of the U.S. National Oceanic and Atmospheric Administration (NOAA). He concurrently serves as a Lecturer with the rank of Professor at the Department of Geosciences and Program of Atmospheric and Oceanic Sciences at Princeton University. Professor Lau was born in Hong Kong and spent his youth here. He majored in physics at United College, the Chinese University of Hong Kong (CUHK), where he received the B.Sc. degree in 1974. He proceeded to pursue graduate studies at the University of Washington in Seattle, and received the Ph.D. degree in atmospheric sciences in 1978. He then went to Princeton and has been associated with the research and teaching programs at GFDL throughout the past 33 years.

Professor Lau's principal research interests are concerned with the behaviour of atmospheric and oceanic phenomena in various geographical regions, with typical time scales ranging from hours to several years. These features include day-night differences, day-to-day weather disturbances in warm and cold seasons, persistent flow structures, monsoonal circulations, and changes in the air-sea coupled system associated with El Nino. His primary research tools include datasets based on in situ observations and remote-sensing platforms, as well as output from experiments and

simulations with numerical models. He has authored or coauthored over 100 publications in various scientific journals, and has been designated as a Highly Cited Researcher by the ISI Web of Knowledge.

Professor Lau is a recipient of the Run Run Shaw Postgraduate Scholarship of CUHK (1974), Clarence Leroy Meisinger Award of the American Meteorological Society (AMS, 1990), Unusually Outstanding Performance Award of the U.S. Department of Commerce (1991), and Hong Kong Observatory (HKO) 120th Anniversary Distinguished Meteorologist Award (2003). He was elected as a Fellow of AMS (1991), and was editor of the AMS Journal of the Atmospheric Sciences (1996-1999). He is a lead contributing author of a series of Assessment Reports of the Intergovernmental Panel on Climate Change. This work was recognized by the Nobel Peace Prize (2007). He was an invited speaker at the Scientific Forum in celebration of the 70th anniversary of Southwestern Union University at Kunming, China (2008). Professor Lau has also served as the C.N. Yang Visiting Fellow at CUHK; Science Advisor to the HKO, Chinese Academy of Sciences, Beijing Climate Center and Academia Sinica (Taiwan); Visiting Professor at Peking University, Wei Lun Professor of CUHK, and external reviewer at National Taiwan University and Academia Sinica, Taiwan. He was a member of various scientific committees of AMS, NOAA and the World Meteorological Organization.