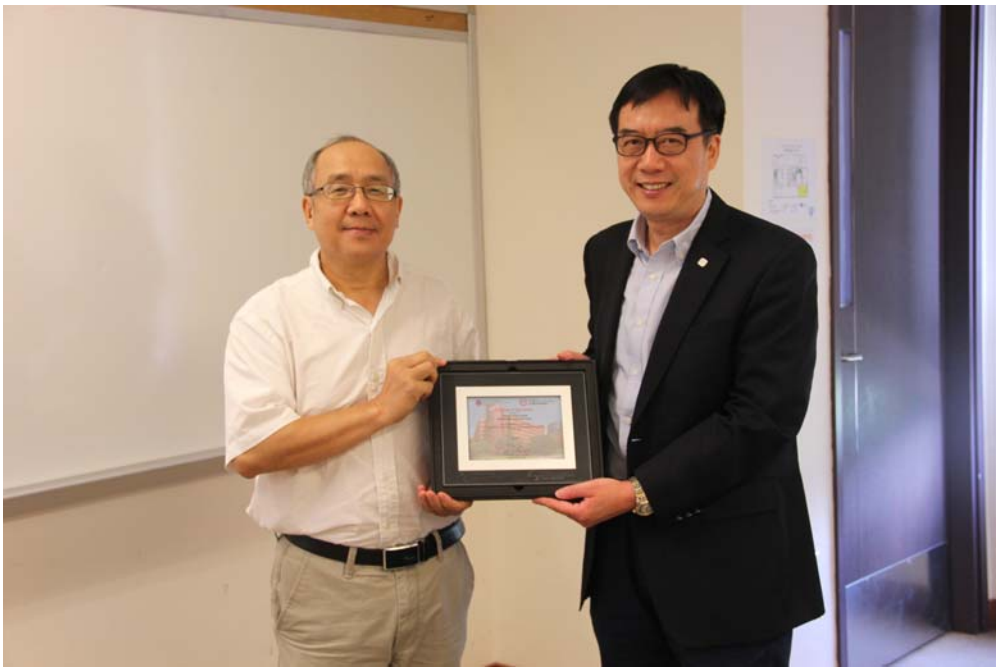
DEPARTMENT OF
LAND SURVEYING AND GEO-INFORMATICS
土地測量及地理資訊學系

LSGI Distinguished Lecture Series

"Confronting Uncertainties in Hydrometeorological Forecasting"

Overview

It was our pleasure to invite Professor Qingyun DUAN, Chair Professor and Chief Scientist, Faculty of Geographical Science, Beijing Normal University, Beijing, China, to deliver a seminar of the LSGI Distinguished Lecture Series on 30 July 2018.



Biography

Qingyun Duan is currently a National Chair Professor and Chief Scientist of hydrology and water resources in the Faculty of Geographical Science at Beijing Normal University (BNU) in China. Prior to his current position, he worked at U.S. NOAA Hydrology Laboratory from 1991 to 2003 and U.S. Department of Energy Lawrence Livermore National Laboratory from 2004 to 2009. His research interests include: hydrology and water resources, hydrological model development and calibration, hydrometeorological ensemble forecasting, and uncertainty quantification for large complex system models. He has authored or co-authored more than 150 peer reviewed articles, including more than 120 papers in ISI Web-of-Science indexed journals. He is the Hydrology Editor of Bulletin of American Meteorological Society and the Editor-in-Chief of Handbook of Hydrometeorological Ensemble Forecasting to be published by Springer-Nature in 2019. Dr. Duan is a recipient of Chinese Government "One-Thousand Talents Program" award, a Fellow of American Geophysical Union and American Meteorological Society.

Confronting Uncertainties in Hydrometeorological Forecasting

Uncertainties are prevalent in all phases of hydrometeorological forecasting. For the forecasts to be beneficial to our society, we must quantify and reduce those uncertainties. In this presentation, different sources of uncertainties during the forecasting process will be discussed and various ways to confront them will be presented, with particular emphasis on uncertainties associated with model

outputs from both meteorological and hydrological models and model parameters. The talk will end with a perspective on challenges and future directions.