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**The 3rd International Workshop on Structural Wind Engineering**  
**National Natural Science Foundation Program**  
*Strong/typhoon Wind Hazard Evolution of Major Structures and Bridges*  
**High-end Foreign Experts Recruitment Program**  
*Dr. and Prof. Ahsan Kareem in Tongji University*

## **Announcement**

### **MAIN INFORMATION**

**Event:** The Third International Workshop on Structural Wind Engineering  
**Date:** April 17, 2014  
**Venue:** Bridge Hall, Tongji University, 1239 Siping Road, Shanghai, China  
**Hosts:** State Key Laboratory of Disaster Reduction in Civil Engineering  
Tongji University

### **SCOPE**

Based on the ground research program of National Natural Science Foundation of China, Strong/typhoon Wind Hazard Evolution of Major Structures and Bridges, and the High-end Foreign Experts Recruitment Program of China for Dr. and Prof. Ahsan Kareem in Tongji University, the proposed workshop intends to cover wind hazard resistance of wind sensitive infrastructures, including super-long-span bridges, super-high-rise buildings and super-large spatial structures, with the specific topics:

- ◆ Characteristics of strong/typhoon wind field and aerodynamic forces models
- ◆ Dynamic hazard evolution and whole process numerical simulation and verification
- ◆ Failure mechanism and control principle of wind sensitive infrastructures

Both fundamental and latest knowledge related will be provided in the workshop. The workshop will be of interest to the program research team members as well as others who work in relevant scientific research or design topics.

### **INVITED SPEEKERS**

1. Prof. Ahsan KAREEM (University of Notre Dame, USA)  
Changing Dynamic of Wind Loads from Uniform Flows to Gust Fronts
2. Prof. You-Lin XU (Hong Kong Polytechnic University, China)  
Damage Prognosis and Health Rating of Long-span Suspension Bridges
3. Assistant Prof. Teng WU (University of Notre Dame, USA)  
A Unified Analysis Framework for Nonlinear Bridge Aerodynamics



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## PRESENTATION

08:30-08:35: Opening

08:35-09:35: Changing Dynamic of Wind Loads from Uniform Flows to Gust Fronts

09:35-09:45: Coffee break

09:45-10:45: Damage Prognosis and Health Rating of Long-span Suspension Bridges

10:45-11:45: A Unified Analysis Framework for Nonlinear Bridge Aerodynamics

11:45-14:00: Buffet lunch (1<sup>st</sup> Floor, Kingswell Hotel)

## DISCUSSION

14:00-14:45: Refinement Simulation of Strong/Typhoon Wind Field and the Characteristics

14:45-15:30: Wind Hazard Evolution Process and Control of Super Long Span Bridges

15:30-15:45: Coffee break

15:45-16:30: Wind Hazard Evolution Process and Control of Super High Rise Buildings

16:30-17:15: Wind Hazard Evolution Process and Control of Super Large Spatial Structures

18:00-21:00: Dinner

## PARTICIPANTS

KAREEM, Ahsan (University of Notre Dame, USA)

XU, You-Lin (Hong Kong Polytechnic University, China)

WU, Teng (University of Notre Dame, USA)

XIANG, Haifan (Tongji University, China)

SONG, Lili (Public Meteorological Service Center, Beijing)

ZHU, Ledong (Tongji University, Shanghai)

GE, Yaojun (Tongji University, Shanghai)

CHEN, Zhengqing (Hunan University, Hunan Province)

LI, Hui (Haerbin Institute of Technology, Heilongjiang Province)

GU, Ming (Tongji University, Shanghai)

LI, Zhengnong (Hunan University, Hunan Province)

LI, Qiusheng (Hunan University, Hunan Province)

YANG, Qingshan (Beijing Jiaotong University, Beijing)

WU, Yue (Haerbin Institute of Technology, Heilongjiang Province))

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