



**Lunedì 19 maggio 2014**

**Aula Beltrami, ore 9.30 – 11.00**

*Studies of Precast/Prestressed Concrete Structures in Tongji University*

**Prof. W.C. Xue - Tongji University of Shanghai**

Since 1997, the research group directed by Prof. Xue has performed experimental studies, numerical simulations and theoretical analysis on static behaviors, seismic behaviors and long-term behaviors of prestressed/precast concrete structures.

This presentation will cover the studies, and the primary contents include:

● **Seismic behaviors of prestressed concrete structures**

The presentation will discuss seismic behaviors of prestressed HPC (High Performance Concrete) frames and prestressed steel-concrete composite frames based on large-scale experiments and numerical simulations.

● **Long-term behaviors of prestressed concrete structures**

The presentation will introduce long-term experiments of prestressed HPC beams for 3500 days and prestressed steel-concrete composite beams for 2500 days. Theoretical formula based on age-adjusted effective modulus method and time-dependent FEM program will also be put forward to predict time-dependent deflections of prestressed HPC beams and prestressed steel-concrete composite beams.

● **Seismic behaviors of precast concrete structures**

Prof. Xue has conducted large-scale experiments of three types of precast concrete structures, including precast concrete frames, precast concrete shear walls and precast concrete sandwich wall panels. The presentation will mainly discuss the seismic behaviors of precast concrete structures based on the test results.

Reference professor: **prof. Lorenzo Jurina**

## **Studies of Precast/Prestressed Concrete Structures in Tongji University**



### **Speaker:**

Prof. W. C. Xue  
Director of Research Group of Modern Prestressed/Precast Structures  
Department of Building Engineering  
College of Civil Engineering  
Tongji University  
Shanghai, P. R. China

### **About the Speaker:**

Dr. W. C. Xue is a professor of structural engineering at Tongji University in P. R. China. He obtained his PhD in 1995 from Southeast University, China. His main research interests include prestressed structures, precast concrete structures, and FRP in civil engineering. Dr. Xue has published more than 200 papers, including 25 SCI-indexed papers and 83 EI-indexed papers. Note that 9 of the papers were published in ACI Structural Journal, ACI Material Journal, ASCE Journal of Structural Engineering and ASCE Journal of Bridge Engineering.