

**PURDUE UNIVERSITY**  
**SCHOOL OF CIVIL ENGINEERING**

**STRUCTURAL ENGINEERING SEMINAR**  
**CE 691S**

***NATURE AND THE TALL BUILDING***

by

**Mark Sarkisian**

Director of  
Skidmore, Owings & Merrill LLP

**TUESDAY, SEPTEMBER 16, 2008**

**CIVIL 1144**

**4:30 p.m.**

Safe, efficient structural forms are abundant in nature. The challenge, however, is to mathematically describe these forms and to derive behavior that is adaptable to constructible, cost effective building solutions. These adaptations, mathematical derivations that use nature's mechanics in structural design, are particularly important in regions of high seismic risk and have led to new innovations in structural systems. Many of these systems incorporate devices that understand and respond to demand, alter behavior, and ensure optimal performance.

Mark Sarkisian, PE, SE, Director of Skidmore, Owings & Merrill LLP will present recent work illustrating these designs. The projects are located in the United States and overseas and typically incorporate non-prescriptive analysis and design approaches. These projects include innovative approaches to wind and seismic engineering. In addition, new concepts that incorporate "mechanized" approaches to structures will be discussed.