



# Announcing

**A Colloquium Presentation  
November 6, 2009 at 2:00 pm  
SH303**

**at The University of Southern Mississippi**

**Speaker: Nan-Jing Wu**

Department of Civil Engineering  
Texas A & M University

**Title: Simulation of Free Surface Waves in  
Liquid Sloshing Using a Domain  
Type Meshless Method**

**Abstract:**

Based on the idea of avoiding over-fitting in artificial neural network research using radial basis functions (RBFs), an improved Kansa's collocation method of reducing the number of RBFs without compromising the accuracy is proposed. This method can also overcome the dissatisfaction of governing equations on boundaries when conventional Kansa's collocation is used in solving PEDs. The Laplace Equation is chosen to test the proposed method. Applying this method, a 3-D numerical model is established to simulate fully nonlinear free surface waves of sloshing water in a rectangular tank.

**Further Information**

Further details and information about this and other departmental activities is available online at [http://www.math.usm.edu/bulletin\\_board/](http://www.math.usm.edu/bulletin_board/).