



# Announcing

**COS Graduate Seminar**

**April 28, 2006 at 2:00 pm**

**Southern Hall 303**

**at The University of Southern Mississippi**

**Speaker: Sungwook Lee**

Department of Mathematics

The University of Southern Mississippi Mississippi

**Title: The Surface Intersection in CAGD: Filling Gaps and Holes on the Intersection of Two Merging Surfaces Patches by Meshless Methods.**

**Abstract:**

When two surface patches are merged edge to edge in CAD system, there may be gaps or holes remained at the merging boundaries of two surface patches, although the boundaries are supposed to match, due to some position errors or floating point errors. Since surface patches are approximated by spline surfaces in CAD system, surface intersections, except in trivial cases, always lead to gaps and self-intersections.

In this talk, we discuss algorithms to fill gaps or holes on the surface intersection by the interpolation with RBFs (Radial Basis Functions) and by MFS-DRM (Method of Fundamental Solution-Dual Reciprocity Method).

**Further Information**

Refreshments are served from 1:50 pm until 2:00 pm in Southern Hall 303.