**THE UNIVERSITY OF ALABAMA IN HUNTSVILLE**

**MATHEMATICAL SCIENCES COLLOQUIUM**

**Dr. Songming Hou**

The Department of Mathematics and Statistics

Louisiana Tech University

**Numerical Methods for solving Interface Problems**

**DATE: Friday, October 16, 2015**

**TIME: 3:00 p.m. – 4:00 p.m.**

**PLACE: Shelby Center 218**

Interface problems occur in many multi-physics and multi-phase  
applications in science and engineering. An accurate and efficient  
method is desired. In the past decades several numerical methods  
have been proposed such as the immersed boundary method, the immersed interface method and the matched interface and boundary method. We proposed a non-traditional finite element method for solving elliptic, elasticity and parabolic interface problems using non-body-fitted mesh. Some theoretical discussions and numerical studies are presented in both 2D and 3D.

**Refreshments will be served at 2:30 p.m. in SC 201 suite landing.**