

WICHITA STATE UNIVERSITY
Department of Mathematics and Statistics

*The Lecture Series in the
Mathematical Sciences Presents Our Guest:*

Prof. John McCuan

Georgia Institute of Technology, Atlanta Georgia

“Capillary Surfaces in corners: very different contact angles.”

Abstract:

The regularity of the surface of a liquid filling a cylindrical container with a corner is dependent on the angle of the corner and the wetting properties of the liquid with respect to the material in the container. I will describe some known facts about this dependence and some open problems.

If the container is made of homogeneous materials, then the behavior is understood very well. There are even explicit local solutions in some special cases.

A particularly interesting case occurs when the two different materials meet to form a corner. There are then some fundamental questions for which we have no answers. I will discuss some approaches to these questions and to constructing some explicit solutions.

Tuesday, March 11, 2003
3:00 PM in 372 Jabara Hall

*Please come join us for refreshments before the lecture
at 2:30 p.m. in room 353 Jabara Hall.*