

WICHITA STATE UNIVERSITY
Department of Mathematics and Statistics

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

Prof. Robert Finn
Stanford University

"Comparison Properties of Capillary Surfaces"

Abstract:

The behavior of capillary interfaces is governed by equations that are elliptic but not uniformly elliptic. The specific character of the non uniformity has some striking consequences for the global structure of the solutions. This talk will address a particular such instance, that appears when comparing the rise heights of a liquid in capillary tubes of the same materials and descending sections. The behavior can take unanticipated forms, exhibiting non uniformity and discontinuous reversal in height relations, even in geometrically simple configurations.

The presentation will be for the most part self-contained, and is intended for a broad mathematical audience.

Friday, September 5, 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.*