

WICHITA STATE UNIVERSITY
Department of Mathematics and Statistics

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

Dr. Hari Mukerjee
Wichita State University

"Testing Equality of k Distribution Functions Against
Ordered Alternatives"

Abstract:

Kiefer (1959) proposed an asymptotic Kolmogorov-Smirnov type test for equality of k distribution functions against all alternatives, using the distribution of the maximum of the modulus of a $(k - 1)$ -dimensional Bessel bridge. We show that a similar test can be used for an alternative where the distribution functions are constrained to lie in a closed convex polyhedral cone by projecting the Bessel bridge onto this cone. The distribution of our test statistic is given by a weighted average of the maxima of Bessel bridges of dimensions 1 thru $(k - 1)$, similar to the well known chi-bar-square distribution in the likelihood ratio test for equality of k normal means against ordered alternatives.

Friday, October 20, 2006
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.*