

WICHITA STATE UNIVERSITY
Department of Mathematics and Statistics

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

Dr. Xiaomi Hu
Wichita State University

*“Asymptotical distributions, parameters and coverage
probabilities of tolerance limits ”*

Abstract:

In industries a tolerance limit of material quality is usually obtained by calculating the lower limit of a confidence interval for a percentile of the quality characteristic population. In this talk a single unified expression is given for tolerance limits from one-population model, one-way ANOVA model and linear regression model. Based on this expression the asymptotical normality and the probabilistic convergence are established, the formulas for the parameters and for the coverage probabilities are derived. A numerical study is then conducted on A-basis and B-basis that are widely used in aircraft composite material industry.

Friday, October 5, 2007
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.*