

Applied and Computational Mathematics and Statistics Colloquium

Alan Huebner

ACT, Inc.

will give a lecture entitled:

Restricted Latent Class Models for Diagnostic Educational Assessments

Wednesday, March 2nd, 2011

4:00 PM

Location: 129 Hayes-Healy Center

Abstract:

Traditional psychometric models, such as item response theory (IRT) and classical test theory (CTT), assign to examinees a single score for a broadly defined ability (e.g., an examinee may score a 34 on the ACT mathematics section or a 690 on the Quantitative portion of the GRE). Cognitive diagnosis models (CDMs) are special types of restricted latent class models that have received a great deal of attention in the past several years. In contrast to IRT and CTT, these new models aim to assess students' mastery of multiple fine-grained skills and have the potential to provide detailed diagnostic feedback for teachers, students, and parents, leading to opportunities for individually tailored remediation. This talk will provide an overview of CDMs, discuss some recent research on examinee classification methods, and outline future projects for testing the goodness of fit of CDMs.