RUTGERS UNIVERSITY
DEPARTMENT OF STATISTICS AND BIOSTATISTICS
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Seminar

Speaker: **Professor Jimmy de la Torre**
           Department of Educational Psychology
           Rutgers University

Title: **A General Framework for Cognitive Diagnosis Modeling**

Time: **3:20 – 4:20pm**, *Wednesday*, **February 19, 2014**

Place: **552 Hill Center**

Abstract

The first part of the presentation focuses on the *generalized deterministic inputs, noisy "and" gate* (G-DINA) model as a general cognitive diagnosis model (CDM). It is shown that the G-DINA model is equivalent to other general CDMs based on alternative link functions, and subsumes several commonly encountered constrained CDMs. The second part of the presentation focuses on some recent developments pertaining to the procedures within the G-DINA model framework. It examines different indices for evaluating relative and absolute fits of CDMs at the test level, documents the Type I error rate and power of the Wald test for comparing general and constrained CDMs at the item level, and lays out the basis for implementing a sequential procedure for Q-matrix validation based on a generalized discrimination index. The presentation concludes with a discussion of the implications of these developments in the practice of cognitive diagnosis modeling.

*** Refreshments will be served @2:50pm in Room 502 Hill Center ***