# Advances in Multilevel Modeling for Educational Research: Addressing Practical Issues Found in Real-World Applications

# **Pre-Conference Workshop**

# Cross-Classified and Multiple Membership Models S. Natasha Beretvas, University of Texas, Austin

	Thursday, November 13
8:00-9:00am	Registration and Continental Breakfast, Benjamin Banneker (2 <sup>nd</sup> floor)
9:00am-12:00pm	Workshop: Section I
12:00-1:00pm	Lunch on your own
1:00-5:00pm	Workshop: Section II

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## **Conference Overview and Schedule**

#### Day 1: Friday, November 14

8:00-9:00am Registration and Continental Breakfast, Colony Ballroom (2<sup>nd</sup> floor)

Random Effects: Handling Dependent Residuals and Best Practices for Residual Diagnostics	
9:00-9:45am	Avoiding Omitted-Variable Bias in Multilevel Models
	Sophia Rabe-Hesketh, Keynote Address
9:55-10:40am	Best Practices in Residual Diagnostics and Model Assessment in a
	Multilevel Framework
	Ann O'Connell, D. Betsy McCoach & Gloria Yeomans-Maldonado

10:40-10:50am Mid-Morning Break

Multilevel Measurement Models: Handling Testlet and Content Area Dependence and Measurement Error in Predictors		
10:50-11:35am	Multilevel Cross-Classified Testlet Model for Complex Item and Person Clustering in Item Response Modeling Hong Jiao, Akihito Kamata & Chao Xie	
11:45am – 12:30pm	Handling Measurement Error in Predictors with a Multilevel Latent Variable Plausible Values Approach Ji Seung Yang & Michael Seltzer	

12:30-2:00pm Lunch on Your Own

Using Cross-Classified Models to Handle Longitudinal Data Complexities	
2:00-2:45pm	Bayesian Analysis of Multiple Indicator Growth Modeling Using Random
-	Measurement Parameters Varying across Time and Person
	Bengt Muthén & Tihomir Asparouhov
2:55-3:40pm	Everything I Know I Learned in Kindergarten: Potential Teacher Effects in
	Longitudinal Student Outcome Data
	Paras Mehta & Yaacov Petscher
3:50-4:35pm	A Model for Cross-Classified Nested Repeated Measures Data
	Jeffrey Harring, S. Natasha Beretvas & Anita Israni

5:00-7:00pm Reception & Poster Session, Atrium (1<sup>st</sup> floor)

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## **Conference Overview and Schedule**

#### Day 2: Saturday, November 15

8:00-9:00am Continental Breakfast, Colony Ballroom (2<sup>nd</sup> floor)

Causal Inferences and Advanced Psychometric Models: Social Networks, Handling Measurement Error, and Heterogeneity within Clusters	
9:00-9:45am	On the Importance of Advanced Psychometrics in Multi-Level Impact
	Evaluation Studies
	Li Cai & Kilchan Choi
9:55-10:40am	Mixture Modeling Strategies for Causal Inference with Multilevel
	Data
	Jee-Seon Kim, Peter Steiner & Wen-Chiang Lim
10:50-11:35am	Hierarchical Mixed Membership Stochastic Block Model with
	Network-Level Covariates
	Tracy Sweet & Qiwen Zheng

11:35am -1:00pm Lunch on Your Own

Matching Models to Longitudinal Data's Complexity: Basing Psychometrics on Longitudinal Data, Handling Missing Multilevel Data and Choice of Sampling Weights	
1:00-1:45pm	The Disjoint Between Measurement and Modeling in Longitudinal Research
	Daniel Bauer & Patrick Curran
1:55-2:40pm	Incomplete Multilevel Data: Problems and Solutions
_	Joop Hox, Stef van Buuren & Shahab Jolani
2:50-3:35pm	Sampling Weight Considerations for Multilevel Modeling of Panel Data
1	Laura Stapleton, Jeffrey Harring & Daniel Lee

3:45-4:30pm Conference Summary and Reflection: Moderated Q & A