From: Hudes, Estie
Subject: ASA-sponsored webinar: Intensive Longitudinal Data Analysis Using Mplus; Thursday April 20, 2017 9-11am
Date: Sunday, March 12, 2017 4:56:14 PM

Dear CAPS Methods Core seminar participants and interested others,

The CAPS Methods Core has registered for a webinar on the topic listed above, with full details below. We have reserved MH-3700 for the live streaming of the seminar. This allows for participation of about 40 attendees.

Because space is limited, and as a departure from our usual format, I would like every person who is interested in attending to let me know by replying to this email. If there are many more than 40 RSVPs, we may try to get a larger room. In addition, please let me know if you would need to be put on the building security list.

Here is the webinar information:

http://www.amstat.org/ASA/Education/Web-Based-Lectures.aspx#ILDAUM

Title: **Intensive Longitudinal Data Analysis Using Mplus**
Presenters: **Bengt Muthen, Tihomir Asparouhov, and Ellen Hamaker**, University of California, Los Angeles
Date and Time: **Thursday, April 20, 2017, 12:00 p.m. – 2:00 p.m. Eastern time [9:00 a.m. – 11 a.m. Pacific time]**
Sponsor: **Mental Health Statistics Section**
Description:
This talk discusses new methods for analyzing intensive longitudinal data, such as obtained with ecological momentary assessments, experience method sampling, ambulatory assessments, and daily diaries. Typically, such data have a large number of time points, T = 20-150. Single-level (N=1) as well as multilevel (N > 1) time series models with random effects varying across subjects are handled using a dynamic structural equation model (DSEM) and Bayesian estimation implemented in the Mplus Version 8 software. DSEM for N=1 time series analysis can be used to model the dynamics within a particular individual over time. Additionally, N > 1 multilevel DSEM includes extensions of time series models, such that at level 1 a time series model is used to model the within-person dynamics of a process over time, while at level 2 individual differences in the parameters that capture these dynamics are modeled. DSEM can handle multivariate outcomes as well as latent variables, and random effects can be both predicted from but also predictors of level 2 variables. DSEM is available with auto-regressive and moving-average components both for observed-variable models such as regression and cross-lagged analysis and for latent variable models such as factor analysis, IRT, structural equation modeling, and mixture modeling. DSEM also handles time-varying effect modeling (TVEM) where parameters change not only across individuals but also across time, making it suitable for assessing intervention effects. Several examples are discussed from application areas such as:

- multilevel AR(1) model with random mean, random AR, and random variance
- multilevel AR(1) model with measurement error
- multilevel ARMA(1,1) model
- multilevel cross-lagged modeling
- multilevel AR modeling with a trend
- latent multilevel AR(1) model with multiple indicators
- latent multilevel VAR(1) model and dynamical networks
- dynamic SEM
- dynamic latent class analysis using hidden Markov and Markov-switching AR models

Thanks,
--Estie

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