MULTILEVEL MODELS, STRUCTURAL EQUATIONS & LONGITUDINAL DATA

September 9-11, 2024

Geopolis, salle 2879

MONDAY, SEPTEMBER 9

09:00 – 10:30   **Structural Equation Modeling: key concepts and models for longitudinal data (part 1) – Emilie Joly-Burra**

10:30-11:00 Coffee break

11:00 – 12:00   **Structural Equation Modeling: key concepts and models for longitudinal data (part 2) – Emilie Joly-Burra**

12:15 – 13:30 Lunch

13:30 – 14:30   **Practical – using AMOS**

14:30-14:45 Coffee break

14:45 – 16:00   **Practical – using R (lavaan package)**

TUESDAY, SEPTEMBER 10

09:00 – 10:30   **Multilevel modelling: key concepts and models for cross-sectional data – Davide Morselli**

10:30-11:00 Coffee break

11:00 – 12:00   **Multilevel models for longitudinal data – Davide Morselli**

12:15 – 13:30 Lunch

13:30 – 14:30   **Practical – using R (lme4 package)**

14:30-14:45 Coffee break

14:45 – 16:00   **Practical – using R (brms package)**

WEDNESDAY, SEPTEMBER 11

09:00 – 10:00   Q&A about SEM – Emilie Joly-Burra

10:00-10:30 Coffee break

10:30 – 12:00   Similarities and differences between SEM and Mixed Effects Models

– Emilie Joly-Burra (& Davide Morselli ?)

Readings:

- Sommet, N., & Morselli, D. (2017). Keep calm and learn multilevel logistic modeling: A simplified three-step procedure using stata, R, Mplus, and SPSS. *International Review of Social Psychology, 30*, 203-218.

- Hox, J., & Stoel, R. D. (2014). *Multilevel and SEM approaches to growth curve modeling.* Wiley StatsRef: Statistics Reference Online.

- Enders, C. K., & Tofighi, D. (2007). Centering predictor variables in cross-sectional multilevel models: a new look at an old issue. *Psychological methods, 12(2),* 121.

- Hoyle, R. H. (1995). The Structural Equation Modeling Approach: Basic Concepts and Fundamental Issues. In R. H. Hoyle (Éd.), *Structural Equation Modeling: Concepts, Issues, and Applications* (p.1-15). Thousand Oaks, California: SAGE.

- Preacher, K. J. (2010). Latent growth curve models. In G. R. Hancock & R. O. Mueller (Éds.), *The reviewer's guide to quantitative methods in the social sciences* (p. 185-198). London: Routledge.

- McNeish, D., & Matta, T. (2018). Differentiating between mixed-effects and latent-curve approaches to growth modeling. *Behavior Research Methods, 50(4)*, 1398-1414.