

# **MULTILEVEL MODELS, STRUCTURAL EQUATIONS & LONGITUDINAL DATA**

**September 9-10, 2024**

*Geopolis, salle 2879*



**MONDAY, SEPTEMBER 9**

**09:00 – 11:00**    **Structural Equation Modeling: key concepts and models for longitudinal data – Emilie Joly-Burra**

*11:00-11:30 Coffee break*

**11:30 – 12:30**    **Practical – using AMOS – Emilie Joly-Burra**

*12:30 – 13:45 Lunch*

**13:45 – 15:00**    **Practical – using R (lavaan package) – Emilie Joly-Burra**

*15:00-15:15 Coffee break*

**15:15 – 16:00**    **Q&A about SEM – Emilie Joly-Burra**



**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)**

**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.

