

# MULTILEVEL MODELS, STRUCTURAL EQUATIONS & LONGITUDINAL DATA

September 4-5, 2023

*Unimail, M3020*



**MONDAY, SEPTEMBER 4 – MULTILEVEL MODELS**

**09:00 – 09:10** Welcome address and presentation of the participants

**09:10 – 10:30** Theory and methods of multilevel modeling – Davide Morselli

*10:30-11:00 Coffee break*

**11:00-12:30** Empirical example: Income Inequality and Psychological Health – Nicolas Sommet (UNIL/LIVES)

*12:30 – 14:00 Lunch*

**14:00 – 14:45** Data structure and multilevel models for longitudinal analysis – Davide Morselli

**14:45 – 15:30** Empirical example: Retrospective evaluation of happiness – Nora Dasoki (FORS/LIVES)

*15:30-16:00 Coffee break*

**16:00 – 17:00** Q&A on Methods: other extensions

Logistic models, multilevel mediation models, difference / similarities with growth curve models



**TUESDAY, SEPTEMBER 5 – EVENT-HISTORY ANALYSIS**

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

*10:30-11:00 Coffee break*

**11:00 – 12:00**    **Applying Structural Equation Modeling in Lifespan Research – Morgane Künzi (University of Oxford, Dementias Platform UK)**

*12:00 – 14:00 Lunch*

**14:00 – 15:30**    **Application of the mixed effects models to epidemiological data – Boris Cheval (ENS Rennes, France)**

*15:30-16:00 Coffee break*

**16:00 – 16:45**    **Open discussion and Q&A**

**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.



**DOCTORAL PROGRAMME – MULTILEVEL MODELS, STRUCTURAL EQUATIONS &  
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- 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.

