



ANTRITTSVORLESUNG

# MULTIPLE IMPUTATION OF MISSING DATA IN MULTILEVEL ANALYSES: NEW METHODS AND CHALLENGES FOR PSYCHOLOGICAL RESEARCH

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Multilevel analyses are one of the most popular statistical methods for analyzing hierarchical data that emerge, for example, when participants are nested in groups, or repeated measurements are nested in persons. In addition, missing data are the norm rather than the exception in psychological research and they occur for a number of reasons, for example, because participants drop out of a study or fail to respond to certain items on a questionnaire. In the statistical literature, modern methods such as multiple imputation are now considered the “state of the art” for handling missing data. However, using this method can be challenging in multilevel analyses, because the imputation procedure needs to take both the hierarchical data structure and the contents of the multilevel analysis into account. This presentation will first provide attendees with a short overview of missing data and multiple imputation, followed by a more focused discussion of the challenges that arise in multilevel analyses. To this end, I will present results from several studies that were concerned with the development and evaluation of new methods for doing multiple imputation in different types of multilevel analyses that differed in terms of scope and complexity. Finally, I will give an outlook on the persisting and future challenges that present themselves in the application of these methods in psychological research.

**Mittwoch, 25. Januar 2023**  
**16.15 – 17.45 Uhr**  
**Mollerstraße 10, Hörsaal**