# Meta-Analysis with 

## Universität Zürich

### Instructor:

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### Date:

May 26-27
Time TBD

### Location:

TBD

### Description:

Meta-analysis, the `analysis of analyses', is the term used to describe methods for numerically synthesizing multiple sources of scientific evidence about the same hypothesis. As a systematic and quantitative summary of evidence, meta-analysis has the potential to provide a more powerful and comprehensive description of the current state of knowledge in a particular field and, for this reason, has become an increasingly important tool for researchers in the past decade. This course will introduce students to the fundamentals of meta-analysis and provide an in-depth review of tools for conducting meta-analyses in the R language. After completion of this course, users will know when and how to apply standard methods of meta-analysis in R and will also have gained more experience with advanced R programming topics, such as function writing and reproducible reporting.

### Included Topics:

- Overview and comparison of R Packages For Meta-Analysis

- Calculating Effect Sizes
- Fixed Effects Model
- Random Effects Model
- Evaluating Heterogeneity
- Meta-Regression
- Assessing Publication Bias
- Meta-analysis with Markdown
- Meta-analysis with Big Data
- Other Advanced Topics

### Language:

This course will be instructed in the English language.

### Prerequisites:

Students should have completed the `Introduction to R Programming' course or have had an equivalent introduction to the language.