**Title 1: Statistical disclosure methods for psychology: an application to a real dataset**

**Title 2: Statistical disclosure methods for open science in psychology**

**Title 3: Anonymization of data for open science in psychology**

**Title 4: Anonymization and synthetization of data from psychology and psychometrics**

There is great demand for the availability of the data used for research. The replicability of findings in psychology is questioned and more available data would make research more transparent and accessible. Unfortunately, many datasets are not available due to privacy reasons or closed research culture. On the other hand, it is increasingly expected for researchers to share data with others for review, reanalysis, and reuse. To solve this issue, we suggest using methods of Statistical Disclosure Control. These methods either modify or synthetize data so that it can be disclosed without revealing confidential information that may be associated with specific respondents. In this contribution, a meta-study summarises the work in this area and different anonymisation approaches that can be used to protect data confidentiality are presented. To prove the success of anonymising data, data utility is discussed as the main objective to be maximised while providing data with a disclosure risk below certain limits. A practical application of data from psychometrics provides some further insights.

**Keywords**

open science, confidentiality, reproducibility, anonymization, synthetic data