**AcqVA Aurora Workshop on Dimension Reduction Methods for Linguistic Data Analysis**

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Convenor: Martin Schweinberger (AcqVA Aurora, UiT & UQ)

**Abstract**

Join this half-day workshop on dimension reduction methods for linguistic data analysis to explore how Principal Component Analysis (PCA), Multidimensional Scaling (MDS), and Factor Analysis (FA), can enhance your understanding of linguistic data.

In this workshop, we will discuss basic concepts and principles behind dimension reduction methods and gain a basic understanding of their similarities and differences. In addition, we will explore practical applications of PCA, MDS, and FA, with a focus on their effectiveness in linguistic research, e.g., by enabling the identification of latent factors and dimensions that influence language variation and usage.

Through interactive demonstrations and hands-on exercises, participants will gain practical experience in implementing dimension reduction methods. Learn how to interpret results, visualize reduced-dimensional representations, and effectively communicate findings.

Note: Basic knowledge of statistics and basic familiarity with R is required. Participants are encouraged to bring their laptops and send through sample data sets beforehand.