

# InfraVis course on Visualising data of varying dimensions

What is the best visualisation technique for your data? Participate in this course to get a theoretical overview of visualisation techniques of varying dimensions, from 2D and 3D up to multidimensional data of many thousands of dimensions. The theory will be applied and you will get hands on insight into how to create your own visualisations using MATLAB as a tool.

**Audience:** Researchers & students working with data visualisation and applications within varying contexts, such as Medicine, Digital Humanities and all Natural sciences as well as general Data analysis.

**Duration:** 4 hours

**Course instructor:** Anders Hast

**Time and place:** 10-12 and 13-15, 17<sup>th</sup> of October 2022, Teatrum Visuale

## Theory:

- How to improve your visualisations
- Visualising Scalar data
- Visualisation of 2D and 3D vector data
- Visualisation of high dimensional features using dimensionality reduction techniques
  - PCA
  - t-SNE
  - UMAP

## Practical examples/exercises (MATLAB):

- Making readable plots and graphs
- Scalar and vector visualisation
- Mixed visualisations
- Multidimensional visualisations in 2D or 3D