

# True Hands-on Machine Learning Workshop

Machine Learning is a topic of huge interest currently. Sadly it is a very technical subject surrounded by a lot of mysticism amplified by the branding as "artificial intelligence". This workshop intends to provide a true hands-on introduction to the topic in the sense of statistical learning.

Hands-on here implies the aim that materials are created which allow to perform machine learning without any mathematical prerequisites and usage of computer programs. The idea is to create physical objects which can be measured in multiple ways. The data of these measurements is entered in physical charts and machine learning methods are taught as graphical tools applied to this data.

A concrete example would be simple unique paper printouts of e.g. two type of fish. Two measurements can be taken by using a ruler or a color scale. The result is entered into 2D charts and classification is e.g. performed by using a nearest neighbor scheme which is evaluated by using a ruler.