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Machine learning for neural data analysis

Machine learning has become a major player in the field of neuroscience as it provides new ways of analysing large amounts of data that are produced in contemporary neuroscientific experiments. Recently, we and others have shown that machine learning can be used to better understand how the human brain responds to complex stimuli such as natural images or videos. Moreover, it has also become possible to decode the contents of someone's thoughts using sophisticated machine learning techniques. Examples are given in the following [press release](#). In this lecture, I will provide an introduction into this area of research and point out the important role of machine learning. During the practical session, you will work with neuroimaging data collected while subjects were looking at different images. At the end of the lecture, you will have decoded the content's of someone's thoughts yourself.