

Module 3

Motivation.

High Dim data \rightarrow often hard to visualize or analyse,
However high Dim data quite often possesses
the property that only a few dim
contain most information, and most other
Dim are not essential to describe key
properties of the data.

When we compress or visualize high Dim
data, we lose information.

Ideally, we find the most informative dim
in data and keep them when we compress
the data and ignore the irrelevant dimensions.

In this course, we will have a close look at
orthogonal projection which play a
central role in algorithms for
dimensionality reduction.