Vibration Analysis

How to interpret vibration data?
Which information can be obtained by a vibration signal?

Data Clustering

Handling operational variability

KMeans
Segregating datapoints into clusters of similarity

PCA: Principal Component Analysis
Dimensionality reduction:
2D visualization of clustering results
- what do the clusters mean?

Signal Processing

Extracting information from vibration signals

Fourier Transform
Rich information with high computational cost

Digital Filters
Simple information with low computational cost

Anomaly Detection

Is everything "normal" or is there something off?

MVGD: Multi-Variate Gaussian Distribution
How "normal" is the current state of the machine?