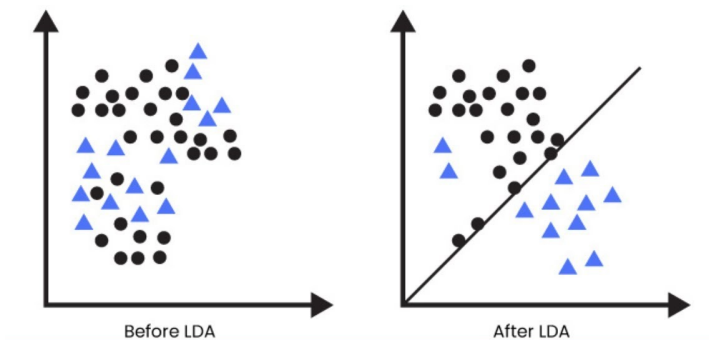
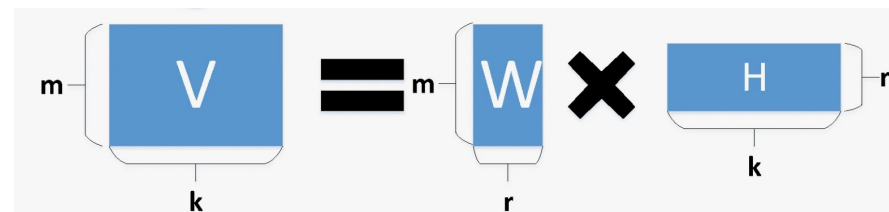


LDA



NMF



$$V \approx W \times H$$

$$\text{Loss} = \min_{W, H} \|V - WH\|_F^2$$

$$P(D|\alpha, \beta) = \prod_{d=1}^M \int_{\theta_d} P(\theta_d|\alpha) \left(\prod_{n=1}^{N_d} \sum_{z_{d,n}} P(z_{d,n}|\theta_d) P(w_{d,n}|z_{d,n}, \beta) \right) d\theta_d$$

