Remark: Local Optimality of the LBG-Algorithm

• Codebook resulting from the LBG-algorithm is a local optimum
• Result depends on the training data and the initial codebook
• Examples below demonstrate that different initial codebooks may force the LGB-algorithm (with the same training data) to converge to very different results with very different coding quality
• In the examples, sets of data vectors stay the same from the first iteration, so LBG algorithm converges immediately