

Computational Statistics

Hidden Markov model

1. The data `data_hmm.txt` was generated from a HMM with two states and univariate Gaussian emission probability densities. Use the functions in the R package `HMMCont` to estimate the parameters of this model and analyse the results.
2. Download and install the R package `HMM`.
 - (a) Simulate a sequence of observations and the corresponding sequence of states from an HMM with three states and discrete observations in a sample space of three symbols.
 - (b) Use the generated observations to estimate the parameters of the model.
 - (c) Repeat the previous steps with different sequence lengths; compare the estimates with the true values of the parameters.