## Abstract

## 1

Suppose, that we have the stochastic process which consists of N internal states. In each state, the process has waiting time distributed exponentially . For each state parameters  $\tau_i \sim Exp(\lambda_i)$  are independent. For simplicity, we assume N as a fixed parameter.



Data observations  $X_j$ , j=1..m is a sum of waiting times:  $X=\sum_i^N \tau_i$ . Our aim is to estimate parameters  $\lambda_i$ .

## 1.1

## References