

EM algorithm is a very valuable tool in solving statistical problems, where the data presented is incomplete. It is an iterative algorithm, which in its first step estimates the missing data based on the parameter estimate from the last iteration and the given data and it does so by using the conditional expectation. In the second step it uses the maximum likelihood estimation to find the value that maximizes the logarithmic likelihood function and passes it along to the next iteration. This is repeated until the point, where the value increment of the logarithmic likelihood function is small enough to stop the algorithm without significant errors. A very important characteristic of this algorithm is its monotone convergence and that it does so under fairly general conditions. However the convergence itself is not very fast, and therefore at times requires a great number of iterations.