

Homework II (Option B)

- Generate a data set from a mixture of $k = 2$ Poisson distributions with means λ_1 and λ_2 and weights w_1 and $w_2 = 1 - w_1$.
- Assume a beta and a Gamma prior distribution for the weights and means, respectively.
- Define a EM algorithm to approximate the mode of the posterior distribution.
- Apply the algorithm to the generated data set.
- Obtain a graph showing a histogram of the data with the true generating density and the predictive density at the posterior mode.