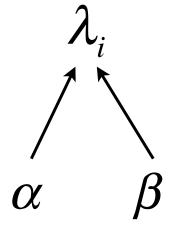
$$[\boldsymbol{\lambda}, \alpha, \beta | \mathbf{y}] \propto \prod_{i=1}^{n} \text{Poisson}(y_i | \lambda_i) \text{gamma}(\lambda_i | \alpha, \beta) \text{gamma}(\beta | .001, .001) \text{gamma}(\alpha | .001, .001)$$

Writing the conditional distribution for α :

$$[\alpha | \boldsymbol{\lambda}, \beta] \propto \prod_{i=1}^{n} \operatorname{gamma}(\lambda_{i} | \alpha, \beta) \operatorname{gamma}(\alpha | .001, .001)$$



We use the usual rules for conditioning—heads on the lhs, tails on the rhs. We ignore parts of the network that do not involve α .