

$$\begin{array}{rcl}
 x_{ij} \sim \text{Normal}(\tau_j + \lambda_j \xi_i, \psi_{jj}) & & \\
 \downarrow & \downarrow & \downarrow \\
 & \psi_{jj} \sim \text{InvGamma}(\nu_\psi/2, \nu_\psi \psi_0/2) & \\
 & \downarrow & \\
 & \xi_i \sim \text{Normal}(\kappa, \phi) & \\
 & \downarrow \quad \downarrow & \phi \sim \text{InvGamma}(\nu_\phi/2, \nu_\phi \phi_0/2) \\
 & & \kappa \sim \text{Normal}(\mu_\kappa, \sigma_\kappa^2) \\
 & \downarrow & \\
 & \lambda_j \sim \begin{cases} 1, & \text{if } j = 1 \\ \text{Normal}(\mu_\lambda, \sigma_\lambda^2), & \text{otherwise} \end{cases} & \\
 \downarrow & & \\
 \tau_j \sim \text{Normal}(\mu_\tau, \sigma_\tau^2) & &
 \end{array}$$