



Priors

$$\mu_n^A \sim \text{Gaussian}(0, 1000)$$

$$\sigma_n^A \sim \text{Gamma}(0.001, 0.001)$$

$$k_n^\sigma \sim \text{Exponential}(0.001)$$

$$\lambda_n^\sigma \sim \text{Exponential}(0.001)$$

$$\mu_n^b \sim \text{Gaussian}(0, 1000)$$

$$\sigma_n^b \sim \text{Gamma}(0.001, 0.001)$$

Subject specific parameters

$$A_{ns} \sim \text{Gaussian}(\mu_n^A, \sigma_n^A)$$

$$\sigma_{ns} \sim \text{Gamma}(k_n^\sigma, \lambda_n^\sigma)$$

$$b_{ns} \sim \text{Gaussian}(\mu_n^b, \sigma_n^b)$$

Observed choices

$$c_{nst} \sim \text{Bernoulli}\left(\left[1 + \exp\left(\frac{\Delta\mu + A\Delta I + b}{\sigma}\right)\right]^{-1}\right)$$