



Priors

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

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

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

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

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

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

Subject specific parameters

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

$$B_{ns} \sim \text{Gaussian}(\mu_n^B, \sigma_n^B)$$

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

Observed choices

$$p_{nst} \leftarrow \left[1 + \exp \left(\frac{\Delta R_{nst} + A_{ns} \Delta I_{nst} + B_{ns} \Delta l_{nst}}{\sigma_{ns}} \right) \right]^{-1}$$

$$c_{nst} \sim \text{Bernoulli}(p_{nst})$$