

$$\text{A } z_i = \operatorname{arctanh}(r_i) + \frac{r_i}{2n_i}$$

$$\sigma_i = \frac{1}{n_i} + \frac{6-r_i^2}{2n_i^2}$$

$$z_i = \mathrm{N}(\mu_{z_i}, \sigma_i^2)$$

$$\mu_{z_i} \sim \mathrm{N}(\theta + \sum_{p=1}^P \gamma_p X_p, \tau^2)$$

$$\tau \sim \text{Uniform}(0, 2)$$

$$\gamma_p \sim \mathrm{N}(0, 10^2)$$

$$\theta \sim \mathrm{N}(0, 10^2)$$

$$\text{B } z_i = \operatorname{arctanh}(r_i) + \frac{r_i}{2n_i}$$

$$\sigma_i = \frac{1}{n_i} + \frac{6-r_i^2}{2n_i^2}$$

$$z_i = \mathrm{N}(\mu_{z_i}, \sigma_i^2)$$

$$\mu_{z_i} \sim \mathrm{N}(\theta + \sum_{p=1}^P \gamma_p X_p, \tau^2)$$

$$\tau \sim \text{half-t}(0, 0.5^2, 1)$$

$$\gamma_p \sim \mathrm{N}(p^*, 1^2)$$

$$\theta \sim \mathrm{N}(0.08, 1^2)$$