



$$z \sim \mathcal{N}((0, \sigma^2)) \quad (1)$$

$$p(p = 1) = \frac{1}{1 + \exp(xzy)} \quad (2)$$

$$\beta \sim \text{Beta}(\eta) \quad (3)$$

$$r \sim \text{Bern}(\beta_p) \quad (4)$$