

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

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

$$\beta \sim Beta(\eta)$$
(1)
(2)

$$\beta \sim Beta(\eta)$$
 (3)

$$r \sim Bern(\beta_p)$$
 (4)