Prior probability for non-causal SNPs $\mathcal{N}\left(\beta_i | 0, \sigma_{\mathrm{bg}}^2\right)$

Prior probability for causal SNPs $\mathcal{N}\left(\beta_i | 0, \sigma_i^2\right)$

Likelihood $\mathcal{L}(\beta_0, \beta_i)$

Effect size (β_i)