

Sampling model  $y \sim \text{Normal}$

prior

$\sigma^2 \sim \text{inverse-gamma}$

$\theta / \sigma^2 \sim \text{Normal}$

posterior

$\sigma^2 / y \sim \text{inverse gamma}$

$\theta / \sigma^2, y \sim \text{Normal}$

MC.

Monte Carlo

MC.

prior

$\theta \sim \text{normal}$

$\frac{1}{\sigma^2} \sim \sigma^2 \sim \text{inverse gamma.}$

$\sigma^2 / y$

not a gamma

$\sigma^2 / \theta, y \sim \text{inverse}$

$\theta / \sigma^2, y \sim \text{Normal}$

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Gibbs sampler.