

$$p(\theta|x) = c \prod(\theta) \mathcal{L}(x|\theta)$$

regression:

$$y_x = a x^2 + b x + c + \varepsilon$$

$\sigma_\varepsilon^2$

Conventional vague prior:

$$\pi(\sigma_\varepsilon^2) \propto \frac{1}{\sigma_\varepsilon^2}$$

Bayesian interest is on posterior marginal for  $a$

