

Latex

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**R Markdown**

$$p(\theta|x) = \frac{p(x|\theta)p(\theta)}{p(x)}$$

$$p(\theta|\mathbf{x}) = \frac{\ell(\theta|\mathbf{x})\pi(\theta)}{\int \ell(\theta|\mathbf{x})\pi(\theta)d\theta}$$

$$\ell(\theta|\mathbf{x})$$

$$\pi(\theta)$$

$$p(\theta|\mathbf{x}) = \frac{\ell(\theta|\mathbf{x})\pi(\theta)}{\int \ell(\theta|\mathbf{x})\pi(\theta)d\theta}$$

$$\int \ell(\theta|\mathbf{x})\pi(\theta)d\theta$$

$$\theta_1^{(1)} \sim p(\theta_1|\theta_2^{(0)}, \theta_3^{(0)}, \dots, \theta_k^{(0)}, y)$$

$$\pi(q,p) = \pi(q|p)\pi(p)$$

$$\begin{aligned} H(q,p) &= -\log \pi(p|q)\pi(q) \\ &= -\log \pi(p|q) - \log \pi(q) \\ &= -K - V \end{aligned}$$