

Deviance

$$\begin{aligned} D(\boldsymbol{\theta}) &= \overbrace{-2 \log [\mathbf{y} | \boldsymbol{\theta}]}^{\text{Deviance}} \\ &= -2 \log [\mathbf{y} | g(\boldsymbol{\theta}, \mathbf{x}), \sigma^2] \\ &= -2 \log \prod_{i=1}^n [y_i | g(\boldsymbol{\theta}, x_i), \sigma^2] \end{aligned}$$