

gets smaller with more parameters

$$\text{WAIC} = \underbrace{-2 \sum_{i=1}^n \log \int [y_i | \boldsymbol{\theta}] [\boldsymbol{\theta} | \mathbf{y}] d\boldsymbol{\theta}}_{\text{gets smaller with more parameters}} + \underbrace{\sum_{i=1}^n \text{Var}_{\boldsymbol{\theta} | \mathbf{y}} (\log [y_i | \boldsymbol{\theta}])}_{\text{gets larger with more parameters}}$$