

Lecture 9: Fisher information and Fisher scoring

Recap: Fisher information

Properties

Under appropriate regularity conditions,

$$\mathbb{E}[U(\theta)|\theta] = 0$$

Properties

Under appropriate regularity conditions,

$$\mathbf{I}(\theta) = -\mathbb{E} \left[\frac{\partial^2}{\partial \theta^2} \ell(\theta | \mathbf{Y}) \mid \theta \right]$$

Fisher scoring

IRLS for logistic regression

