

Rao-Blackwell and sufficiency

Recap: Rao-Blackwell

Example: Rao-Blackwell

Let $X_1, \dots, X_n \stackrel{iid}{\sim} \text{Poisson}(\lambda)$.

Example: sufficiency

Let $X_1, \dots, X_n \stackrel{iid}{\sim} \text{Bernoulli}(p)$.

Find a sufficient statistic for p .

Factorization theorem

Example