

167. Let  $X_1, \dots, X_n$  be IID  $\text{Poisson}(\lambda)$ . Find a uniformly most accurate (UMA) lower confidence bound based on inverting the uniformly most powerful (UMP) level  $\alpha$  test of  $H_0 : \lambda = \lambda_0$  versus  $H_1 : \lambda > \lambda_0$